INTERNATIONAL CIVIL AVIATION ORGANIZATION

REPORT OF THE FOURTH MEETING OF THE REGIONAL AVIATION SAFETY GROUP – MIDDLE EAST

(RASG-MID/4)

(Jeddah, Saudi Arabia, 30 March - 1 April 2015)

The views expressed in this Report should be taken as those of the Regional Aviation Safety Group and not of the Organization. This Report will, however, be submitted to the ICAO Council and any formal action taken will be published in due course as a Supplement to the Report.

Approved by the Meeting
and published by authority of the Secretary General

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PART I – HISTORY OF THE MEETING

1. PLACE AND DURATION

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

2. OPENING

2.1 Mr. Mohamed R. M. Khonji, Regional Director, ICAO Middle East (MID) Regional Office welcomed all the participants to Saudi Arabia. He expressed ICAO's sincere gratitude and appreciation to Saudi Arabia and GACA for the generous hospitality extended to all participants. Mr. Khonji also thanked Mr. Catalin Radu, Deputy Director for Aviation Safety, Air Navigation Bureau (ANB), and Mr. Michiel Vreedenburgh, Chief, Implementation Planning and Support Section (Safety), from ICAO Headquarters in Montreal, who travelled all the way from Montreal to Saudi Arabia to attend and support the meeting.

2.2 Mr. Khonji highlighted that the continuing growth of traffic in the MID Region places increased demands to enhance aviation safety in the MID Region. In this respect, he gladly confirmed that the MID Region is the safest Region in terms of fatalities for scheduled international air transport operations with no fatal accidents since 2012.

2.3 Mr. Khonji emphasized that the success of the RASG-MID is dependent on the commitment, participation and contributions of its members and partners from States and industry. Accordingly, he invited all aviation stakeholders to have an active role within the framework of RASG-MID in order to achieve the RASG-MID's objectives.

2.4 On behalf of H.E. Mr. Sulaiman Al-Hamdan, President of GACA, H.H. Prince Turki Bin Faisal Al Saud, Assistant to the President for International Cooperation, welcomed all the participants to Saudi Arabia and wished them a pleasant stay in Jeddah. He highlighted that aviation safety has always been the key to growth, development, and sustainability of the global civil aviation industry and accordingly has always prompted ICAO to include aviation safety in its Strategic Objectives and develop various global and regional initiatives to address safety concerns; among such entities is the RASG-MID.

2.5 Mr. Ismaeil Mohammed Al Blooshi, Chairperson of RASG-MID, Executive Director of Aviation Safety Affairs Sector, GCAA, UAE, thanked GACA for hosting the RASG-MID/4 meeting. He highlighted the need for effective participation of all aviation stakeholders within the framework of RASG-MID.

3. ATTENDANCE

3.1 The meeting was attended by a total of forty nine (49) participants from ten (10) States (Bahrain, Egypt, Iran, Kuwait, Oman, Qatar, Saudi Arabia, Sudan, UAE and United States) and eight (8) International Organizations/Industries (ACAC, ACI, Airbus, CANSO, COSCAP, IATA, IFALPA and IFATCA). The list of participants is at **Attachment A** to the Report.

4. OFFICERS AND SECRETARIAT

4.1 Mr. Mohamed R. M. Khonji, ICAO Middle East Regional Director acted as the Secretary of the Meeting, assisted by the following ICAO MID Regional Officers:

Mr. Mohamed Smaoui	-	Deputy Regional Director (DEPRD)
Mr. Mashhor Alblowi	-	Regional Officer, Flight Safety (FLS)
Mr. Adel Ramlawi	-	Regional Officer, Aerodrome and Ground Aids (AGA)

4.2 The meeting was also supported by Mr. Catalin Radu, Deputy Director for Aviation Safety, Air Navigation Bureau (ANB) and Mr. Michiel Vreedenburgh Chief, Implementation Planning and Support Section (Safety) from ICAO Headquarters in Montreal.

5. LANGUAGE

5.1 Discussions were conducted in English and documentation was issued in English.

6. AGENDA

6.1 The following Agenda was adopted:

Agenda Item 1: Adoption of the Provisional Agenda

Agenda Item 2: Global developments related to Aviation Safety

Agenda Item 3: Regional Performance Framework for Safety

Agenda Item 4: RASG-MID Working Arrangements

Agenda Item 5: Update from and Coordination with MIDANPIRG

Agenda Item 5: Future Work Programme

Agenda Item 6: Any other Business

7. CONCLUSIONS AND DECISIONS – DEFINITION

7.1 The RASG-MID records its actions in the form of Conclusions and Decisions with the following significance:

a) **Conclusions** deal with matters that, according to the Group's terms of reference, merit directly the attention of States and its stakeholders/partners, or on which further action will be initiated by the Secretary in accordance with established procedures; and

b) **Decisions** relate solely to matters dealing with the internal working arrangements of the Group and its subsidiary bodies.

8. LIST OF DRAFT CONCLUSIONS AND DRAFT DECISIONS

CONCLUSION 4/1: THIRD MID REGION ANNUAL SAFETY REPORT

CONCLUSION 4/2: MANDATORY AND VOLUNTARY REPORTING SYSTEMS

DECISION 4/3:	*STUDY ON THE ESTABLISHMENT OF A MID REGION SAFETY DATABASE*
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CONCLUSION 4/8:	*DEVELOPMENT OF ADDITIONAL RUNWAY SAFETY PROVISIONS*
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CONCLUSION 4/13:	*RASG-MID ENGAGEMENT STRATEGY*
CONCLUSION 4/14:	*IATA-IOSA PROGRAMME*
DECISION 4/15:	*RASG-MID CHAIRMANSHIP*

PART II: REPORT ON AGENDA ITEMS

REPORT ON AGENDA ITEM 1: ADOPTION OF THE PROVISIONAL AGENDA

1.1 The meeting reviewed and adopted the Provisional Agenda as at paragraph 6 of the History of the Meeting.

REPORT ON AGENDA ITEM 2: GLOBAL DEVELOPMENTS RELATED TO AVIATION SAFETY

2.1 Outcomes from the Second High-level Safety Conference

2.1.1 The High-level Safety Conference (HLSC 2015) was held at ICAO Headquarters from 2 to 5 February 2015 (http://www.icao.int/Meetings/HLSC2015/Pages/default.aspx). ICAO Member States and industry showed strong and unified support for ICAO's near- and long-term strategic planning and priorities for global aviation safety. Addressing the tragic events that took place last year, the conference brought renewed awareness and commitment to act on a number of emerging issues.

2.1.2 The conference recommended that ICAO expeditiously publish and use the Global Aeronautical Distress and Safety System (GADSS) for the implementation of normal, abnormal and distress flight tracking, Search and Rescue (SAR) activities and retrieval of Cockpit Voice Recorders (CVRs) and Flight Data Recorders (FDRs) data.

2.1.3 The conference recommended that ICAO expeditiously progress the proposal for normal flight tracking. To support that request, ICAO has issued a State Letter requesting comments on new provisions for operators to track the position of their aircraft in oceanic and remote areas not covered by conventional surveillance systems. Replies to this State Letter are expected by 15 May 2015. It is anticipated that proposed amendments will be adopted in November 2015 and become applicable in November 2016. The conference also agreed that an implementation initiative will be conducted in a multinational context to enhance guidance material used to advance normal tracking procedures. It is expected that the initiative will be concluded by 31 August 2015.

2.1.4 Furthermore, the conference requested that ICAO implement and host a simple web-based repository to make information available which supports the assessment of risks over or near conflict zones. It was agreed that the external source of any information in the repository would be clearly identified. ICAO has already developed a prototype and issued a State Letter informing about the prototype and requesting States to appoint a focal point for providing input to this information exchange mechanism. The information exchange mechanism is expected to be operational for an evaluation phase starting on 2 April 2015. ICAO has also begun work on the terms of use for the website which interested parties would have to agree to in order to post or access the information. The website will be operated by ICAO. ICAO will not validate any information and the responsibility will be borne by reporting States.

2.1.5 In addition to the emerging issues, the HLSC 2015 also recognized that ongoing focus by ICAO is needed for the following subjects:

a) The integration of Remotely Piloted Aircraft Systems (RPAS) into Civilian Airspace: (http://www.icao.int/meetings/rpas/Pages/default.aspx).

b) Assisting States in achieving the Global Aviation Safety Plan (GASP).

c) Development and implementation of provisions on the protection of safety information.

d) Development of the global framework for the exchange of information.

e) Evolution of the GASP.

f) Coordination and facilitation of regional collaboration.

2.1.6 The Conclusions and Recommendations and the Montreal Declaration on Planning for Aviation Safety Improvement adopted during the HLSC 2015 are available on the website (http://www.icao.int/Meetings/HLSC2015/Pages/declaration-and-recommendations.aspx). The English version of the HLSC Report will be available by the end of April 2015.

2.1.7 With reference to HLSC Recommendation 2/1 b) 3) on Implementing SSP, the conference concluded that ICAO should improve and harmonize the defined Safety Performance Indicators (SPIs) taking into account those currently in use. The following Safety Performance Indicators are proposed, highlighting those already considered in the MID Region Safety Strategy:

- Effective Implementation of Safety Oversight System (Theme 5)
- Progress in SSP Implementation (Theme 7)
- Progress in SMS Implementation (Theme 7)
- Frequency and Severity of Accidents and Incidents (Themes 1 – 4)
- Certification of Aerodromes (Theme 6)
- Significant Safety Concerns (Theme 5)
- Presence of notable hazardous conditions
- Fleet Modernization
- Effectiveness of Foreign Operator Safety Assessment Programmes
- Industry Certification (Theme 5)
- Extent of Environmental Hazards

2.1.8 The meeting was informed about the action plan to expand the framework for performance measurement, as follows:

- by the end of 2015, ICAO will establish a framework for Regional and State performance measurement for:
  - States to start measuring against a core set of indicators as a baseline.
  - States to choose their applicable/related proposed Safety Performance Indicators.
  - States to validate ICAO information related to the proposed Safety Performance Indicators.
  - States to report to their respective RASGs and Regional Offices.

2.1.9 The meeting was briefed about the "No Country Left Behind" campaign on which more information is available on the website: http://www.icao.int/about-icao/NCLB/Pages/default.aspx. The meeting noted that the new State Safety Briefings are available as an Application on iSTARS/SPACE. It was also highlighted that the Implementation Kits (I-Kits) are available on the website: http://www.icao.int/safety/Implementation/Pages/iKITs.aspx and the regional dashboards could be accessed through http://www.icao.int/safety/Pages/Regional-Targets.aspx.

2.1.10 The meeting agreed to the following Recommendations:

- Prioritize resolution of SSCs.
- Develop State Plans of Action (PoA) for priority States based on safety risk (EIs < 40).
- Prioritize actions to support safety oversight improvements (EIs < 60).
- Implement SSP and use iSTARS/SPACE Gap Analysis tool to keep ICAO informed of progress (EIs > 60%).
- Alignment of RO, RASG, COSCAP, partner organizations, etc. regional actions for priority States and implementing regional safety targets.
- States to request Technical Assistance from ICAO, if required.
- Consider the establishment of an RSOO.
- States to request ICVMs and/or off-site validations once ready to improve the EI by validation of actions.
- States to measure and report against regional targets and safety performance indicators.

2.2 Actions taken by the Air Navigation Commission (ANC) on the RASG-MID/3 Report

2.2.1 The meeting noted the actions taken by the Air Navigation Commission (ANC) on the Report of the RASG-MID/3 meeting, including the importance of coordination between RASG-MID and MIDANPIRG to avoid duplication and fill gaps. It was emphasized that the Council is interested in the progress of the RASG in supporting Lebanon to resolve the SSC, supporting Jordan, Libya and Syria to improve their safety oversight systems, and other MID States implementing SSPs.

2.3 Other matters

2.3.1 The meeting was briefed about the following subjects:

- Progress Report on the Implementation of the ICAO Universal Safety Oversight Audit Programme Continuous Monitoring Approach (USOAP CMA);
- RASG Activities in other Regions; and
- balancing the Use and Protection of Safety Information.

REPORT ON AGENDA ITEM 3: REGIONAL PERFORMANCE FRAMEWORK FOR SAFETY

Review of the Third MID Region Annual Safety Report (MID-ASR)

3.1 The meeting reviewed the Third MID Region Annual Safety Report (MID-ASR) and noted with appreciation that the Report presents a clear improvement compared to the previous versions and commended the work of the MID-ASRT for the efforts put in place for the collection of safety information and consolidation of the ASR.

3.2 It was noted that for harmonization purpose with the ICAO Global and Regional Safety Reports, ICAO accident statistics have been used as the main source of data. However, data from other sources including Boeing and IATA was collected and used for the identification of Focus Areas (FAs), determination of contributing factors and root causes.

3.3 The meeting noted that for the first time, the Reactive Part of the MID-ASR included analysis of accidents based on State of Registry and State of Operator in addition to the main analysis based on the State of Occurrence. A Section related to the analysis of Serious Incidents was also added to the Reactive Part.

3.4 The meeting agreed with the analysis contained in the MID-ASR which demonstrated that the three FAs for the MID Region remained unchanged, as follows:

1) Runway Safety (RS);
2) Loss of Control In-flight (LOC-I); and
3) Controlled Flight Into Terrain (CFIT).

3.5 The meeting supported also the recommendation included in the MID-ASR which identified the following as Emerging Risks in the MID Region:

1) System/Component Failure or Malfunction (SCF);
2) Near Midair Collision (NMAC); and
3) Laser attacks.

3.6 The meeting noted that the Proactive Part of the MID-ASR is based on the results of the ICAO USOAP-CMA and IATA IOSA and ISAGO programmes, as well as, other occurrences (incidents) reported by States and airlines.

3.7 It was underlined that the Predictive Part includes only the implementation status of State Safety Programme (SSP) and additional efforts would be put in place by the MID-ASRT for collecting and analysing additional predictive safety information.

3.8 The meeting agreed that the MID Annual Safety Report Team (ASRT) should explore ways and means to improve the collection of safety data. Accordingly, the meeting urged States and all Stakeholders to provide necessary safety data to the MID-ASRT for the development of the next edition of the Annual Safety Report.

3.9 The meeting agreed that the next Editions of the ASR should include information on the RASG-MID achievements and progress in implementing the agreed Detailed Implementation Plans (DIPs).

3.10 The meeting endorsed the Third MID Region Annual Safety Report and agreed that it should be posted on the ICAO MID website. Accordingly, the meeting agreed to the following Conclusion:

CONCLUSION 4/1: THIRD MID REGION ANNUAL SAFETY REPORT

That, the Third MID Region Annual Safety Report is endorsed.

3.11 The meeting noted with concern that reporting of incidents is very low in the MID Region, which underlines the need to enhance the reporting mechanisms/systems at the national level. It was highlighted that although regulatory requirements for mandatory reporting of accidents and serious incidents are common, voluntary reporting of incidents should be encouraged in order to reach a mature safety management environment. Accordingly, the meeting agreed to the following Conclusion:

CONCLUSION 4/2: MANDATORY AND VOLUNTARY REPORTING SYSTEMS

That, States, be invited to take necessary measures to:

a) enhance their mandatory reporting system; and

b) establish, if not already done, an effective voluntary confidential and non-punitive reporting system, to enhance the collection of data on hazards and associated safety risks that may not be captured by the mandatory reporting system.

3.12 In connection with the above, the meeting recognized the necessity to conduct a study on the need and feasibility of establishing a MID Region Safety Database. Nevertheless, it was underlined that the sharing of safety data through the available ICAO and IATA systems/databases such as iSTARS, STEADES, FDX, etc., should be promoted and encouraged. Accordingly, the meeting agreed to the following Decision:

DECISION 4/3: STUDY ON THE ESTABLISHMENT OF A MID REGION SAFETY DATABASE

That, the MID-SST conduct a study on the need and feasibility of establishing a MID Region Safety Database.

3.13 The meeting was apprised of the outcome of the IATA Global Aviation Data Management (GADM) Workshop (Abu-Dhabi, UAE, 8 December 2014). It was highlighted that the GADM is the IATA's platform for safety data, which consists of several databases covering reactive, proactive and predictive safety information including Flight Data Exchange (FDX). In this respect, it was highlighted that the level of participation of airlines in the IATA FDX database is very low in the MID Region. The meeting recognized the need to promote the use of FDX as a means to enhance collection of predictive information in the Region.

3.14 In this regard, the meeting noted that the RSC/3 meeting (Cairo, Egypt, 9-11 December 2014), through Draft Conclusion 3/3, tasked IATA with the development of a RASG-MID Safety Advisory to promote the use of FDX. Accordingly, the meeting reviewed the draft RASG-MID Safety Advisory at **Appendix 3A,** and agreed to the following Conclusion:

CONCLUSION 4/4: FLIGHT DATA EXCHANGE (FDX) RASG-MID SAFETY ADVISORY

*That, the Draft RASG-MID Safety Advisory at **Appendix 3A** be further reviewed and finalized by ICAO in coordination with IATA and all concerned stakeholders in order to be posted on the ICAO MID website.*

Accident and Incident Analysis Working Group (AIA WG)

3.15 It was highlighted that some differences/inconsistencies have been identified between the accident data provided by the organizations that contributed to the development of the MID-ASR due to the use of different criteria and classifications of accidents.

3.16 The meeting noted that at the level of ICAO-HQ, aircraft accidents and serious incidents are reviewed and categorized by the ICAO Safety Indicators Study Group (SISG) using the definition provided in Annex 13 to the Chicago Convention—Aircraft Accident and Incident Investigation.

3.17 The meeting recognized the need to establish a working group to review, analyse and categorize on annual basis the accidents and incidents at the regional level and provide an agreed and harmonized regional dataset of accidents and incidents. It was highlighted that this Group would also, to the extent possible, identify the main root causes and contributing factors of the reviewed accidents and incidents. Accordingly, the meeting agreed to the following Decision:

DECISION 4/5: ACCIDENT AND INCIDENT ANALYSIS WORKING GROUP (AIA WG)

*That, the Accidents and Incidents Analysis Working Group (AIA WG) be established with Terms of Reference (TOR) as at **Appendix 3B**.*

3.18 The meeting noted that the AIA WG should be composed of safety experts, from relevant fields such as flight safety, Aerodromes and ANS, with grounded knowledge and experience in Accident and Incident Investigation (AIG), including the ADREP Taxonomy and ECCAIRS, nominated by the RASG-MID Member States and Partners. Accordingly, the meeting urged States and Safety Partners to appoint members with required experience and expertise to the AIA WG, in order to actively support its work.

3.19 The meeting noted that the First meeting of AIA WG is tentatively scheduled to be held during the First Quarter of 2016.

Update on SEIs and DIPs related to RGS

3.20 The meeting was provided with a progress report on the SEIs/DIPs related to RGS as follows:

Reassignment of MID-RAST/RGS/1

3.21 The meeting recalled that the objective of the MID-RAST/RGS/1 was to reduce the number of unstabilized approaches through specific training for pilots and air traffic controllers and promotion of pilot adherence to Standard Operating Procedures for approaches.

3.22 The meeting noted that The RSC/3 meeting recognized the difficulties/challenges that faced IATA, the Champion of this DIP, to progress the implementation of this DIP and agreed that a new version of the DIP with tangible and realistic actions be developed. In this respect, it was noted that the unstabilized approach is a common factor for Runway Excursion and CFIT. Accordingly, the meeting agreed that the scope of the MID-RAST/RGS/1 should be addressed under the CFIT DIPs.

Update on MID-RAST/RGS/2

3.23 The meeting noted with appreciation that the DIP actions have been completed. It was recalled that the MID-RAST/RGS/2 focuses on the development of guidance material and training programmes to support the creation of action plans by the Runway Safety Team (RST) and that UAE is the Champion of this SEI.

3.24 In connection with the above, the RGS WG prepared the following RASG-MID Safety Advisories which have been circulated by State Letters and are available on the ICAO MID website at www.icao.int/MID/Pages/rasgmid.aspx :

- The first RASG-MID Safety Advisory (RSA-01) containing Guidance for Harmonising the Use & Management of Stop Bars at Airports was issued on November 2014.

- The second RASG-MID Safety Advisory (RSA-02) containing Guidance on Regulatory Framework Supporting Establishment of Runway Safety Teams was circulated to MID States on January 2015.

- The third RASG-MID Safety Advisory (RSA-03) containing Model Checklist for Runway Safety Teams (RSTs) was circulated to MID States on March 2015.

3.25 A summary of actions related to the MID-RAST/RGS/2 DIP is at **Appendix 3C**.

Update on MID-RAST/RGS/3

3.26 The meeting recalled that MID-RAST/RGS/3 focuses on the development of guidance material and training programmes to support Aerodrome Infrastructure and Maintenance Management.

3.27 It was noted with appreciation that 40% of the DIP actions have been completed and that UAE is the Champion of this SEI. A Summary of Actions related to the MID-RAST/RGS/3 DIP is at **Appendix 3D**.

3.28 In connection with the above, the meeting appreciated the progress achieved in the implementation of the MID-RAST/RGS/2 and MID-RAST/RGS/3 and commended the work of the RGS Working Group and its Chairperson.

Additional SEIs related to RGS

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

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.

Reduction of Unstabilized Approach

3.30 The meeting noted the RSC/3 meeting reviewed the outcome of the RGS WG/1 meeting (Cairo, Egypt on 7-9 April 2014) and appreciated the measures taken by Bahrain and Egypt to reduce the number of missed approaches at Bahrain and Cairo International Airports, respectively. Accordingly, the meeting agreed to the following Conclusion:

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.

MID Wildlife/FOD Workshop

3.31 The meeting noted that, the Wildlife and Foreign Object Debris (FOD) Workshop was successfully held in Cairo, Egypt from 24 to 26 March 2014. The event was jointly organized by ICAO and IATA and gratefully hosted by the Egyptian Civil Aviation Authority (ECAA). The main objective of the Workshop was to address the hazards, risk assessment and available mitigation measures related to Wildlife and FOD.

3.32 The meeting reviewed and supported the outcome of the Wildlife/FOD Workshop. The Summary of Discussion (SoD) of the Workshop is available on the ICAO MID website.

Outcome of the MID-RRSS/2

3.33 The meeting noted 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

gratefully hosted by the General Civil Aviation Authority (GCAA) of UAE. 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.

3.34 The meeting noted that one of the main outcomes of the MID-RRSS/2 was the launch of the MID RS Go-Team. In this respect, the meeting noted with appreciation that the RS Go-Team a visit was successfully conducted upon Sudan's request to Khartoum International Airport (30 November to 4 December 2014) which was well appreciated by the Sudanese Civil Aviation Authority and the Khartoum International Airport management. It was agreed that that potential candidates for the RS Go-Team visits include Muscat, Jeddah, Cairo, Imam Khomeini, Amman and Kuwait international airports.

3.35 The MID-RRSS/2 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 meeting reviewed the Summary of Discussion, which includes the recommendations of the MID-RRSS/2, and agreed to the following Conclusions:

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.

3.36 The meeting was apprised of ACI's Work on GASP. It was noted, in particular, that the ACI Airport Excellence (APEX) programme provides an opportunity for airports to share best practices through a Safety Review by experts from other ACI member airports (peer review).

Aerodrome Certification

3.37 The meeting reviewed the status of implementation of Aerodrome Certification at **Appendix 3E**. It was highlighted that 29 out of the 66 international aerodromes have been certified, which represents 44%.

3.38 The meeting noted with appreciation that Sudan has certified Port-Sudan Airport (HSPN) since December 2014. In addition, the meeting supported the RSC/3 meeting outcome related to the list of international aerodromes of Egypt and Saudi Arabia and requested both States to review the current

Basic ANP and send to the ICAO MID Regional Office an updated list of their international aerodromes taking into consideration the users' needs, in order to initiate a proposal for amendment to the MID Air Navigation Plan, AOP 1 Table.

Update on SEIs and DIPs related to LOC-I

3.39 The meeting noted with appreciation that the LOC-I Coordinator developed a revised set of SEIs and DIPs in coordination with IATA, the Champion of the DIPs. Accordingly, the meeting endorsed the SEIs and DIPs at **Appendix 3F**.

3.40 It was highlighted that a LOC-I Tool Kit was developed by IATA in collaboration with the industry and that IATA MENA and Boeing are planning to organize a Seminar/Workshop to promote and roll out the LOC-I Tool Kit in November 2015. Accordingly, the meeting agreed that the organization of this Seminar/Workshop should be coordinated with the ICAO MID Regional Office and stakeholders.

3.41 It was highlighted that Low Airspeed Alert is identified as one of the precursors for LOC-I. In this regard, the meeting was apprised of the Status of Low Airspeed Alerting Provisions for Boeing, Airbus, and Embraer aircraft in the MID Region as at **Appendix 3G**. Accordingly, the meeting tasked the LOC-I Coordinator and the MID-RAST to coordinate with the stakeholders and explore the way forward to address the classical and eastern built aircraft where technical solution is not available.

3.42 The meeting noted that IATA compiled preliminary statistical data from different sources to identify the number of operators and their fleet in MID Region as at **Appendix 3H**, which outlines the breakdown of the airlines and the number of aircraft in MID Region based carriers including the non-IATA members. Accordingly, the meeting urged States to review and verify the registered operators and their fleet and provide updates, if any.

Update on SEIs and DIPs related to CFIT

3.43 The meeting recalled that the RASG-MID/3 reviewed and endorsed three (3) SEIs and one (1) DIP related to CFIT. It was highlighted that the DIP (RAST-MID/CFIT/1) was developed to address the top priority SEI "the implementation of PBN Approach procedures to all runways not currently served by precision approach procedures".

3.44 The meeting noted the challenge associated with the implementation of the DIP (RAST-MID/CFIT/1), particularly the difficulty to gather necessary data for the identification and prioritization of the airports/runways. In this regard, the ICAO MID Regional Office, as a follow-up to the PBN SG/1 meeting (Cairo, Egypt, 1-3 April 2014) coordinated with States for the provision of their inputs related unstabilized approaches. Coordination with IATA also took place in order to identify the list of airports/runways in the MID Region with the highest rate of unstabilized approaches (highest risk of Runway Excursion and CFIT).

3.45 The meeting noted that the RSC/3 meeting tasked the CFIT Coordinator to develop additional CFIT DIPs to cover the SEIs endorsed by RASG-MID/3 including a DIP on specific training for pilots and air traffic controllers and promotion of pilot adherence to Standard Operating Procedures (SOPs) to reduce the number of unstabilized approaches. In this regard, the meeting reviewed the draft DIP at **Appendix 3I** related to SOPs and tasked the CFIT Coordinator and RSC to finalize the draft DIP and ensure that specific training for pilots and air traffic controllers is addressed.

3.46 The meeting noted with appreciation the offer from FAA to support the CFIT Coordinator in the development and implementation of additional DIPs (as a Champion).

Emerging Risks Area

3.47 With respect to the In-Flight-Damage (IFD), the meeting noted that further mitigation measures and action plans related to Wildlife and FOD (contributing factors to IFD) will be addressed by the RGS WG.

3.48 The meeting noted that the newly identified emerging risks (System/Component Failure or Malfunction (SCF) and Near Midair Collision (NMAC) will be addressed under the Emerging Risks Area.

Call Sign Similarity and Confusion

3.49 The meeting noted that call sign similarity refers to two (or more) aircraft operating in the same area, on the same frequency with similar Call Signs. Call sign similarity could lead to Call Sign Confusion, which might jeopardize safety.

3.50 The meeting recalled that after the identification of Call Sign Confusion as a safety risk by the RASG-MID/2 meeting (Abu Dhabi, UAE, 12 – 14 November 2012), the subject had been addressed in coordination between MIDANPIRG and RASG-MID. In this respect, the meeting noted that in order to reduce the level of operational Call Sign Confusion events, and therefore improve levels of safety, several airlines moved from the concept of using a numeric (commercial) call sign (e.g. UAE503) to the use of an alphanumeric call sign (e.g. UAE59CG). The meeting noted that the Fourth meeting of the MIDANPIRG Steering Group (MSG/4) (Cairo, Egypt, 24-26 November 2014) recognized that many mitigation measures could be investigated to eliminate the risks associated with the Call Sign Confusion. Accordingly, the meeting, through Conclusion 4/22, agreed that a survey related to the acceptance/processing of flight plans containing "alphanumeric" Call Signs ending with letter(s) be conducted; and invited States to inform the ICAO MID Regional Office of the preferred option for the mitigation of the risks associated with the Call Sign Confusion before 31 January 2015. The MSG/4 meeting agreed also, through MSG Decision 4/23, to the establishment of a Call Sign Confusion Ad-hoc Working Group (CSC WG) in order to:

a) analyze the results of the survey on the acceptance/processing of flight plans containing "alphanumeric" Call Signs ending with letter(s); and

b) develop solutions to mitigate the risk associated with Call Sign Confusion and similarity.

3.51 The meeting was apprised of the outcome of the CSC WG/1 meeting held in Abu Dhabi, UAE, from 16 to 18 February 2015. The CSC WG/1 meeting Summary of Discussions is available on the ICAO MID website at: www.icao.int/MID/Pages/meetings.aspx.

3.52 The meeting agreed with the CSC WG/1 meeting that the use and acceptance of alphanumeric call sign could reduce the probability of call sign similarity/confusion occurrence. The meeting reviewed the Draft Safety Enhancement Initiative (SEI) and Detailed Implementation Plans (DIPs) related to call sign similarity/confusion emanating from the CSC WG/1 meeting.

3.53 The meeting noted that the MID Region ATM Enhancement Programme (MAEP) Interim Project Management Office (IPMO) was tasked to develop guidance material related to call sign similarity, including the EUROCONTROL call sign similarity rules. The meeting was apprised of the MAEP IPMO activities related to call sign similarity/confusion, which was endorsed as the first quick-win/initiative. The meeting reviewed and endorsed the RASG-MID Safety Advisory at **Appendix 3J** developed by the MAEP IPMO, which provides a set of guidelines and similarity rules for use by airline operators and air traffic controllers. The meeting noted with appreciation that many of the actions included in the Draft DIPs have been completed or actioned by the MAEP IPMO and two (2) Draft DIPs include long-term actions. Accordingly, the meeting agreed that concerned stakeholders continue to work on the subject and a progress report should be presented to the MIDANPIRG/15 meeting (Bahrain, 8-11 June 2015). The meeting tasked the RSC to consider if it would be necessary to endorse DIP(s) addressing the remaining actions related to call sign confusion and similarity, including the mid and long-term actions.

3.54 Based on the above, the meeting agreed to the following Conclusion:

CONCLUSION 4/10 GUIDANCE MATERIAL RELATED TO CALL SIGN SIMILARITY

*That, the RASG-MID Safety Advisory at **Appendix 3J** providing guidance related to call sign similarity, including the call sign similarity rules is endorsed.*

3.55 The meeting emphasized the importance of the call sign similarity/confusion reporting. Accordingly, the meeting agreed that States could use the EUROCONTROL Template (Excel Sheet) at **Appendix 3K**, for reporting purposes. However, the meeting encouraged States to implement simplified mechanism to trigger the reporting of call sign similarity/confusion by ATCOs. In this respect, the meeting noted with appreciation the mechanism implemented by Bahrain, as part of their SMS, to improve the reporting of ATM incidents and hazards.

3.56 The meeting recognized the need for harmonization of mitigation measures related to call sign similarity and confusion at regional and global level. Accordingly, the meeting invited ICAO to consider the development of global provisions and guidelines to reduce the risk associated with call sign similarity and confusion, including necessary amendment to the ICAO FPL Format.

Laser Attacks on Aircraft

3.57 The meeting recalled that RASG-MID/3 meeting, through Conclusion 3/3, agreed that a survey should be conducted under the MID-ASRT to collect additional information on the subject for the assessment of associated risks and development of mitigation measures.

3.58 The meeting noted that the results of the Laser Attacks analysis and survey are included in the MID-ASR, and urged States to:

1) keep record of the Laser Attack incidents reported by the different stakeholders;

2) encourage voluntary reporting related to Laser Attacks; and

3) formalize the State actions against Laser Attacks and violations.

3.59 The meeting noted that the RGS WG is developing a new SEI and DIP related to Laser Attacks with Egypt as a Champion. Accordingly, the meeting agreed that Laser Attacks will be addressed under RGS WG taking into consideration the outcome of the Laser Attacks analysis and survey.

MID-SST Activities and Update on SEIs and DIPs

3.60 The meeting recalled that the RASG-MID/3 endorsed the top priority SEIs related to MID-SST as follows:

1) improve status of implementation of State Safety Programs (SSPs) in the MID Region;

2) strengthening of States' Safety Oversight capabilities through the establishment of Regional/Sub-regional Safety Oversight Organization(s); and

3) improve regional cooperation for the provision of Accident & Incident Investigation.

3.61 The meeting noted that the First meeting of the MID Safety Support Team (MID-SST/1), which was held in Cairo, Egypt, 18-20 March 2014 developed draft DIPs to support the SSP implementation in the MID Region, including the establishment of an RSOO to support States in the implementation of SSP.

3.62 The meeting endorsed the first DIP (MID-SST/01) related to the establishment of an RSOO, at **Appendix 3L**, which includes the following actions:

1) Promote the establishment of an RSOO during the Second MID Safety Summit (Oman, 27-29 April 2014, particularly through the high-level briefing/meeting (DGs and CEOs)).

2) Send out a Questionnaire to the MID States in order to get the States' interest and commitment to the establishment of an RSOO to support States in the implementation of SSP.

3) Analyze the States' replies and develop a Summary Report.

4) Coordinate with ICAO MID Regional Office and ACAC in order to consider the proposal of establishment of an RSOO in the Study on the establishment of RSOO(s) for ACAC and MID Region States,

3.63 The meeting noted that the ICAO MID Regional Office sent State Letter, requesting States to complete the SSP Questionnaire, which was developed to collect information related to the status of the SSP implementation in the MID Region, as well as, States' views regarding the establishment of an RSOO. It was highlighted that 11 States replied to the SSP Questionnaire and 8 out of the 11 States showed interest in joining a Regional Safety Oversight Organization for SSP.

3.64 The meeting noted that the first 3 actions of MID-SST/01 had been completed; however the action number 4 would be pending until the completion of the Study on the establishment of RSOO(s) for ACAC and MID Region States.

3.65 The meeting endorsed two additional DIPs with COSCAP-GS as a Champion related to SMS guidance material (MID-SST/02) and SSP/SMS Workshops (MID-SST/03), as at **Appendices 3M** and **3N**, respectively.

3.66 With respect to the Second DIP MID-SST/02, COSCAP-GS developed "SMS CAA Surveillance Procedures", which is available on the COSCAP-GS's website at (http://www.coscap-gs.org/SMS-Related-CAA-Procedures.php).

3.67 The Third DIP MID-SST/03 for the SSP/SMS Workshops includes:

1) a joint ICAO MID Regional Office/COSCAP-GS Safety Management Workshop which is scheduled to be held in Kuwait, 25-27 May 2015; and

2) 2 days Workshop on Annex 19 and SMM to be conducted on request by the MID States.

3.68 The meeting tasked the MID-SST to develop additional DIPs related to the second and third SEIs, as follows:

1) a DIP related to strengthening of States' Safety Oversight capabilities taking into consideration the Study on the establishment of RSOO(s) for ACAC and MID Region States; and

2) a DIP related to the improvement of regional cooperation for the provision of Accident & Incident Investigation.

3.69 Based on the outcome of the ASRT related to reporting and sharing of safety data, the meeting agreed that the MID-SST develop a DIP related to the conduct of a study on the need and feasibility of establishing a MID Region Safety Database (MID-SST/04).

Strategy for the Establishment of RAIO(s)

3.70 The meeting recalled that based on the agreement in principle to move towards regional/sub-regional cooperation for AIG activities (DGCA-MID/1 Conclusion 1/9), the DGCA-MID/2 meeting (Jeddah, Saudi Arabia, 20 - 22 May 2013), through Conclusion 2/11, endorsed the Strategy for the establishment of Regional Accident and Incident Investigation Organization(s) (RAIO(s)). In accordance with the Strategy:

a) States are urged to develop and further strengthen regional/sub-regional cooperation for accidents and incidents investigation;

b) States are encouraged to establish or strengthen dialogue with established regional investigation-related bodies/mechanisms; and

c) a phased approach should be followed for the implementation of regional/sub-regional cooperation for AIG activities.

3.71 The meeting noted that a progress report on the subject should be presented to the DGCA-MID/3 meeting (Doha, Qatar, 27-29 April 2015) to decide if it would be necessary to go ahead with a feasibility study on the establishment of RAIO(s).

3.72 The meeting agreed that the majority of the States in the MID Region are not yet ready for Stage B. Accordingly, the meeting urged States to provide feedback on the implementation of the different steps of Stage A.

Study on the Establishment of RSOO(s)

3.73 The meeting recalled that the ACAC/ICAO Seminar/Workshop, which was held in Rabat in December 2012, developed a strategy for the establishment of an RSOO. The Strategy was endorsed by the ACAC Executive Council and the DGCA-MID/2 meeting, in December 2012 and May 2013 respectively. The DGCA-MID/2 meeting also agreed that ICAO would support ACAC in the conduct of the RSOO Study.

3.74 The meeting noted with appreciation that the study was funded by ACAC, Boeing and ICAO (SAFE Fund).

3.75 The meeting noted that the work begun on the study in January 2015, upon hiring of a Consultant. The study was conducted on the basis of information from a number of sources, including the questionnaires that were sent out to the ACAC and ICAO MID States.

3.76 In line with the agreed step-by-step approach, a simplified questionnaire was sent to the MENA States in order to obtain their commitment to the study. A total of thirteen (13) States completed the questionnaire (Bahrain, Egypt, Iraq, Jordan, Kuwait, Morocco, Oman, Qatar, Saudi Arabia, Sudan, Tunisia, United Arab Emirates and Yemen) called the MENA group of States. The results of the Study were therefore, in part, based on the analysis of the responses received from the thirteen States that confirmed their commitment to participate in the study. The Consultant also analysed the results of the questionnaire sent to all MID States for the purpose of measuring the status of development and implementation of their SSP.

3.77 The meeting noted that the Initial Report of the Study prepared by the Consultant was reviewed by ACAC and ICAO and accordingly a revised set of recommendations/proposals was presented to the ACAC/ICAO Workshop on the Initial Results of the Study on the Establishment of Regional Safety Oversight Organization(s), held in Rabat, Morocco, 23-24 March 2015. The Report of the Study includes mainly the following:

- Executive Summary
- Introduction
- Review of Regional Environmental Factors
- Safety Oversight Status of the MENA Group of States
- Determining RSOO Objectives, Tasks and Functions
- Determining the RSOO Legal Framework
- Determining the Organizational Structure
- Determining the Financial Framework
- Future Activities and Work Plan

3.78 The meeting reviewed and supported the list of Proposals related to the establishment of RSOO-MENA and associated Future Activities and Work Plan, as updated and endorsed by the Workshop, as at **Appendices 3O** and **3P**, respectively. Notwithstanding, the meeting underlined that the RSOO should be fully aligned with the RASGs priorities and objectives. The meeting agreed also that the Work Plan for establishing the RSOO-MENA should include some milestones related to the hosting of the RSOO.

3.79 The meeting agreed that the results of the study should be presented to the DGCA-MID/3 meeting, Doha, Qatar, 27-29 April 2015. Accordingly, the meeting encouraged States to sign the Letter of Intent during the DGCA-MID/3 meeting, in order to expedite the start of the establishment phase of the RSOO-MENA (development of the business plan, financial plan, etc). The meeting encouraged all safety partners to support the establishment of the RSOO by providing financial and in kind contributions.

Second MID Region Safety Summit and High Level Briefing/Meeting (DGCAs and CEOs)

3.80 The meeting was apprised of the outcome of the Second MID Region Safety Summit, which was organized by ICAO in partnership with IATA, hosted by Oman Air and supported by the Public Authority for Civil Aviation (PACA) of Oman in Muscat from 27 to 29 April 2014. It was highlighted that the third day of the Summit (29 April 2014) was reserved for the High-Level Briefing/Meeting (DGCAs and CEOs). The Summary of Discussion of the Summit is available on the ICAO MID website.

3.81 It was highlighted that the main outcome of the Summit was the revised version of the MID Region Safety Strategy, which was endorsed by High-Level Briefing/Meeting.

3.82 The meeting noted that the MID Region Safety Summit will be held on biennial basis and that the Third MID Region Safety Summit will be held in 2016 in Doha, Qatar.

MID Region Safety Strategy

3.83 The meeting recalled that the MID Region Safety Strategy was endorsed by the High-Level Briefing/Meeting, which was held on the third day of the Second MID Region Safety Summit.

3.84 The meeting noted that the following Safety Themes were endorsed for the monitoring of safety performance:

1) Accidents;

2) Runway Safety (RS);

3) Loss of Control In-Flight (LOC-I);

4) Controlled Flight Into Terrain (CFIT);

5) Safety Oversight capabilities (USOAP-CMA, IOSA and ISAGO);

6) Aerodrome Certification; and

7) SSP/SMS Implementation.

3.85 The meeting noted that based on the outcome of the HLSC 2015 related to core Safety Performance Indicators (SPIs), the only SPI, which is not included in the MID Region Safety Strategy is related to Fleet Modernization. Accordingly, the meeting agreed that the RSC should consider adding this SPI to the MID Region Safety Strategy.

3.86 The meeting endorsed the outcome of the RSC/3 meeting related to the MID Region Safety Strategy. The changes to the Strategy include:

a) the use of average rates for Safety Targets related to the Safety Themes: Accidents, RS, LOC-I and CFIT with a moving 5 year target;

b) the inclusion of new Safety Indicator "Number of established Runway Safety Team (RST) at MID International Aerodromes"; and

c) the inclusion of new Safety Indicator "Regional Average Effective Implementation (EI)". This new Indicator is used at the global level for the monitoring of safety performance in all ICAO Regions.

3.87 Based on the above, the meeting reviewed and updated the MID Region Safety Strategy as at **Appendix 3Q**. Accordingly, the meeting agreed to the following Conclusion:

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.

3.88 The current status of the different safety indicators included in the Strategy is shown in **Appendix 3R**.

3.89 The meeting noted with concern that the current status of some safety indicators is far from the agreed targets, in particular those related to IATA IOSA and ISAGO programmes, SSP Gap Analysis on iSTARS, SSP Implementation Plan and Implementation of SSP (Phases 1, 2 and 3). In this respect, the meeting noted that based on the information available on iSTARS and the replies received from 11 States to the SSP Questionnaire, the status of the different indicators related to SSP/SMS included in the MID Region Safety Strategy is as follows:

- 6 States (Egypt, Kuwait, Qatar, Saudi Arabia, Sudan and UAE) out of 9 States (with EI>60%) completed the SSP gap analysis on iSTARS and developed an SSP implementation plan.

- 1 State (Iran) Started the SSP gap analysis on iSTARS.

- 2 States (Saudi Arabia and UAE) completed implementation of SSP Phase 1, and 5 States (Bahrain, Egypt, Iran, Kuwait and Qatar) partially completed implementation of SSP Phase 1.

- 1 State (UAE) completed implementation of SSP Phase 2, and 6 States (Bahrain, Egypt, Iran, Kuwait, Qatar and Saudi Arabia) partially completed implementation of SSP Phase 2.

- 7 States (Bahrain, Egypt, Iran, Kuwait, Qatar, Saudi Arabia and UAE) partially completed implementation of SSP Phase 3.

- 6 States (Bahrain, Egypt, Iran, Kuwait, Saudi Arabia and UAE) established a process for acceptance of individual service providers' SMS.

3.90 Based on the above, the meeting urged IATA and ICAO to follow-up with States and airlines for the improvement of the situation. The meeting urged also States and Stakeholders to provide necessary information/feedback to the ICAO MID Regional Office related to all Safety Indicators included in the MID Region Safety Strategy.

3.91 With regard to the SSP Gap Analysis on iSTARS, the meeting agreed to the following Conclusion:

CONCLUSION 4/12: TRACKING SSP IMPLEMENTATION VIA THE GAP ANALYSIS TOOL ON iSTARS

*That, States, that have not yet done so, be urged to complete their SSP Gap Analysis on iSTARS and request assistance from ICAO, as deemed necessary, to complete this task before **1 June 2015**.*

3.92 Considering that the governing body of the MID Region Safety Strategy is the RASG-MID and in order to avoid that every amendment of the Strategy is to be approved by the Directors General of Civil Aviation (DGCAs) during a DGCA-MID meeting or any other high-level event, the meeting agreed to the Draft Declaration on aviation safety in the MID Region at **Appendix 3S**, which includes a set of core Aviation Safety Targets to be monitored at the level the DGs. The meeting noted that a similar set of core Air Navigation Targets will be presented to the DGCA-MID/3 meeting (Doha, Qatar, 27-29 April 2015) for adoption as part of the **Doha Declaration**.

RASG-MID Engagement Strategy

3.93 The meeting endorsed the RASG-MID Engagement Strategy at **Appendix 3T**. The objective is to outline a strategy and plan for engagement and communication with safety stakeholders and partners in the MID Region to enhance the level of participation in and support to RASG-MID and its subsidiary bodies, in order to achieve RASG-MID's objectives. Accordingly, the meeting agreed to the following Conclusion:

CONCLUSION 4/13: RASG-MID ENGAGEMENT STRATEGY

*That, the RASG-MID Engagement Strategy at **Appendix 3T** is endorsed.*

Enhanced IATA- IOSA (E-IOSA) Programme

3.94 The meeting was provided with an update on the IATA Enhanced IOSA Programme (E-IOSA), which was mandated by IATA Board of Governors for all registration renewal audits taking place on or after September 2015. The meeting noted that the use of the IATA-IOSA programme to complement safety oversight activities is one of the Safety Indicators included in the MID Region Safety Strategy.

3.95 Accordingly, the meeting urged States to accept the IATA-IOSA Programme as an acceptable means of compliance that would complement their safety oversight activities and agreed to the following Conclusion:

CONCLUSION 4/14: IATA-IOSA PROGRAMME

That, States be encouraged to accept the IATA-IOSA Programme as an acceptable means of compliance that would complement their safety oversight activities.

CANSO Safety Activities

3.96 The meeting was apprised of CANSO's safety activities at global and regional levels, particularly the activities of CANSO Middle East Safety Workgroup to support the planning and implementation of safety management in the provision of ATM services in the MID Region.

3.97 The meeting noted with appreciation the offer from CANSO to support the RASG-MID activities and invited CANSO to be a champion of a DIP related to SMS implementation for ATM services in the MID Region to be developed under the MID-SST.

3.98 The meeting shared concern with CANSO regarding the low participation of ANSPs in RASG-MID meetings and activities and emphasized that, in accordance with its Terms of Reference (TORs), the RASG-MID composition should include: aircraft operators, international organizations, maintenance and repair organizations, regional and sub-regional organizations, training organizations, aircraft manufactures, airport and **air navigation service providers** and any other allied organizations/representatives will be invited to attend the RASG-MID meetings in the capacity of observers.

RASG-MID Work Programme for 2015

3.99 The meeting reviewed the RASG-MID Work Programme for 2015 and noted that the programme reflects mainly the ICAO safety events. Accordingly, the meeting urged all stakeholders to coordinate with the ICAO MID Regional Office to include their safety events in the RASG-MID Work Programme in order to support the RASG-MID's objectives, and particularly to avoid duplication of efforts.

REPORT ON AGENDA ITEM 4: RASG-MID WORKING ARRANGEMENT

4.1 The meeting recalled that Mr. Kamil Al-Awadhi, Director, Operational Safety, Security & Quality Management, Kuwait Airways was appointed as the Rapporteur of the MID Regional Aviation Safety Team (MID-RAST). However, it was noted that Captain Al-Awadhi was no longer able to assume his RASG-MID functions. Accordingly, Mr. Jehad Faqir, Head of Safety & Flight Operations, IATA, MENA has been appointed as the new Rapporteur of the MID-RAST.

4.2 The meeting recalled that in accordance with the current version of the RASG-MID and MIDANPIRG Procedural Handbook, the Chairperson, the First Vice-Chairperson and Second Vice-Chairperson could serve only for three meetings and a possible extension for one additional meeting; and agreed with the RSC/3 meeting that this condition might represent a constraint for the normal proceedings and efficiency of the Group.

4.3 Based on the above, and in order to ensure better continuity and support to RASG-MID, the meeting agreed that paragraph 4.5.1 of the RASG-MID Procedural Handbook should be amended as follows:

> *"In order to ensure the necessary continuity in the work of the Group ~~and unless otherwise determined by special circumstances~~, the Chairperson, the First Vice-Chairperson and Second Vice-Chairperson of the Group should assume their functions at the end of the meeting at which they are elected and serve for three meetings, unless otherwise decided.~~re-elected, in that case the term would be limited to one additional cycle only.~~"*

4.4 The meeting recalled that Mr. Ismaeil Mohammed Al Blooshi, Assistant Director General, Aviation Safety Affairs Sector, General Civil Aviation Authority of UAE was elected as the RASG-MID Chairperson at the RASG-MID/2 meeting (Abu Dhabi, UAE, 12 – 14 November 2012); Mr. Abdullah O. Rajab Al Ojaili, Assistant Director General for Safety, Public Authority for Civil Aviation, Oman was elected as the First Vice-Chairperson of RASG-MID at the RASG-MID/1 meeting (Cairo, Egypt, 18 – 19 September 2011); and Mr. Achim Baumann, Regional Director Safety and Flight Operations, IATA MENA was elected as the Second Vice-Chairperson of RASG-MID at the RASG-MID/3 meeting (Kuwait, 27-29 January 2014).

4.5 Based on the above, the meeting agreed that the current Chairpersons of RASG-MID continue to serve for three additional cycles. Accordingly, the meeting agreed to the following Decision:

> ***DECISION 4/15: RASG-MID CHAIRMANSHIP***
>
> *That, Mr. Ismaeil Mohammed Al Blooshi, Mr. Abdullah O. Rajab Al Ojaili and Mr. Achim Baumann, continue to serve as the RASG-MID Chairperson, First Vice-Chairperson and Second Vice-Chairperson, respectively, for three additional meetings.*

4.6 The meeting agreed that the RASG-MID Procedural Handbook should make a reference to the MID Region Safety Strategy and to the RASG-MID Engagement Strategy rather than the Global Aviation Safety Roadmap (GASR).

4.7 It was highlighted that the Handbook should include a mechanism for PIRG-RASG coordination as requested by the Second PIRG-RASG Meeting held at ICAO Headquarters, Montreal on 5 February 2015. The meeting also agreed that the RASG-MID Steering Committee (RSC) composition shall include all MID States. Accordingly, the meeting tasked the Secretariat with the review and finalization of the Procedural Handbook.

4.8 The meeting reviewed and updated the list of RASG-MID, Members, Alternates, Advisers as at **Appendix 4A** and the list of MID-ASRT, MID-RAST and MID MID-SST Focal Points as at **Appendix 4B**.

REPORT ON AGENDA ITEM 5: UPDATE FROM AND COORDINATION WITH MIDANPIRG

MIDANPIRG Activities

5.1 The meeting was apprised of the MIDANPIRG activities. It was highlighted in this respect, that the MID Region Air Navigation Strategy, which includes the air navigation priorities and targets related to the twelve (12) ASBU Block 0 Modules, has been endorsed by the Fourth meeting of the MIDANPIRG Steering Group (MSG/4) (Cairo, Egypt, 24 - 26 November 2014) on behalf of MIDANPIRG.

5.2 The meeting noted that the MSG/4 endorsed on behalf of MIDNAPIRG a number of regional strategies and plans such as the MID Region PBN Implementation Plan, updated edition of the MID Region ATM Contingency Plan, etc.

5.3 The meeting noted that the process of establishing of the MID Region ATM Enhancement Programme (MAEP) is an ongoing. MAEP will be the regional platform that provides the basis for a collaborative approach among all ATM stakeholders, towards planning and implementing air navigation projects in support of the MID Air Navigation Strategy.

5.4 It was highlighted that a comprehensive review and update of the list of air navigation deficiencies with a focus on the associated corrective action plans, assignment of priority and interference with the USOAP-CMA findings, was undertaken by all MIDANPIRG subsidiary bodies.

5.5 The meeting noted also that in accordance with the Draft MID RVSM Safety Monitoring Report (SMR 2014), the safety objectives as set out by MIDANPIRG continue to be met. It was highlighted that the Final SMR 2014 will be presented to MIDNAPIRG/15 (Bahrain, 8-11 June 2015), for endorsement.

5.6 The meeting recalled that the Call Sign Confusion ad-hoc Working Group (CSC WG) was established by the MSG/4 meeting to develop solutions to mitigate the risk associated with call sign confusion and similarity.

5.7 The meeting noted that the MIDANPIRG relevant subsidiary bodies have been following up with those States that are still using converters, to upgrade their Flight Data Processing Systems (FDPS) to take full benefit from the information included in the ICAO New Flight Plan Format (INFPL).

Coordination between MIDANPIRG and RASG-MID

5.8 The meeting recalled that while RASGs have been established to initially deal with safety issues directly related to flight operations, planning should be initiated as soon as circumstances permit to adopt a systems approach so that RASGs address safety issues from an integrated perspective that includes flight operations, aerodrome and ATM safety.

5.9 The meeting noted that RASG-MID and MIDANPIRG have been coordinating some safety-related issues such as mitigation measures for CFIT (unstabilized approaches) and call sign similarity/confusion. Other subjects of interest to both groups have been identified, in particular those related to ATM safety such as SMS implementation for ANS/ATM, Language Proficiency for Air Traffic Controllers, RVSM safety monitoring, etc.

5.10 With respect to CFIT, the meeting recalled that coordination with the MIDANPIRG PBN Sub-group took place for the identification of the list of airports/runways in the MID Region with the highest risk of Runway Excursion and CFIT due to the high number of unstabilized approaches, in order to develop/implement PBN approach procedures to the runways that are not currently served by precision approach procedures.

5.11 In connection with the above, the meeting noted that the Flyer on Unstabilized Approach "*Avoiding Unstable Approaches*" at **Appendix 5A** was jointly developed by ICAO and the major International Organizations, in order to provide tips to Air Traffic Controllers and Pilots to avoid unstable approaches. The meeting agreed that the guidelines and recommendations included in the Flyer might be useful for the RAST-MID/CFIT/1 and could be part of a RASG-MID safety Advisory on the subject.

5.12 The meeting noted with appreciation that the subject of call sign similarity and confusion was addressed in full coordination between RASG-MID and MIDANPIRG and commended the work of the Call Sign Confusion ad-hoc Working Group (CSC WG) established by the MSG/4 meeting.

5.13 IATA informed the meeting that in many cases in the MID Region, the Aeronautical Information Services (AISs) do not comply with the Annex 15 provisions related to AIRAC adherence, and aeronautical information of operational significance is published with a short-notice (before the effective date), which made it impossible to update the Aircraft Flight Management Systems (FMSs) in a timely manner. Therefore, such occurrences can create an unsafe environment for flights, which could lead to a catastrophic event.

5.14 The meeting recognized the adverse safety implications of the non-adherence to the AIRAC procedures and Annex 15 provisions as a whole. Notwithstanding, the meeting agreed that necessary follow-up action should be taken by MIDANPIRG and its AIM Sub-Group.

Second PIRG-RASG Global Coordination Meeting

5.15 The meeting was apprised of the outcome of the Second PIRG-RASG Global Coordination meeting held at ICAO Headquarters, Montreal on 5 February 2015. It was highlighted, in particular, that each Region should establish a mechanism for PIRG-RASG coordination and include a description of this mechanism in the PIRG and RASG Procedural Handbooks by December 2015. The coordination should include, in addition to the existing cross-participation and briefing between regional groups by its Chairpersons, a list of subject areas in which both Groups may have an interest with a clear assignment of leadership, based on the most relevant expertise among the membership of the two Groups and also their past and ongoing related activities.

5.16 The meeting noted that the subject will be further discussed by the DGCA-MID/3 meeting (Doha, Qatar, 27-29 April 2015).

5.17 Based on the above, the meeting agreed that the RASG-MID Procedural Handbook be updated to include a new section related to the coordination mechanism between MIDANPIRG and RASG-MID.

REPORT ON AGENDA ITEM 6: FUTURE WORK PROGRAMME

6.1 The meeting noted that the RSC/4 meeting is tentatively scheduled to be held in Cairo, Egypt, 14-16 December 2015.

6.2 In accordance with the RASG-MID Procedural Handbook, and taking into consideration the work programmes and expected inputs of the different regional bodies/stakeholders involved in Aviation Safety, the meeting agreed that the RASG-MID/5 meeting be tentatively scheduled for March-April 2016. The venue is to be determined in coordination between the ICAO MID Regional Office and the RASG-MID Chairperson. In this respect, the meeting discussed the possibility to hold the RASG-MID/5 meeting back-to-back with the Third MID Region Safety Summit, which will be held in Doha during the second quarter of 2016; accordingly, it was agreed that a decision will have to be taken after coordination between the MID Regional Office and the Host State (Qatar).

REPORT ON AGENDA ITEM 7: ANY OTHER BUSINESS

7.1 Nothing has been discussed under this Agenda Item.

APPENDICES

APPENDIX 3A

RASG-MID SAFETY ADVISORY – XX

(RSA-XX)

April 2015

Flight Data Exchange (FDX)

This document is an informative advisory developed by the International Air Transport Association (IATA) under the auspices of the Regional Aviation Safety Group – Middle East (RASG-MID).

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Contents

Introduction

The objective of the RASG-MID Annual Safety Report is to gather safety information from different stakeholders and to identify the main aviation safety risks in the MID Region in order to deploy mitigation actions for enhancing aviation safety in a coordinated manner.

Three editions of the RASG-MID annual safety report have been published so far. All editions include detailed reactive and proactive safety information; yet, the annual safety report team is facing some challenges in collecting predictive safety information.

The International Air Transport Association (IATA) has developed a very useful tool called Flight Data Exchange (FDX), which acts as a platform that allows for predictive safety data gathering and assessment. However, and due to the low levels of participation by the operators in the MID states in FDX, the tool could not be optimized to its full potential where comprehensive predictive safety assessments could be performed.

This informative advisory was developed based on requests from the different states that were part of the RASG-MID/3 Steering Committee meeting (RSC/3) held in Cairo, Egypt between 9-11 December 2014 which agreed to the following draft conclusion:

DRAFT CONCLUSION 3/3: FLIGHT DATA EXCHANGE (FDX)
That, IATA develops a Draft RASG-MID Advisory Circular to promote the use of the FDX.

Purpose

The purpose of this informative advisory is to elaborate more on FDX and raise awareness among the different aviation stakeholders on who can join FDX, how the tool works, and what it offers.

Overview of Flight Data Exchange (FDX)

1. Definition of FDX

The Flight Data Exchange (FDX) is an aggregated de-identified database of Flight Data Analysis (FDA) events. FDA events are also known as Flight Data Monitoring (FDM) or Flight Operations Quality Assurance (FOQA) events. Raw flight data is collected from Participants and processed against a pre-defined event set. Results data is aggregated into a single de-identified database, and displayed via a website only when there are at least three (3) operators with the same aircraft type into an airfield. Users may access the de-identified results and query more than 50 different measurements. Reporting capabilities and other outputs are also included in FDX.

2. Benefits of FDX

The FDX program allows flight operations and safety departments to proactively identify safety hazards. Currently, more than a dozen different event types are displayed by location including Ground Proximity Warning System (GPWS/TAWS) locations, Traffic Collision and Avoidance System (TCAS, or ACAS) events,

windshear warnings, unstable approaches (low and high risk), go-arounds, and high tailwind landing events. More events will be added as the system is developed.

The analysis of the different types of events would allow the operator to:

- identify safety issues that the airline did not even know they existed and share safety hazards with flight crew
- anticipate safety concerns at new airports or new routes
- view flight animations for safety and training purposes
- compare and benchmark the airline's operations against the entire industry
- compare global and regional statistics

3. Data Processing Overview

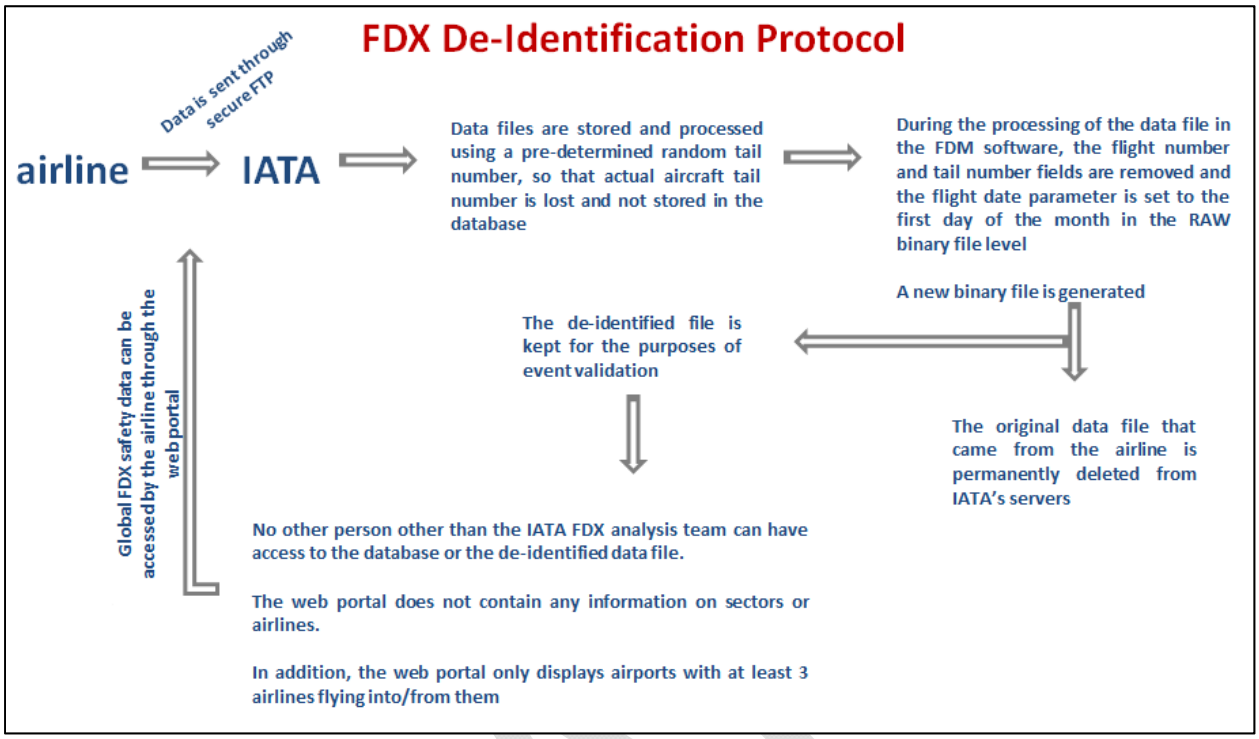
The FDX program merges de-identified Flight Data Analysis (FDA), Flight Data Monitoring (FDM), or Flight Operations Quality Assurance (FOQA) Binary Data from multiple operators into a de-identified global database, and then provides that aggregated information back to Participants via the website and various forms of reporting and other outputs. FDX is expected to become an essential component in an operator's Safety Management Systems (SMS) program, allowing operators to continuously monitor departure and destination airports, multiple hazards, and proactively assess new destinations before starting service.

Binary flight data is sent to IATA (minimum monthly) or an IATA vendor via secure File Transfer Protocol (FTP) site where it is processed using a common set of events including, but not limited to:

- Unstable approaches
- EGPWS/GPWS/TAWS
- Excessive tailwind on landing
- TCAS
- Hard landing
- Rejected Takeoff
- Go Around

Further events will be added as the system develops. IATA stores the Results Data in a de-identified database. Collated Information is stored in a separate de-identified database.

Below is an illustration of the de-identification protocol implemented by IATA towards FDM/FOQA data submitted by the airlines:



4. Events Types and Definitions

FDX currently captures a standard set of event types. Further events will be added as the system develops. Moreover, each event type has a threshold by which it is triggered and captured.

Below is a table which lists all the events and their respective triggers in FDX.

EVENT NAME	TRIGGER
Excessive Glideslope Deviation - Above (1000 – 500 ft)	> 1 dot between 1,000 and 500ft AGL
Excessive Glideslope Deviation - Above (Below 500 ft)	> 1 dot between 500 and 200ft AGL
Excessive Glideslope Deviation - Below (1000 – 500 ft)	< -1 dot between 1,000 and 500ft AGL
Excessive Glideslope Deviation - Below (Below 500 ft)	< -1 dot between 500 and 200ft AGL

Excessive Localizer Deviation (1000 – 500 ft)	> 1 dot between 1,000 and 500ft AGL
Excessive Localizer Deviation (Below 500 ft)	> 1 dot between 500 and 200ft AGL
High Rate of Descent (1000 – 500 ft)	RoD > 1200 ft/min between 1,000 and 500ft AGL
High Rate of Descent Below 500 ft	RoD > 1200 ft/min between 1,000 and 0ft AGL
Late Flap Configuration (1000 – 500 ft)	Landing flap selected between 1,000 and 500ft AGL
Late Flap Configuration (Below 500 ft)	Landing flap selected between 500 and 0ft AGL
Late Gear Configuration (1000 – 500 ft)	Landing gear selected between 1,000 and 500ft AGL
Late Gear Configuration (Below 500 ft)	Landing gear selected between 500 and 0ft AGL
Low Power on Approach (1000 - 500)	Low power between 1,000 and 500ft AGL
Low Power On Approach Below 500 ft	Low power between 500 and 0ft AGL
High Speed on Approach (1000 - 500)	Vref Deviation > 20kt between 1,000 and 500ft AGL
High Speed on Approach Below 500 ft	Vref Deviation > 20kt between 500 and 0ft AGL
Low Speed on Approach (1000 - 500)	Vref Deviation < -5kt between 1,000 and 500ft AGL
Low Speed on Approach Below 500 ft	Vref Deviation < -5kt between 500 and 0ft AGL
Excessive Tailwind on Landing	Tail Wind > 10kt
Go Around	Go Around executed below 3,000ft / 1,000 and 500ft
Hard Landing	Vertical Acceleration > 1.8g
Rejected Takeoff	RTO executed > 60kt
TCAS RA	TCAS RA when available in data frame

TCAS TA	TCAS TA when available in data frame
GPWS	All GPWS modes when available in data frame

5. Samples from FDX Web Portal

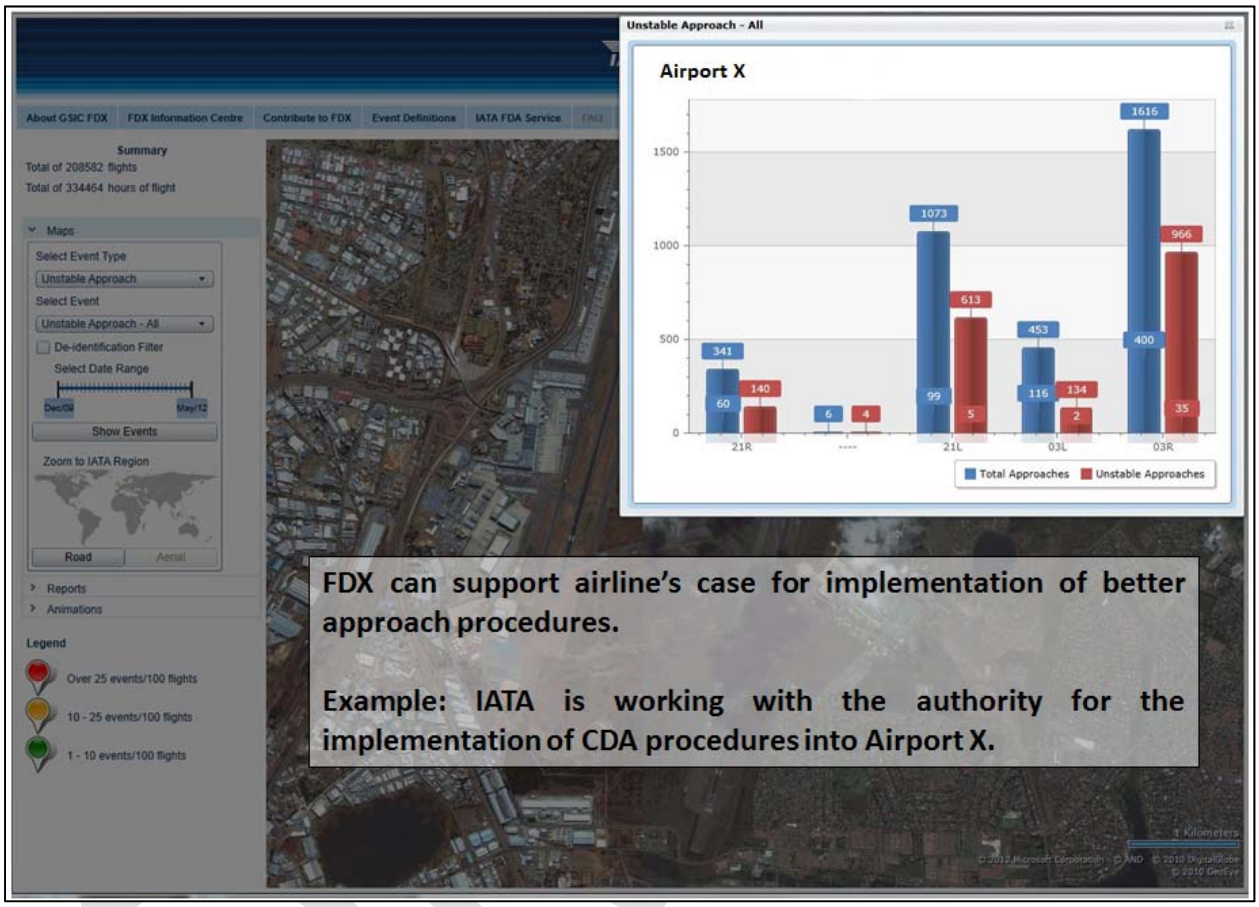
FDX information is available to users either through the IATA safety reports or through the web portal. The web portal uses google maps to show the distribution of events across the different locations as in the screenshot below:

To query a specific event type, the user would need to:

- Select the event type (for example: unstable approaches)
- Specify the date range
- Specify the region

Afterwards, the query results would show on the google map with the distribution of the event rates across the different airports. It is worth mentioning here that the user can only see airports with at least 3 airlines flying into them to ensure the de-identification of the data.

Queries can be also run per airport for the different event types as in the example below for Airport X. The screenshot illustrates the rate of unstable approaches compared to the total approaches per runway in that specific airport. Therefore, and upon analyzing this information, IATA has been working with the authority to implement CDA procedures into Airport X.



Furthermore, FDX has a Global Animation Archive where animations will be created during the course of the program. Contributing airlines can share and use these animations for training and safety awareness. Data is always de-identified. Below is a screenshot of an animation sample for GPWS events due to excessive rate of descend and low flap configuration near to the ground.


IATA GSIC FDX
Animation
FROM ABOUT 300 FT AGL (0.6 DME) A SERIES OF GPWS WARNINGS OCCUR DUE TO EXCESSIVE RATE OF DESCENT AND LOW FLAP CONFIGURATION NEAR TO THE GROUND. SPEED IS STILL 60 KT ABOVE VREF. THE SPOILES ARE RETRACTED AT ABOUT 240FT AGL AND FULL FLAP IS SELECTED.
Flight Data Analysis Service
VREF DEV: 54 KT (VREF: 124 KT)
SEL SPD: 152 kt
VSI: -820 FT/MIN
DME: 0.4
HAA: 199 FT (AGL)
RECORDED TIME: 112873
GPWS - TOO LOW TERRAIN
FLAP HANDLE POS: 40
FLAP SURF POS: 18
Play
01:50 / 03:25

APPENDIX 3B

ACCIDENTS AND INCIDENTS ANALYSIS WORKING GROUP (AIA WG)

TERMS OF REFERENCE

A) PURPOSE OF THE AIA WG:

The AIA WG is established to review, analyse and categorize on an annual basis the accidents and incidents that occurred in the MID Region or which involved an aircraft registered in the MID Region or owned and/or operated by an Air Operator from the MID Region, for all types of operations, including but not limited to commercial/non-commercial, scheduled/non-scheduled and general aviation.

In order to meet its Terms of Reference, the AIA WG shall:

1) gather information from different available sources on the accidents and incidents that:
    a) occurred in the MID Region (State of Occurrence);
    b) involved aircraft registered in the MID Region (State of Registry); or
    c) involved aircraft owned and/or operated by an Air Operator from the MID Region (State of the Operator).
2) review, analyse and categorize the accidents and incidents using the definitions and descriptions provided in ICAO Annex 13 and ADREP/ECCAIRS Taxonomy;
3) develop an agreed and harmonized MID Regional dataset of accidents and incidents and provide feedback to the ICAO Safety Indicators Study Group (SISG);
4) identify, to the extent possible, the root causes and contributing factors, in order to support the MID-RAST in the development of mitigation measures;
5) provide necessary information on accidents and incidents to the MID-ASRT for the development of the MID Annual Safety Report; and
6) share the outcome of its meetings with the concerned MIDANPIRG subsidiary bodies, as appropriate.

B) COMPOSITION:

The Working Group is composed of Safety experts from relevant fields such as flight safety, Aerodromes and ANS, with grounded knowledge and experience in Accident and Incident Investigation (AIG), including the ADREP Taxonomy and ECCAIRS, nominated by RASG-MID Member States and Partners.

C) ROLES AND RESPONSIBILITIES:

- AIA WG Chairperson – Coordinate AIA WG activities and provide overall guidance and leadership;
- AIA WG Focal Points- Specialists in the AIG related subjects, particularly the analysis of accidents and incidents data in order to actively participate in and contribute to the work of the AIA WG; and
- ICAO – Support.

APPENDIX 3C

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 *RASG-MID/4 WP/7 - Outcome of MID-RRSS/2* 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 3D

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 *RASG-MID/4 WP/7 - Outcome of MID-RRSS/2* for details
✓ Organise a Regional Aerodrome Certification Workshop	End June 2014	Completed	4 June 2014 - see *RASG-MID/4 WP/7 - Outcome of MID-RRSS/2* and *RASG-MID/4 WP/8 - Runway Safety Related Issues*
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	

APPENDIX 3E

STATUS OF AERODROME CERTIFICATION IMPLEMENTATION IN MID REGION

Sr	State	Listed aerodromes					Certified Aerodromes					Percentage certified	Remarks
		RS	RNS	AS	ANS	Total	RS	RNS	AS	ANS	Total		
1	Bahrain	1				1	1				1	100%	
2	Egypt	8	1	7		16	4				4	25%	
3	Iran	7	1			8	2				2	25%	
4	Iraq	5	1			6	2				2	33%	
5	Jordan	2		1		3	1				1	33%	
6	Kuwait	1				1	1				1	100%	
7	Lebanon	1				1	0				0	0%	
8	Libya	3				3					0	0%	
9	Oman	1		1		2	1		1		2	100%	
10	Qatar	2				2	2				2	100%	
11	Saudi Arabia	4				4	4				4	100%	
12	Sudan	3			0	3	2				2	67%	
13	Syria	3				3	0				0	0%	
14	UAE	7	1			8	7	1			8	100%	
15	Yemen	5				5	0				0	0%	
	Total	53	4	9	0	66	27	1	1	0	29	44%	
	% certified						51%	25%	11%		44%		

APPENDIX 3F

Detailed Implementation Plan Template

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
RAST-MID/LOC-I/1	Airplane State awareness (ASA)- Low airspeed alerting	Safety Management Standarzation: Implementation of risk-based standarization Safety Oversight Standarization: Promotion of Compliance with National Regulations and Adoption of Industry Best Practices	BP-GEN-1 BP-GEN-2 BP-GEN-4 BP-STD-S-12 BP-STD-S-13	High	Moderate	P2	1	Medium term

Safety Enhancement Action (expanded)	Air carriers implement low airspeed alerting on existing transport category airplane (TCA) type designs as practical and feasible.
Statement of Work	A CAST study of 18 loss-of-control accidents and incidents determined that low energy state and stall, resulting from flight crew loss of airplane state awareness (ASA), played a role in 8 events. To further improve early flight crew awareness of a decreasing energy state throughout the MID region fleet, air carriers should implement existing manufacturer service bulletins to provide low airspeed alerting on existing transport category type designs as applicable.
Champion Organization	IATA
Human Resources	IATA, Pilot Associations, Safety, Flight Operations and Training managers, aircraft manufacturers.
Financial Resources	

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
Relation with Current Aviation Community Initiative								
Performance Goal								
Indicators								
Key Milestones (Deliverables)								
Potential Blockers								
DIP Notes								

- Federal Aviation Administration (FAA) Title 14, Code of Federal Regulations (14 CFR) § 25.1322, Amendment 25-131
- FAA Advisory Circular (AC) 25.1322-1, Flight Crew Alerting
- FAA 14 CFR § 25.1322, Amendment 25-119
- FAA AC 25.1329-1B, Approval of Flight Guidance Systems

Estimated Risk Reduction

The estimated risk reduction will assume that 50% of MID States-registered airplanes used in part commercial operations and not currently equipped with low airspeed alerting would be modified to include low airspeed alerting by this safety enhancement (SE).

Implementation

Implementation will be assessed through MID/RAST Tracking Process

Effectiveness

Effectiveness will be assessed by monitoring the following metrics:

- Flight Operational Quality Assurance (FOQA) metrics show a reduction in incidents of stall warnings resulting from speed decays

Reduce MID average LOC-I accident rate to be below the global average rate by end of 2016

Flow time	(mo)	Start Date	End Date
Output 1:	24	9/30/2014	9/29/2016
Completion:			

Financial

Supporting CAST Intervention Strategies

IS 1233 – To improve flight crew awareness of low airspeed, manufacturers should develop and regulators should ensure implementation of systems that alert flight crews when the airplane reaches its minimum maneuvering speed (i.e., "top of amber band") on airplanes with no (or with overrideable) flight envelope protection, iaw 25.1322 at amdt 25-131.

In order to improve early flight crew awareness of a decreasing energy state, manufacturers should develop and implement multisensory low airspeed alerting at the caution level (see 14 CFR § 25.1322, amdt 25-131) in existing airplanes, as practical and feasible. The intent of this SE is for operators to incorporate existing service bulletins from manufacturers that provide this functionality.

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
Output		Air carriers implement existing and available manufacturer service bulletins to install low airspeed alerting functionality in their existing airplanes, as applicable.						
Actions		1.IATA will consult with all RASG-MID-represented manufacturers to determine what service bulletins are currently approved and available to install low airspeed alerting functionality in existing type designs, 2. IATA will communicate with their air carrier members, explaining the Airplane State Awareness (ASA) analysis and the role of low energy state and stall in contributing to the accidents, and encourage them to install existing service bulletins from manufacturers that address this issue in their airplanes at their earliest convenience. 3. Air operators will review the available service bulletins, determine applicability of the available bulletins to their specific fleets, and develop an implementation plan for prioritizing incorporation of these bulletins at their earliest convenience. 4. Air carrier actions are considered when all applicable airplanes in their fleet have the available service bulletins installed. 5. IATA will track implementation of their member carriers and report progress to MID/RAST.						
Output notes		Applicability Air carriers that operate airplanes for which multisensory low airspeed alerting is available for incorporation via service bulletin. Most production airplanes already incorporate some form of multisensory low airspeed alerting. The specific reduction in risk from this output assumes about 1000 additional airplanes install the feature. ▯ 6 months for IATA to consult with manufacturers ▯ 6 months after receiving available service bulletins from theManufacturers for IATA to communicate with their air carrier members ▯ 12 months from receiving list of available service bulletins from industry associations for air carriers to implement service bulletins						
Target completion date		9/29/2016						

Detailed Implementation Plan Template

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
RAST-MID/LOC-I/2	Standard Operating Procedures Effectiveness and Adherence	Safety Management Standarzation: Implementation of risk-based standarization Safety Oversight Standarization: Promotion of Compliance with National Regulations and Adoption of Industry Best Practices	BP-GEN-1 BP-GEN-2 BP-GEN-4 BP-STD-S-12 BP-STD-S-13 CAST SEI 194	High	Moderate	P2	2	Long Term

Safety Enhancement Action (expanded)	Air carriers develop and implement improved standard operating procedures (SOPs) to reduce flight crew member loss of airplane state awareness.
Statement of Work	In a CAST study of 18 loss-of-control accidents and incidents, insufficient adherence to SOPs was a factor in 15 events. To improve flight crew adherence to SOPs and reduce the risk of lost awareness of airplane state, air carriers should: 1. Review, and update as needed, current SOPs for consistency with the CAST Plan, manufacturer recommendations, and air traffic control (ATC) procedures; 2. Assess level of adherence to current SOPs, identifying possible reasons for insufficient adherence to certain procedures; 3. Develop training programs to provide pilots with rationale for SOPs, focusing on those with lower adherence rates.
Champion Organization	IATA
Human Resources	IATA, Pilot Associations, Safety, Flight Operations and Training managers, aircraft manufacturers.
Financial Resources	

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
Relation with Current Aviation Community Initiative								
Performance Goal								
Indicators								
Key Milestones (Deliverables)								
Potential Blockers								

- Federal Aviation Administration (FAA) Advisory Circular (AC) 120-71A, Standard Operating Procedures for Flight Deck Crewmembers
- CAST Plan (located on Skybrary: http://www.skybrary.aero/index.php/Portal:CAST_SE_Plan)
- CAST Safety Enhancement (SE) 2 – CFIT – Standard Operating Procedures
- CAST SE 26 – LOC - Policies and Procedures - Standard Operating Procedures (SOP's)
- FAA Order 7110.65, Air Traffic Control

Estimated Risk Reduction

Implementation
Implementation will be assessed through MID/RAST Tracking Process.
Effectiveness
Effectiveness will be assessed by monitoring the following:
- Narrative pilot reports (e.g.,Aviation Safety Reporting System (ASRS)) indicate a reduction in incidents that indicate flight crew confusion over – or intentional disregard of – operator SOPs.

Reduce MID average LOC-I accident rate to be below the global average rate by end of 2016

Flow time	(mo)	Start Date	End Date
Output 1:	12	1/31/2015	1/31/2016
Output 2:	14	1/31/2016 (end OP1)	3/31/2017
Output 3:	20	3/31/2017 (end OP2)	11/30/2018
Completion:	**44**	**1/30/2015**	**11/30/2018**

Financial

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
DIP Notes		Supporting CAST Intervention Strategies IS 110 - Airlines/operators and regulators should ensure that their training/standardization and monitoring programs emphasize the importance of adherence to standard operating procedures and identify the rationale behind those procedures. IS 157 - Airlines/operators, regulators, air traffic service providers should establish policies or programs to address rushed approaches, including elimination of rushed approaches, recognition and rejection of rushed approaches and training for those encountered. IS 556 - To reduce pilot overload, airlines/operators should develop standard operating procedures to help standardize the use of the appropriate level of automation for the operation and the airplane design. IS 40 - Airlines/operators and air traffic service providers should ensure fluency/proficiency in the use of basic English language. IS 56 - Airlines/operators should implement Flight Operations Quality Assurance (FOQA) programs to identify systemic procedural deviations and unsafe trends						
Output 1		Air carrier standard operating procedures (SOP) reviewed, and updated as needed, for consistency with the Commercial Aviation Safety Team (CAST) Plan, manufacturer recommendations, and air traffic control (ATC) procedures.						
Champion Organization		IATA						
Supporting Organizations		Air carriers Airbus Bombardier, Inc. Embraer National Air Carrier Association (NACA) Regional Airline Association (RAA) The Boeing Company						

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
Actions		1. IATA will communicate with their air carrier members, explaining the analysis undertaken by CAST regarding loss of airplane state awareness, the role of that non-adherence to SOPs played in the accidents, and the purpose of the CAST safety enhancement (SE). 2. Air carriers will review SOPs for consistency with the CAST Plan, focusing on completeness for all phases of flight and improved awareness and response during operations that are more prone to reduced airplane state awareness (i.e., rushed and/or unstabilized approaches, go-arounds, transfer of control, automation interaction, and pilot flying/pilot monitoring duties). 3. Air carriers will consult with manufacturers to check that SOPs are consistent with current manufacturer recommendations. 4. Air carriers will review SOPs for compatibility with the most current ATC procedures, paying attention to airports where data show higher rates of unstabilized approach or excessive bank angles. 5. Air carriers will validate and update SOPs as needed based on above review, ensuring that procedures are clear, logical, prioritized, and incorporate human factors best practices. 6. Air carriers will prioritize SOPs for monitoring and evaluation based on relevance to the issues of airplane state awareness (ASA), as identified in the CAST report. 7. Air carrier actions are complete for this output when the following are accomplished: a) The air carrier has reviewed existing SOPs for consistency with the latest versions of the CAST plan, manufacturer recommendations, and ATC procedures b) The air carrier has updated SOPs as necessary 8. IATA will track implementation of their member carriers and report progress to MID/RAST.					
Output notes		The CAST plan can be found on Skybrary at: http://www.skybrary.aero/index.php/Portal:CAST_SE_Plan) ATC procedures can be found in the most recent version of FAA Order 7110.65, Air Traffic Control.						
Target completion date		1/31/2016						
Output 2		Assessments by air carriers to determine the level of adherence to current standard operating procedures (SOP), identifying possible reasons for insufficient adherence.						

Detailed Implementation Plan Template

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
RAST-MID/LOC-I/3	ASA – Training – Flight Crew Training Verification and Validation	Safety Management Standarzation: Implementation of risk-based standarization Safety Oversight Standarization: Promotion of Compliance with National Regulations and Adoption of Industry Best Practices	BP-GEN-1 BP-GEN-2 BP-GEN-4 BP-STD-S-12 BP-STD-S-13 CAST SEI 195	High	Moderate	P2	3	Long Term

Safety Enhancement Action (expanded)	Air carriers verify and validate the quality of training provided to aircrews, with emphasis on externally provided training.
Statement of Work	A CAST study of 18 loss-of-control accidents and incidents concluded that in several of the events the flight crew did not respond to situations in accordance with how they had been trained. In some of these events, a review of the accident report indicated proficiency issues with pilot even after checking and qualification, particularly when training had been provided by an external training organization. To improve flight crew proficiency in handling issues that can lead to loss of airplane state awareness, air carriers should verify and validate the quality and consistency of training, with emphasis on externally provided training. This should include examining both the content and conduct of training. Training verification and validation should include improving surveillance of and communication with third-party training providers.
Champion Organization	IATA
Human Resources	IATA, Pilot Associations, Safety, Flight Operations and Training managers, aircraft manufacturers.
Financial Resources	

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
Relation with Current Aviation Community Initiative		Related Federal Aviation Administration (FAA) Guidance and Policy □ FAA Information for Operators InFO 13003, Contract Instructor and Contract Check Airman Initial Training Program Records □ FAA Order 8900.1 Vol 3 Ch 54, Sec 5, para 3-4413A regarding part 142 training centers						
Performance Goal		Estimated Risk Reduction Implementation Implementation will be assessed through MID/RAST Tracking Process Effectiveness Effectiveness will be assessed by monitoring the following metrics: □ Narrative pilot reports (e.g., Aviation Safety Action Program (ASAP) or Aviation Safety Reporting System (ASRS) show a reduction in incidents where training was not followed or understood during situations related to loss of airplane state awareness.						
Indicators		Reduce MID average LOC-I accident rate to be below the global average rate by end of 2016						
Key Milestones (Deliverables)		Flow time (mo) Start Date End Date Out put 1: 15 3/30/2015 6/30/2016 Out put 2: 42 1/31/2015 7/31/2018						
Potential Blockers								
DIP Notes		Supporting CAST Intervention Strategies IS 218 - To enhance contractor training, airlines/operators should conduct/improve surveillance of contractor training programs for adequacy of training. IS 1215 - To ensure aircrew proficiency, airlines/operators should ensure that their training/standardization programs include verification and validation (e.g., testing and check flights prior to first revenue flight) that the training was effective.						
output 1		IATA will organize a seminar to promote and roll-out LOC-I tool kit						

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
Output 2		Air carrier standard operating procedures (SOP) reviewed, and updated as needed, for consistency with the Commercial Aviation Safety Team (CAST) Plan, manufacturer recommendations, and air traffic control (ATC) procedures.						
Champion Organization		IATA						
Supporting Organizations		Air carriers						
Actions		1.IATA will organzie a seminar to promote and roll out the new LOC-I tool kit 2.IATA will communicate with their air carrier members, explaining the analysis undertaken by CAST regarding loss of airplane state awareness, the role of ineffective training, and the purpose of the CAST safety enhancement (SE). 3. Air carriers will implement a process to ensure their aircrew training program, including any externally provided training, is consistent with current airline and manufacturer policy and procedures. 4 Air carriers will implement a process to validate the qualification and currency of trainers, including third-party training providers 5. Air carriers will validate contractor training by periodically observing training and/or checking events and auditing records to ensure consistency of aircrew training and pilot proficiency. 6. Air carrier actions are considered complete for this output when the following are accomplished: a) The air carrier has completed review of their training b) The air carrier has implemented processes to assess trainer currency and qualification c) The air carrier has made an initial observation / validation visit to any third-party training organizations they use, as applicable 7.IATA will track implementation of their member carriers, and report progress and completion to MID/RAST.						
Output notes								
Target completion date		7/31/2018						

APPENDIX 3G

Status of Low Airspeed Alerting Provisions

Boeing Fleet:

- Low airspeed alerting is basic on the **787, 777, 747-8, 767-400 {**with the Large Format Display Systems (LFDS**)} and 747-400.**

- It is an option on the **737-600/700/800/900** and there is a service bulletin available (SB 737-34A2292). It adds an aural Caution ("AIRSPEED LOW") from EGPWS to the amber visual indications (box around airspeed flashes amber) on the Primary Flight Display (PFD).

- It is not basic, not an option, and no service bulletin is available for the **757, 727, MD-90, MD-80, 737-100/200/300/400/500 or the 767** (with the exceptions noted above).

Airbus Fleet:

- Low airspeed alerting is basic on the Fly by Wire aircraft (**A320 family, A330, A340, A350 and A380**). The Flight Envelop Protections implemented in these aircraft have been judged as compliant with the new requirements. Furthermore, these aircraft are already fitted with a "Speed, Speed, Speed" aural alert based on the energy of the aircraft.

- It is not basic on Non Fly by Wire aircraft (**A300 & A310**). The discussions with the FAA are ongoing to determine if the current design of these aircraft (in particular the aircraft with alpha-floor function capability) is compliant with the new requirements.

Embraer Fleet

- EMBRAER 170/175/190/195:
  - No Low Speed Alert available, either factory-original or via SB.
  - Stall protection is provided first by a stick shaker, and then by alpha protection (through fly-by-wire system), both based on angle-of-attack and not purely airspeed. These features are factory-original and equip all aircraft delivered.

- ERJ 135/140/145:
  - No Low Speed Alert available, either factory-original or via SB.
  - Stall protection is provided first by a stick shaker, and then by a stick pusher, both based on angle-of-attack and not purely airspeed. These features are factory-original and equip all aircraft delivered.

Bombardier Fleet, ATR Fleet, Eastern Built Aircraft

- No data available.

MID States Airlines Fleet

COUNTRY	Company	ICAO	IATA	Airbus A300-600 H	Airbus A300B2/B4 H	Airbus A310 H	Airbus A318 M	Airbus A319 M	Airbus A320 M	Airbus A321 M	Airbus A330 H	Airbus A340 H	Airbus A380 H	Antonov An-12 M	Antonov An-124 H	Antonov An-140 M	Antonov An-24 M	Antonov An-26 M	Antonov An-30 M	Antonov An-32 M	Antonov An-72 M	Antonov An-74 M	ATR ATR 42 M	ATR ATR 72 M	Avro RJ Avroliner M	BAE SYSTEMS (HS) 146 M
Bahrain	DHL International Aviation EEMEA	DHX	ES																							
Bahrain	Gulf Air	GFA	GF						16	4	7	3														
Bahrain	Mena Aerospace	MEN																								
Egypt	Alexandria Airlines	KHH																								
Egypt	Almasria Universal Airlines	LMU	UJ						1	1																
Egypt	Air Cairo	MSC	SM						4																	
Egypt	Egyptair	MSR	MS	2	1				13	4	11	1														
Egypt	Nile Air	NIA	NP						2																	
Egypt	Nesma Airlines	NMA	NM						3																	
Egypt	AMC Airlines	AMV	YJ																							
Egypt	Cairo Aviation	CCE																								
Egypt	Air Memphis	MHS	M1						0																	
Egypt	Midwest Airlines (Egypt)	MWA																								
Egypt	Air Arabia Egypt	RBG	E5						1																	
Egypt	Tristar Air	TSY			1																					
Egypt	Petroleum Air Services																									
Iran	Iran Aseman Airlines	IRC	EP									1												6		
Iran	Kish Air	IRK	Y9																							
Iran	Caspian Airlines	CPN	RV																							
Iran	Iran Air	IRA	IR	4	10	4			6																	
Iran	Iran Airtours	IRB	B9																							
Iran	Iranian Naft Airlines	IRG																								
Iran	Mahan Air	IRM	W5	14	4	10						2													6	11
Iran	Payam Air	IRP																								
Iran	Qeshm Airlines	IRQ		5																					1	
Iran	Safat Airlines	IRV																2								
Iran	Eram Air	IRY																								
Iran	Saha Air	IRZ																								
Iran	Zagros Airlines	IZG	ZV																							
Iran	Yas Air	MHD																				2				
Iran	Pouya Air	PYA																								
Iran	Fars Qeshm Air Lines	QFZ	QE																							
Iran	Taftan Air	SBT																								
Iran	HESA - Persian Gulf Airlines	SPN														6										
Iran	Taban Air	TBM	HH																							
Iran	ATA Air	TBZ	I3						3																	
Iran	Atrak Air								2																	
Iraq	Zagrosjet	GZQ	Z4							1																
Iraq	Iraqi Airways	IAW	IA						3	2	1															
Iraq	AlNaser Airlines	MHK	6N																							
Jordan	Jordan Aviation	JAV	R5			2			2		1															
Jordan	Royal Jordanian	RJA	RJ			2		4	5	4	2	0														

COUNTRY	Company	Boeing (McDonnell-Douglas) DC-9 M	Boeing (McDonnell-Douglas) MD-11 H	Boeing (McDonnell-Douglas) MD-80 M	Boeing (McDonnell-Douglas) MD-90 M	Boeing 707 M/H	Boeing 727 M	Boeing 737 (CFMI) M	Boeing 737 (JT8D) M	Boeing 737 (NG) M	Boeing 747 Classic H	Boeing 747-400 H	Boeing 747-8 H	Boeing 757 M	Boeing 767 H	Boeing 777 H	Boeing 787 H
Bahrain	DHL International Aviation EEMEA													3			
Bahrain	Gulf Air																
Bahrain	Mena Aerospace							1									
Egypt	Alexandria Airlines							2									
Egypt	Almasria Universal Airlines																
Egypt	Air Cairo																
Egypt	Egyptair							2		21						10	
Egypt	Nile Air																
Egypt	Nesma Airlines																
Egypt	AMC Airlines									1							
Egypt	Cairo Aviation																
Egypt	Air Memphis	1		1													
Egypt	Midwest Airlines (Egypt)									0							
Egypt	Air Arabia Egypt																
Egypt	Tristar Air																
Egypt	Petroleum Air Services																
Iran	Iran Aseman Airlines						5										
Iran	Kish Air			7													
Iran	Caspian Airlines			4													
Iran	Iran Air										7						
Iran	Iran Airtours			3													
Iran	Iranian Naft Airlines																
Iran	Mahan Air																
Iran	Payam Air																
Iran	Qeshm Airlines																
Iran	Safat Airlines																
Iran	Eram Air																
Iran	Saha Air					3											
Iran	Zagros Airlines			9													
Iran	Yas Air																
Iran	Pouya Air																
Iran	Fars Qeshm Air Lines																
Iran	Taftan Air																
Iran	HESA - Persian Gulf Airlines																
Iran	Taban Air			4													
Iran	ATA Air			6													
Iran	Atrak Air																
Iraq	Zagrosjet																
Iraq	Iraqi Airways								3	4		2			2	1	
Iraq	AlNaser Airlines							1							1		
Jordan	Jordan Aviation							6							3		
Jordan	Royal Jordanian																5

COUNTRY	Company	Bombardier (Canadair) CRJ Regional Jet M	Bombardier (Canadair) CRJ700 Regional Jet M	Bombardier (Canadair) CRJ900 Regional Jet M	Bombardier (DHC) Dash 7 M	Bombardier (DHC) Dash 8-100/200 M	Bombardier (DHC) Dash 8-300 M	Bombardier (DHC) Dash 8-400 M	CAIC MA60 M	Embraer 170 M	Embraer 175 M	Embraer 190 M	Embraer 195 M	Embraer ERJ-135 M	Embraer ERJ-145 M	Fokker 100 M	Fokker 50 M	Fokker 70 M	Fokker F_28 M	Ilyushin Il-62 H	Ilyushin Il-76 H	Ilyushin Il-86 H	Jetstream Jetstream 31 M	Lockheed Hercules M	Lockheed L-1011 TriStar H	Tupolev Tu-134 M	Tupolev Tu-154 M	Tupolev Tu-204 M	Yakovlev Yak-40 M	Yakovlev Yak-42 M	Total
Bahrain	DHL International Aviation EEMEA																														3
Bahrain	Gulf Air																														30
Bahrain	Mena Aerospace													1																	2
Egypt	Alexandria Airlines																														2
Egypt	Almasria Universal Airlines																														2
Egypt	Air Cairo																														4
Egypt	Egyptair									12																					77
Egypt	Nile Air																														2
Egypt	Nesma Airlines																														3
Egypt	AMC Airlines																														1
Egypt	Cairo Aviation																											4			4
Egypt	Air Memphis																														2
Egypt	Midwest Airlines (Egypt)																														0
Egypt	Air Arabia Egypt																														1
Egypt	Tristar Air																														1
Egypt	Petroleum Air Services			1	4		5																								10
Iran	Iran Aseman Airlines															14															26
Iran	Kish Air															3											1				11
Iran	Caspian Airlines																										4				8
Iran	Iran Air															14															45
Iran	Iran Airtours																										8				11
Iran	Iranian Naft Airlines															4	6														10
Iran	Mahan Air																														47
Iran	Payam Air																														0
Iran	Qeshm Airlines															4	4														14
Iran	Safat Airlines																														2
Iran	Eram Air																										1				1
Iran	Saha Air																														3
Iran	Zagros Airlines																														9
Iran	Yas Air																														2
Iran	Pouya Air																				2										2
Iran	Fars Qeshm Air Lines																													2	2
Iran	Taftan Air																1														1
Iran	HESA - Persian Gulf Airlines																														6
Iran	Taban Air																										1				5
Iran	ATA Air																														9
Iran	Atrak Air																														2
Iraq	Zagrosjet																														1
Iraq	Iraqi Airways			6																											24
Iraq	AlNaser Airlines																				1										3
Jordan	Jordan Aviation																														14
Jordan	Royal Jordanian										3		5																		30

COUNTRY	Company	ICAO	IATA	Airbus A300-600 H	Airbus A300B2/B4 H	Airbus A310 H	Airbus A318 M	Airbus A319 M	Airbus A320 M	Airbus A321 M	Airbus A330 H	Airbus A340 H	Airbus A380 H	Antonov An-12 M	Antonov An-124 H	Antonov An-140 M	Antonov An-24 M	Antonov An-26 M	Antonov An-30 M	Antonov An-32 M	Antonov An-72 M	Antonov An-74 M	ATR ATR 42 M	ATR ATR 72 M	Avro RJ Avroliner M	BAE SYSTEMS (HS) 146 M	Boeing (McDonnell-Douglas) DC-9 M	Boeing (McDonnell-Douglas) MD-11 H	Boeing (McDonnell-Douglas) MD-80 M	Boeing (McDonnell-Douglas) MD-90 M	Boeing 707 M/H	Boeing 727 M	Boeing 737 (CFMI) M	Boeing 737 (JT8D) M	Boeing 737 (NG) M	Boeing 747 Classic H	Boeing 747-400 H	Boeing 747-8 H	Boeing 757 M	Boeing 767 H	Boeing 777 H	Boeing 787 H	Bombardier (Canadair) CRJ Regional Jet M	Bombardier (Canadair) CRJ700 Regional Jet M	Bombardier (Canadair) CRJ900 Regional Jet M	Bombardier (DHC) Dash 7 M	Bombardier (DHC) Dash 8-100/200 M	Bombardier (DHC) Dash 8-300 M	Bombardier (DHC) Dash 8-400 M	CAIC MA60 M	Embraer 170 M	Embraer 175 M	Embraer 190 M	Embraer 195 M	Embraer ERJ-135 M	Embraer ERJ-145 M	Fokker 100 M	Fokker 50 M	Fokker 70 M	Fokker F_28 M	Ilyushin Il-62 H	Ilyushin Il-76 H	Ilyushin Il-86 H	Jetstream Jetstream 31 M	Lockheed Hercules M	Lockheed L-1011 TriStar H	Tupolev Tu-134 M	Tupolev Tu-154 M	Tupolev Tu-204 M	Yakovlev Yak-40 M	Yakovlev Yak-42 M	Total
Jordan	Jordan International Air Cargo	JCI	J4																																																							3										3
Jordan	Petra Airlines	PTR							1																																																													1
Jordan	Royal Falcon Airlines	RFJ	RL						1																								1																																							2
Jordan	Royal Wings	RYW	RY						1																																																													1
Jordan	Barq Aviation																																																																	0						0
Jordan	Elite Aviation																																																																	1						1
Jordan	Privilege Jet Airlines																																																																	1						1
Kuwait	Jazeera Airways	JZR	J9						9																																																													9
Kuwait	Kuwait Airways	KAC	KU	5		3			3			4																									1				2																															18
Kuwait	Gryphon Airlines	VOS	6P																															2																																						2
Kuwait	LoadAir Cargo																																				0																																			0
Lebanon	Middle East Airlines	MEA	ME						11	4	4																																																													19
Lebanon	TMA	TMA		1																																																																				1
Lebanon	Wings of Lebanon	WLB																															0																																							0
Libya	Afriqiyah Airways	AAW	8U					3	8		3																																																											14
Libya	Libyan Airlines	LAA	LN	1					7		2												2																						8																											20
Libya	Buraq Air	BRQ	UZ																														3		2																												1											6
Libya	Global Air	GAK	5S																																																											1	1									2
Libya	Ghadames Air Transport	GHT	0G						1																		2																																													3
Libya	Air Kufra	KAV																																																														1								1
Libya	Libo Air Cargo	LBO	6W																		1																																																			1
Libya	Libyan Air Cargo	LCR													2			11		3	2																																						1	8			1							28
Libya	Air Libya	TLR																							2	2						2		1																																				3		10
Oman	Oman Air	OMA	WY								7												2												15																	4																						28
Qatar	Qatar Airways	QTR	QR	3				2	32	12	30	4	4																												39	18																																		144
Republic of Yemen	Yemenia	IYE	IY			3			2		2																					1															3																1			2							14
Republic of Yemen	Felix Airways	FXX	F0																																								2	2						3																								7
Republic of Yemen	Barash Aviation																																																														1										1
Saudi Arabia	Saudia	SVA	SV						35	15	11																	4		3						9	4	2			33										15																							131
Saudi Arabia	nasair	KNE	XY				2		20																										2																		6	0																				30
Saudi Arabia	SNAS Aviation	RSE																														3																																								3
Sudan	Sudan Airways	SUD	SD	2		1			1																																																	3															7
Sudan	Alfa Airlines	AAJ															1	2																																											2										5
Sudan	Badr Airlines	BDR	J4																			2																																								2										4
Sudan	Blue Bird Aviation (Sudan)	BLB																																																																							0
Sudan	El Dinder Aviation	DND																																																												1										1
Sudan	Dove Air Services	DOV																1																																																1					2
Sudan	Feeder Airlines	FDD																																																								1															1
Sudan	Kata Transportation Company	KTV												1				1																																																							2
Sudan	Alok Air	LOK																																																																			1		1
Sudan	El Magal Aviation	MGG												1				1																																																							2
Sudan	Almajara Aviation	MJA																																																												1										1
Sudan	Marsland	MSL	M7															1															1																																									2
Sudan	Nova Airways	NOV	O9																														1										4																															5
Sudan	Mid Airlines	NYL																																																								2															2
Sudan	Sun Air	SNR															1																	2																																								3
Sudan	Tarco Air	TRQ																		1																																																			4	5
Sudan	Aviatrans	VTT																1																																																							1
Sudan	Air West Cargo																																																													1										1
Sudan	Ben Air																	2																																																						2
Sudan	Green Flag Aviation													1				1	1			2																																																		5
Sudan	Kush Aviation													1				1																																											2										4
Syria	Syrianair	SYR	RB						6															2																																						4					4			4		20

COUNTRY	Company	ICAO	IATA	Airbus A300-600 H	Airbus A300B2/B4 H	Airbus A310 H	Airbus A318 M	Airbus A319 M	Airbus A320 M	Airbus A321 M	Airbus A330 H	Airbus A340 H	Airbus A380 H	Antonov An-12 M	Antonov An-124 H	Antonov An-140 M	Antonov An-24 M	Antonov An-26 M	Antonov An-30 M	Antonov An-32 M	Antonov An-72 M	Antonov An-74 M	ATR ATR 42 M	ATR ATR 72 M	Avro RJ Avroliner M	BAE SYSTEMS (HS) 146 M
United Arab Emirates	Air Arabia	ABY	G9						31																	
United Arab Emirates	Etihad Airways	ETD	EY					2	28		34	11	1													
United Arab Emirates	Emirates Airline	UAE	EK					1			23	12	57													
United Arab Emirates	Falcon Express Cargo Airlines	FCX	FC																							
United Arab Emirates	FlyDubai	FDB	FZ																							
United Arab Emirates	Global Jet Airlines	GBG		2																						
United Arab Emirates	Midex Airlines	MIX	MG		4																					
United Arab Emirates	Maximus Air	MXU		3																						
United Arab Emirates	Rotana Jet	RJD	RG					2																		
United Arab Emirates	RAK Airways	RKM	RT						2																	
United Arab Emirates	Abu Dhabi Aviation																									
United Arab Emirates	Global Charter Services				2																					
United Arab Emirates	MMA Airline																									
United Arab Emirates	Noor Air Company																									
United Arab Emirates	SKA Air & Logistics (SkyLink Arabia)																									
Total				42	22	25	2	14	260	47	138	38	62	4	2	6	2	24	1	4	3	6	4	8	9	13

Company	Boeing (McDonnell-Douglas) DC-9 M	Boeing (McDonnell-Douglas) MD-11 H	Boeing (McDonnell-Douglas) MD-80 M	Boeing (McDonnell-Douglas) MD-90 M	Boeing 707 M/H	Boeing 727 M	Boeing 737 (CFMI) M	Boeing 737 (JT8D) M	Boeing 737 (NG) M	Boeing 747 Classic H	Boeing 747-400 H	Boeing 747-8 H	Boeing 757 M	Boeing 767 H	Boeing 777 H	Boeing 787 H	Bombardier (Canadair) CRJ Regional Jet M	Bombardier (Canadair) CRJ700 Regional Jet M	Bombardier (Canadair) CRJ900 Regional Jet M	Bombardier (DHC) Dash 7 M	Bombardier (DHC) Dash 8-100/200 M	Bombardier (DHC) Dash 8-300 M	Bombardier (DHC) Dash 8-400 M
Air Arabia																							
Etihad Airways															32	2							
Emirates Airline															157								
Falcon Express Cargo Airlines																							
FlyDubai									35														
Global Jet Airlines							3																
Midex Airlines										3													
Maximus Air																							
Rotana Jet																							
RAK Airways																							
Abu Dhabi Aviation																					2	3	1
Global Charter Services																							
MMA Airline								1															
Noor Air Company																							
SKA Air & Logistics (SkyLink Arabia)						1																	
Total	3	4	34	3	3	12	21	9	80	19	7	2	3	6	274	25	6	2	15	4	5	8	1

Company	CAIC MA60 M	Embraer 170 M	Embraer 175 M	Embraer 190 M	Embraer 195 M	Embraer ERJ-135 M	Embraer ERJ-145 M	Fokker 100 M	Fokker 50 M	Fokker 70 M	Fokker F_28 M	Ilyushin Il-62 H	Ilyushin Il-76 H	Ilyushin Il-86 H	Jetstream Jetstream 31 M	Lockheed Hercules M	Lockheed L-1011 TriStar H	Tupolev Tu-134 M	Tupolev Tu-154 M	Tupolev Tu-204 M	Yakovlev Yak-40 M	Yakovlev Yak-42 M	Total
Air Arabia																							31
Etihad Airways																							110
Emirates Airline																							250
Falcon Express Cargo Airlines																							0
FlyDubai																							35
Global Jet Airlines																							5
Midex Airlines																							7
Maximus Air																							3
Rotana Jet							3																5
RAK Airways																							2
Abu Dhabi Aviation																							6
Global Charter Services																							2
MMA Airline																							1
Noor Air Company													1										1
SKA Air & Logistics (SkyLink Arabia)										1	2												4
Total	3	27	7	6	5	1	3	39	17	1	2	1	32	1	1	3	2	5	15	4	8	6	1471

APPENDIX 3I

CFIT Detailed Implementation Plan

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
RAST-MID/CFIT/1	The implementation of PBN Approach procedures to all runways not currently served by precision approach procedures	Safety Management Standarzation: Implementation of risk-based standarization Safety Oversight Standarization: Promotion of Compliance with National Regulations and Adoption of Industry Best Practices	BP-GEN-1 BP-GEN-2 BP-GEN-4 BP-STD-S-12 BP-STD-S-13	High	Difficult	P3	1	Long-Term

Safety Enhancement Action (expanded)	Introduction of PBN approaches to ensure that the latest performance based navigation technology is utilized, at such airfields, to provide the highest level of safety during the conduct of an approach and landing towards the runway.
Statement of Work	In an attempt to mitigate the risks related to CFIT, States should ensure that approach procedures are adequate and provide sufficient altitude protection during the approach and landing phase especially at the identified Higher Risk Airports. Also ensure that pilots and controllers training and guidance in the use of PBN is adequate, current, uniformly conducted and supports the optimum utilization of automation resources so that individuals can take a monitoring role.
Champion Organization	IATA/CANSO
Human Resources	Regulators CAA Operational Support Service Procedure Designers Air Navigation Service Providers (ANSP)
Financial Resources	TBD

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
Relation with Current Aviation Community Initiative		IATA & ICAO are jointly developing a CFIT toolkit addressing the CFIT contributing AST safety enhancements addressing the CFIT contributing factors CAST safety enhancements addressing the CFIT contributing factors Partnership between airlines and Flight Procedures Design consulting firms such as Airbus (ProSky) & Etihad Airways for the creation of PBN approaches at specific airfields. These new technology approaches provide continuous descent operations and optimised trajectories. This will enhance flight safety which is at the heart of the PBN Implementation Plan effort.						
Performance Goal		In accordance with the MID Region Safety Strategy.						
Indicators		In accordance with the MID Region Safety Strategy.						
Key Milestones (Deliverables)		1. Identify and prioritize the airports/runways which require specific PBN approaches. *Aircraft Operators FOQA programmes to monitor data (consistency and accuracy of the Operator's fleet for each selected "high risk/special airport) and provide a summary of stable/unstable approaches to MID-RAST each quarter).* 2. Concerned States, CANSO, IATA and ICAO to establsh a Work Force to develop an appropriate detailed action plan for the implementation of PBN approaches at the identified airports/runways. 3. implementation of PBN approach procedures at the identified airports/runways in accordamce with their associated action plans.						
Potential Blockers								
Responsible		Core Team: IATA, CANSO, ICAO, States and Users						
DIP Notes								

APPENDIX 3J

Regional Aviation Safety Group-Middle East
(RASG-MID)

RASG-MID SAFETY ADVISORY – XXX (RSA-xxx)

Guidance material related to call sign similarity

Introduction:

Call sign similarity and confusion has been identified as a safety issue by the Second Meeting of the Middle East Regional Aviation Safety Group (RASG-MID/2) (Abu Dhabi, UAE, 12 – 14 November 2012).

The MIDANPIRG Steering Committee (MSG/4) recognized the urgency of implementing mitigation measures for the call sign similarity and confusion and agreed to establish a Call Sign Confusion ad-hoc Working Group (CSC WG) to develop solutions to mitigate the risk associated with call sign confusion. The CSC WG developed Draft Safety Enhancement Initiative (SEI) and Detailed Implementation Plans (DIPs) related to call sign similarity/confusion of which DIP 4 item 2 calls for the development of call sign similarity rules and guidance material.

The purpose of this Safety Advisory is to develop a clear set of guidelines and similarity rules for airline operators and air traffic controllers that will prevent to the extent possible the call sign confusion.

Description

An aircraft call sign is a group of alphanumeric characters used to identify an aircraft in air-ground communications. The rules governing the use of aircraft call signs are laid down in ICAO Annex 10: Aeronautical Communications, Volume II - Communication Procedures, Chapter 5. Relevant paragraphs are summarized below.

Three different types of aircraft call sign may be encountered (see table below), as follows:

Type (a) The characters corresponding to the registration marking of the aircraft (e.g. ABCDE). The name of the aircraft manufacturer or model may be used as a prefix (e.g. Airbus ABCDE);

Type (b) The telephony designator of the aircraft operating agency, followed by the last four characters of the registration marking of the aircraft (e.g. Rushair BCDE);

Type (c) The telephony designator of the aircraft operating agency, followed by the flight identification (e.g. Rushair 1234).

Examples of Full Call Signs and Abbreviated Call Signs				
	Type (a)		Type (b)	Type (c)
Full Call Sign	ABCDE	Airbus ABCDE	Rushair BCDE	Rushair 1234
Abbreviated Call Sign	ADE or ACDE	Airbus DE or Airbus ABDE	Rushair DE or Rushair BDE	No abbreviated form

The full call sign must be used when establishing communications. After satisfactory communication has been established, abbreviated call signs may be used provided that no confusion is likely to arise; however, **an aircraft must use its full call sign until the abbreviated call sign has been used by the ground station**.

Most airline call signs belong to type (c) for which there is no abbreviation. An aircraft is not permitted to change its call sign during flight, **except** temporarily on the instruction of an air traffic control unit in the interests of safety.

In order to avoid any possible confusion, when issuing ATC clearances and reading back such clearances, controllers and pilots must always add the call sign of the aircraft to which the clearance applies.

The use of similar call signs by aircraft operating in the same area and especially on the same RTF frequency often gives rise to potential and actual flight safety incidents. This hazard is usually referred to as "call sign confusion".

ICAO Doc4444 Change of radiotelephony call sign for aircraft:

An ATC unit may instruct an aircraft to change its type of RTF call sign, in the interests of safety, when similarity between two or more aircraft RTF call signs are such that confusion is likely to occur.

Any such change to the type of call sign shall be temporary and shall be applicable only within the airspace(s) where the confusion is likely to occur.

To avoid confusion, the ATC unit should, if appropriate, identify the aircraft which will be instructed to change its call sign by referring to its position and/or level.

When an ATC unit changes the type of call sign of an aircraft, that unit shall ensure that the aircraft reverts to the call sign indicated by the flight plan when the aircraft is transferred to another ATC unit, except when the call sign change has been coordinated between the two ATC units concerned.

The appropriate ATC unit shall advise the aircraft concerned when it is to revert to the call sign indicated by the flight plan.

The following are some examples of the more common causes for call sign confusion:

- Airlines allocate commercial flight numbers as call-signs; these are normally consecutive and therefore similar (e.g. RUSHAIR 1431, RUSHAIR 1432, etc.)
- Airlines schedule flights with similar call signs to be in the same airspace at the same time.
- Call signs coincidentally contain the same alphanumeric characters in a different order (e.g. AB1234 and BA 2314).
- Call signs contain repeated digits (e.g. RUSHAIR 555).

Recommended Solutions

- Many larger airlines operate call sign de-confliction programmes. These involve reviewing company call signs to ensure that aircraft with similar call signs are not likely to be routinely in the same airspace at the same time, and a process to systematically resolve ongoing issues arising from reports of similar call signs from their flight crew, ANSPs or other operators
- Airline Operators with high flight densities in particular airspace should consider routinely using a combination of numeric and alphanumeric call sign formats.
- Airline Operators should observe the following guidance in selecting call signs:
    - Avoid the use of similar call signs within the company;

- Where practicable, proactively co-ordinate with other operators to minimize similar numeric and alphanumeric elements of call signs;
- Avoid call signs with a four-number sequence; all-numeric call signs should be limited to a maximum of three digits;
- Do not use the same digit repeated more than once (e.g. RUSHAIR 555);
- If letter suffixes are to be used with a preceding number sequence, limit the full string to a maximum of four alphanumeric components and, to the extent possible, coordinate letter combinations with other airspace and airport users;
- Do not use alphanumeric call signs which have their last two letters as the destination's ICAO location indicator (e.g. RUSHAIR 25LL for a flight inbound to London Heathrow);
- If similarly-numbered call signs are unavoidable within a company, allow a significant time (at least 3 hours at any shared-use vicinity) and/or geographical split between aircraft using them;
- Do not use similar/reversed digits/letters in alphanumeric call-signs (e.g. RUSHAIR 87MB and RUSHAIR 78BM).
- For short haul flights, avoid using number sequences for particular routes which begin the day with.01 and then continue sequentially through the day.

Call Sign Similarity 'Rules'

Agreement on and publication of 'Similarity' is a relative term and means different things to different people. The CSC WG/1 recommended the use of the call sign similarity rules of EUROCONTROL; this was later endorsed by the RASG-MID/4 meeting. The following table provides details on the similarity rules adopted by the MID Region.

MID Region Call Sign Similarity Rules

Based on the EUROCONTROL - OPS NM18.5 (currently 21 rules implemented in the EUROCONTROL Call Sign Similarity Tool (CSST) OPS as Global recommended rules).

The call sign similarity rules are divided into three categories: Level One, Two and Three.

SIMILARITY RULES LEVEL ONE

Level One rules apply to a single call sign (entity conflict).

1	Acceptable ATC Flight Formats	n,nA,nAA,nn,nnA,nnAA,nnn,nnnA,nnnn
2	Avoid Triple Repetition	444, 1444
3	FL Values Avoid Use of 200-480 at end	ABC1350, ABC200
4	Avoid Use of the letter S at the end of a Flight ID (To avoid confusion with the number 5 on flight strip or radar display)	ABC13S
5	Include anywhere O, I (Avoid confusion with 0 (zero) and 1 One on flight	ABC12**O**B, ABC456**I**

	strip or radar display)	
6	UKNATS Local Rule (Avoid PH, PK, PD, PF at end of call sign in airspace EGP*)	ABC34PH
7	UKNATS Local Rule (Avoid AC,BB, CC,FF, GW, HI, JJ, KK, LC, LF,LL at end of call sign landing at aerodrome EG*)	ABC64LL destination EG*
8	Avoid QNH_QFE values HIGH 1000-1030	ABC1000, ABC1013
9	Avoid QNH-QFE LOW 985-999	ABC985, ABC986
10	Avoid exact match of 28G	ABC28G request from SENASA Spain

SIMILARITY RULES LEVEL TWO (applying to flights which overlap)

Level Two rules apply to flights which overlap in time and space according to the buffer times and airspace profile.

1	Avoid Identical Bigrammes		IB345BB and AF231BB
2	Identical Final Digits	(used with parameter 0) Conflict when the last 3 digits of CS1 are equal to the last 3 digits of CS2. Note the difference with the normal identical final digits 3: whereas before AFR123A and AFR123B would not have been caught the new behaviour '0' will catch it. Conflict when the last 3 characters of CS1 and CS2 are digits and are equal.	
3	Avoid Identical Flight ID	To avoid same Flight ID being used or proposed twice in the schedule for different CFN's.	e.g. you cannot have CFN1234 = FIN12A CFN3655 = FIN12A. In the same schedule
4	Anagrams	Contains normal anagram behaviour plus: Conflict when the distinct characters of CS1 are present in CS2 and when the distinct characters of CS2 are present in CS1. Example AFR155A vs. AFR511A. Partial anagrams are also considered (4 v 4) 1180 v1008	123 v 321 4 v 444 12 v 612
5	Parallel Characters	a) parallel characters 3 e.g. 2365 vs 1365 or 1235 vs 1435 b) when length of CS1 = length of CS2: Identical Final Two characters (alpha or numeric) d) When: CS1 = 3 characters and CS2 = 4 characters, CS1 = 3 characters and CS2 = 5 characters,	

		CS1 = 4 characters and CS2 = 4 characters, CS1 = 4 characters and CS2 = 5 characters , CS1 = 5 characters and CS2 = 5 characters: • First character + last character equal in both CS + one more additional character in common e.g. (AFR1025 AFR1295), (AFR102A AFR12QA). • First character + second character equal in both CS + one more additional letter in common e.g. AFR102A AFR10AB. • When length CS1 is (3) and CS2 is (4): First character + second character equal + both CS contain at least one letter e.g. AFR10A and AFR10CD. e) When CS length 2 vs. 3 , 2 vs. 4, 2 vs. 5: • Conflict when the longest CS contains the CS length 2 e.g. AFR10D and AFR101B f). When CS length 2 vs. 2, 1 vs. 2, 1 vs. 3, • Conflict when both CS start with the same character or end with the same character Length 2 vs. 4 should only be a conflict when first 2 digits are identical and same position (example 12 vs. 1234 would be conflict but 12 versus 2134 is not a conflict).	
6	2 letter anagram	Avoid Call Signs having last two letters as anagram	ABC31BA vs. ABC56AB
7		Length 2 vs.: Length 3 with first and last symbol in common	4A v 41A
8		Length 3 vs. 3: one digit in common and same last letter	89A v 91A
9		Length 4 vs. Length 4: one digit and 1 letter in common (does not apply where bigrammes are involved ex. 56EV vs. 26AV)	123A v 516A

SIMILARITY RULES APPLYING TO ALL FLIGHT PAIRS

Level 3 rules apply even if flights don't overlap.

1	Same Flight ID needs same CFN	Similar to the avoidance of identical Flight ID rule above but applies to flights even when they don't overlap/conflict. This is to avoid the same Flight ID being used twice in the schedule for two different CFNs. Example, if you change FIN 2345 to Flight ID FIN45G then the tool will raise a warning if you try	

		to again use FIN45G for another CFN e.g. FIN 6555 and FIN45G will raise warning because you already used it for FIN2345.	
2	Unique Numeric Flight ID	A flight with a numeric Flight ID and having a CFN different from its Flight ID cannot have a Flight ID equal to the CFN of another flight in the schedule	CFN 1234 ATC Flight ID **565** CFN **565** ATC Flight ID 45Y

Buffer Times: Aerodrome 10 minutes – 40 minutes, Airspace arrival time 10 minutes- 40 minutes.

References

- ICAO Doc's
- Eurocontrol
- Industry best practice

APPENDIX 3K

Call Sign Similarity/Confusion Reporting Template

Case	**Reporting ANSP or AO**	**Place of occurrence** (Airport, sector, etc)	**Date of occurrence** (26/04/2013)	**Time** (UTC)	**Call signs** (one line for each)	**Departure airport** (ICAO 4-letter code)	**Arrival airport** (ICAO 4-letter code)	**Type of aircraft** (ICAO type desig)	**Aircraft Operator** (ICAO 3-letter code)	**Type of Occurrence** (CSS or CSC)	**AO using CSST** (YES or NO)
1											
2											
3											
4											
1											
2											

APPENDIX 3L

Detailed Implementation Plan

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-SST/01	Improve status of implementation of State Safety Programs (SSPs) in the MID Region	Refer to the SEI	Refer to the SEI	High	Difficult	P3	1	Mid Term

Safety Enhancement Action (expanded)	ICAO safety management provisions require States to establish a State Safety Programme (SSP) in order to achieve an Acceptable Level of Safety (ALoS) in Civil Aviation.
Statement of Work	Establishment of an RSOO to support States in the implementation of SSP in an expeditious manner.
Champion Organization	ICAO
Human Resources	1. SST 2. ICAO 3. States 4. Industry 5. ACAC
Financial Resources	Options will be explored by SST as required (funds from States or other safety partners).
Relation with Current Aviation Community Initiative	

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
Performance Goal		1. Achieve acceptable level of safety in Civil Aviation. 2. Achieve MID- Region saftey strategy targets.						
Indicators		In accordance with the MID Region Safety Strategy.						
Key Milestones (Deliverables)		1- Promote the establishment of an RSOO-SSP during the Second MID Safety Summit (Oman, 27-29 April 2014, particularly through the high-level briefing/meeting (DGs and CEOs)). 2- Send out a questionnaire to the MID States in order to get the States' interest and commitment to the establishment of an RSOO-SSP to support States in the implementation of SSP. 3- Analyze the States' replies and develop a summary report. 4- Coordinate with ICAO MID Regional Office and ACAC in order to consider the proposal of establishment of an RSOO-SSP in the Study on the establishment of RSOO(s) for ACAC and MID Region States, which will start early 2015.						
Potential Blockers		1. Lack of necessary expertise Subject to the course of action that will be take: 1. Regional Cooperation 2. Institutional issues 3. Financial constraints						
Responsible		Core Team: ICAO, IATA,Region states,operators,Boeing,Airbus & COSCAP-GS.						
DIP Notes								

APPENDIX 3M

Detailed Implementation Plan Template

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-SST/02	Giudance for SMS	Refer to the SEI	Refer to the SEI	High	Moderate	P2	1	Mid Term

Safety Enhancement Action (expanded)	States to provide guidance materials for its personnel (Procedures and check-lists) related to SMS.
Statement of Work	Procedures/Check-list for the use of the CAAs inspectors have been developped by COSCAP-GS Project and are already uploaded on the website (http://www.coscap-gs.org/SMS-Related-CAA-Procedures.php)
Champion Organization	COSCAP-GS
Human Resources	COSCAP-GS
Financial Resources	No special finance needed, since the material is already developped.
Relation with Current Aviation Community Initiative	

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
Performance Goal		Support the achievement of MID- Region saftey strategy targets related to SSP.						
Indicators		In accordance with the MID region safety strategy.						
Key Milestones (Deliverables)		Thirteen (13) Procedures and Check-lists for the use of the CAAs inspectors. The documents are also available on WORD version for an easy use by the States: 0- Assessment document-Review Guide. 1- Assessment 1.1 _ Management commitment. 2- Assessment 1.2_Safety accountabilities. 3- Assessment 1.3_Key safety personnel. 4- Assessment 1.4_Coordination of emergency_Rescue. 5- Assessment 1.5_SMS Documentation. 6- Assessment 2.1_Hazard Identification. 7- Assessment 2.2_Risk Assessment. 8- Assessment 3.1_Safety Performance Management. 9- Assessment 3.2_Management of change. 10-Assessment 3.3_Continuous Improvement. 11-Assessment 4.1_Training and Education. 12-Assessment 4.2_Safety Communication.						
Potential Blockers		No special finance needed.						

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
Responsible		Core Team: COSCAP-GS						
DIP Notes								

APPENDIX 3N

Detailed Implementation Plan

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
MID-SST/03	Establish and Implement an SSP action plan in the MID - Region States	Refer to the SEI	Refer to the SEI	High	Moderate	P2	1

Safety Enhancement Action (expanded)	SSP and SMS Worshops for managers/decision makers and technical staff.
Statement of Work	Provide SSP/SMS Workshops
Champion Organization	COSCAP-GS with the support of ICAO.
Human Resources	1. ICAO/ COSCAP-GS 2. Short term experts/trainers to be hired by the COSCAP-GS for the purpose of the training missions.
Financial Resources	Under the approval of member States, COSCAP-GS budget will be used. Sponsoring will also be needed.
Relation with Current Aviation Community Initiative	

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
Performance Goal		1. Awareness raising of CAAs' managers, decision makers and technical personnel. 3. Achieve the MID Region Safety Strategy Targets.					
Indicators		Support the achievement of MID Region Safety Strategy Targets related to SSP.					
Key Milestones (Deliverables)		A joint ICAO MID Regional Office/COSCAP-GS Safety Management Workshop (Kuwait, 26-28 May 2015); and 2 day Workshop on Annex 19 and SMM to be conducted on request by the MID States (2 Workshops are already planned in Kuwait and Bahrain, beginning of 2015)					
Potential Blockers		1. Shortage in Human resources (inspectors) to be trained. 2.Security and political issues in some States that could jorpardise the travel missions.					
Responsible		Core Team: ICAO, COSCAP-GS, Safety Partners and MID Region States.					
DIP Notes							

APPENDIX 3O

PROPOSALS FOR THE ESTABLISHMENT OF AN RSOO FOR MENA STATES

Proposal 1: An RSOO for the MENA Group of States should be established.

Proposal 2: A minimum of five State signatories to the Letter of Intent for establishing the MENA RSOO is required to start the process of establishment.

Proposal 3: The primary objective of the RSOO should be to assist member States to develop and implement SSP (core service).

Proposal 4: The RSOO should also assist States to resolve safety oversight deficiencies, and thereby achieve compliance with international requirements (on demand services).

Proposal 5: The RSOO should have an advisory/consultative mandate, under which member States would hold it accountable for the performance of certain tasks and functions, whilst retaining their sovereign responsibilities.

Proposal 6: The RSOO should carry out a range of activities to support the implementation of SSP, in particular safety risk management, safety assurance and the establishment of an Acceptable Level of Safety Performance (ALoSP).

Proposal 7: With respect to safety oversight, the RSOO should carry out tasks and functions in the area of PEL, OPS, AIR, AGA and ANS.

Proposal 8: Safety oversight activities of the RSOO should include harmonization of regulations, development of guidance materials, the conduct of audits and inspections, training and consultancies.

Proposal 9: The RSOO should perform its duties and functions within the framework of the GASP by assisting its States to achieve the RASGs' safety objectives and targets.

Proposal 10: The RSOO should make regular reports on the status of its activities to the ACAC Safety Committee and the relevant RASGs.

Proposal 11: The MENA RSOO should be first established on the basis of an MOU/MOC/MOA.

Proposal 12: The establishment of the MENA RSOO on the basis of an MOU should not preclude its later transitioning to a formal inter-governmental agreement/treaty, if so decided by the RSOO's Board.

Proposal 13: The MOU should provide the RSOO with legal personality, thus enabling it to act independently.

Proposal 14: The MOU should be binding on the signatories to the agreement.

Proposal 15: The primary source of funding for the common core functions of the RSOO should be contributions made in equal amounts by member States.

Proposal 16: Funding for services provided on demand to individual States should be on the basis of fees to be charged to the beneficiary States (cost recovery basis).

Proposal 17: Both business and financial plans should be developed to support the establishment of the RSOO.

Proposal 18: In order to reduce cost, and when appropriate, the RSOO should use technical personnel seconded by States, the recruitment of short-term consultants and the implementation of an inspector sharing scheme.

APPENDIX 3P

FUTURE ACTIVITIES AND WORK PLAN FOR ESTABLISHING THE RSOO-MENA

- Signing Letter of Intent for establishing RSOO – June 2015
- Establishment of Steering Committee – June2015
- Obtaining funding (US$ 150,000) – October 2015 (to explore all possible sources)
- Recruitment of Consultant - January 2016
- Initial review of outputs by High Level Task Force (HLTF) – May 2016
- Approval of outputs by Steering Committee and signing of the MOU – June 2016
- Launch of RSOO (including recruitment of staff) – January 2017

RASG-MID/4-REPORT
APPENDIX 3O

Regional AviationSafety Group-Middle East

RASG-MID

MID Region Safety Strategy

Revision 2, April 2015

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MID Region Safety Strategy

1. Strategic Safety Objective

1.1 Continuous improvement of aviation safety through a progressive reduction of the number of accidents and related fatalities in the MID Region to be in line with the global average, based on reactive, proactive and predictive safety management practices.

2. Safety Objectives

2.1 States and regions must focus on their safety priorities as they continue to foster expansion of their air transport sectors.

2.2 The ICAO Global Aviation Safety Plan (GASP) establishes targeted safety objectives and initiatives while ensuring the efficient and effective coordination of complementary safety activities between all stakeholders.

2.3 The GASP includes a framework comprised of measurable objectives, supported by Safety Performance Areas and associated safety initiatives.

2.4 One of the strengths of the GASP is that while setting global objectives and priorities, it allows States and Regions to plan and establish their own specific approaches towards meeting these objectives and priorities according to each Member State's safety oversight capabilities, SSPs and safety processes necessary to support the air navigation systems of the future.

2.5 The MID Region safety objectives are in line with the GASP objectives and address specific safety risks identified within the framework of the Regional Aviation Safety Group-Middle East (RASG-MID), based on the analysis of available safety data.

GASP Objectives

2.6 The enhancement of communication and information exchange between aviation Stakeholders and their active collaboration under the framework of RASG-MID would help achieving the MID Region safety objectives in an expeditious manner.

3. Measuring and monitoring Safety Performance:

3.1 The first version of the MID Region Safety Strategy was developed by the First MID Region Safety Summit (Bahrain, 28-29 April 2013) and endorsed by the DGCA-MID/2 meeting (Jeddah, Saudi Arabia, 20 -22 May 2013).

3.2 The monitoring of safety performance and its enhancement is achieved through identification of relevant Safety Themes and Indicators as well as the adoption and attainment of Safety Targets.

3.3 The following are the MID Region Safety Themes endorsed for the monitoring of safety performance:

1) Accidents;

2) Runway Safety (RS);

3) Loss of Control In-Flight (LOC-I);

4) Controlled Flight Into Terrain (CFIT);

5) Safety oversight capabilities (USOAP-CMA, IOSA and ISAGO);

6) Aerodrome Certification; and

7) SSP/SMS Implementation.

3.4 The MID Region Safety Indicators and Targets are detailed in the Table below:

	Theme	Safety Indicator	Safety Target
1	Accidents	Number of accidents per million departures	Reduce/Maintain the regional average rate of accidents to be in line with the global average rate by 2016.
		Number of fatal accidents per million departures	Reduce/Maintain the regional average rate of fatal accidents to be in line with the global average rate by 2016.
2	Runway Safety (RS)	Number of Runway Safety related accidents per million departures	Reduce/Maintain the regional average rate of Runway Safety related accidents to be below the global average rate by 2016.
			Reduce/Maintain the Runway Safety related accidents to be less than 1 accident per million departures by 2016.
		Number of established Runway Safety Team (RST) at MID International Aerodromes	50% of the international aerodromes by 2020.
3	Loss of Control In-Flight (LOC-I)	Number of LOC-I related accidents per million departures	Reduce/Maintain the regional average rate of LOC-I related accidents to be below the global rate by 2016.
4	Controlled Flight Into Terrain (CFIT)	Number of CFIT related accidents per million departures	Reduce/Maintain the regional average rate of CFIT related accidents to be below the global rate by 2016.

	Theme	Safety Indicator	Safety Target
5	Safety oversight capabilities (USOAP-CMA, IOSA and ISAGO)	USOAP-CMA Effective Implementation (EI) results: a. Regional average EI. b. Number of MIDStates with an overall EI over 60%. c. Number of MIDStates with an EI score less than 60% for more than 2 areas (LEG, ORG, PEL, OPS, AIR, AIG, ANS and AGA).	Progressively increase the USOAP-CMA EI scores/results: a. Increase the regional average EI to be above 70% by 2020. b. 11 MID States to have at least 60% EI by 2020. c. Max 3 MIDStates with an EI score less than 60% for more than 2 areas by 2017.
		Number of Significant Safety Concerns	a. MID States resolve identified Significant Safety Concerns as a matter of urgency and in any case within 12 months from their identification. b. No significant Safety Concern by 2016.
		Use of the IATA Operational Safety Audit (IOSA), to complement safety oversight activities	a. Maintain at least 60% of eligible MID airlines to be certified IATA-IOSA by 2015 at all times. b. All MID States with an EI of at least 60% accept the IATA Operational Safety Audit (IOSA) as an acceptable Means of Compliance (AMC) by 2015 to complement their safety oversight activities.
		Number of Ground Handling service providers in the MID Region having the IATA Safety Audit for Ground Operations (ISAGO) certification, as a percentage of all Ground Handling service providers	a. 75% of the Ground Handling service providers to be certified IATA-ISAGO by the 2017. b. The IATA Ground Handling Manual (IGOM) endorsed as a reference for ground handling safety standards by all MID States with an EI above 60% by 2017.

	Theme	Safety Indicator	Safety Target
6	Aerodrome Certification	Number of certified international aerodrome as a percentage of all international aerodromes in the MID Region	a. 50% of the international aerodromes certified by 2015. b. 75% of the international aerodromes certified by 2017.
7	SSP/SMS Implementation	Number of MID States, having completed the SSP gap analysis on iSTARS	10 MID States by 2015.
		Number of MID States, that have developed an SSP implementation plan	10 MID States by 2015.
		Number of MID States with EI>60%, having completed implementation of SSP Phase 1.	All MID States with EI>60% to complete phase 1 by 2016.
		Number of MID States with EI>60%, having completed implementation of SSP Phase 2.	All MID States with EI>60% to complete phase 2 by 2017.
		Number of MID States with EI>60%, having completed implementation of SSP Phase 3.	All MID States with EI>60% to complete phase 3 by 2018.
		Number of MID States with EI>60%, having completed implementation of SSP	All MID States with EI>60% to complete SSP implementation by 2020
		Number of MID States with EI>60% that have established a process for acceptance of individual service providers' SMS.	a. 30% of MID Stateswith EI>60% by 2015. b. 70% of MID Stateswith EI>60% by 2016. c. 100% of MID Stateswith EI>60% by 2017.

4. Governance

4.1

4.2 The MID Region Safety Strategy will guide the work of RASG-MID and all its member States and partners.

4.3 The RASG-MID will be the governing body responsible for the review and update of the Strategy, as deemed necessary.

4.4 Progress on the implementation of the MID Region Safety Strategy and the achievement of the agreed Safety Targets will be reported to the ICAO Air Navigation Commission (ANC), through the review of the RASG-MID reports; and to the stakeholders in the Region during the MID Region Safety Summits.

APPENDIX 3R

STATUS OF THE MID REGION SAFETY INDICATORS vs. THE SAFETY TARGETS

Reactive Safety Information

Theme	Safety Indicator	MID Region Current Status		Safety Target	Global	
		Average Rate (2009-2013)	Rate for 2013		Average Rate (2009-2013)	Rate for 2013
Accidents	Number of accidents per million departures	**7.28**	**3.7**	Reduce/Maintain the regional average rate of accidents to be in line with the global average rate by 2016	**3.72**	**2.9**
	Number of fatal accidents per million departures	**1.69**	**0**	Reduce/Maintain the regional average rate of fatal accidents to be in line with the global average rate by 2016	**0.53**	**0.29**
Runway Safety (RS)	Number of Runway Safety related accidents per million departures	**3.98**	**1.8**	Reduce/Maintain the regional average rate of Runway Safety related accidents to be below the global average rate by 2016	**1.98**	**1.8**
				Reduce/Maintain the Runway Safety related accidents to be less than 1 accident per million departures by 2016	N/A	
	Number of established Runway Safety Team (RST) at MID International Aerodromes	**TBD**	**TBD**	50% of the international aerodromes by 2020	**TBD**	**TBD**
Loss of Control In-Flight (LOC-I)	Number of LOC-I related accidents per million departures	**0.61**	**0**	Reduce/Maintain the regional average rate of LOC-I related accidents to be below the global rate by 2016	**0.08**	**0.1**
Controlled Flight Into Terrain (CFIT)	Number of CFIT related accidents per million departures	**0.42**	**0**	Reduce/Maintain the regional average rate of LOC-I related accidents to be below the global rate by 2016.	**0.12**	**0.1**

Proactive Safety Information

Theme	Safety Indicator	Safety Target	MID
Safety oversight capabilities (USOAP-CMA, IOSA and ISAGO)	USOAP-CMA Effective Implementation (EI) results: a. Regional average EI. b. Number of MIDStates with an overall EI over 60%. c. Number of MID States with an EI score less than 60% for more than 2 areas (LEG, ORG, PEL, OPS, AIR, AIG, ANS and AGA).	Progressively increase the USOAP-CMA EI scores/results: a. Increase the regional average EI to be above 70% by 2020. b. 11 MID States to have at least 60% EI by 2020. c. Max 3 MID States with an EI score less than 60% for more than 2 areas by 2017.	Regional average EI (71%) Currently 9 States out of 13 audited States are with EI>60% 7 States with an EI score less than 60% for more than 2 areas
	Number of Significant Safety Concerns	a. MID States resolve identified Significant Safety Concerns as a matter of urgency and in any case within 12 months from their identification. b. No significant Safety Concern by end of 2016.	1 SSC
	Use of the IATA Operational Safety Audit (IOSA), to complement safety oversight activities	a. Maintain at least 60% of eligible MID airlines to be certified IATA-IOSA by the end of 2015 at all times. b. All MID States with an EI of at least 60% accept the IATA Operational Safety Audit (IOSA) as an acceptable Means of Compliance (AMC) by 2015 to complement their safety oversight activities.	a. 69% b. 2 out of 9 States have IOSA as AMC
	Number of Ground Handling service providers in the MID Region having the IATA Safety Audit for Ground Operations (ISAGO) certification, as a percentage of all Ground Handling service providers	a. 75% of the Ground Handling service providers to be certified IATA-ISAGO by the end of 2017. b. The IATA Ground Handling Manual (IGOM) endorsed as a reference for ground handling safety standards by all MID States with an EI above 60% by end of 2017.	TBD
Aerodrome Certification	Number of certified international aerodrome as a percentage of all international aerodromes in the MID Region	a. 50% of the international aerodromes certified by 2015. b. 75% of the international aerodromes certified by 2017.	(44%) 29 out of 66

Predictive Safety Information			
Theme	**Safety Indicator**	**Safety Target**	**MID**
SSP/SMS Implementation	Number of MID States, having completed the SSP gap analysis on iSTARS	10 MID States by 2015	8 States
	Number of MID States, that have developed an SSP implementation plan	10 MID States by 2015	7 States
	Number of MID States with EI>60%, having completed implementation of SSP Phase 1.	All MID States with EI>60% to complete phase 1 by 2016.	Currently 9 States out of 13 audited States are with EI>60% 2 out of 9 States fully completed implementation of SSP Phase 1 5 States partially completed implementation of SSP Phase 1 (Based on replies of 7 States with EI>60% to the SSP Questionnaire)
	Number of MID States with EI>60%, having completed implementation of SSP Phase 2.	All MID States with EI>60% to complete phase 2 by 2017.	1 State fully completed implementation of SSP Phase 2 6 States partially completed implementation of SSP Phase 2 (Based on replies of 7 States with EI>60% to the SSP Questionnaire)
	Number of MID States with EI>60%, having completed implementation of SSP Phase 3.	All MID States with EI>60% to complete phase 3 by 2018.	0 States fully completed implementation of SSP Phase 3 7 States partially completed implementation of SSP Phase 3 (Based on replies of 7 States with EI>60% to the SSP Questionnaire)
	Number of MID States with EI>60%, having completed implementation of SSP	All MID States with EI>60% to complete SSP implementation by 2020	0 States
	Number of MID States with EI>60% that have established a process for acceptance of individual service providers' SMS	a. 30% of MID Stateswith EI>60% by 2015. b. 70% of MID Stateswith EI>60% by 2016. c. 100% of MID Stateswith EI>60% by 2017.	66% 6 States out of 9 States (Based on replies of 7 States with EI>60% to an SSP Questionnaire)

APPENDIX 3S

DOHA DECLARATION ON AVIATION SAFETY IN THE MID REGION

28 April 2015

Doha-Qatar

DECLARATION

We, Directors General of Civil Aviation, meeting in Doha, Qatar from 27 to 29 April 2015;

Mindful of the Convention on International Civil Aviation (Chicago Convention);

Recognizing the importance of effective implementation of regional and national plans and initiatives based on the global frameworks;

Recognizing that further progress in improving the global safety, is best achieved through a cooperative, collaborative and coordinated approach in partnership with all stakeholders under the leadership of ICAO;

Recognizing the need to set safety priorities, targets and indicators for the monitoring of safety performance at the national, regional and global levels;

Considering the need to implement safety management principles and mitigate risks on identified operational issues; and

Considering the Regional Aviation Safety Group-Middle East (RASG-MID) is the governing body responsible for the review and update of the MID Region Safety Strategy, as deemed necessary.

Undertake to:

1. meet our States safety obligations under the Convention on International Civil Aviation (the Chicago Convention);

2. support the effective implementation of the ICAO Global Aviation Safety Plan (GASP) and MID Region Safety Strategy;

3. enhance States' safety oversight capabilities and ensure progressive increase in the USOAP Effective Implementation (EI);

4. support the Regional Aviation Safety Group-Middle East (RASG-MID) in order to implement its work programme and achieve the global and regional safety objectives and targets, including the main Aviation Safety Targets at **Appendix A**.

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APPENDIX A

MAIN AVIATION SAFETY TARGETS FOR THE MID REGION

Accidents

1) Reduce/Maintain the regional average rate of accidents to be in line with the global average rate by 2016.
2) Reduce/Maintain the regional average rate of fatal accidents to be in line with the global average rate by 2016.

USOAP-CMA Effective Implementation (EI)`

3) Increase the regional average EI to be above 70% by 2020.
4) 11 MID States to have at least 60% EI by 2020.

Significant Safety Concerns (SSCs)

5) MID States resolve identified Significant Safety Concerns as a matter of urgency and in any case within 12 months from their identification.

Aerodrome Certification

6) 80% of the international aerodromes certified by 2020.

State Safety Programme (SSP)

7) All MID States with EI>60% to complete implementation of SSP by 2020.

APPENDIX 3T

1 EXECUTIVE SUMMARY

In the context of renewed growth of air traffic and in light of anticipated increases in air travel, it is imperative to maintain a very strong focus on initiatives that will further improve safety outcomes.

The Regional Aviation Safety Group - Middle East (RASG-MID) has been established with the main objective of supporting the establishment and operation of a performance-based safety system in the MID Region and the implementation of the Global Aviation Safety Plan (GASP). Its mission is to enhance civil aviation safety in the MID Region by ensuring effective coordination and cooperation between all aviation stakeholders and monitoring progress in the implementation of the GASP and the MID Region Safety Strategy.

The success of RASG-MID is dependent on the commitment, participation and contribution of its members and partners from States, industry and Regional and Sub-regional Organizations through financial and in-kind support.

The objective of this document is to outline a strategy and plan for engagement and communication with safety stakeholders and partners in the MID Region to enhance the level of participation in and support to RASG-MID and its subsidiary bodies, in order to achieve RASG-MID's objectives.

2 STAKEHOLDER ENGAGEMENT

The RASG-MID objectives cannot be achieved without support and commitment from all Stakeholders in the MID Region. This section of the document outlines the strategy and plan for the engagement of safety stakeholders in the MID Region.

2.1 Why do we need engagement?

The need for enhanced safety stakeholders' engagement is three-fold;

- Benefits for Stakeholders

    1. They will contribute as experts in their field to the activities of RASG-MID.
    2. They will have a platform to voice their issues and concerns.
    3. They will take part in the decision making process.

- Benefits for RASG-MID

    1. Enhanced quality decision making.
    2. Streamlined program/work development process.
    3. Enhanced collaboration and capacity for innovation.
    4. Effective implementation of action plans to achieve agreed safety targets.

- Benefits for the Region

    1. More transparent communication.
    2. More synergies.
    3. Avoidance of duplication of efforts.
    4. Improved awareness, buy-in and commitment.

2.2 Who are our safety stakeholders?

Safety is everyone's concern, and within that context the following are the RASG-MID's safety stakeholders:

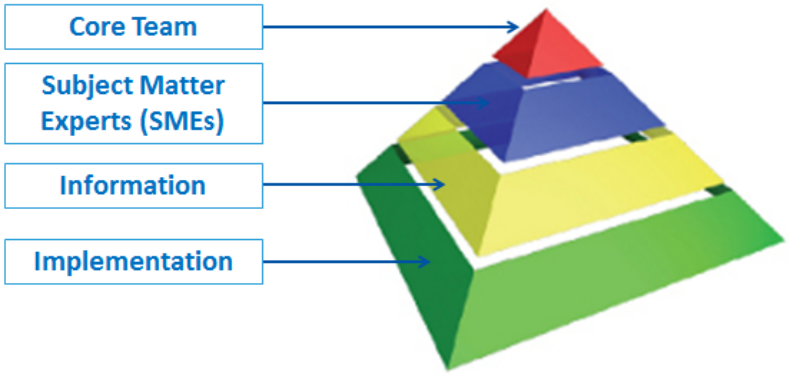
- States
- Airlines
- Airports
- Air Navigation Service Providers
- International Organizations
- Regional and Sub-regional Organizations
- Maintenance and Repair Organizations
- Training Organizations
- Aircraft Manufacturers

2.3 What is the desired outcome from engagement?

RASG-MID wishes to achieve the following through enhanced engagement with safety stakeholders:

- Regional, national, and local knowledge and awareness.
- Buy-in.
- Commitment.
- Effective contribution to the work under RASG-MID.
- Active participation to meetings, events, and forums.
- Harmonization of efforts.

2.4 RASG-MID Working Arrangements and Engagement Strategy & Tools



2.4.1 Core Team:

The Core Team of the RASG-MID is composed of the following:

1. RASG-MID Chairpersons and RSC Co-Chairs
2. MID Annual Safety Report Team (MID-ASRT), MID Regional Aviation Safety Team (MID-RAST) and MID Safety Support Team (MID-SST) Rapporteurs
3. Risk Areas Coordinators (Runway Safety, LOC-I, CFIT, Emerging Risks, etc.)
4. ICAO Secretariat

The roles and responsibilities of the different RASG-MID stakeholders are defined in the RASG-MID Procedural Handbook. According to the Handbook, the States should ensure necessary co-ordination and follow-up of the Group's activities within their Administrations.

In addition, roles and responsibilities of each of the Safety Teams (MID-ASRT, MID-RAST and MID-SST) including Rapporteurs and Coordinators are explained in the related Terms of References (TORs).

Commitment of the Core Team is vital for the success of RASG-MID.

2.4.2 Subject Matter Experts

The Safety Teams were established to support the development, implementation and prioritization of RASG-MID Safety Initiatives. These Teams are charged with preparatory work on specific subjects requiring expert advice for their resolution. They should accomplish their tasks by developing mitigation strategies based on gathering and processing safety data and information.

Participation in Safety Teams should be by specialists in the subjects under consideration. Such specialists should have relevant experience in the field concerned. Accordingly, all stakeholders should support the work of the Safety Teams by providing the expertise to be active contributors to the work (voluntary basis), including the review of the RASG-MID deliverables.

2.4.3 Information:

The main purpose of the RASG-MID is to develop an integrated, data-driven strategy and implement a work programme that supports a regional performance framework for the management of safety.

For the development of the MID Annual Safety Report (MID-ASR), there’s a need for 3 categories of safety information: Reactive, Proactive and Predictive. States and Stakeholders should provide/share information about the safety occurrences (unidentified). An open and transparent communication channel/mechanism is needed to support data collection.

RASG-MID shares information with all safety partners and stakeholders, in order to keep them aware of the different activities and deliverables of RASG-MID. Such information sharing is ensured through:

1. RASG-MID meetings Reports.
2. MID Region Safety Summits.
3. RASG-MID Newsletters, if deemed necessary (To be developed).
4. Bulletins and circulars.
5. RASG-MID Webpage.

2.4.4 Implementation:

The RASG-MID has started to produce deliverables. Stakeholders are encouraged to use the RASG-MID deliverables to enhance safety. Feedback on the use/implementation of these deliverables is very important for continuous improvement. In addition, difficulties for implementation should be claimed for identification of possible assistance.

2.4.5 Buy-in and Commitment:

To ensure the continued commitment and contribution of safety partners in the MID Region to various RASG-MID activities, the following will be used as a means to achieve engagement and commitment:

1. High-level engagement and commitment of CEOs/DGs:

   Half a day of each MID Safety Summit would be dedicated to a briefing to the CEOs/DGs of regulators, airlines, ANSPs, and airports from the Region. Such briefing will be focusing on:

a) the engagement and commitment of CEOs/DGs to RASG-MID activities;
b) the commitment of availing the right expertise at RASG-MID and its subsidiary bodies meetings and forums;
c) the continuity of participation of representatives in RASG-MID meetings; and
d) the commitment for global and regional safety measures such as SSP and SMS implementation.

2. Commitment and contribution of States, airlines, airports, ANSPs, manufacturers and organizations:

Following the high-level engagement and commitment of CEOs/DGACs, RASG-MID will, through the ICAO MID Regional Office, IATA, CANSO, and ACI Offices, approach all their members to:

a) identify a Main Focal point for RASG-MID to ensure receiving of correspondence in timely manner;
b) identify focal points for all RASG-MID subsidiary bodies; and
c) identify volunteers to contribute to the work of RASG-MID; and
d) establish an Internal Safety Support Action Group to assist the RASG-MID Core Team, as required.

3. Sharing and exchange of safety data and information:

Without proper and accurate safety data and information sharing, RASG-MID will not be able to continue its work and achieve its goals. Within that context, RASG-MID will use the following to expand the safety data sharing and exchange platform:

a) States to enhance internal mechanism for receiving/replying to State Letters;
b) make use of IATA safety data sharing tool such as STEADES, and FDX;
c) expand the use of the ICAO tools and databases such as iSTARS, ECCAIRS, etc;
d) launch a campaign to promote safety culture and safety data sharing among safety partners in the MID Region, through;
    i. Presentations at regional fora and events; and
    ii. Circulars and Bulletins
e) the continuity of participation of representatives in RASG-MID meetings; and
f) the agreement on a mechanism to improve the sharing of safety data at regional level, including the possibility of establishment of Regional/Sub-Regional safety database(s).

2.4.6 Travel budget and financial support:

Travel budget remains one of the main challenges for safety partners in the Region to continuously attend and take part in RASG-MID activities. RASG-MID will explore means to assist and support partners in meeting this challenge.

Where possible, meetings, events, and forums will be held in connection with other events already planned so as to avoid extensive travel and costs.

Virtual meetings will be used to compensate for face-to-face meetings where possible.

3 MONITORING OF EFFECTIVENESS

3.1 How to assess engagement and effective communication?

RASG-MID should monitor the implementation of the engagement strategy and assess its effectiveness based on the following:

- level of participation in RASG-MID activities;
- effective implementation of safety action plans and mitigation measures;
- achievement of safety targets within set timelines;
- streamlining of efforts and avoidance of duplication of efforts;
- level of communication with stakeholders as per set plans; and
- feedback questionnaire (customers satisfaction surveys) from RASG-MID stakeholders and partners.

APPENDIX 4A

LIST OF RASG-MID MEMBERS/ALTERNATES/ADVISERS

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APPENDIX 4B

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LIST OF DESIGNATED MID-RAST FOCAL POINTS

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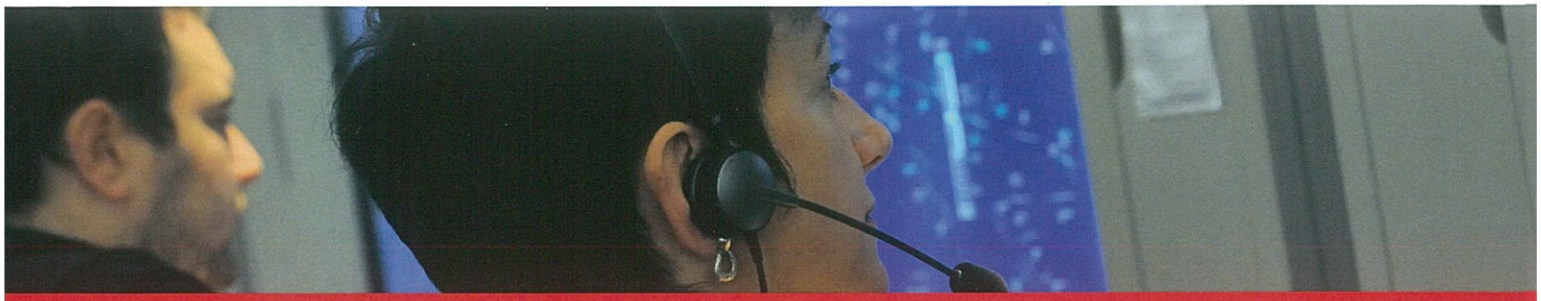

AVOIDING UNSTABLE APPROACHES

Important Tips for ATCOs

There are many contributing factors that may lead to a landing incident/accident, but one that ATC can have a major influence on is the development of an unstable approach. In general terms, if an arriving aircraft is too high or too fast, the approach will most likely become unstable.

- **Allow the arrival/approach procedure to be flown as published.** If at all possible, minimise or avoid the use of vectoring.
- **Avoid routine vectoring** of aircraft off an arrival course to shorten the flight path. Unexpected shortcuts may lead to insufficient time and distance remaining to maintain the desired descent profile, and cause the aircraft to be high on the approach. Avoid close-in turns to final.
- **When aircraft are being vectored, issue track miles to the airport** or approach fix in a timely manner, as appropriate.
- **Keep the pilot informed** regarding runway assignment, type of approach and descent/speed restrictions. That will allow for proper planning and execution of the approach. Stable approaches require predictability and planning. Avoid last minute changes and advise the pilot as early as possible when changes are anticipated.
- **Ensure the runway assignment is appropriate for the wind.** Wet or contaminated runways, combined with cross/tail winds are often associated with runway excursions.
- **Issue accurate and timely information** related to changing weather, wind and airport/runway conditions.
- **Apply appropriate speed control/ restrictions.** Assigning unrealistic speeds (too fast or slow) may lead to unstable approaches.
- **Give preference to precision approaches** over non-precision approaches. Precision approaches have vertical guidance which assists the pilot in maintaining the proper descent profile, resulting in stable approaches.
- **Avoid instructions that combine a descent clearance and a speed reduction.** Many aircraft can't descend and slow down simultaneously.
- **Comply with operational flight requirements** related to capturing the glide slope from below. Vectoring for an approach that places an aircraft on the final approach course above the glide slope is a leading cause of unstable approaches.
- **Avoid close-in, last second runway changes,** even to a parallel runway. To comply with the company's operational procedures and requirements, the flight crew must have time to properly brief the approach and missed approach procedure to the runway being utilised. Even though a pilot may accept a runway change, the result may be an unstable approach.

These tips do not override recognised international standards, recommended practices and/or standard operating procedures.
Please send your feed-back on the usability of those tips at **runwaysafety@canso.org**

AVOIDING UNSTABLE APPROACHES

Important Tips for PILOTS

"Keep it standard, keep it simple, keep it safe"

Maintain a mental picture of the required descent profile.

- Request distance updates from ATC if required.

Advise ATC as soon as possible if descent is required or additional track miles are needed to execute a stable approach.

- The sooner ATC knows, the greater is the probability that the request can be accommodated.

Be aware of published local ATC procedures/airspace restrictions that impact the approach.

- Airspace constraints may result in route and altitude restrictions.

Make requests for operational requirements, not for convenience.

- The earlier you tell ATC the easier it is to accommodate any request.
- Understand that you are part of a tightly integrated system with lots of arriving/departing aircraft and many operational variables (traffic patterns, airspace and airport design restrictions, noise restrictions, possible emergency operations on a different frequency), so ATC may not always be able to accommodate requests.

If you can't comply with an instruction, let ATC know early.

- Don't accept clearances that could put you into a situation leading to an unstable approach. The worst thing to do is to accept an instruction and then not comply with it.
- It's OK to say "UNABLE". Better still, say "UNABLE" and suggest an alternative.
- Use extreme caution when accepting visual approaches at unfamiliar airports.

Be predictable,

As far as possible, minimise differences (ATC can't be aware of all the variables e.g. aircraft performance, airline SOPs, etc).

When departing,

- Tell ATC if you're likely to need further time on the runway, before accepting a clearance to enter the runway. ATC might be making their plans for the arriving aircraft around you starting your take-off roll without delay.

If you have an emergency situation,

- Let ATC know as soon as is practicable, either by selecting the appropriate Mode A or using the standard phraseology. Once ATC are aware of your situation, they will **LEAVE YOU ALONE** and can start making preparations to accommodate whatever **YOU** may request, when **YOU** are ready.

According to IATA, an unstable approach was identified as a contributing factor for 17% of accidents between 2008 and 2012.

These tips do not override recognised international standards, recommended practices and/or standard operating procedures.
Please send your feed-back on the usability of those tips at **runwaysafety@canso.org**

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