INTERNATIONAL CIVIL AVIATION ORGANIZATION

REPORT OF THE NINTH MEETING OF THE AERODROME OPERATIONAL PLANNING SUB-GROUP

AOP SG/9

(Cairo, 23 – 25 September 2013)

The views expressed in this Report should be taken as those of the MIDANPIRG Aerodrome Operational Planning Sub-Group and not of the Organization. This Report will, however, be submitted to the MIDANPIRG and any formal action taken will be included in the Report of the MIDANPIRG.

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 Ninth Meeting of the MIDANPIRG Aerodrome Operational Planning Sub-Group (AOP SG/9) was held at ICAO Middle East Regional Office, Cairo, Egypt, 23 – 25 September 2013.

2. OPENING

2.1 The meeting was opened by Mr. Raza Gulam, Regional Officer CNS, ICAO Middle East Office in Cairo.

2.2 Mr. Gulam welcomed all participants to Cairo and thanked them for their attendance. He welcomed and introduced the Chairman of AOP SG, Mr. Saleh Al Amoush, Airport Safety and Standards Director, Civil Aviation Regulatory Commission, Jordan.

2.3 He recalled briefly the history of AOP SG and highlighted the global developments related to air navigation and aviation safety. Mr. Gulam underlined the need to review the MIDANPIRG Organizational Structure to cope with the new developments and ways of working and also highlighted the importance of Aerodromes Operational Planning to support Air Navigation activities and Aviation Safety and to accommodate the rapid growth of air transport in the MID Region. Aerodromes will have a main role to play within the RASG-MID framework, to implement the MID Aviation Safety Strategy.

2.4 Finally, Mr. Gulam wished the meeting all the success.

3. ATTENDANCE

3.1 The meeting was attended by a total of twenty eight (28) participants, including experts from nine (9) States (Bahrain, Egypt, Jordan, Kuwait, Libya, Qatar, S. Arabia, Sudan and UAE). The list of participants is at the **Attachment A** to the Report.

4. OFFICERS AND SECRETARIAT

4.1 The meeting was chaired by Mr. Saleh Al Amoush, Airport Safety and Standards Director, Civil Aviation Regulatory Commission, Jordan.

4.2 Mr. Adel Ramlawi, Regional Officer, Aerodromes and Ground Aids from the ICAO Middle East Office, Cairo, acted as the Secretary of the meeting.

5. LANGUAGE

5.1 The discussions were conducted in English. Documentation was issued in English.

6. AGENDA

6.1 The following Agenda was adopted:

Agenda Item 1: Adoption of Provisional Agenda

Agenda Item 2: Follow-up on Conclusions and Decisions relevant to AOP field

Agenda Item 3: Global and Regional Development related to AOP

Agenda Item 4: Aerodrome Certification

Agenda Item 5: Runway Safety Issues

Agenda Item 6: Review and update of Air Navigation deficiencies in the AOP field

Agenda Item 7: Future Work Programme

Agenda Item 8: Any other business.

7. CONCLUSIONS AND DECISIONS – DEFINITION

7.1 The Sub-Group records its actions in the form of Draft Conclusions and Draft Decisions for further action and adoption by the MIDANPIRG as its Conclusions and Decisions with the following significance:

a) **Conclusions** deal with matters which, in accordance with the Group's terms of reference, merit directly the attention of States on which further action will be initiated by ICAO in accordance with established procedures; and

b) **Decisions** deal with matters of concern only to the MIDANPIRG and its contributory bodies.

8. LIST OF DRAFT CONCLUSIONS AND DECISIONS

DRAFT CONCLUSION 9/1:	TRAINING/WORKSHOP ON HELIPORTS
DRAFT CONCLUSION 9/2:	AERODROMES CERTIFICATION WORKSHOP
DRAFT CONCLUSION 9/3:	SECOND REGIONAL RUNWAY SAFETY SEMINAR (MID-RRSS/2)
DRAFT CONCLUSION 9/4:	PROVISIONS FOR PRIOR APPROVAL TO AERODROME DEVELOPMENT
DRAFT DECISION 9/5:	TRANSFER OF AERODROMES ACTIVITIES TO RASG-MID

PART II: REPORT ON AGENDA ITEMS

REPORT ON AGENDA ITEM 1: ADOPTION OF THE PROVISIONAL AGENDA

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

REPORT ON AGENDA ITEM 2: FOLLOW-UP ACTIONS ON CONCLUSIONS AND DECISIONS RELEVANT TO THE AOP FIELD

2.1 The meeting noted the status of relevant MIDANPIRG/13 Conclusions related to the AOP SG and the follow up actions taken by States, the secretariat and other parties concerned as at **Appendix 2A** to the Report on Agenda Item 2. The meeting urged States to take appropriate actions to complete the requirements of MIDANPIRG/13 Conclusions.

2.2 The meeting noted the status of RASG-MID/2 Conclusions and Decisions as at **Appendix 2B** to the Report on Agenda Item 2 with a focus on Conclusion 2/4 regarding the establishment of Runway Safety Team. The meeting urged States to take appropriate actions to complete the requirements of RASG-MID/2 Conclusions and Decisions.

2.3 The meeting noted the outcome of the DGCA-MID/2 meeting (Jeddah, Saudi Arabia, 20-22 May 2013) in particular Conclusion 2/8 urging MID States to allocate necessary resources and develop action plans for the implementation of Aerodromes Certification. The DGCA-MID/2 meeting has also urged MID Sates to send progress reports on the implementation of aerodromes certification every six months. States response to this Conclusion is still below expectations.

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Appendix 2A to the Report on Agenda Item 2

FOLLOW-UP ACTION PLAN ON MIDANPIRG/13 CONCLUSIONS AND DECISIONS RELATED TO AOP

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION 13/1: AERODROMES CERTIFICATION IMPLEMENTATION AND ACTION PLAN That, States, that have not yet done so, be urged to take necessary measures to start/complete the Implementation of the Aerodromes Certification Programme in an expeditious manner and provide the ICAO MID Regional Office with the associated Action Plan, before **15 September 2012**, for review by the ADCI TF	Implement the Conclusion	ICAO States	State Letter Action Plan	15 Sep. 2012	Completed AN 5/3 -12/152 dated 05 June 2012
CONCLUSION 13/2: RUNWAY END SAFETY AREA (RESA) That, States, that have not yet done so, be invited to take necessary measures to include in their national regulations the requirements related to Runway End Safety Area (RESA) as reflected in ICAO Annex 14 Recommended Practice in order to reduce the safety risk of Runway Excursion.	Implement the Conclusion	ICAO States	State Letter Update Regulation	Dec. 2012	Completed AN 5/22 - 12/193 dated 04 July 2012

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Appendix 2B to the Report on Agenda Item 2

NINTH MEETING OF THE MIDANPIRG AERODROME OPERATIONS PLANNING SUB-GROUP (AOP SG/9)

(Cairo, Egypt, 23 – 25 September 2013)

RASG-MID/2 COCLUSIONS AND DECISIONS

CONCLUSION 2/1: PROVISION OF SAFETY DATA

That, States:

*a) that have not yet done so, be urged to provide their data related to incidents and safety occurrences to the ICAO MID Regional Office before **31 December 2012**; and*

b) be invited to encourage their Air Operators to implement Flight Operations Quality Assurance Programme (FOQA) or Flight Data Monitoring Programme and provide Trends derived from such programmes to the ASRT for the identification of operational risks and development of proactive and predictive mitigation measures.

CONCLUSION 2/2: FIRST MID REGION ANNUAL SAFETY REPORT

That, the First MID Region Annual Safety Report be made available to the civil aviation community through a restricted webpage on the ICAO MID Regional Office website.

DECISION 2/3: ESTABLISHMENT OF THE MID REGIONAL AVIATION SAFETY TEAM (MID-RAST)

*That, the MID Regional Aviation Safety Team (MID-RAST) be established with Terms of Reference as at **Appendix 3B** to the Report on Agenda Item 3.*

CONCLUSION 2/4: ESTABLISHMENT OF RUNWAY SAFETY TEAMS

*That, States be urged to establish Runway Safety Teams (RST) hosted by airports and including, as a minimum, representation from aerodromes, air operators and air traffic controllers, before **1 March 2013**.*

DECISION 2/5: ESTABLISHMENT OF THE MID SAFETY SUPPORT TEAM (MID-SST)

*That, the MID Safety Support Team (MID-SST) be established with Terms of Reference as at **Appendix 3L** to the Report on Agenda Item 3.*

CONCLUSION 2/6: ***REGIONAL COOPERATION FOR THE PROVISION OF ACCIDENT AND INCIDENT INVESTIGATION SERVICES***

*That, States and International Organizations provide their comments on the proposed approach for Regional Cooperation for the provision of Accident and Incident Investigation Services at **Appendix 3M** to the Report on Agenda Item 3, to the ICAO MID Regional Office, **before 31 January 2013**.*

CONCLUSION 2/7: ***ACCIDENT AND INCIDENT INVESTIGATION ACTIVITIES AND CAPABILITIES IN THE MID REGION***

*That, States that have not yet done so, be urged to send their replies to the questionnaire at **Appendix 3N** to the Report on Agenda Item 3 related to Accident and Incident Investigation activities and capabilities in the MID Region, to the ICAO MID Regional Office before **31 January 2013**.*

CONCLUSION 2/8: ***FUNDING OF THE RASG-MID WORK PROGRAMME***

That,

a) the funding of the RASG-MID Work Programme for 2013, be ensured mainly through voluntary support of the RASG-MID members and partners; and

b) States and partners be encouraged to use the SAFE earmarked contributions option to secure some funds that could be used for the implementation of the RASG-MID Work Programme.

DECISION 2/9: ***RSC TERMS OF REFERENCE***

*That, the RSC Terms of Reference be updated as at **Appendix 4A** to the Report on Agenda Item 4.*

DECISION 2/10: ***MID-ASRT TERMS OF REFERENCE***

*That, the MID-ASRT Terms of Reference be updated as at **Appendix 4B** to the Report on Agenda Item 4.*

AOP SG/9
Report on Agenda Item 3

REPORT ON AGENDA ITEM 3: GLOBAL AND REGIONAL DEVELOPMENT RELATED TO AOP

3.1 The meeting recalled that MIDANPIRG/12, through Decision 12/49, recognized the need for a complete review of both the content and format of the MID Basic ANP and FASID and MIDANPIRG/13, through Decision 13/32, agreed to the establishment of an Ad-hoc Working Group tasked with the development of a revised version of the MID ANP.

3.2 The meeting noted that ICAO Headquarters established a Secretariat Working Group, composed of a representative from each Regional Office and ICAO Headquarters, to prepare an action plan and monitor the review/development of the ANP/eANP Project. The First Meeting of the eANP-WG held at the ICAO EUR/NAT Office in Paris, 4 - 8 February 2013 agreed on a revised structure, format and Table of Contents of the ANP taking into account the ASBU methodology. In this regard, it was noted that the new ANP would be composed of three volumes:

a) Volume I should contain stable plan elements whose amendment necessitated approval by the Council and these elements be related to:

- assignment of responsibilities;
- mandatory requirements subject to regional agreement; and/or
- additional requirements specific to the region which are not covered in SARPs.

b) Volume II should contain dynamic plan elements whose amendment did not necessitate approval by the Council and these elements be related to:

- assignment of responsibilities;
- mandatory requirements subject to regional agreement; and/or
- additional requirements specific to the region which are not covered in SARPs.

c) Volume III should contain dynamic (flexible) plan elements whose amendment did not need approval by the Council and these elements be related to the implementation of certain air navigation systems, based mainly on the ASBU modules endorsed at Regional or Sub-regional level.

3.3 The meeting noted that the approval of the final version of the Three ANP Volumes is expected to be made at the eANP WG/2 meeting (Montreal, 18-22 November 2013).

3.4 The meeting was apprised of the outcome of the MID Air Navigation Plan Ad-hoc Working Group (ANP WG/1) meeting held in Cairo, 27-29 May 2013. It was highlighted that the ANP WG/1 meeting reviewed the available draft version of the different Parts of Volume I and II developed within the framework of the Secretariat eANP WG and made comments for improvement of the current drafts.

3.5 The meeting reviewed the AOP parts of the draft versions of Volume I and Volume II and was advised to send comments/inputs, if any, to ICAO MID Regional Office.

3.6 The meeting noted the outcome of the Third Meeting of MIDANPIRG Steering Group (MSG/3) held in Cairo, Egypt 17-19 June 2013. The MSG/3 meeting identified the following priority ASBU modules for the ICAO MID Region and agreed that these ASBU Block 0 Modules to be included in the MID Region Air Navigation Strategy, and endorsed by MIDANPIRG/14:

1) B0 – APTA: Optimization of Approach Procedures including vertical guidance
2) B0 – SURF: Safety and Efficiency of Surface Operations (A-SMGCS Level 1-2)
3) B0 – FICE: Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration
4) B0 – DATM: Service Improvement through Digital Aeronautical Information Management
5) B0 – AMET: Meteorological information supporting enhanced operational efficiency and safety
6) B0 – FRTO: Improved Operations through Enhanced En-Route Trajectories
7) B0 – CDO: Improved Flexibility and Efficiency in Descent Profiles (CDO)
8) B0 – CCO: Improved Flexibility and Efficiency Departure Profiles - Continuous Climb Operations (CCO)

3.7 The meeting was apprised of the draft MID Air Navigation Strategy that has been endorsed by the MSG/3 meeting. In addition, the meeting reviewed a revised draft as at **Appendix 3A** to the Report on Agenda Item 3 which will be presented to the Seventh Meeting of CNS/ATM/IC Sub-Group to be held in Cairo, Egypt 7-9 October 2013. In particular, the meeting discussed in detail and initially agreed on the template of monitoring the Aviation System Block Upgrades (ASBU) implementation for B0-SURF: Safety and efficiency of Surface Operations (A-SMGCS Level 1-2).

3.8 In a brain storming session, three aerodromes have been suggested as potential candidates for implementation of B0-SURF ASBU module. However, the meeting agreed that the final list of aerodromes to implement B0-SURF module will be officially identified by MID States based on a State Letter from ICAO MID Regional office.

3.9 The meeting was apprised of Amendment 11 to the Aerodromes— *Aerodrome Design and Operations* (Annex 14, Volume I) and Amendment 5 to the *International Standards and Recommended Practices, Heliports* (Annex 14, Volume II to the Convention on International Civil Aviation) which were adopted by the Council at the Fifth Meeting of its 198th Session on 27 February 2013.

3.10 In this regard, the meeting noted that there is a need for an awareness campaign on the application of Annex 14 Volume II (Heliports). Therefore, a Seminar and Workshop has been suggested for training on best practices in heliport construction, and improve heliport safety and efficiency in the MID Region. The workshop will be used to diagnose the present situation of heliports operations in the States of the Region, identifying their current needs, and determine best practices in heliport construction and operation. Accordingly, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 9/1: TRAINING WORKSHOP ON HELIPORTS

That,

a) ICAO considers organizing a Training Workshop on Heliports; and

b) MID States, and International Organizations be encouraged to host and support the Workshop and to invite Service Providers and Safety Partners for attendance and active participation.

AOP SG/9
Appendix 3A to the Report on Agenda Item 3

MID Region Air Navigation Strategy

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MID Region Air Navigation Strategy

Strategic Air Navigation Capacity and Efficiency Objective:

To realize sound and economically-viable civil aviation system in the MID Region that continuously increases in capacity and improves in efficiency with enhanced safety, security and facilitation while minimizing the adverse environmental effects of civil aviation activities.

Background

The Global ATM Operational Concept was approved by the Eleventh Air Navigation Conference (Montreal, September-October 2003) and published as Doc. 9854-AN/458.

In order to align global planning to the ATM Operational Concept, the Eleventh Air Navigation Conference (AN-Conf/11), recommended States and Regional Planning and Implementation Groups (PIRG), through Recommendation 1/1, to consider the Concept as a common global framework to guide in the planning for the implementation of the systems in support of the air navigation services.

The 37 Session of the International Civil Aviation Organization (ICAO) General Assembly (2010) directed the Organization to double its efforts to meet the global needs for airspace interoperability while maintaining its focus on safety. The Aviation System Block Upgrades (ASBU) methodology was formalized at the Twelfth Air Navigation Conference (AN-Conf/12) (Montreal, November 2012) and it is part of the new GANP, 4th Edition (Doc 9750).

The block upgrades describe a way to apply the concepts defined in the GANP with the goal of implementing regional performance improvements. They include the development of technology roadmaps, to ensure that standards are mature and to facilitate synchronized implementation between air and ground systems and between regions. The ultimate goal is to achieve global interoperability. Safety demands this level of interoperability and harmonization but it must be achieved at a reasonable cost with commensurate benefits.

Through Recommendation 6/1 - *Regional performance framework – planning methodologies and tools*, AN-Conf/12 urged States and PIRGs to harmonize the regional and national air navigation plans with the ASBU methodology in response to this, the MID region is developing MID Region Air Navigation Strategy that is aligned with the ASBU methodology.

Stakeholder roles and responsibilities

Stakeholders including service providers, regulators, airspace users and manufacturers are facing increased levels of interaction as new, modernized ATM operations are implemented. The highly integrated nature of capabilities covered by the block upgrades requires a significant level of coordination and cooperation among all stakeholders. Working together is essential for achieving global harmonization and interoperability.

With the ASBU methodology States, operators and industry will benefit from the availability of Standards and Recommended Practices (SARPs) with realistic lead times. This will enable regional regulations to be identified, allowing for the development of adequate action plans and, if needed, investment in new facilities and/or infrastructure.

For the industry, this constitutes a basis for planning future development and delivering products on the market at the proper target time. For service providers or operators, ASBU should serve as a planning tool for resource management, capital investment, training as well as potential reorganization.

Introduction

As traffic volume increases throughout the world, the demands on air navigation service providers in a given airspace increase, and air traffic management becomes more complex. Increased traffic density brings about an increase in the number of flights that cannot fly their optimum path.

It is foreseen that the implementation of the components of the ATM operational concept will provide sufficient capacity to meet the growing demand, generating additional benefits in terms of more efficient flights and higher levels of safety. Nevertheless, the potential of new technologies to significantly reduce the cost of services will require the establishment of clear operational requirements.

Taking into account the benefits of the ATM operational concept, it is necessary to make many timely decisions for its implementation. An unprecedented cooperation and harmonization will be required at both global and regional level.

ICAO introduced the Aviation System Block Upgrades (ASBU) methodology as a systemic manner to achieve a harmonized implementation of the air navigation services.

With the introduction of the ASBU the Performance Framework Forms (PFF) are restructured and aligned with the ASBU modules, and renamed as Air Navigation Report Forms (ANRF) and presents a standard format for high level monitoring of the ASBU module implementation, where as detailed monitoring of the implementation will be developed in Volume III of the revised new Regional Air Navigation Plans.

Aviation System Block Upgrades (ASBU) framework

An ASBU designates a set of improvements that can be implemented globally from a defined point in time to enhance the performance of the ATM system. There are four components of a block upgrade.

Module – is a deployable package (performance) or capability. A module will offer an understandable performance benefit, related to a change in operations, supported by procedures, technology, regulations/standards as necessary, and a business case. A module will be also characterized by the operating environment within which it may be applied. The date allocated to a module in a block is that of the initial operating capability (IOC).

Of some importance is the need for each of the modules to be both flexible and scalable to the point where their application could be managed through any set of regional plans and still realize the intended benefits. The preferential basis for the development of the modules relied on the applications being adjustable to fit many regional needs as an alternative to being made mandated as a one-size-fits-all application. Even so, it is clear that many of the modules developed in the block upgrades will not be necessary to manage the complexity of air traffic management in many parts of the world.

Thread – describes the evolution of a given capability through the successive block upgrades, from basic to more advanced capability and associated performance, while representing key aspects of the global ATM concept

Block – is made up of modules that when combined enable significant improvements and provide access to benefits.

The notion of blocks introduces a form of date segmentation in five year intervals. However, detailed considerations will call for more accurate implementation dates, often not at the exact assigned block date. The purpose is not to indicate when a module implementation must be completed unless dependencies among modules logically suggest such a completion date.

Performance improvement area (PIA) – sets of modules in each block are grouped to provide operational and performance objectives in relation to the environment to which they apply, thus forming an executive view of the intended evolution. The PIAs facilitate comparison of on-going programmes.

The four PIAs are as follows:

a) airport operations;
b) globally interoperable systems and data – through globally interoperable system-wide information management;
c) optimum capacity and flexible flights – through global collaborative ATM; and
d) efficient flight paths – through trajectory-based operations.

Figure 1 illustrates the relationships between the modules, threads, blocks, and PIAs.

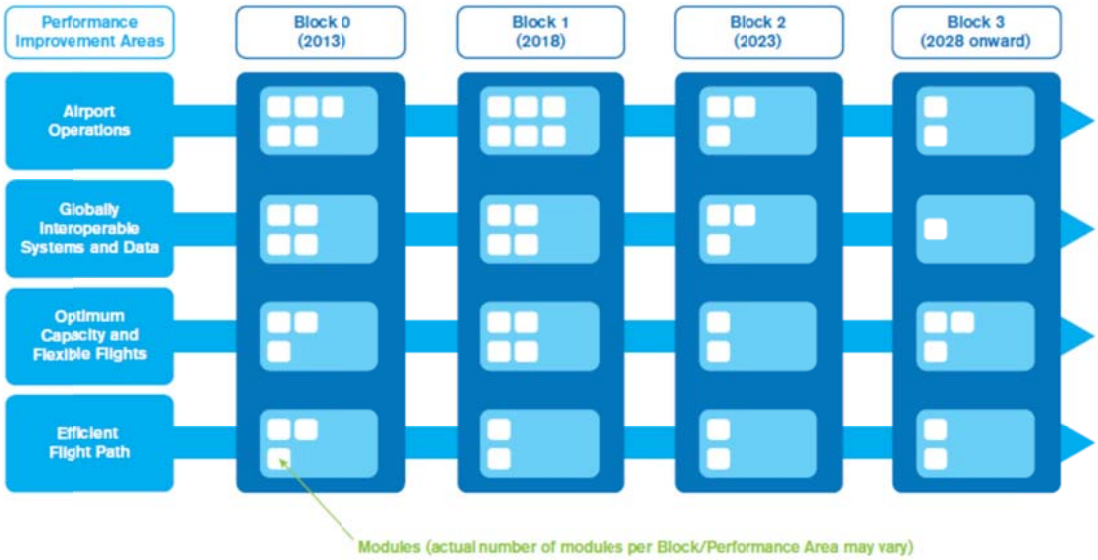

Figure 1.

MID Air Navigation Objectives:

States must focus on their Air Navigation Capacity and Efficiency priorities as they continue to foster expansion of the air transport sectors.

The ICAO Global Air Navigation Plan (GANP) represents a rolling strategic methodology which leverages existing technologies and anticipates future developments based on State/industry agreed operational objectives. The Block Upgrades are organized in five-year time increments starting in 2013 and continuing through 2028 and beyond. This structured approach provides a basis for sound investment strategies and will generate commitment from States, equipment manufacturers, operators and service providers.

The Global Plan offers a long-term vision that will assist ICAO, States and industry to ensure continuity and harmonization among their modernization programmes. It also explores the need for more integrated aviation planning at both the regional and State level and addresses required solutions by introducing Aviation System Block Upgrade (ASBU) methodology.

The MID Region air navigation objectives are in line with the global air navigation objectives and address specific air navigation operational improvements identified within the framework of the Middle East Regional Planning and Implementation Group (MIDANPIRG).

The enhancement of communication and information exchange between aviation Stakeholders and their active collaboration under the framework of MIDANPIRG would help achieving the MID Region Air Navigation objectives in an expeditious manner.

Near-term Objective (2013 - 2018): ASBU Block 0

The Fourth Edition of the *Global Air Navigation Plan* introduces ICAO's ASBU methodology and supporting technology roadmaps based on a rolling fifteen-year planning horizon. Although the GANP has a global perspective, it is not intended that all ASBU modules are to be applied around the globe. Some of the ASBU modules contained in the GANP are specialized packages that should be applied where specific operational requirements or corresponding benefits exist.

Although some modules are suitable for entirely stand-alone deployment, an overall integrated deployment of a number of modules could generate additional benefits. The benefits from an integrated implementation of a number of modules may be greater than the benefits from a series of isolated implementations. Similarly, the benefits from the coordinated deployment of one module simultaneously across a wide area (e.g. a number of proximate airports or a number of contiguous airspaces/flight information regions) may exceed the benefits of the implementations conducted on an ad hoc or isolated basis.

An example of a need for global applicability would be performance-based navigation (PBN). Assembly Resolution A37-11 urges all States to implement approach procedures with vertical guidance in accordance with the PBN concept. Therefore, the ASBU modules on PBN approaches should be seen as required for implementation at all airports. In the same way, some modules are well suited for regional or sub-regional deployment and should take this into account when considering which modules to implement regionally and in what circumstances and agreed timeframes.

Block '0' features Modules characterized by operational improvements which have already been developed and implemented in many parts of the world today. It therefore has a near-term implementation period of 2013–2018, whereby 2013 refers to the availability of its particular performance Modules and 2018 the target implementation deadline. It is not the case that all States will need to implement every Module, and ICAO will be working with its Members to help each determine exactly which capabilities they should have in place based on their unique operational requirements.

It is important to clarify how each ASBU module fits into the framework of the MID Regional Air Navigation system. On the basis of operational requirements and taking into consideration benefits associated, MID Region has chosen 8 out of 18 Block "0" Module for implementation as they respond to air navigation capacity and efficiency requirements for the Region for the period from 2013 to 2018.

Table 1

Performance Improvement Areas (PIA)	Performance Improvement Area Name	Module	Module Name
PIA 1	Airport Operations	B0-65 APTA	Optimization of Approach Procedures including vertical guidance
		B0-75 SURF	Safety and Efficiency of Surface Operations (A-SMGCS Level 1-2)
PIA 2	Globally Interoperable Systems and Data - Through Globally Interoperable System Wide Information Management	B0-25 FICE	Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration
		B0-30 DATM	Service Improvement through Digital Aeronautical Information Management
		B0-105 AMET	Meteorological information supporting enhanced operational efficiency and safety
PIA 3	Optimum Capacity and Flexible Flights – Through Global Collaborative ATM	B0-10 FRTO	Improved Operations through Enhanced En-Route Trajectories
PIA 4	Efficient Flight Path – Through Trajectory-based Operations	B0-05 CDO	Improved Flexibility and Efficiency in Descent Profiles (CDO)
		B0-20 CCO	Improved Flexibility and Efficiency Departure Profiles - Continuous Climb Operations (CCO)

Mid-term Objective (2018 - 2023): ASBU Block 1

Block 0 features Modules characterized by technologies and capabilities which have already been developed and implemented in many parts of the world today. It therefore features a near-term availability milestone, or Initial Operating Capability (IOC), of 2013 based on regional and State operational need. Blocks 1 through 3 are characterized by both existing and projected performance area solutions, with availability milestones beginning in 2018, 2023 and 2028 respectively.

Associated timescales are intended to depict the initial deployment targets along with the readiness of all components needed for deployment. It must be stressed that a Block's availability milestone is not the same as a deadline.

Long-term Objective (2023 - 2028): ASBU Block 2

The Block Upgrades incorporate a long-term perspective matching that of the three companion ICAO Air Navigation planning documents. They coordinate clear aircraft- and ground-based operational objectives together with the avionics, data link and ATM system requirements needed to achieve them. The overall strategy serves to provide industry wide transparency and essential investment certainty for operators, equipment manufacturers and ANSPs.

Measuring and monitoring air navigation Performance:

The monitoring of air navigation performance and its enhancement is achieved through identification of relevant air navigation Metrics and Indicators as well as the adoption and attainment of air navigation system Targets.

The modules shown in **Table 1** are ASBU Block 0 Modules that the MID Region air navigation Metrics endorsed for the monitoring of air navigation system performance.

The MID Region air navigation Key Performance Indicators, Targets and Action Plans are detailed in the **Table 2** below.

Attachment A presents the Air Navigation Report Forms for each of the ASBU Block 0 endorsed taken as priority for implementation in the MID Region.

***Note**: The different elements supporting the implementation are explained in the ASBU Document, and Global Plan (Doc 9750)*

MONITORING OF THE AVIATION SYSTEM BLOCK UPGRADES (ASBUS)

IMPLEMENTATION IN THE MID REGION

B0 – APTA: Optimization of Approach Procedures including vertical guidance

Description and purpose
The use of performance-based navigation (PBN) and ground-based augmentation system (GBAS) landing system (GLS 1) procedures will enhance the reliability and predictability of approaches to runways, thus increasing safety, accessibility and efficiency. This is possible through the application of Basic global navigation satellite system (GNSS), Baro vertical navigation (VNAV), satellite-based augmentation system (SBAS) and GLS. The flexibility inherent in PBN approach design can be exploited to increase runway capacity.

Main performance impact:

KPA- 01 – Access and Equity	KPA-02 – Capacity	KPA-04 – Efficiency	KPA-05 – Environment	KPA-10 – Safety
Y	Y	Y	Y	Y

Applicability consideration:
This module is applicable to all instrument, and precision instrument runway ends, and to a limited extent, non-instrument runway ends.

Implementation Roadblocks/Issues/Challenges

Insufficient number of equipped aircraft
Lack of cost benefit analysis adverse ionosphere
Lack of appropriate training
Evaluation of a real operational requirement

B0 – APTA: Optimization of Approach Procedures including vertical guidance				
Applicability: *Aerodromes (TBD)*				
Elements	***Performance Indicators/Supporting Metrics***	***Targets***	***Action Plan***	***Remarks***
LNAV approaches	*Percentage of runway ends with LNAV approach*	All instrument runway ends, either as the primary approach or as a back-up for precision	*Develop procedures*	

		approaches by 2016		
LNAV/VNAV approaches	*Percentage of runway ends with LNAV/VNAV approach*		*Develop procedures*	
APV with GBAS	*Percentage of runway ends with APV GBAS*	*As agreed*		*Applicable only to specific Aerodrome*

Module N° B0-SURF: Safety and Efficiency of Surface Operations (A-SMGCS Level 1-2)

Description and purpose
Basic A-SMGCS provides surveillance and alerting of movements of both aircraft and vehicles on the aerodrome thus improving runway/aerodrome safety. ADS-B information is used when available (ADS-B APT).

Main performance impact:

KPA- 01 – Access and Equity	KPA-02 – Capacity	KPA-04 – Efficiency	KPA-05 – Environment	KPA-10 – Safety
Y	Y	Y	Y	Y

Applicability consideration:
A-SMGCS is applicable to any aerodrome and all classes of aircraft/vehicles. Implementation is to be based on requirements stemming from individual aerodrome operational and cost-benefit assessments. ADS B APT, when applied is an element of A-SMGCS, is designed to be applied at aerodromes with medium traffic complexity, having up to two active runways at a time and the runway width of minimum 45 m.

Implementation Roadblocks/Issues/Challenges
Lack of procedures and training, Lack of inspector for approvals operations and Lack of surveillance system on board (ADS B capacity).

Applicability: *Aerodromes (TBD) ,*

Elements	***Performance Indicators/Supporting Metrics***	***Targets***	***Action Plan/ Responsible***	***Remarks***
Surveillance system for ground surface movement (PSR, SSR, ADS B or Multilateration)	***KPIs*** Percentage of international aerodromes with SMR/ SSR Mode S/ ADS-B Multilateration for ground surface movement	50 % of the aerodromes Implemented *June 2016* *100 % June 2018*	*-1 Study requirement and cost benefits* assessments A*erodrome operator+ CNS/ATM directorate* *2-establish Surveillance system for ground surface movement (PSR, SSR, ADS B or Multilateration)* *3- Develop procedures and conduct training*	
Surveillance system on board (SSR transponder, ADS B capacity)			*Study requirement and cost benefits* assessments *Prepare Surveillance system on board (SSR transponder ,ADS B*	

			capacity) *Develop procedures and conduct training*	
Surveillance system for vehicle			*Study requirement and cost benefits* assessments *Prepare Surveillance system for vehicle* *Develop procedures and conduct training*	
Visual aids for navigation	***KPIs*** Percentage of international aerodromes complying with visual aid requirements as per Annex 14 Number of international aerodromes complying with visual aid requirements as per Annex 14	*100% December 2015*		

B0 – FICE: Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration

Description and purpose

To improve coordination between air traffic service units (ATSUs) by using ATS interfacility data communication (AIDC) defined by the ICAO *Manual of Air Traffic Services Data Link Applications* (Doc 9694). The transfer of communication in a data link environment improves the efficiency of this process particularly for oceanic ATSUs.

Main performance impact:

KPA- 01 – Access and Equity	KPA-02 – Capacity	KPA-04 – Efficiency	KPA-05 – Environment	KPA-10 – Safety
N	Y	Y	N	Y

Applicability consideration:

Applicable to at least two area control centres (ACCs) dealing with enroute and/or terminal control area (TMA) airspace. A greater number of consecutive participating ACCs will increase the benefits.

Implementation Roadblocks/Issues/Challenges

- TPDI negotiations between MTAs and
- Compatibility between AIDC or OLDI systems from various manufacturers.

B0 – FICE: Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration				
Applicability: *States/ACCs (TBD)*				
Elements	***Performance Indicators/Supporting Metrics***	***Targets***	***Action Plan***	***Remarks***
AMHS implementation at States still not counting with this system	*Indicator: Percentage of States with AMHS implemented* *Supporting metric: Number of AMHS installed*		*1- Complete AMHS implementation at States still not counting with this system*	
AMHS interconnection	*Indicator: Percentage of States with AMHS interconnected with other AMHS* *Supporting metric: Number of AMHS interconnections implemented*		*Complete AMHS interconnection*	
Implement AIDC /OLDI	*Indicator: Percentage of ATS units with AIDC or OLDI* *Supporting metric: Number of AIDC or OLDI systems installed*		Implement AIDC /OLDI at MID States automated centres	

Implement operational AIDC/OLDI between adjacent ACC´s	*Indicator: Percentage of ACCs with AIDC or OLDI systems interconnection implemented* *Supporting metric: Number of AIDC interconnections implemented, as per Plan*		Implement operational AIDC/OLDI between adjacent ACC´s and complete the LOA	

B0 – DAIM: Service Improvement through Digital Aeronautical Information Management

Description and purpose

The initial introduction of digital processing and management of information, through aeronautical information service (AIS)/aeronautical information management (AIM) implementation, use of aeronautical information exchange model (AIXM), migration to electronic aeronautical information publication (AIP) and better quality and availability of data

Main performance impact:

KPA- 01 – Access and Equity	KPA-02 – Capacity	KPA-04 – Efficiency	KPA-05 – Environment	KPA-10 – Safety
N	N	Y	Y	Y

Applicability consideration:

Applicable at State level, with increased benefits as more States participate

Implementation Roadblocks/Issues/Challenges

- Lack of electronic Database.
- Lack of electronic access based on Internet protocol services.
- Lack of procedures to allow airlines provide digital AIS data to on-board devices, in particular electronic flight bags (EFBs).
- Lack of training for AIS/AIM personnel

B0 – DAIM: Service Improvement through Digital Aeronautical Information Management				
Applicability: *All States*				
Elements	***Performance Indicators/Supporting Metrics***	***Targets***	***Action Plan***	***Remarks***
1-AIXM	*Indicator: % of States that have implemented an AIXM-based Integrated Aeronautical Information Database (IAID)* *Supporting Metric: Number of States that have implemented an AIXM-based Integrated*			

	Aeronautical Information Database (IAID)			
2-eAIP	*Indicator: % of States that have implemented an IAID driven AIP Production (eAIP)* *Supporting Metric: Number of States that have implemented an IAID driven AIP Production (eAIP)*			
3-QMS	*Indicator: % of States that have implemented QMS for AIS/AIM* *Supporting Metric: Number of States that have implemented QMS for AIS/AIM*			
4-WGS-84	*Indicator: % of States that have implemented WGS-84 for Enroute* *Supporting Metric: Number of States that have implemented WGS-84 for Enroute* *Indicator: % of States that have implemented WGS-84 for Terminal* *Supporting Metric: Number of States that have implemented WGS-84 for Terminal* *Indicator: % of States that have implemented WGS-84 for Aerodromes* *Supporting Metric: Number of States that have implemented WGS-84 for Aerodromes* *Indicator: % of States that have implemented Geoid Undulation* *Supporting Metric: Number of States that have implemented Geoid Undulation*			
5-eTOD	*Indicator: % of States that have implemented required Terrain datasets*			

	Supporting Metric: Number of States that have implemented required Terrain datasets *Indicator: % of States that have implemented required Obstacle datasets* *Supporting Metric: Number of States that have implemented required Obstacle datasets*			
*6-Digital NOTAM**	*Plan for the implementation of Digital NOTAM*			

B0 – AMET: Meteorological information supporting enhanced operational efficiency and safety

Description and purpose

Global, regional and local meteorological information:

a) forecasts provided by world area forecast centres (WAFC), volcanic ash advisory centres (VAAC) and tropical cyclone advisory centres (TCAC);

b) aerodrome warnings to give concise information of meteorological conditions that could adversely affect all aircraft at an aerodrome including wind shear; and

c) SIGMETs to provide information on occurrence or expected occurrence of specific en-route weather phenomena which may affect the safety of aircraft operations and other operational meteorological (OPMET) information, including METAR/SPECI and TAF, to provide routine and special observations and forecasts of meteorological conditions occurring or expected to occur at the aerodrome.

This module includes elements which should be viewed as a subset of all available meteorological information that can be used to support enhanced operational efficiency and safety.

Main performance impact:

KPA- 01 – Access and Equity	KPA-02 – Capacity	KPA-04 – Efficiency	KPA-05 – Environment	KPA-10 – Safety
N	Y	Y	Y	Y

Applicability consideration:

Applicable to traffic flow planning, and to all aircraft operations in all domains and flight phases, regardless of level of aircraft equipage.

Implementation Roadblocks/Issues/Challenges

B0 – AMET: Meteorological information supporting enhanced operational efficiency and safety				
***Applicability: All** States*				
Elements	***Performance Indicators/Supporting Metrics***	***Targets***	***Action Plan***	***Remarks***
WAFS				
IAVW				
Tropical cyclone watch				
Aerodrome warnings				
Wind shear warnings and alerts				
SIGMET and other operational meteorological (OPMET) information				

B0 – FRTO: Improved Operations through Enhanced En-Route Trajectories

Description and purpose

To allow the use of airspace which would otherwise be segregated (i.e. special use airspace) along with flexible routing adjusted for specific traffic patterns. This will allow greater routing possibilities, reducing potential congestion on trunk routes and busy crossing points, resulting in reduced flight length and fuel burn.

Main performance impact:

KPA- 01 – Access and Equity	KPA-02 – Capacity	KPA-04 – Efficiency	KPA-05 – Environment	KPA-10 – Safety
Y	Y	Y	Y	Y

Applicability consideration:

Applicable to en-route and terminal airspace. Benefits can start locally. The larger the size of the concerned airspace the greater the benefits, in particular for flex track aspects. Benefits accrue to individual flights and flows. Application will naturally span over a long period as traffic develops. Its features can be introduced starting with the simplest ones.

Implementation Roadblocks/Issues/Challenges

Lack of organize and manage airspace prior to the time of flight
Lack of AIDC
Poor percentage of fleet approvals
Lack of procedures
Lack of implementation FUA Guidance
Lack of LOAs

B0 – FRTO: Improved Operations through Enhanced En-Route Trajectories				
Applicability: *States*				
Elements	***Performance Indicators/Supporting Metrics***	***Targets***	***Action Plan***	***Remarks***
Airspace under full control of Civil Authority				
Airspace under full control of Military Authority	*Indicator: % of time segregated airspaces are available for civil operations in the State* *Supporting Metric: Reduction of delays in time of civil flights.*			

Jointly used Airspace (Civil/Military)				

B0 – CDO: Improved Flexibility and Efficiency in Descent Profiles (CDO)

Description and purpose

To use performance-based airspace and arrival procedures allowing aircraft to fly their optimum profile using continuous descent operations (CDOs). This will optimize throughput, allow fuel efficient descent profiles and increase capacity in terminal areas.

Main performance impact:

KPA- 01 – Access and Equity	KPA-02 – Capacity	KPA-04 – Efficiency	KPA-05 – Environment	KPA-10 – Safety
N	Y	Y	Y	Y

KPA- 01 – Access and Equity, KPA-02 – Capacity, KPA-04 – Efficiency, KPA-05 – Environment, KPA-10 – Safety.

Applicability consideration:

Regions, States or individual locations most in need of these improvements. For simplicity and implementation success, complexity can be divided into three tiers:

a) least complex – regional/States/locations with some foundational PBN operational experience that could capitalize on near term enhancements, which include integrating procedures and optimizing performance;

b) more complex – regional/States/locations that may or may not possess PBN experience, but would benefit from introducing new or enhanced procedures. However, many of these locations may have environmental and operational challenges that will add to the complexities of procedure development and implementation; and

c) most complex – regional/States/locations in this tier will be the most challenging and complex to introduce integrated and optimized PBN operations. Traffic volume and airspace constraints are added complexities that must be confronted. Operational changes to these areas can have a profound effect on the entire State, region or location

Implementation Roadblocks/Issues/Challenges

- Airspace Design
- LOAs and Training

B0 – CDO: Improved Flexibility and Efficiency in Descent Profiles (CDO)				
Applicability: *Aerodromes*				
Elements	***Performance Indicators/Supporting Metrics)***	***Targets***	***Action Plan***	***Remarks***
International aerodromes/TMAs with CDO	*Indicator: % of International Aerodromes/TMA with CDO implemented* *Supporting Metric: Number of International Aerodromes/TMAs with CDO implemented*		*Upgrade the ground trajectory calculation function* *Airspace Design*	

PBN STARs	*Indicator: % of International Aerodromes/TMA with PBN STAR implemented* *Supporting Metric: Number of International Aerodromes/TMAs with PBN STAR implemented*		*LOAs and Training* *Define application requirements*	

B0 – CCO: Improved Flexibility and Efficiency Departure Profiles - Continuous Climb Operations (CCO)

Description and purpose

To implement continuous climb operations in conjunction with performance-based navigation (PBN) to provide opportunities to optimize throughput, improve flexibility, enable fuel-efficient climb profiles and increase capacity at congested terminal areas.

Main performance impact:

KPA- 01 – Access and Equity	KPA-02 – Capacity	KPA-04 – Efficiency	KPA-05 – Environment	KPA-10 – Safety
N	N	Y	Y	Y

Applicability consideration:

Regions, States or individual locations most in need of these improvements. For simplicity and implementation success, complexity can be divided into three tiers:
a) least complex: regional/States/locations with some foundational PBN operational experience that could capitalize on near-term enhancements, which include integrating procedures and optimizing performance;
b) more complex: regional/States/locations that may or may not possess PBN experience, but would benefit from introducing new or enhanced procedures. However, many of these locations may have environmental and operational challenges that will add to the complexities of procedure development and implementation; and
c) most complex: regional/States/locations in this tier will be the most challenging and complex to introduce integrated and optimized PBN operations. Traffic volume and airspace constraints are added complexities that must be confronted. Operational changes to these areas can have a profound effect on the entire State, region or location.

Implementation Roadblocks/Issues/Challenges

- Airspace Design,
- LOAs; and
- Training

B0 – CCO: Improved Flexibility and Efficiency Departure Profiles - Continuous Climb Operations (CCO)				
Applicability: *Aerodromes*				
Elements	***Performance Indicators/Supporting Metrics***	***Targets***	***Action Plan***	***Remarks***

International aerodromes/TMAs with CCO	*Indicator: % of International Aerodromes/TMA with CCO implemented* *Supporting Metric: Number of International Aerodromes/TMAs with CCO implemented*		*Airspace Design* *LOAs and Training* *Define application requirements*	
PBN SIDs	*Indicator: % of International Aerodromes/TMA with PBN SID implemented* *Supporting Metric: Number of International Aerodromes/TMAs with PBN SID implemented*			

Action Plans:

MIDANPIRG through its activities under the various subsidary bodies will continue to develop, update and monitor the implementation of Action Plans to achieve the air navigation targets.

A progress report on the implementation of the Action Plans and achieved targets will be developed by the Air Navigation System Implemenation Group (ANSIG) and presented to MIDANPIRG.

Governance:

The MID Region Air Navigation Strategy is to be endorsed by MIDANPIRG.

The MID Region Air Navigation Strategy will guide the work of MIDANPIRG and all its member States and partners.

The MIDANPIRG will be the governing body responsible for the review and update of the Strategy, as deemed necessary.

Progress on the implementation of the MID Region Air Navigation Strategy and the achievement of the agreed air navigation Targets will be reported to the ICAO Air navigation Commission (ANC), through the review of the MIDANPIRG reports; and to the stakeholders in the Region within the framework of MIDANPIRG.

REPORT ON AGENDA ITEM 4: AERODROME CERTIFICATION

4.1 The meeting was apprised of the outcome of the Second Meeting of the Aerodrome Certification Implementation Task Force (ADCI TF/2), Doha, Qatar 12-14 May 2013, and reviewed the status of Aerodromes Certification in the MID Region. Based on the latest feedback provided by States, the Aerodromes Certification Implementation table has been updated as contained in **Appendix 4A** to the Report on Agenda Item 4. The table shows that 28 out of the 68 MID States International Aerodromes have been certified. This number represents 41% of the International Aerodromes listed in the MID ANP.

4.2 The above-mentioned table shows that the MID ANP includes 52 Aerodromes designated as International Air Transport for Regular Use (RS) of which 26 Aerodromes (50%) have been certified. There is only one Aerodrome designated as International non-scheduled Air Transport for Regular Use (RNS) certified out of 4 Aerodromes representing 25%. On the other hand, 8% of Aerodromes designated as International scheduled Air Transport for Alternate Use (AS) were certified and none of the International non-scheduled Air Transport for Alternate Use (ANS) has been certified.

4.3 The meeting recognized the variation in the level of Aerodromes Certification Implementation. Some States have certified all their International Aerodromes achieving 100% Certification of Aerodromes listed the ANP whereas some other States have not certified any Aerodrome. Accordingly, the meeting suggested the establishment of a MID ADCI Support Team (MID-ADCST).

4.4 Based on the above, the meeting underlined the need for a Workshop on Aerodrome certification and accordingly agreed to the following Draft Conclusion:

DRAFT CONCLUSION 9/2: AERODROME CERTIFICATION WORKSHOP

That,

a) ICAO consider organizing a Workshop on Aerodrome Certification during the second half of 2014; and

b) MID States and International Organizations be encouraged to attend and support the Workshop and to invite Service Providers and Safety Partners for attendance and active participation.

4.5 The meeting welcomed the offer from UAE to host a Workshop on Aerodrome Certification, which might be back-to-back to the planned Runway Safety Seminar during the second quarter of 2014. This proposal will be considered, in due course by all concerned parties.

4.6 Taking into consideration expected changes to MIDANPIRG Organizational Structure and the transfer of aerodrome safety issues to RASG-MID, it has been agreed that the establishment of ADCST will be further discussed in the Aerodrome Certification Workshop under the RASG-MID framework.

AOP SG/9
Appendix 4A to the Report on Agenda Item 4

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												No available information
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	5			3	8	1				1	13%	
13	Syria	3				3	0				0	0%	
14	UAE	7	1			8	7	1			8	100%	
15	Yemen	5				5	0				0	0%	
	Total	52	4	9	3	68	26	1	1	0	28	41%	
	% certified						50%	25%	11%	0%	41%		

REPORT ON AGENDA ITEM 5: RUNWAY SAFETY ISSUES

5.1 The meeting was apprised of the outcome of the First Middle East Regional Runway Safety Seminar (MID-RRSS/1) held in Amman, Jordan from 14-16 May 2012. The MID-RRSS/1 outcome included the following:

1) States should develop action plans to establish Runway Safety Teams (RSTs). RSTs should be hosted by airports and include, as a minimum, representation from aerodromes, air operators and air traffic controllers;

2) ICAO to consider the creation of a Regional RST Go-Team with participation of ICAO Runway Safety partners to assist States with the creation of RSTs;

3) Safety Partners to assist/mentor the RSTs by: performing a gap analysis and assessing the areas identified, providing recommendations to support the implementation of RSTs, and supporting RSTs as appropriate; and

4) Organization of another Runway Safety Seminar/Workshop in 2013, inter-alia, to provide additional guidance on the establishment and running of RSTs.

5.2 The meeting noted that the RASG-MID/2 meeting supported the establishment of Runway Safety Teams (RSTs) and agreed accordingly to the following Conclusion:

RASG-MID/2 CONCLUSION 2/4: ESTABLISHMENT OF RUNWAY SAFETY TEAMS

That, States be urged to establish Runway Safety Teams (RST) hosted by airports and including, as a minimum, representation from aerodromes, air operators and air traffic controllers, before 1 March 2013.

5.3 The meeting noted that within the framework of RASG-MID, and in connection with the developed Safety Enhancement Initiatives (SEIs) and Detailed Implementation Plans (DIPs) under MID-RAST, it was agreed that there's a need to organise an RST Workshop in order to:

1) raise awareness about RSTs and the ICAO RST Manual;

2) share experience and lessons learned from already established RSTs in the MID Region and other Regions; and

3) kick-off an initiative of transferring knowledge and lessons learned into all airports in our Region and accelerate the implementation of local RSTs within the context of RST Go-Teams.

5.4 Based on the above and taking into consideration the need for a Second Regional Runway Safety Seminar, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 9/3: SECOND REGIONAL RUNWAY SAFETY SEMINAR (MID-RRSS/2)

That,

a) the Second MID REGIONAL RUNWAY SAFETY SEMINAR (RRSS) be organised by ICAO in partnership with IATA and other interested safety partners;

b) the agenda of the RRSS take into account the RASG-MID work programme related to Runway safety, in particular the SEIs and DIPs related to RSTs; and

c) MID States, Service Provider, and International Organizations be encouraged to support and actively participate in the Seminar.

5.5 The meeting appreciated the UAE's offer to host the MID-RRSS/2 during the Second Quarter of 2014 and invited ICAO to coordinate with UAE and IATA for the Seminar arrangement. In addition, the meeting urged MID States to extend the invitations to their aerodromes operators and air navigation service providers. The meeting agreed that taxiway and apron safety will be considered by the RASG Runway and Ground Safety (RGS) Coordinator to be part of the RGS activities.

5.6 The meeting noted that most of MID States have not yet started the establishment of the Runway Safety Team. Accordingly, the meeting agreed that the second RRSS-MID will be used as a platform to launch an RST Go Team initiative. Objectives, composition, and coordination process of the RST Go-Team would be addressed within the framework of RASG-MID.

5.7 The meeting noted with appreciation the outcome of the First MID Region Safety Summit organized by IATA in partnership with ICAO and hosted by Bahrain, from 28 to 29 April 2013. The Summit brought together all the safety partners including, States, Organizations and Airlines/Industry and resulted in the MID Safety Strategy. The MID Safety Strategy has been endorsed by DGCA-MID/2 held in Jeddah, Saudi Arabia, 20-22 May 2013.

5.8 According to the MID Safety Strategy, there is a requirement for the near term objectives to reduce Runway Excursions and Incursions Accidents in the MID Region by 50% by 2017, through establishment and activation of Runway Safety Teams (RSTs), Aerodromes Certification, and Implementation of Airport Safety Management System (SMS). In additions, the MID Safety Strategy established targets for Aerodromes Certification to be 50% of the International Aerodromes Certified by the end of 2015 and 80% of the International Aerodromes Certified by the end of 2016.

5.9 The meeting was apprised of UAE experience and approach related to the enhancement of the Aerodrome Emergency Services (AES) oversight, with regard to regulation, guidance material and stakeholder engagement. UAE shared also their experience related to their Oversight Process for Aerodrome Development in relation to aerodrome design criteria and SMS areas of Safety Risk Management and Safety Assurance noting the rapid expansion of national aerodrome infrastructure.

5.10 UAE introduced regulation and supporting guidance material to ensure proactive regulatory oversight of aerodrome related developments. The meeting was apprised of the UAE experience and approach to form a National Runway Safety Team with representation from all certified aerodromes, air operators and air traffic services units. Details of the processing procedures, supporting forms and checklists are available to interested parties upon request to the UAE GCAA's Director, Air Navigation and Aerodrome Department.

5.11 The meeting recognized the importance of a prior approval by the regulator for any development or change to the physical characteristics of an aerodrome. Accordingly, the meting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 9/4: PROVISIONS FOR PRIOR APPROVAL TO AERODROME DEVELOPMENT

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

a) make provisions for a prior approval of any any development or change to the physical characteristics of an aerodrome; and

b) develop necessary procedures for the approval process supported by risk assessment and management as required.

5.12 The meeting reviewed an update of initiatives made by the MID-Region Aviation Safety Tem (MID-RAST) in the area of Runway and Ground Safety (RGS) including updated drafts of the Safety Enhancement Initiatives (SEIs) and Detailed Implementation Plans (DIPs).

5.13 The meeting noted that the initial eight SEIs have been consolidated into three and the two supporting DIPs were combined in to a single DIP in support of MID-RAST/RGS/01. Accordingly the meeting agreed to the consolidated SEIs and the supporting DIPs as attached **Appendices 5A & 5B** to the Report on Agenda Item 5.

5.14 The meeting was apprised of the precautions taken by Sudan Civil Aviation Authority (SCAA) to prevent and minimize runway incursion. The SCAA introduced safety culture and increasing awareness of the risk of runway incursion among the all airport participants through Lectures for Senior Airport Staff (by Authority), Short Courses for Intermediate Officers (by Authority & Operator). The meeting appreciated the Sudan willingness to cooperate with ICAO MID Office to improve the procedures implemented.

5.15 The meeting noted a presentation by Jordan reflecting their point of view on the most frequent occurring shortcomings when determining PQs status by the States aiming to avoid unexpected findings during the course of the USOAP CMA Audit. The meeting encouraged the MID Region States AGA Inspectors to register for the CMA CBT which is available within the ICAO training programmes.

Runway Ground Safety (RGS) SEIs - Mohammad Al Dossari - UAE General Civil Aviation Authority

DIP	Safety Enhancement Action	Reference	GSI	Safety Impact	Changeability	IC Indicator	Priority	Possible Champion	Time Frame	Notes
X	Specific training for pilots and air traffic controllers to avoid unstabilized approaches and promotion of pilot adherence to Standard Operating Procedures for approaches including go-around decision making	MID-RAST/RGS/1		High	Moderate	P2	1	ICAO, IATA, CANSO, IFALPA, States and Operators	Short Term	Pilot training is top priority of RAST-PA and RAST-AP. DIP may be coordinated on global level - or benchmarked against other regions. ASR Comment: 4.1.3.2.1 - RE Accidents - 83% occur during landing and 67% during daytime - 'Flight Crew Procedures" meaning non-compliance with SOPS was present in 59 accidents. - - See 4.1.2.4.1 and 2 - Top Common incidents/occurrences from MID reports - "Unstable Approach" with Root Cause airport/airline of SOP Compliance and Training.
X	Develop guidance material and training programs to support creation of action plans by local aerodrome runway safety teams.	MID-RAST/RGS/2		High	Easy	P1	2	ICAO-MID - Nominated State Champion - ACI - COSCAP	Mid-Term	ASR Comment: 4.1.3.2.1 - RE Accidents - 83% occur during landing and 67% during daytime - weather is contributing in 47% (1st rain/2nd windsheer) Runway Incursion data not included in RASG-MID ASR - First Edition - however acknowledged by RSC/01 Agenda Item 2 paragraph 2.14
	Focus on Aerodrome Infrastructure and Maintenance Management with priority given to the following: - Promote /monitor Implementation RESA including other means such as arresting systems; - Regulation, guidance and specific training in relation to maintaining aerodrome runway/taxiway related markings; and - Regulation, guidance and specific training in relation to maintaining runways in accordance with Annex 14	MID-RAST/RGS/3		High	Difficult	P3	3	ICAO-MID - Nominated State Champion	Long Term	ASR Comments: 4.1.3.2.1 - Ground damage in 33% of accidents related to inadequate markings or signage or inadequate RESA. 4.1.3.2.1 - bar chart of contributing factors

Detailed Implementation Plan Template

Rast No	Safety Enhancement Action	Reference	GSI	Safety Impact	Changeability	Indicator	Priority	Time Frame
MID-RAST/RGS/01	Specific training for pilots and air traffic controllers to avoid unstabilized approaches and promotion of pilot adherence to Standard Operating Procedures for approaches including go-around decision making		9	High	Moderate	P2	1	Short Term

Safety Enhancement Action (expanded)	Promote specific training for pilots and air traffic controllers to avoid unstabilized approaches and pilot adherence to Standard Operating Procedures for approaches including go-around decision making through ICAO guidance, States' oversight and guidance, Operators' SMS and industry lead awareness and training initiatives. The initiatives seeks to leverage existing regulatory framework and industry events.
Statement of Work	**ICAO Actions** 1. Publish circular requiring States to provide increased oversight Audits using risk based approach and the necessary guidance on pilot adherence to SOPs. 2. Publish circular requiring States to implement safety promotion and associated training programmes including strategies to avoid unstabilized approaches for Pilots and Air Traffic Controllers. 3. Review ICAO work programme and consider including the subject as part of relevant regional workshops and existing symposiums where deemed applicable. 4. Ensure SEI is added to the MID-Region Strategic Plan. **States' Actions** 1. Review regulation and guidance material to ensure the materials of the ICAO circulars and supporting ICAO SARPS are adequately reflected 2. Ensure that safety oversight activities include specific items (core items, checklist, pre-audit assessment) clearly identify these areas and move towards risk based oversight approach 3. Ensure that Operators' SMS include a link to and participation in the local aerodrome runway safety programs such as the Local Runway Safety Teams 4. Ensure the Operators are capturing unstabilized approach through effective SMS practices - specifically Safety Risk Management and Safety Promotion activities. **Operators' Actions**
Champion Organization	ICAO, IATA, FSF, IFALPA, IFATCA and CANSO
Human Resources	• ICAO - International Civil Aviation Organisation (MID and HQ) • IATA - International Air Transport Association (MENA and HQ) • IFALPA - International Federation of Airline Pilot's Association • CANSO - Civil Air Navigation Services Organisation • States • Aircraft Operators
Financial Resources	

Relation with Current Aviation Community Initiative	ICAO Runway Safety Program ICAO/IATA Runway Excursion Risk Reduction Toolkit FSF Approach and Landing Accident Reduction (ALAR) Toolkit (version June 2010) FSF Runway Safety Initiative (RSI) - "Reducing the Risk of Runway Excursions" FSF Operators Guide to Human Factors in Aviation (FSF European Advisory Committee) FSF Annual Flight Safety Conference (most recent in September 2012) France Directorate General of Civil Aviation - Unstabilized Approaches France Directorate General of Civil Aviation - Stabilised Approaches Good Practice Guide France Directorate General of Civil Aviation - Synthesis on Unstable Approaches EWGRS - European Action Plan for the Prevention of Runway Excursions Airbus - Safety Library - Flight Operations Briefing Notes - Approach Techniques
Performance Goal	Reduce relative number of runway excursions. MID-Regional Safety Strategy: Reduce Runway Excursions related accidents by 50% by the end of 2017.
Indicators	Reduction of runway excursions resulting from unstable approaches, as a percentage of total movements, for 2013 and 2014.
Key Milestones	**To be completed by year end 2015** **ICAO** 1. Publish circular requiring States to provide increased oversight Audits regarding pilot adherence to SOPs. 2. Publish circular requiring states to implement strategies to avoid unstabilized approaches for Pilots and Air Traffic Controllers. 3. Confirm Review of ICAO program and inclusion of SEI in regional workshops and existing symposiums 4. Ensure SEI is added to the MID Region Strategic plan. **States** 1. Review of regulation and guidance material - as per timing in ICAO Circular 2. Ensure that safety oversight activities include SEI specific items - as per timing in ICAO Circular 3. Ensure Operators' SMS include a link to and participation in the local aerodrome runway safety programs - 12 month check 4. Ensure the Operators are capturing unstabilized approach through SMS - 12 month check 5. Items 4 and 5 maybe support by State bulletin to Operators **Operator** 1. Review and ensure that induction, training and awareness initiatives - 12 month check 2. Ensure SMS includes a link/actions to and participation in the local aerodrome runway safety programs - 12 month check 3. Ensure SMS process has identified these the above risks as part the formal Safety Risk Management process - 12 month check **IATA - IFALPA - CANSO** 1. Review and ensure that regional strategy and awareness initiatives specifically address the SEI
Potential Blockers	Availability of required human resources from identified organisations Availability of financial resources
Responsible	• ICAO - International Civil Aviation Organisation (MID and HQ) • IATA - International Air Transport Association (MENA and HQ) • IFALPA - International Federation of Airline Pilot's Association • CANSO - Civil Air Navigation Services Organisation • Mid-Region States • Mid-Region Aircraft Operators

DIP Notes	Pilot training is top priority of RAST-PA and RAST-AP. DIP may be coordinated on global level - or benchmarked against other regions. ASR Comment: 4.1.3.2.1 - RE Accidents - 83% occur during landing and 67% during daytime - 'Flight Crew Procedures" meaning non-compliance with SOPS was present in 59 accidents. - - See 4.1.2.4.1 and 2 - Top Common incidents/occurrences from MID reports - "Unstable Approach" with Root Cause airport/airline of SOP Compliance and Training.

Detailed Implementation Plan Template

Rast No	Safety Enhancement Action	Reference	GSI	Safety Impact	Changeability	Indicator	Priority	Time Frame
RAST-MID/RGS/2	Develop guidance material and training programs to support creation of action plans by local aerodrome runway safety teams.		9	High	Easy	P1	2	Mid-Term

Safety Enhancement Action (expanded)	Develop guidance material and training programs to support creation of action plans by local aerodrome runway safety teams with immediate emphasis on - identification and publication of aerodrome Hot Spots and timely; and - accurate notification regarding runway conditions and weather by AIS and ATS units.
Statement of Work	1. Establishment of Regional RST Go-Teams 2. Conduct regional Runway Safety Seminars/Workshops 3. Establishment of Local Runway Safety Teams 4. Enhance coordination with ICAO Runway Safety Programme including exchange of data 5. Create supporting regulation and guidance including Runway Safety Team (RST) Handbook
Champion Organization	ICAO, IATA, FSF, IFALPA, IFATCA, ACI and CANSO

Human Resources	• ICAO - International Civil Aviation Organisation (MID and HQ) • IATA - International Air Transport Association (MENA and HQ) • IFALPA - International Federation of Airline Pilot's Association • CANSO - Civil Air Navigation Services Organisation • ACI - Airport Council International • States • Aircraft Operators
Financial Resources	
Relation with Current Aviation Community Initiative	ICAO Runway Safety Program ICAO/IATA Runway Excursion Risk Reduction Toolkit FSF Approach and Landing Accident Reduction (ALAR) Toolkit (version June 2010) FSF Runway Safety Initiative (RSI) - “Reducing the Risk of Runway Excursions” FSF Operators Guide to Human Factors in Aviation (FSF European Advisory Committee) FSF Annual Flight Safety Conference (most recent in September 2012) European Action Plan for the Prevention of Runway Excursions European Action Plan for the Prevention of Runway Incursions Airbus - Safety Library - Flight Operations Briefing Notes - Approach Techniques
Performance Goal	Reduce relative number of runway excursions. MID-Regional Safety Strategy: Reduce Runway Excursions related accidents by 50% by the end of 2017. MID-Regional Safety Strategy: Reduce Runway Incursions related accidents by 50% by the end of 2017.
Indicators	See above/below

Key Milestones	**ICAO Actions** 1. Publication of Runway Safety Team (RST) Handbook (currently in draft) 2. Establishment of Regional RST Go-Teams 3. Conduct regional Runway Safety Seminars/Workshops 4. Coordinate with States to provide transparency to and harmonise initiatives of ICAO's Runway Safety Programme with Regional and State initiatives (i.e. information gathering, information sharing, surveys, RST hosting platform, etc.) **States' Actions** 1. Conduct national Runway Safety Seminars/Workshops 2. Promotion of RST Handbook 3. Creating supporting regulation and guidance material at a State level 4. Focus oversight on SMS Safety Risk Management as related to runway and ground safety 5. Support Regional Go-Teams **Operators' Actions** 1. Conduct local Runway Safety awareness campaigns 2. Establish local runway safety teams (or equivalent) 3. Participate in Regional Go-Teams **Others' Actions** 1. Conduct local Runway Safety awareness campaigns
Potential Blockers	Availability of required human resources from identified organisations
Responsible	• ICAO - International Civil Aviation Organisation (MID and HQ) • IATA - International Air Transport Association (MENA and HQ) • IFALPA - International Federation of Airline Pilot's Association • CANSO - Civil Air Navigation Services Organisation • Mid-Region States • Mid-Region Aircraft Operators

DIP Notes	Noting SEIs from other regions it is worthwhile RSTs consider the following: - Air traffic Control Training - general and scenario based - Review of Aerodrome and ATC Standard Operating Procedures including RT Phraseology and Clearance Procedures - Pilot Training - general and scenario based - Scenario Based Training for Tower Controller - Scenario Based Training for Pilots - Note the various ICAO Global and Regional Runway Safety Initiatives related to Runway Safety and RSTs. IFALPA and CANSO may be training resources (see AP SEIs).

AOP SG/9
Appendix 5B to the Report on Agenda Item 2

Detailed Implementation Plan Template

Rast No	Safety Enhancement Action	Reference	GSI	Safety Impact	Changeability	Indicator	Priority	Time Frame
MID-RAST/RGS/01	Specific training for pilots and air traffic controllers to avoid unstabilized approaches and promotion of pilot adherence to Standard Operating Procedures for approaches including go-around decision making		9	High	Moderate	P2	1	Short Term

Safety Enhancement Action (expanded)	Promote specific training for pilots and air traffic controllers to avoid unstabilized approaches and pilot adherence to Standard Operating Procedures for approaches including go-around decision making through ICAO guidance, States' oversight and guidance, Operators' SMS and industry lead awareness and training initiatives. The initiatives seeks to leverage existing regulatory framework and industry events.
Statement of Work	**ICAO Actions** 1. Publish circular requiring States to provide increased oversight Audits using risk based approach and the necessary guidance on pilot adherence to SOPs. 2. Publish circular requiring States to implement safety promotion and associated training programmes including strategies to avoid unstabilized approaches for Pilots and Air Traffic Controllers. 3. Review ICAO work programme and consider including the subject as part of relevant regional workshops and existing symposiums where deemed applicable. 4. Ensure SEI is added to the MID-Region Strategic Plan. **States' Actions** 1. Review regulation and guidance material to ensure the materials of the ICAO circulars and supporting ICAO SARPS are adequately reflected 2. Ensure that safety oversight activities include specific items (core items, checklist, pre-audit assessment) clearly identify these areas and move towards risk based oversight approach 3. Ensure that Operators' SMS include a link to and participation in the local aerodrome runway safety programs such as the Local Runway Safety Teams 4. Ensure the Operators are capturing unstabilized approach through effective SMS practices - specifically Safety Risk Management and Safety Promotion activities. **Operators' Actions** 1. Review and ensure that induction, training and awareness initiatives specifically address the following issues: A. pilot adherence to Standard Operating Procedures in relation to Go-Around Decision Making; and B. specific training to avoid situations which may result in unstabilized approaches. 2. Ensure SMS includes a link/actions to and participation in the local aerodrome runway safety programs such as the Local Runway Safety Teams 3. Ensure SMS process has identified these the above risks as part the formal Safety Risk Management process **IATA - IFALPA - CANSO Actions** 1. Review and ensure that regional strategy and awareness initiatives specifically address the following issues: A. pilot adherence to Standard Operating Procedures in relation to Go-Around Decision Making; and B. specific training to avoid situations which may result in unstabilized approaches.
Champion Organization	ICAO, IATA, FSF, IFALPA, IFATCA and CANSO

Human Resources	• ICAO - International Civil Aviation Organisation (MID and HQ) • IATA - International Air Transport Association (MENA and HQ) • IFALPA - International Federation of Airline Pilot's Association • CANSO - Civil Air Navigation Services Organisation • States • Aircraft Operators
Financial Resources	
Relation with Current Aviation Community Initiative	ICAO Runway Safety Program ICAO/IATA Runway Excursion Risk Reduction Toolkit FSF Approach and Landing Accident Reduction (ALAR) Toolkit (version June 2010) FSF Runway Safety Initiative (RSI) - "Reducing the Risk of Runway Excursions" FSF Operators Guide to Human Factors in Aviation (FSF European Advisory Committee) FSF Annual Flight Safety Conference (most recent in September 2012) France Directorate General of Civil Aviation - Unstabilized Approaches France Directorate General of Civil Aviation - Stabilised Approaches Good Practice Guide France Directorate General of Civil Aviation - Synthesis on Unstable Approaches EWGRS - European Action Plan for the Prevention of Runway Excursions Airbus - Safety Library - Flight Operations Briefing Notes - Approach Techniques
Performance Goal	Reduce relative number of runway excursions. MID-Regional Safety Strategy: Reduce Runway Excursions related accidents by 50% by the end of 2017.

Indicators	Reduction of runway excursions resulting from unstable approaches, as a percentage of total movements, for 2013 and 2014.
Key Milestones	**To be completed by year end 2015** **ICAO** 1. Publish circular requiring States to provide increased oversight Audits regarding pilot adherence to SOPs. 2. Publish circular requiring states to implement strategies to avoid unstabilized approaches for Pilots and Air Traffic Controllers. 3. Confirm Review of ICAO program and inclusion of SEI in regional workshops and existing symposiums 4. Ensure SEI is added to the MID Region Strategic plan. **States** 1. Review of regulation and guidance material - as per timing in ICAO Circular 2. Ensure that safety oversight activities include SEI specific items - as per timing in ICAO Circular 3. Ensure Operators' SMS include a link to and participation in the local aerodrome runway safety programs - 12 month check 4. Ensure the Operators are capturing unstabilized approach through SMS - 12 month check 5. Items 4 and 5 maybe support by State bulletin to Operators **Operator** 1. Review and ensure that induction, training and awareness initiatives - 12 month check 2. Ensure SMS includes a link/actions to and participation in the local aerodrome runway safety programs - 12 month check 3. Ensure SMS process has identified these the above risks as part the formal Safety Risk Management process - 12 month check **IATA - IFALPA - CANSO** 1. Review and ensure that regional strategy and awareness initiatives specifically address the SEI
Potential Blockers	Availability of required human resources from identified organisations Availability of financial resources
Responsible	• ICAO - International Civil Aviation Organisation (MID and HQ) • IATA - International Air Transport Association (MENA and HQ) • IFALPA - International Federation of Airline Pilot's Association • CANSO - Civil Air Navigation Services Organisation • Mid-Region States • Mid-Region Aircraft Operators
DIP Notes	Pilot training is top priority of RAST-PA and RAST-AP. DIP may be coordinated on global level - or benchmarked against other regions. ASR Comment: 4.1.3.2.1 - RE Accidents - 83% occur during landing and 67% during daytime - 'Flight Crew Procedures" meaning non-compliance with SOPS was present in 59 accidents. - - See 4.1.2.4.1 and 2 - Top Common incidents/occurrences from MID reports - "Unstable Approach" with Root Cause airport/airline of SOP Compliance and Training.

Detailed Implementation Plan Template

Rast No	Safety Enhancement Action	Reference	GSI	Safety Impact	Changeability	Indicator	Priority	Time Frame
RAST-MID/RGS/2	Develop guidance material and training programs to support creation of action plans by local aerodrome runway safety teams.		9	High	Easy	P1	2	Mid-Term

Safety Enhancement Action (expanded)	Develop guidance material and training programs to support creation of action plans by local aerodrome runway safety teams with immediate emphasis on - identification and publication of aerodrome Hot Spots and timely; and - accurate notification regarding runway conditions and weather by AIS and ATS units.
Statement of Work	1. Establishment of Regional RST Go-Teams 2. Conduct regional Runway Safety Seminars/Workshops 3. Establishment of Local Runway Safety Teams 4. Enhance coordination with ICAO Runway Safety Programme including exchange of data 5. Create supporting regulation and guidance including Runway Safety Team (RST) Handbook
Champion Organization	ICAO, IATA, FSF, IFALPA, IFATCA, ACI and CANSO
Human Resources	• ICAO - International Civil Aviation Organisation (MID and HQ) • IATA - International Air Transport Association (MENA and HQ) • IFALPA - International Federation of Airline Pilot's Association • CANSO - Civil Air Navigation Services Organisation • ACI - Airport Council International • States • Aircraft Operators

Financial Resources	
Relation with Current Aviation Community Initiative	ICAO Runway Safety Program ICAO/IATA Runway Excursion Risk Reduction Toolkit FSF Approach and Landing Accident Reduction (ALAR) Toolkit (version June 2010) FSF Runway Safety Initiative (RSI) - “Reducing the Risk of Runway Excursions” FSF Operators Guide to Human Factors in Aviation (FSF European Advisory Committee) FSF Annual Flight Safety Conference (most recent in September 2012) European Action Plan for the Prevention of Runway Excursions European Action Plan for the Prevention of Runway Incursions Airbus - Safety Library - Flight Operations Briefing Notes - Approach Techniques
Performance Goal	Reduce relative number of runway excursions. MID-Regional Safety Strategy: Reduce Runway Excursions related accidents by 50% by the end of 2017. MID-Regional Safety Strategy: Reduce Runway Incursions related accidents by 50% by the end of 2017.
Indicators	See above/below

Key Milestones	**ICAO Actions** 1. Publication of Runway Safety Team (RST) Handbook (currently in draft) 2. Establishment of Regional RST Go-Teams 3. Conduct regional Runway Safety Seminars/Workshops 4. Coordinate with States to provide transparency to and harmonise initiatives of ICAO's Runway Safety Programme with Regional and State initiatives (i.e. information gathering, information sharing, surveys, RST hosting platform, etc.) **States' Actions** 1. Conduct national Runway Safety Seminars/Workshops 2. Promotion of RST Handbook 3. Creating supporting regulation and guidance material at a State level 4. Focus oversight on SMS Safety Risk Management as related to runway and ground safety 5. Support Regional Go-Teams **Operators' Actions** 1. Conduct local Runway Safety awareness campaigns 2. Establish local runway safety teams (or equivalent) 3. Participate in Regional Go-Teams **Others' Actions** 1. Conduct local Runway Safety awareness campaigns
Potential Blockers	Availability of required human resources from identified organisations
Responsible	• ICAO - International Civil Aviation Organisation (MID and HQ) • IATA - International Air Transport Association (MENA and HQ) • IFALPA - International Federation of Airline Pilot's Association • CANSO - Civil Air Navigation Services Organisation • Mid-Region States • Mid-Region Aircraft Operators

DIP Notes	Noting SEIs from other regions it is worthwhile RSTs consider the following: - Air traffic Control Training - general and scenario based - Review of Aerodrome and ATC Standard Operating Procedures including RT Phraseology and Clearance Procedures - Pilot Training - general and scenario based - Scenario Based Training for Tower Controller - Scenario Based Training for Pilots - Note the various ICAO Global and Regional Runway Safety Initiatives related to Runway Safety and RSTs. IFALPA and CANSO may be training resources (see AP SEIs).

REPORT ON AGENDA ITEM 6: REVIEW AND UPDATE OF AIR NAVIGATION DEFICIENCIES' IN THE AOP FIELD

6.1 The meeting noted that the DGCA-MID/1 meeting was of the view that a number of deficiencies were common to many States and accordingly encouraged States to work cooperatively towards the elimination of such deficiencies, in particular for the training of technical staff.

6.2 The meeting reviewed and updated the list of Deficiencies in the AOP field as at **Appendix 6A** to the Report on Agenda Item 6 and urged States to use the MANDD for the online update of their deficiencies based on Sates responses.

6.3 The meeting noted IFALPA Report on Deficient Aerodromes and Airspace in the MID Region and agreed that concerned States review the reported Deficiencies and advise ICAO MID Regional Office of their comments and action plans. Based on that, the ICAO MID Regional Office will update the AGA Part of the List of Air Navigation Deficiencies.

AOP SG/9
Appendix 6A to the Report on Agenda Item 6

Deficiencies in the AOP Field

BAHRAIN

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination	Description	Executing Body	Date of Completion	Priority for Action
No Deficiencies Reported									

[(1)] Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the AOP Field

EGYPT

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	MID Basic ANP & FASID (Doc 9708)	Alexandria Int`l Airport	Runway is short and current distance is 7221 FT with runway all up weight maximum 68000kgs	Jul, 2004	Cannot be served as an alternate	F O	Plan to extend Runway	Egypt	Jan, 2013	A
2	Annex 14 Vol. 1.5.1, 1.5.2, 1.5.3 & 1.5.4	Luxor, Aswan, Borg El Arab, Alexandria, ALamainTaba, El-Arish, Shark El Owenat, Port Said, St. Cathrine Intl. Airports	Implementation of Aerodrome Operations Safety Management	Nov, 2006	-	F H	Need to establish a State safety programme and implement an SMS in order to achieve an acceptable level of safety in Aerodrome Operations. State: Implemented for 4 Airports .Cairo, Sharm El Sheikh,, Hurghada, Maersa Alam In Progress ASWAN, LuXer, Borg El-Arab, Taba, The rest is planned for Nov 2014	Egypt	Nov, 2014	U

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
3	Annex 14 Vol. 1.4.1, 1.4.4	Luxor, Aswan, Borg El Arab, Alexandria, Almaza, Taba, Alamain, El-Arish, Shark El Owenat, Port Said, St. Cathrine Intl. Airports	Implementation of Certification of Aerodromes used for international operations	Nov, 2006	-	F H	Need to develop an Aerodrome Manual for each listed international aerodrome and insure it includes a safety management system prior to granting the aerodrome certificate. State: implemented: Cairo, Sharm El-Sheikh,Hurghada, Mersa Alam, In Progress: Luxor,Aswan Borg Al-Arab, Taba The rest is planned for Nov 2014	Egypt	Nov, 2014	U
4	Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3	Alexandria Int`l Airport	No runway demarcation lines available on RWY 18/36, to identify the entry position to RWY 04/22	May, 2007	-	F	Runway is closed for extension and upgrade	Egypt	Jan, 2013	U

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the AOP Field

IRAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	Annex 14 Vol. 1.5.1, 1.5.2, 1.5.3 & 1.5.4	Emam Khomaini, Mehrabad, Esfhan, Shahid Hashmi Nejad, Shiraz, Tabriz and Zahedan Intl. Airports	Implementation of Aerodrome Operations Safety Management	Nov, 2006	-	F H	Need to establish a State safety programme and implement an SMS in order to achieve an acceptable level of safety in Aerodrome Operations	Iran	Jan, 2013	U
2	Annex 14 Vol. 1.4.1, 1.4.3, 1.4.4	Emam Khomaini, Mehrabad, Esfhan, Shahid Hashmi Nejad, Shiraz, Tabriz and Zahedan Intl. Airport,	Implementation of Certification of Aerodromes used for international operations	Nov, 2006	-	F H	Need to establish an appropriate regulatory framework. Need to establish a criteria for the certification of aerodromes. Need to develop an Aerodrome Manual for each international aerodrome and insure it includes a safety management system prior to granting Certification of Aerodrome.	Iran	Jan, 2013	U

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the AOP Field

IRAQ

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	Annex 14 Vol. 1.5.1, 1.5.2, 1.5.3 & 1.5.4	Baghdad /Basrah/Erbil /Sulaymaniyah/ Al Najaf Int`l. Airports	Implementation of Aerodrome Operations Safety Management Implementation of Certification of Aerodromes used for international operations	Nov, 2006	-	F H O	Need to establish a State safety programme and implement an SMS in order to achieve an acceptable level of safety in Aerodrome OperationsDec, State: Dec 2010 except for Baghdad & Najaf June 2011	Iraq	Dec, 2014	U
2	Annex 14 Vol. 1.4.1, 1.4.3, 1.4.4	Baghdad/ Basrah/ Erbil /Sulaymaniyah / Al Najaf Intl. Airports	Implementation of Certification of Aerodromes used for international operations	Nov, 2006	-	F H O	Need to establish an appropriate regulatory framework. Need to establish a criteria for the certification of aerodromes. Need to develop an Aerodrome Manual for each international aerodrome and insure it includes a safety management system prior to granting certification of aerodrome. State: Dec, 2010 except for Baghdad & Najaf June 2011	Iraq	Jan, 2014	U

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the AOP Field

JORDAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	Annex 14 Vol. 1.5.1, 1.5.2, 1.5.3 & 1.5.4	Amman/Queen Alia, Amman/Marka, King Hussien/Aqaba Intl. Airports	Implementation of Aerodrome Operations Safety Management	Nov, 2006	State Safety Programme has been established, SMS is implemented at King Hussein Int.l Aerodrome only.	S	Need to ensure implementation of SMS for aerodrome operations at Queen Alia, and Marka Int'l Aerodromes in order to achieve an acceptable level of safety	Jordan CARC	Sep, 2013	U

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the AOP Field

KUWAIT

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination	Description	Executing Body	Date of Completion	Priority for Action
No Deficiencies Reported									

[(1)] Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the AOP Field

LEBANON

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	Annex 14 Vol. 1.4.1, 1.4.4	R.B.H. Beirut Intl. Airport	Implementation of Certification of Aerodromes used for international operations	Nov, 2006	-	F H	Need to develop an Aerodrome Manual for each international aerodrome and insure it includes a safety management system prior to granting the aerodrome certificate	Lebanon	Jan, 2013	U
2	Annex 14 Vol. 1.5.1, 1.5.2, 1.5.3 & 1.5.4	R.B.H. Beirut Intl. Airport	Implementation of Aerodrome Operations Safety Management	Nov, 2006	-	F H	Need to establish a State safety programme and implement an SMS in order to achieve an acceptable level of safety in Aerodrome Operations	Lebanon	Jan, 2013	U

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the AOP Field

OMAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	Annex 14 Vol. 1.4.1, 1.4.4	Muscat/ Salalah Intl. Airports	Implementation of Certification of Aerodromes used for international operations	Nov, 2006	-	H	Need to devlope an Aerodrome Manual for each international aerodrome and insure it includes a safety management system prior to granting the aerodrome certificate	Oman	Dec, 2013	U
2	Annex 14 Vol. 1.5.1, 1.5.2, 1.5.3 & 1.5.4	Muscat/ Salalah Intl. Airports	Implementation of Aerodrome Operations Safety Management	Nov, 2006	-	H	Need to establish a State safety programme and implement an SMS in order to achieve an acceptable level of safety in Aerodrome Operations	Oman	Dec, 2013	U

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the AOP Field

QATAR

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination	Description	Executing Body	Date of Completion	Priority for Action
No Deficiencies Reported									

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the AOP Field

SAUDI ARABIA

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination	Description	Executing Body	Date of Completion	Priority for Action
No Deficiencies Reported									

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the AOP Field

SYRIA

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3	Damascus int`l Airport	Apron lighting inadequate	Sep, 2003	-	F H	Apron lighting is to be improved	Syria	Jan, 2013	U
2	Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3	Damascus int`l Airport	Runway surface rough and damaged. Runway markings unsatisfactory	Sep, 2003	-	F H	RWY Surface to be repaired and refurbished, Markings are to be improved	Syria	Jan, 2013	A
3	Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3	Damascus int`l Airport	DAM/DVOR 116 MHZ Out of Service	Jun, 2004	-	F	The VOR/DME to be replaced	Syria	Jan, 2013	A
4	Annex 14 Vol. 1.4.1, 1.4.4	Damascus, Aleppo, Bassel Al-Assad Int`l. Airports	Implementation of Certification of Aerodromes used for international operations	Nov, 2006	-	F H	Need to devlope an Aerodrome Manual for each international aerodrome and insure it includes a safety management system prior to granting the aerodrome certificate	Syria	Jan, 2013	U
5	Annex 14 Vol. 1.5.1, 1.5.2, 1.5.3 & 1.5.4	Damascus, Aleppo, Bassel Al-Assad Intl. Airports	Implementation of Aerodrome Operations Safety Management	Nov, 2006	-	F H	Need to establish a State safety programme and implement an SMS in order to achieve an acceptable level of safety in Aerodrome Operations	Syria	Jan, 2013	U

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the AOP Field

UAE

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination	Description	Executing Body	Date of Completion	Priority for Action
No Deficiencies Reported									

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the AOP Field

YEMEN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	Annex 14 Vol. 1.5.1, 1.5.2, 1.5.3 & 1.5.4	Sanaa, Aden, Hodeibah, Taiz Intl. Airports	Implementation of Aerodrome Operations Safety Management	Nov, 2006	-	F H	Need to establish a State safety programme and implement an SMS in order to achieve an acceptable level of safety in Aerodrome Operations	Yemen	Jan, 2013	U
2	Annex 14 Vol. 1.4.1, 1.4.3, 1.4.4	Sanaa, Aden, Hodeibah, Taiz Intl. Airports	Implementation of Certification of Aerodromes used for international operations	Nov, 2006	-	F H	Need to establish an appropriate regulatory framework. Need to establish a criteria for the certification of aerodromes. Need to devlope an Aerodrome Manual for each international aerodrome and insure it includes a safety management system prior to granti	Yemen	Jan, 2013	U

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(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

REPORT ON AGENDA ITEM 7: FUTURE WORK PROGRAMME

7.1 The meeting noted that the creation of RASGs by the Council, similar to PIRGs, has raised concern related to the work distribution between PIRG framework in which regional and national plans are being developed and implemented and the RASG framework that would monitor progress, coordinate actions among States to facilitate implementation of Global Aviation Safety Plan (GASP).

7.2 While RASGs will 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, ATM and Aerodrome Safety. Until such time, the Secretariat will ensure that the safety issues raised by the PIRGs and RASGs are fully coordinated.

7.3 The meeting recalled that taking into consideration the global developments related to air navigation planning and implementation and performance monitoring of the air navigation systems, and in order to increase the efficiency of MIDANPIRG, the Third Meeting of the MIDANPIRG Steering Group (MSG/3) reviewed several proposals related to a new MIDANPIRG Organizational Structure and agreed that the proposals at **Appendices 7A** and **7B** to the Report on Agenda Item 7 be further reviewed and considered.

7.4 Accordingly, as a follow-up action to the MSG/3 Draft Conclusion 3/2, the ICAO MID Regional Office issued State Letter Ref.: ME 3/56 – 13/170 dated 3 July 2013, requesting States to advise the ICAO MID Regional Office about their preferred Organizational Structure (Proposal A or B). The meeting noted that out of the nine (9) replies received by the ICAO MID Regional Office, eight (8) States supported the Organizational Structure at Appendix 7A.

7.5 The meeting reviewed the work programme of the AOP SG and the ADCI TF and recognized that the majority of their activities are of safety nature and fit within the framework of RASG-MID. Aerodrome Specialists from MID States and ICAO will continue to support MIDANPIRG and its subsidiary bodies for aerodromes related Air Navigation matters such as preparation of Air Navigation Plan, AN Deficiencies, and implementation of the associated ASBU modules.

7.6 Based on the above and in order to avoid duplication of efforts, the meeting agreed to the following Draft Decision:

DRAFT DECISION 9/5: TRANSFER OF AERODROMES ACTIVITIES TO RASG-MID

That,

a) the activities of the AOP SG and ADCI TF be transferred to the RASG-MID framework ; and

b) Aerodrome Specialists from MID States and ICAO will continue to support MIDANPIRG and its subsidiary bodies for aerodromes related Air Navigation matters.

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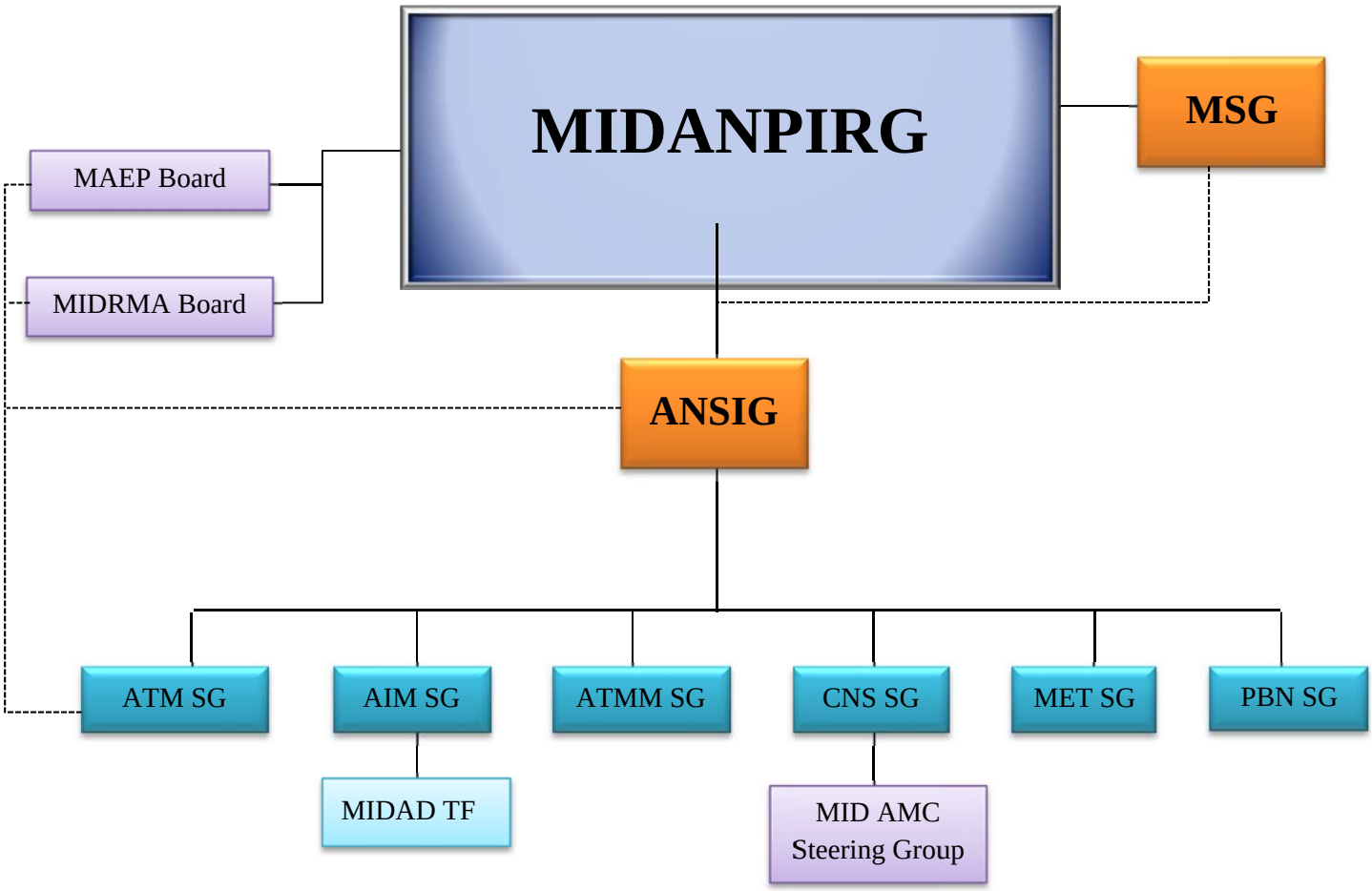
Report on Agenda Item 7

7.7 The meeting noted that the FOD/Wildlife Workshop will be organized by IATA in coordination with ICAO and will be hosted by Egypt in Cairo 20-22 January 2014. States and Service providers are encouraged to attend in this Workshop.

AOP SG/9
Appendix 7A to the Report on Agenda Item 7



PRPOSAL A

MSG	MIDANPIRG Steering Group	MET SG	Meteorology Sub-Group
ANSIG	Air Navigation Systems Implementation Group	PBN SG	Performance Based Navigation Sub-Group
AIM SG	Aeronautical Information Management Sub-Group	MIDAD TF	MID Region AIS Database Task-Force
ATM SG	Air Traffic Management Sub-Group	MAEP Board	MID Region ATM Enhancement Programme Board
ATMM SG	Air Traffic Management Measurement Sub-Group	MIDRMA Board	Middle East Regional Monitoring Agency Board
CNS SG	Communication Navigation Surveillance Sub-Group	MID AMC Steering Group	MID Region ATS Message Management Centre Steering Group

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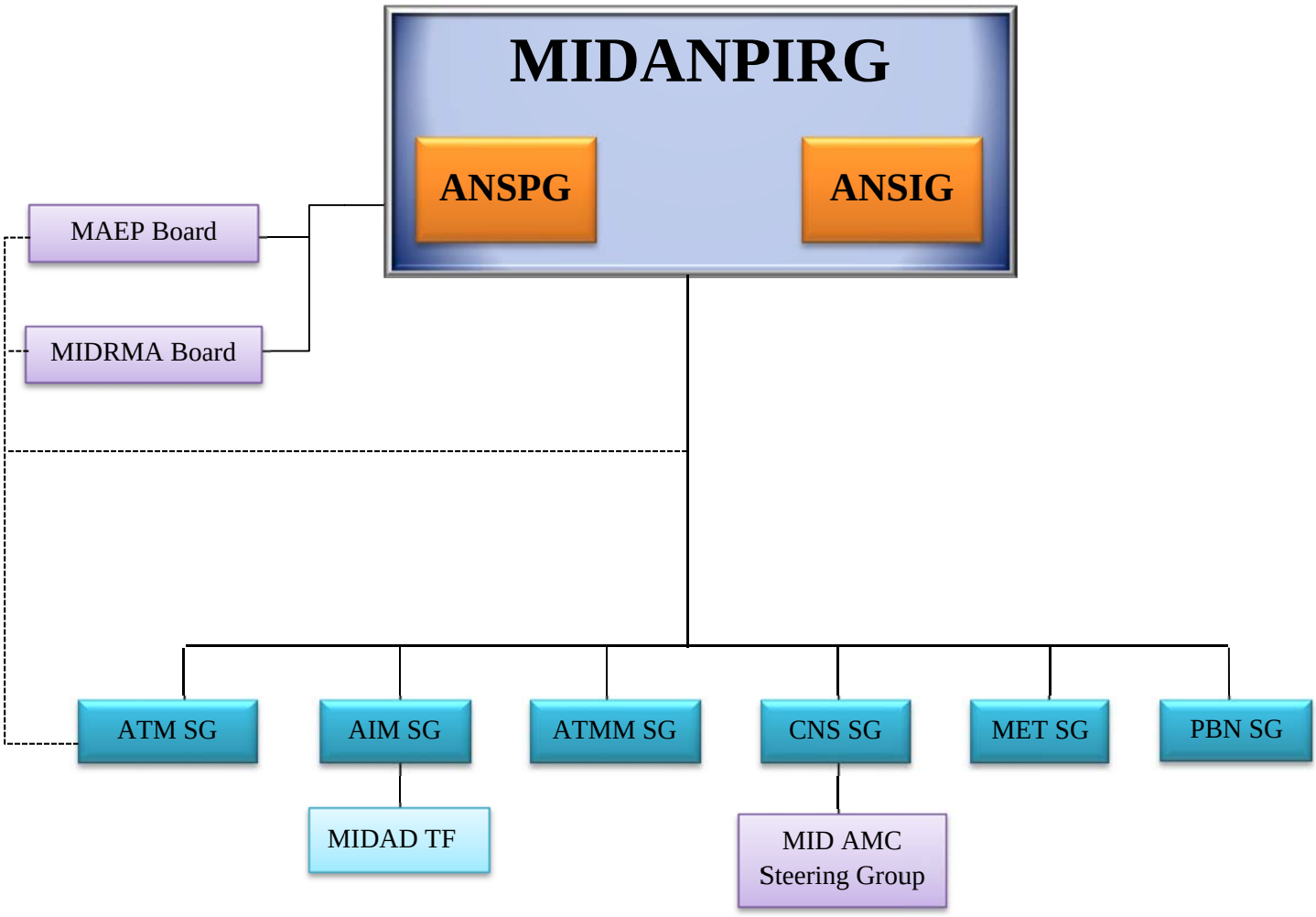
AOP SG/9
Appendix 7B to the Report on Agenda Item 7



PROPOSAL B

ANSIG	Air Navigation Systems Implementation Group	MET SG	Meteorology Sub-Group
ANSPG	Air Navigation Systems Planning Group	PBN SG	Performance Based Navigation Sub-Group
AIM SG	Aeronautical Information Management Sub-Group	MIDAD TF	MID Region AIS Database Task-Force
ATM SG	Air Traffic Management Sub-Group	MAEP Board	MID Region ATM Enhancement Programme Board
ATMM SG	Air Traffic Management Measurement Sub-Group	MIDRMA Board	Middle East Regional Monitoring Agency Board
CNS SG	Communication Navigation Surveillance Sub-Group	MID AMC Steering Group	MID Region ATS Message Management Centre Steering Group

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AOP SG/9
Report on Agenda Item 8

REPORT ON AGENDA ITEM 8: ANY OTHER BUSINESS

8.1 Nothing has been discussed under this Agenda Item.

AOP SG/9
Attachment A to the Report

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