



**INTERNATIONAL CIVIL AVIATION ORGANIZATION**

**REPORT OF THE SIXTH MEETING OF  
THE AERODROME OPERATIONAL PLANNING  
SUB-GROUP**

**AOP SG/6**

*(Cairo, 23 – 25 October 2007)*

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

The designations employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of ICAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontier or boundaries.

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History of the Meeting

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## **PART I - HISTORY OF THE MEETING**

### **1. PLACE AND DURATION**

1.1 The Sixth Meeting of the MIDANPIRG Aerodrome Operational Planning Sub-Group (AOP SG/6) was held at ICAO Middle East Regional Office, Cairo, 23 – 25 October 2007.

### **2. OPENING**

2.1 Mr. M. Khonji ICAO Regional Director, welcomed all the delegates to Cairo and gave a brief information on the importance of aerodromes to support air Navigation activities and meet the rapid growth of air transport in the MID Region. He further, highlighted the Global Air Navigation Plan Initiatives with regard to aerodrome infrastructure and operations, safety of runway operations. He brought to the attention of the meeting issues to be addressed by the Sub-Group with a focus on performance monitoring for the elimination of deficiencies, implementation of certification of aerodromes, Safety Management systems and safety requirements of runway operations. Mr. Khonji wished the meeting every success in its deliberations.

### **3. ATTENDANCE**

3.1 The meeting was attended by a total of twenty-two (22) participants, which included delegates from six (6) States and two (2) International Organizations. The list of participants is as at **Attachment A** to the report.

### **4. OFFICERS AND SECRETARIAT**

4.1 Due to the absence of the Sub-Group Chairperson, Mr. Munir A Asad the Vice-Chairman from Jordan chaired the meeting. Mrs. Nawal A. HADY, Regional Officer, Aerodromes and Ground Aids from the ICAO Middle East Cairo Office, was 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 the Provisional Agenda Items                                  |
| Agenda Item 2: | Follow-up the MIDANPIRG Conclusions and Decisions relevant to AOP field   |
| Agenda Item 3: | Review and update Tables AOP of MID ANP & FASID in relation to aerodromes |
| Agenda Item 4: | Implementation of Certification of Aerodromes                             |

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- Agenda Item 5: Establishment of State' Safety Programme and implementation of Safety Management System (SMS) at aerodromes
- Agenda Item 6: Runway Safety and efficiency at MID Aerodromes
- Agenda Item 7: Review of Air Navigation deficiencies in the AOP field
- Agenda Item 8: Review of other AGA Technical Matters:
- 8.1 Global Air Navigation Plan and MID Region Strategy for the Implementation of the Global Plan Initiatives (GPIs) related to aerodrome design and operations
  - 8.2 Application of Amendments 8 and 9 to Annex 14
  - 8.3 Readiness of MID aerodromes to accommodate New Larger Aircrafts (NLA)
  - 8.4 Other relevant aspects of Annex 14
- Agenda Item 9: Future Work Programme
- Agenda Item 10: 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.

7.2 In the same context, the Sub-Group can record its actions in the form of Conclusions and Decisions where no further action is required by the MIDANPIRG or already authorized by MIDANPIRG.

## 8. LIST OF DRAFT CONCLUSIONS AND DECISIONS

DRAFT CONCLUSION 6/1: PROVISION OF INFORMATION ON DEVELOPMENT PLANS IN THE AERODROME AREA

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- DRAFT CONCLUSION 6/2: PROPOSAL FOR AN AMENDMENT TO MID ANP/FASID – AOP TABLES
- DRAFT CONCLUSION 6/3: ACTION PLAN FOR THE IMPLEMENTATION OF CERTIFICATION OF AERODROMES
- DRAFT CONCLUSION 6/4: ACTION PLAN FOR THE ESTABLISHMENT OF STATE’S SAFETY PROGRAMME AND ACCEPTABLE LEVEL(S) OF SAFETY TO BE ACHIEVED IN THE AERODROME OPERATIONS
- DRAFT CONCLUSION 6/5: REPORTING OF AIRCRAFT ACCIDENTS AND INCIDENTS AT AERODROMES
- DRAFT CONCLUSION 6/6: ACTION PLAN FOR THE IMPLEMENTATION OF SAFETY MANAGEMENT SYSTEM ACCEPTABLE TO THE STATE AT EACH CERTIFIED AERODROME
- DRAFT CONCLUSION 6/7: DEVELOPMENT OF RUNWAY INCURSION PREVENTION PROGRAMME AT MID AERODROME
- DRAFT CONCLUSION 6/8: ESTABLISHMENT OF “PAVEMENT SURFACE MAINTENANCE PROGRAMME” AND “CORRECTION PROGRAMME FOR THE REMOVAL OF RUBBER BUILD-UP ON RUNWAYS” IN THE MID REGION
- DRAFT DECISION 6/9: UPDATES TO AOP SG TOR AND WORK PROGRAMME

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**PART II: REPORT ON AGENDA ITEMS**

**REPORT ON AGENDA ITEM 1: ADOPTION OF THE PROVISIONAL AGENDA**

1.1 The meeting was presented with a Provisional Agenda for the Sixth Meeting of the AOP Sub-Group and was informed that this time the Provisional Agenda was established in support of the ICAO Strategic Objectives 2005-2010. The Provisional Agenda focuses on issues related to different technical and implementation issues that require appropriate performance monitoring and action planning.

1.2 After review the meeting adopted the Agenda as shown in paragraph 6 of the History of the Meeting.

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AOP SG/6  
Report on Agenda Item 2

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

2.1 Under this Agenda Item, the meeting recalled that the MIDANPIRG/10 meeting held in Doha, Qatar, 15-19 April 2007, raised concern about the number of current MIDANPIRG Conclusions and Decisions, and was of view that the review of these Conclusions/Decisions consumed a lot of time. Accordingly, the meeting was of view that each MIDANPIRG subsidiary body should review the MIDANPIRG Conclusions/Decisions related to its Terms of Reference (TOR) and decide whether to maintain, remove or replace the Conclusions/Decisions with more up-to-date ones.

2.2 The meeting noted that a new working methodology adopted by MIDANPIRG/10 by which follow-up actions plan is required and had become part of each meeting of MIDANPIRG and its subsidiary bodies.

2.3 Based on the above, the meeting agreed to review the list of all the MIDANPIRG Conclusions/Decisions related to the TOR of the AOP Sub-Group and identify those Conclusion/Decisions that may require action by the meeting, and/or reviewing them in detail under the appropriate agenda items.

2.4 With particular regard to Conclusion 9/3 “*Reduction of bird strike hazards to aircraft operations on or in the vicinity of MID airports*”, the meeting was of the view that the conclusion continue as an “on going task” for MID States to provide information on the level of implementation of relevant Annex 14 – Chapter 9-4; requirements and action plan for non-compliances, if any. AOP SG/7 to follow-up and suggest further course of actions that might be required.

2.5 Also the meeting was of the view that MIDANPIRG/9 Conclusion 9/5 “Control of obstacles at and around aerodromes”; continue as an “on going” activity.

2.6 The meeting noted the follow-up actions taken by the Secretariat and States on current MIDANPIRG Conclusions and Decisions relevant to the AOP field attached at **Appendix 2A** to the report on Agenda Item 2.

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AOP SG/6  
 Appendix 2A to the Report on Agenda Item 2

**REVIEW OF CURRENT MIDANPIRG CONCLUSIONS/DECISIONS RELATED TO AOP FIELD**

| CONCLUSIONS AND DECISIONS  | FOLLOW-UP      | REMARKS |
|--|----------------|---------|
| <p><b>CONCLUSION 9/3: REDUCTION OF BIRD STRIKE HAZARDS TO AIRCRAFT OPERATIONS ON OR IN THE VICINITY OF MID AIRPORTS</b></p> <p>That,</p> <ul style="list-style-type: none"> <li>a) an integrated approach be developed by State authorities to control Birds Hazards at airports; and</li> <li>b) operating agencies be urged to advise concerned States of bird strikes occurring or noticed on any of flight phases (especially in departure from airports).</li> </ul>  | <p>Ongoing</p> |         |
| <p><b>CONCLUSION 9/5: CONTROL OF OBSTACLES AT AND AROUND AERODROMES</b></p> <p>That, MID States be urged to:</p> <ul style="list-style-type: none"> <li>a) comply with ICAO Annex 14 and associated documents (relevant Annexes, PANS-OPS, Guidance Manuals,...etc) governing the control of obstacles at and around aerodromes;</li> <li>b) apprise relevant national authorities of the importance of coordinating with CAAs/Airport Operators, the control of construction heights at and around airports for safe operations of aircraft as per ICAO specifications and national regulations; and</li> <li>c) extend every national efforts to develop necessary measures including legislations to expedite the implementation of Annex 14 provisions and other related ICAO specifications.</li> </ul> | <p>Ongoing</p> |         |

| CONCLUSIONS AND DECISIONS   | FOLLOW-UP                      | REMARKS   |
|---|--------------------------------|---|
| <p><b>DECISION 10/4: PAPERLESS MEETING</b></p> <p>That, with the objective to reduce printing and distribution costs of the MID Regional Office, to the extent possible:</p> <p>a) all meetings of MIDANPIRG (including meetings of Sub-Groups, Working Groups and Task Forces, etc.) be conducted in paperless format whereby all meetings documentation and working papers are made available on the MID Regional Office website and/or the MID Forum; and</p> <p>b) meeting reports and Amendment Proposals to the Air Navigation Plan of the MID Region be posted on the MID Regional Office website.</p>   | <p>Actioned</p>                |   |
| <p><b>CONCLUSION 10/7: MID BASIC ANP AND FASID (DOC 9708)</b></p> <p>That, with a view to have the final version of the MID BASIC ANP and FASID (Doc 9708) published prior to 31 December 2007:</p> <p>a) the ICAO MID Regional Office, on behalf of MIDANPIRG, initiate all necessary Amendment Proposals to the MID Basic ANP and FASID, prior to 31 May 2007, in order to update the AIS, AOP, ATM, CNS and MET regional requirements and reflect the changes made to the FASID Tables; and</p> <p>b) ICAO allocates sufficient resources and higher priority for the publication of Doc 9708 in English and Arabic versions, incorporating all approved Amendments.</p> | <p>Actioned</p> <p>Ongoing</p> | <p>ICAO to incorporate approved MID FASID amendment proposal Serial No.: MID 07/04-AOP in the final version of Doc 9708</p> |

| CONCLUSIONS AND DECISIONS   | FOLLOW-UP | REMARKS   |
|---|-----------|---|
| <p><b>CONCLUSION 10/13: MID REGION STRATEGY FOR THE IMPLEMENTATION OF THE GLOBAL PLAN INITIATIVES (GPIS)</b></p> <p>That, the MID Region Strategy for the implementation of the Global Plan Initiatives (GPIS) is adopted as at <b>Appendix 5.1C</b> to the (MIDANPIRG/10) report on Agenda Item 5.1</p>  | Ongoing   | AOP SG to follow up Status of implementation of GPIS relevant to AOP    |
| <p><b>DECISION 10/14: IMPLEMENTATION OF WORK PROGRAMME IN SUPPORT OF STRATEGIC PERFORMANCE OBJECTIVES</b></p> <p>That, in support of the evolution from a systems-based approach to a performance-based approach to planning and implementation of air navigation, the following projects are to be reflected in the MID Region implementation plan:</p> <ul style="list-style-type: none"> <li>a) implementation of Certification of aerodromes and SMS at aerodromes in the MID Region;</li> <li>b) preparedness to accommodate NLAs at some existing/new aerodromes in the MID Region;</li> <li>c) support the establishment and implementation of Runway surface pavement maintenance programme in the MID Region;</li> <li>d) enhancement of Runway incursion prevention programme; and</li> <li>e) enhancement of surface movement guidance and control systems (SMGCS) at MID Aerodromes.</li> </ul> | Ongoing   | Initiate related AOP Projects and/or Follow up progress on each project |

| CONCLUSIONS AND DECISIONS   | FOLLOW-UP | REMARKS |
|---|-----------|---------|
| <p><b>DECISION 10/19: IMPLEMENTATION OF CERTIFICATION OF AERODROMES</b></p> <p>That, MID States that have not yet certified their international aerodromes, are urged to do so and:</p> <ul style="list-style-type: none"> <li>a) establish an appropriate regulatory framework and a criteria for the certification of aerodromes;</li> <li>b) develop an Aerodrome Manual for each international aerodrome insuring that it includes a safety management system prior to granting the aerodrome certificate; and</li> <li>c) certify all its International Aerodromes insuring that they continue meeting certification obligations.</li> </ul> | Ongoing   |         |
| <p><b>DECISION 10/20: STATUS OF IMPLEMENTATION OF CERTIFICATION OF AERODROMES</b></p> <p>That, MID States not fully implementing certification of each of their international aerodromes is required to:</p> <ul style="list-style-type: none"> <li>a) provide the rationale for non implementation;</li> <li>b) advise if ICAO assistance is needed; and</li> <li>c) provide information on the expected date for fully certifying each of their international aerodrome.</li> </ul>   | Ongoing   |         |
| <p><b>CONCLUSION 10/21: PROMULGATION OF INFORMATION ON CERTIFICATION OF AERODROMES IN THE STATE AIP</b></p> <p>That, ICAO considers amendment of Annex 15 with a view to specify a section/table within the Aerodrome Part of the AIP for the promulgation of the information related to certification of aerodromes.</p>   | Ongoing   |         |

| CONCLUSIONS AND DECISIONS  | FOLLOW-UP | REMARKS   |
|--|-----------|---|
| <p><b>CONCLUSION 10/22: ESTABLISHMENT OF “PAVEMENT SURFACE MAINTENANCE PROGRAMME” AND “CORRECTION PROGRAMME FOR THE REMOVAL OF RUBBER BUILD-UP ON RUNWAYS” IN THE MID REGION</b></p> <p>That, MID States establish and implement an effective “Pavement Surface Maintenance Programme” and a “Correction Programme for the Removal of Rubber Build-Up on Runways” on a continuous basis.</p> | Ongoing   |   |
| <p><b>CONCLUSION 10/23: ASSISTANCE OF MID STATES IN ELIMINATING DEFICIENCIES IN AERODROME OPERATIONAL SERVICES</b></p> <p>That, ICAO considers organizing a workshop/seminar on one of the following subjects: Aerodrome Rescue and Fire Fighting, Aerodrome Emergency Plan, Removal of Disabled Aircraft, Apron Management and Surface Movement Guidance and Control System (SMGCS).</p>    | Ongoing   | Aerodrome Emergency planning & ARFF were decided by AOP SG/6 meeting – tentatively scheduled from 12 to 14 May 2008 |
| <p><b>CONCLUSION 10/76: ENHANCEMENT OF MID REGION’S AIR NAVIGATION DEFICIENCY DATABASE</b></p> <p>That, ICAO MID Regional Office provide searching feature for the MID Air Navigation Deficiency database on the website.</p>  | Ongoing   |   |

| CONCLUSIONS AND DECISIONS  | FOLLOW-UP      | REMARKS |
|--|----------------|---------|
| <p><b>CONCLUSION 10/77: ELIMINATION OF AIR NAVIGATION DEFICIENCIES IN THE MID REGION</b></p> <p>That,</p> <ul style="list-style-type: none"> <li>a) MID States review their respective lists of identified deficiencies, define their root causes and forward an action plan for rectification of outstanding deficiencies to the ICAO MID Regional Office;</li> <li>b) MID States increase their efforts to overcome the delay in mitigating air navigation deficiencies identified by MIDANPIRG and explore ways and means to eliminate deficiencies;</li> <li>c) MID States experiencing difficulties in financing the elimination of safety-related deficiencies may wish to take advantage of the funding opportunity offered by the International Financial Facility for Aviation Safety (IFFAS);</li> <li>d) users of air navigation facilities and services in the MID Region report to the ICAO MID Regional Office when the remedial action on a deficiency has been taken, and</li> <li>e) ICAO continues to provide assistance to States for the purpose of rectifying deficiencies; and when required, States request ICAO assistance through Technical Co-operation Programme and/or Special Implementation Projects (SIP).</li> </ul> | <p>Ongoing</p> |         |
| <p><b>CONCLUSION 10/78: ENHANCEMENT OF MID STATES' CAPABILITIES FOR SAFETY OVERSIGHT</b></p> <p>That, in order to improve aviation safety in the MID Region; MID States are urged to enhance their individual safety oversight capabilities and ensure the establishment and management of a sustainable safety oversight system.</p>  | <p>Ongoing</p> |         |

| CONCLUSIONS AND DECISIONS  | FOLLOW-UP      | REMARKS |
|--|----------------|---------|
| <p><b>CONCLUSION 10/79: REGIONAL COOPERATION FOR SAFETY OVERSIGHT</b></p> <p>That, MID States:</p> <ul style="list-style-type: none"> <li>a) cooperate bilaterally and/or jointly as a group of States to make the appropriate arrangements in order to strengthen their safety oversight capabilities; and</li> <li>b) that have not yet done so, are encouraged to become a member of a COSCAP Programme.</li> </ul>                                   | <p>Ongoing</p> |         |
| <p><b>CONCLUSION 10/82: IMPLEMENTATION OF SAFETY MANAGEMENT AT AERODROME OPERATIONS</b></p> <p>That, MID States are urged to:</p> <ul style="list-style-type: none"> <li>a) establish a Safety Programme in order to achieve an acceptable level of safety in aerodrome operations; and</li> <li>b) ensure that a certified aerodrome operator implements a Safety Management System acceptable to the State as part of its Safety Programme.</li> </ul> | <p>Ongoing</p> |         |

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AOP SG/6  
Report on Agenda Item 3

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**REPORT ON AGENDA ITEM 3: REVIEW AND UPDATE TABLES AOP OF MID ANP AND FASID IN RELATION TO AERODROMES**

3.1 Under this Agenda Item the meeting was invited to note that Basic ANP and FASID is a planning document and need not necessarily reflect the existing facilities and services. The facilities and services shown in the documents represent those, which will be needed for a reasonable planning of approximately 5 years. Therefore these documents are not to be used for operational purposes.

3.2 The meeting noted that there are number of new international aerodromes and/or major aerodrome development projects currently under construction by some MID States. The meeting was of the view that significant projects related to aerodromes are to be reflected in the MID ANP/FASID – Part III, AOP-1 Tables should reflect near term planning and implementation of aerodromes required for international air transport. Accordingly the meeting formulated the following Draft Conclusion:

***DRAFT CONCLUSION 6/1: PROVISION OF INFORMATION ON DEVELOPMENT PLANS IN THE AERODROME AREA***

*That, MID States provide information on their development Plans in the area of aerodromes for the next 5 years for up-dating MID ANP/FASID (Doc 9708) in accordance with the amendment established procedures.*

3.3 The attention of the meeting was drawn to the procedure for the amendment of the Basic Air Navigation Plan as approved by the Council on 25 February 1998, and that for the amendment of the FASID, as approved by the Council on 26 February 1997, that form part of the Introduction of MID Basic ANP (Doc. 9708, Volume I).

3.4 The meeting was presented with the last amended Draft MID FASID - AOP-1 tables on 10 July 2007 as contained at **Appendix 3A** to the report on Agenda Item 3.

3.5 The meeting was of the view to expedite the approval of MID ANP/ FASID with particular attention to the need for the Arabic version. The meeting was advised that a target date was set for the issue of MID Basic ANP & FASID by the end of the year 2007. The attention of the meeting was drawn to possible slight delay.

3.6 The meeting was invited to note that there is a need to reflect changes that were made to MID FASID AOP-1 table; that might require proposing an amendment to AOP table of the MID Basic Air Navigation Plan “List of aerodromes required for international transport” MID ANP AOP Tables, as contained at **Appendix 3B** to the report on Agenda Item 3.

3.7 In addition, new updates were received during the meeting from Bahrain and UAE. The meeting was of the view that related amendment proposals be prepared in a later stage after having Doc 9708 approved. Accordingly, the meeting agreed to the following Draft Conclusion:

AOP SG/6  
Report on Agenda Item 3

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***DRAFT CONCLUSION 6/2: PROPOSAL FOR AN AMENDMENT TO MID ANP/FASID-AOP TABLES***

*That, a proposal for amendments to MID ANP/FASID-AOP Tables contained at **Appendices 3A and 3B** to the report on Agenda Item 3 be prepared by MID Office for approval according to established procedures.*

3.8 The meeting agreed that CNS-3 Tables are to be reviewed and regularly updated by the CNS SG meeting.

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**TABLE FASID AOP 1 – PHYSICAL CHARACTERISTICS, RADIO AND  
VISUAL AIDS AT AERODROMES**

**Note - The names of aerodromes listed in column 1 of the following table derive from the list of international aerodromes required in the AOP Part of the Basic MID ANP.**

*EXPLANATION OF THE TABLE*

*General*

Table AOP 1 shows the operational requirements for air traffic services, physical characteristics, radio navigation aids, visual aids and runway visual range (RVR) at each aerodrome.

Columns 6 to 9 show physical characteristics related to taxiways and runways. The physical characteristics of taxiways should be appropriate for the runways with which they are related.

Columns 5 and 10 to 13 show the requirements for air traffic services, radio and visual aids and RVR for the runway with which the entry is associated. These aids are generally indicated by "X" and the "X" indicates that the aid should be in accordance with the type of runway (column 7). If the aid is different from the type of runway, then a "1", "2" or "3" is entered to indicate Category I, II or III, respectively.

*Column*

- 1 Name of the city and aerodrome, preceded by the location indicator.

*Note.*—When the aerodrome is located on an island and no particular city or town is served by the aerodrome, the name of the island is included instead of the name of a city.

Designation of the aerodrome as:

RS — international scheduled air transport, regular use  
RNS — international non-scheduled air transport, regular use  
AS — international scheduled air transport, alternate use  
ANS — international non-scheduled air transport, alternate use

When an aerodrome is needed for more than one type of use, normally only the use highest on the above list is shown. An exception is that AS aerodromes are identified even when they are required for regular use by international non-scheduled air transport.

- 2 Alternate aerodromes for the regular aerodromes listed in column 1, or if the aerodrome listed in column 1 serves only as an alternate, the regular aerodromes for which it is an alternate. The aerodrome is shown by listing the name of the city, preceded by the location indicator.
- 3 Aerodrome reference code (RC) for aerodrome characteristics expressed in accordance with Annex 14, Volume I, Chapter 1.
- 4 Required rescue and fire fighting service (RFF). The required level of protection is expressed by means of an aerodrome RFF category number, in accordance with Annex 14, Volume I, Chapter 9, Section 9.2.
- 5 Air traffic services:

APP — Approach control service. An "R" is shown it indicates that the service should be provided with radar.  
TWR — Aerodrome control tower. An "R" is shown it indicates that the service should be provided with an aerodrome surface movement radar.  
ATIS — Automatic Terminal Information Service.  
AFIS — Aerodrome Flight Information Service.

- 6 Runway designation numbers.
- 7 Type of each of the runways to be provided. The types of runways, as defined in Annex 14, Volume I, Chapter 1 are:  
 NINST – non-instrument runway  
 NPA – non-precision approach runway  
 PA1 – precision approach runway Category I  
 PA2 – precision approach runway Category II  
 PA3 – precision approach runway Category III
- 8 Taxiway (TWY) to be provided to threshold of associated runway.
- 9 Required runway length expressed in terms of a balanced field length. In planning, account is taken of local conditions. If the requirement for alternate use is more critical, the aircraft type and runway length required are also indicated below the abbreviation “AS”.

Critical aircraft for pavement strength and required pavement strength expressed as the all-up mass in thousands of kilograms. The operational mass of an aircraft, such as B747 and DC10, which may have a bearing on the design of culverts, cable ducts, bridge overpasses, etc., is also shown. If the aircraft requiring the aerodrome for alternate use is more critical, the aircraft type and pavement strength required are also indicated below the abbreviation “AS”.

*Note 1.—A specific aircraft model based on the best available sources of information should be selected for planning runway length as this requirement is particularly affected by aircraft model differences. Aircraft models should thus be reviewed carefully to see that the correct one is used in determining the aerodrome characteristics. ICAO's Air Navigation Commission has directed that RAN meetings provide in the plan as realistic figures as possible on runway length and pavement strength requirements at individual aerodromes.*

*Note 2.—For international general aviation aerodromes, when there is no requirement for the runway to be paved, the pavement strength may be shown as “UNPAV”.*

*Note 3.—Should a requirement for more than one runway be indicated for an aerodrome, the lengths of the secondary runways. A specification concerning the lengths of such runways can be found in Annex 14, Volume I, Chapter 3, Section 3.1.7.*

*Note 4.—When the length or pavement strength is not a current requirement, the year in which it will be required is entered.*

*Radio navigation aids (approach and landing)*

- 10 PA-Precision Approach Aid, shown against the runway to be served and indicated by an “X” .  
 NPA— Non Precision Approach Aid. An “X” indicates that the aid should be provided.  
 T—Terminal Navigation Aid. An “X” indicates that one of the aids should be provided.

*Note: Refer to Table CNS 3 for details. The appropriate radio navigation aid and the requirement of aligning DME with ILS/VOR are shown in this Table CNS 3.*

*Lighting aids*

- 11 PA — precision approach lighting system, Category I, II or III shown by an “X” if the aid is the same category as the runway type (column 7) or, if it is different, by the numeral 1, 2 or 3 against the runway to be served, to indicate the type of system required.  
 SA — simple approach lighting system, shown by an “X” against the runway to be served.  
 VA — visual approach slope indicator system, shown by an “L” or an “S” against the runway to be served. The letter “L” indicates that the system should be PAPI or T-VASIS (AT-VASIS) and the letter “S” indicates that the system should be PAPI/(APAPI).  
 RWY — runway edge, threshold and runway end lighting. An “X” indicates that these aids should be provided.  
 CLL — runway centre line lighting, shown by an “X” against the runway to be served.

**TDZ** – runway touchdown zone lighting, shown by an “X” against the runway to be served.

**TE** – taxiway edge lighting. An “X” indicates that the aid should be provided. This requirement pertains to the entire aerodrome and only one entry is made when planning requirements for more than one runway are shown.

**TC** – taxiway centre line lighting. An “X” indicates that this should be provided for the particular runway with which the entry is associated.

**STB** – stop bars. An “X” indicates that stop bars should be provided for the runway with which the entry is associated.

**B** – aerodrome or identification beacon. An “X” indicates that the aid should be provided. This requirement pertains to the entire aerodrome and only one entry is made when planning requirements for more than one runway are shown.

*Marking aids*

12 **DES** – runway designation marking, shown by an “X” against the runway to be served.

**CLM** – runway centre line marking. An “X” indicates that the aid should be provided.

**THR** – runway threshold marking, shown by an “X” against the runway to be served.

**TDZ** – runway touchdown zone marking, shown by an “X” against the runway to be served.

**SST** – runway side stripe marking. An “X” indicates that the aid should be provided.

**AMG** – aiming point marking, shown by an “X” against the runway to be served.

**TWY** – taxiway centre line and, where required, edge marking. An “X” indicates that the aid should be provided.

**HLD** – taxiway holding position marking, shown by an “X” against the runway to be served. The pattern of the marking should conform to the provisions of Annex 14, Volume I, Section 5.2.9.

13 **Runway visual range (RVR).**

**TDZ** – observations should be provided representative of the touchdown zone.

**MID** – observations should be provided representative of the middle of the runway.

**END** – observations should be provided representative of the stop end portion of the runway.

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| CITY/AERODROME/USE<br>VILLE/AERODROME/EMPLOI<br>CIUDAD/AERODROMO/USO | ALTERNATE<br>AERODROMES<br>AERODROMOS DE<br>DEGAGEMENT<br>AERODROMOS DE<br>ALTERNATIVA |          | AERODROME<br>AERODROME |     |     |   | PHYSICAL CHARACTERISTICS<br>CARACTERISTIQUES PHYSIQUES<br>CARACTERÍSTICAS FÍSICAS |   |   |  | RADIO AIDS<br>AIDES RADIO<br>RADIOAYUDAS                               |   |    | LIGHTING AIDS<br>AIDES LUMINEUSES<br>AYUDAS LUMINOSAS |   |        |        |        |        | MARKING AIDS<br>MARQUES<br>SEÑALAMIENTO |        |        |   | RVR    |        |        |        |        |        |        |        |        |        |        |        |        |        |
|--|--|----------|------------------------|-----|-----|---|---|---|---|--|--|---|----|---|---|--------|--------|--------|--------|---|--------|--------|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|  |  |          | RC                     | RFF | ATS |   |   |   | RWY<br>NO<br>PISTE<br>NO<br>PISTA<br>NO | RWY TYPE<br>TYPE DE<br>PISTE<br>TIPO DE<br>PISTA | T<br>W<br>Y<br>P<br>AV.<br>STRENGTH<br>RESISTANCE<br>RESIST.<br>PAVIM. | RWY LENGTH<br>LONG. DE<br>PISTE LONG.<br>DE PISTA | PA | NPA   | T | P<br>A | S<br>A | V<br>A | R<br>W | C<br>L                                  | T<br>D | S<br>T | B | D<br>E | C<br>L | T<br>H | T<br>D | S<br>M | A<br>R | T<br>Z | H<br>G | Y<br>D | T<br>M | E<br>D | I<br>N | Z<br>D | D<br>D |
|  |  |          |                        |     | A   | T | A   | A |   |  |  |   |    |   |   |        |        |        |        |   |        |        |   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
| 1  | 2  |          | 3                      | 4   | 5   |   |   |   | 6                                       | 7  | 8  | 9   | 10 |   |   | 11     |        |        |        |   |        | 12     |   |        |        | 13     |        |        |        |        |        |        |        |        |        |        |        |
| OY TZ TAIZ/Ganad<br>RS   | OYAA   | Aden     | 4E                     | 9   | X   | X |   |   |   | 01   | NPA  | X   |    |   |   | X      | L      | X      |        | X                                       | X      | X      | X | X      | X      | X      | X      | X      | X      | X      | X      | X      | X      | X      | X      | X      |        |
|  | HFFF   | Djibouti |                        |     |     |   |   |   |   | 19   | NPA  |   |    |   |   | X      | L      |        |        |   | X      | X      | X | X      | X      | X      | X      | X      | X      | X      | X      | X      | X      | X      | X      | X      |        |
|  | OYHD   | Hodeidah |                        |     |     |   |   |   |   |  |  |   |    |   |   |        |        |        |        |   |        |        |   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |
|  | OYSN   | Sana'a   |                        |     |     |   |   |   |   |  |  |   |    |   |   |        |        |        |        |   |        |        |   |        |        |        |        |        |        |        |        |        |        |        |        |        |        |

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## INTERNATIONAL AERODROMES REQUIRED IN THE MIDDLE EAST REGION

*Note.- Aerodrome operational requirements for aerodromes listed in the following table are reflected in the MID FASID, Table AOP-1 (Doc ....).*

### EXPLANATION OF THE TABLE

#### COLUMN

*Name of the city and aerodrome, preceded by the location indicator*

*Note.- When the aerodrome is located on an island and no particular city or town is served by the aerodrome, the name of the island is included instead of the name of a city.*

*Designation of the aerodrome as:*

RS international scheduled air transport, regular use  
RNS international non-scheduled air transport, regular use  
AG international general aviation, regular use, and  
AS international scheduled air transport, alternate use

When an aerodrome is needed for more than one type of use, normally only the designation highest on the above list is shown. An exception is that AS aerodromes are identified even when they are required for regular use by international non-scheduled air transport or international general aviation, as some specifications in Annex 14, Volume 1, place special requirements on these aerodromes.

Example - An aerodrome required for both RS and AS use would only be shown as RS in the list. However, in those cases where specific operations so dictate a requirement for AS use may also be shown, e.g. RS, AS.

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**INTERNATIONAL AERODROMES REQUIRED  
IN THE MID REGION**

| <b>Location</b>    | <b>Indicator City/Aerodrome</b>        | <b>Designation</b> |
|--------------------|--|--------------------|
| <b>AFGHANISTAN</b> |  |                    |
| OAKB               | KABUL/Kabul Intl                       | RS                 |
| OAKN               | KANDAHAR/Kandahar Intl                 | AS                 |
| <b>BAHRAIN</b>     |  |                    |
| OBBI               | BAHRAIN/Bahrain Intl                   | RS                 |
| <b>EGYPT</b>       |  |                    |
| HEAX               | ALEXANDRIA/Alexandria Intl             | RS                 |
| HEBA               | ALEXANDRIA/Borg El Arab Intl           | RS                 |
| HESN               | ASWAN/Aswan Intl                       | RS                 |
| HEAT               | ASYUT/Asyut Intl                       | AS                 |
| HEAZ               | CAIRO/Almaza Intl                      | ANS                |
| HECA               | CAIRO/Cairo Intl                       | RS                 |
| HEAR               | EL ARISH/ El Arish Intl                | AS                 |
| HEGN               | HURGHADA/Hurghada Intl                 | RS                 |
| HELX               | LUXOR/Luxor Intl                       | RS                 |
| HEMA               | MARSA ALAM/Marsa Alam Intl             | RNS                |
| HEPS               | PORT SAID/ Port Said Intl              | AS                 |
| HEOW               | SHARK EL OWEINAT/Shark El Oweinat Intl | AS                 |
| HESH               | SHARM EL SHIEKH/Sharm El Sheikh Intl   | RS                 |
| HESC               | ST. CATHERINE/St Catherine Intl        | RS                 |
| HETB               | TABA/Taba Intl                         | AS                 |

| <b>Location</b>                  | <b>Indicator City/Aerodrome</b>   | <b>Designation</b> |
|----------------------------------|-----------------------------------|--------------------|
| <b>IRAN, ISLAMIC REPUBLIC OF</b> |                                   |                    |
| OIKB                             | BANDAR ABBASS/Bandar Abbass       | RS                 |
| OIFM                             | ESFAHAN/Shahid Beheshti           | RS                 |
| OIMM                             | MASHHAD/Shahid Hashemi Nejad Intl | RS                 |
| OISS                             | SHIRAZ/Shahid Dastghaib Intl      | RS                 |
| OITT                             | TABRIZ/Tabriz                     | RNS                |
| OIIE                             | TEHRAN/Imam Khomeini Intl         | RS                 |
| OIII                             | TEHRAN/Mehrabad Intl              | RS                 |
| OIZH                             | ZAHEDAN/Zahedan Intl              | RS                 |
| <b>IRAQ</b>                      |                                   |                    |
| ORBI                             | BAGHDAD/Baghdad Intl              | RS                 |
| ORMM                             | BASRAH/Basrah Intl                | RS                 |
| <b>ISRAEL</b>                    |                                   |                    |
| LLET                             | EILAT/Eilat Intl                  | RNS                |
| LLHA                             | HAIFA/Haifa Intl                  | RNS                |
| LLOV                             | OVDA/Ovda Intl                    | RNS                |
| LLBG                             | TEL AVIV/Ben Gurion Intl          | RS                 |
| LLSD                             | TELAIVIV/Sde Dov Intl             | RNS                |
| OJJR                             | JERUSALEM/Jerusalem               | RS                 |
| <b>JORDAN</b>                    |                                   |                    |
| OJAM                             | AMMAN/Marka Intl                  | AS                 |
| OJAI                             | AMMAN/Queen Alia Intl             | RS                 |
| OJAQ                             | AQABA/King Hussein Intl           | RNS                |

| <b>Location</b>             | <b>Indicator City/Aerodrome</b>            | <b>Designation</b> |
|-----------------------------|--|--------------------|
| <b>KUWAIT</b>               |  |                    |
| OKBK                        | KUWAIT/KUWAIT Intl                         | RS                 |
| <b>LEBANON</b>              |  |                    |
| OLBA                        | BEIRUT/ R. B. H - Beirut Intl              | RS                 |
| <b>OMAN</b>                 |  |                    |
| OOMS                        | MUSCAT/Seeb Intl                           | RS                 |
| OOSA                        | SALALAH/Salalah                            | AS                 |
| <b>QATAR</b>                |  |                    |
| OTBD                        | DOHA/Doha Intl                             | RS                 |
| <b>SAUDI ARABIA</b>         |  |                    |
| OEDF                        | DAMMAM/King Fahd Intl                      | RS                 |
| OEJN                        | JEDDAH/King Abdulaziz Intl                 | RS                 |
| OEMA                        | MADINAH/Prince Mohammad Bin Abdulaziz Intl | RS                 |
| OERK                        | RIYADH/King Khalid Intl                    | RS                 |
| <b>SYRIAN ARAB REPUBLIC</b> |  |                    |
| OSAP                        | ALEPPO/Aleppo Intl                         | RS                 |
| OSLK                        | BASSEL AL-ASSAD/Lattakia                   | RS                 |
| OSDI                        | DAMASCUS/Damascus Intl                     | RS                 |
| <b>UNITED ARAB EMIRATES</b> |  |                    |
| OMAA                        | ABU DHABI/Abu Dhabi Intl                   | RS                 |
| OMAL                        | AL AIN/Al Ain Intl                         | RS                 |
| OMDB                        | DUBAI/Dubai Intl                           | RS                 |

| <b>Location</b> | <b>Indicator City/Aerodrome</b>   | <b>Designation</b> |
|-----------------|---|--------------------|
| OMFJ            | FUJAIRAH/Fujairah Intl  | RS                 |
| OMRK            | RAS AL KHAIMAH/Ras Al Khaimah Intl  | RS                 |
| OMSJ            | SHARJAH/Sharjah Intl  | RS                 |
| <b>OMJA</b>     | <b>DUBI - JEBEL ALI/Jebel Ali Int'l (Al Maktoum International Airport) (Future, 2009 -2012)</b> | <b>RS</b>          |
| <b>YEMEN</b>    |   |                    |
| OYAA            | ADEN/Aden Intl  | RS                 |
| OYHD            | HODEIDAH/Hodeidah Intl  | RS                 |
| OYRN            | MUKALLA/Riyan   | RS                 |
| OYSN            | SANA'A/Sana'a Intl  | RS                 |
| OYTZ            | TAIZ/Ganad  | RS                 |

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AOP SG/6  
Report on Agenda Item 4

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**REPORT ON AGENDA ITEM 4: IMPLEMENTATION OF CERTIFICATION OF AERODROMES**

4.1 Under this Agenda Item the meeting recalled ICAO requirements on certification of aerodromes as reflected at Amendment 8 to Annex 14 - Volume I applicable from 23 November 2006 and as a follow-up; reviewed and updated the information provided by MIDANPIRG Provider States on the status of implementation of these requirements as contained in **Appendices 4A** and **4B** to the report on Agenda Item 4.

4.2 The meeting also recalled MIDANPIRG/10 views on the need for MID States to provide information and more details on the status of implementation of ICAO requirement related to certification of aerodromes and safety management system at each State's international aerodrome listed in the MID Basic Air Navigation Plan (Doc 9708) and contained at **Appendices 4C1** and **4C2** to the report on Agenda Item 4. The meeting agreed that new forms be developed for regular updates to replace those indicated in paragraph 4.1 of the report on Agenda Item 4 in order to reflect status of implementation of certification of each international aerodrome at all fifteen MIDANPIRG Provider States.

4.3 The meeting noted the detailed outcome that was presented to ICAO Assembly 36 of a survey that had been conducted by ICAO in the second half of 2006 to assess the level of global implementation of aerodrome certification, including safety management systems (SMS) as required in Annex 14, Volume I, with a view to compile a database on the global implementation of aerodrome certification and safety management system at aerodromes to assist ICAO in planning for the future work programme. Reference was made to "A36 - WP/14 TE/5" - Status of Global Implementation of Aerodrome Certification & SMS - All ICAO Regions - June 2007.

4.4 The meeting was also briefed on the outcome of a special implementation project (SIP), that was approved by ICAO Council for the year 2006; visits were carried out in the same year to six selected MID States (Sudan, Jordan, Libya, Cyprus, Qatar and Syria), in order to increase the level of awareness by MID States, at both regulatory and operational levels, regarding the eminent need to systematically address aerodrome operations safety and the need to implement ICAO requirements defined in Annex 14, Volume I.

4.5 As a general outcome, the meeting noted the low level of ICAO requirements regarding implementation of certification of aerodromes and safety management systems at aerodromes.

4.6 The meeting was invited to note that the Global Planning Initiative - *GPI/13 "Aerodrome Design and Management"* of the Global Air navigation Plan (Doc 9750) should be considered when implementing collaborative aerodrome SARPs, aerodrome operational procedures and safety management aimed at increasing aerodrome capacity, efficiency and improve safety at aerodrome operations which are part of the certification of aerodrome process and State' surveillance activities to ensure that certified aerodromes continue meeting certification obligations, and as a follow-up to MIDANPIRG/10 Conclusions 10/19 and 10/20.

4.7 The meeting was of the view that; an implementation plan of actions would improve and foster the implementation of ICAO requirements and facilitate follow-up process as follows:

- a) each MIDANPIRG Provider State, who has not done so, provide the following information, not later than 31 December 2007, on:
  - status of compliance with ICAO requirement in accordance with Chapter 1.4 of Annex 14 Volume I; for each International aerodrome; or

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- prepare a detailed action plan, to:
  - i) establish an appropriate regulatory framework and criteria for the certification of aerodromes;
  - ii) develop an Aerodrome Manual for each international aerodrome ensuring that it includes a safety management system prior to granting the aerodrome certificate;
  - iii) expected date for full certification of all its International Aerodromes (as listed in the MID Basic ANP, Part III - Doc 9708);
  - iv) ensure that their aerodrome operations continue meeting certification obligations through continuous safety oversight activities;
  - v) rationale for non-compliance; and
  - vi) expected dates for fulfilment of these requirement.
- b) advise if ICAO assistance is needed; and
- c) AOP SG to review information collected by MID Regional Office on status of implementation of certification of aerodromes for further course of actions.

4.8 The meeting was presented information on the content of the proposed amendments to Annexes 14, 15 and 4 as a follow-up to MIDANPIRG/10 Conclusion 10/21.

4.9 Based on the above, the meeting formulated the following Draft Conclusion:

***DRAFT CONCLUSION 6/3: ACTION PLAN FOR THE IMPLEMENTATION OF CERTIFICATION OF AERODROMES***

*That,*

- a) *each MIDANPIRG Provider State, who has not done so, provide the following information, not later than 31 December 2007, on:*
  - *status of compliance with ICAO requirement in accordance with Chapter 1.4 of Annex 14 Volume I; or*
  - *prepare a detailed action plan, to fulfill relevant ICAO requirement.*
- b) *advise if ICAO assistance is needed; and*
- c) *AOP SG to review information collected by MID Regional Office on status of implementation of certification of aerodromes for further course of actions.*

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Appendix 4A to the report on Agenda Item 4

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**MIDDLE EAST REGION**

**CERTIFICATION OF AERODROMES STATUS OF  
IMPLEMENTATION FOLLOW-UP**

(April 2007)

**TIMELINES:**



**Global**



**Regional**



**National**





|   |   | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|------|------|------|------|------|------|------|------|
| <b>UNIVERSAL SAFETY OVERSIGHT AUDIT PROGRAMME</b> |   |      |      |      |      |      |      |      |      |
| Global  | <b>Universal Safety Oversight Audit Programme</b> |      |      |      |      |      |      |      |      |
| MID Region  |   |      |      |      |      |      |      |      |      |
| States  | Afghanistan                                       |      |      |      |      |      |      |      |      |
|   | Bahrain   |      |      |      |      |      |      |      |      |
|   | Egypt   |      |      |      |      |      |      |      |      |
|   | Iran, Islamic Rep. of                             |      |      |      |      |      |      |      |      |
|   | Iraq  |      |      |      |      |      |      |      |      |
|   | Israel  |      |      |      |      |      |      |      |      |
|   | Jordan  |      |      |      |      |      |      |      |      |
|   | Kuwait  |      |      |      |      |      |      |      |      |
|   | Lebanon   |      |      |      |      |      |      |      |      |
|   | Oman  |      |      |      |      |      |      |      |      |
|   | Qatar   |      |      |      |      |      |      |      |      |
|   | Saudi Arabia                                      |      |      |      |      |      |      |      |      |
|   | Syrian  |      |      |      |      |      |      |      |      |
|   | United Arab Emirates                              |      |      |      |      |      |      |      |      |
|   | Yemen   |      |      |      |      |      |      |      |      |

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Appendix 4B to the report on Agenda Item 4

**STATUS OF IMPLEMENTATION OF CERTIFICATION OF AERODROMES IN THE STATES  
OF THE MID REGION**

**AERODROMES INCLUDED IN THE MID BASIC AIR NAVIGATION PLAN & FASD (DOC 9708)**

(April 2007)

| STATE        | NO. OF AERODROMES OPEN FOR INT'L AIR TRANSPORT |                             | RESPONSIBLE BODY   | NUMBER OF CERTIFIED AERODROMES/ON-GOING/PLANNED |         |         |
|--------------|--|-----------------------------|--|---|---------|---------|
|              | As indicated in the MID ANP                    | Info. Provided by States on |  | Certified                                       | Ongoing | Planned |
| AFGHANISTAN  | 2  |                             |  |   |         |         |
| BAHRAIN      | 1  | 1                           | Bahrain Civil Aviation Affairs   |   | 1       |         |
| EGYPT        | 15   | 8                           | ECAA   | 3   | 5       |         |
| IRAN         | 8  |                             |  |   |         |         |
| IRAQ         | 2  | 4                           | Iraqi CAA  |   | 4       |         |
| ISRAEL       | 6  | 4                           | Israeli CAA  |   | 3       |         |
| JORDAN       | 3  | 3                           | Jordan CAA   |   | 3       |         |
| KUWAIT       | 1  | 1                           | DGCA   | 1   |         |         |
| LEBANON      | 1  | 1                           | Lebanese CAA   |   | 1       |         |
| OMAN         | 2  | 2                           | DGCA & M   |   | 1       | 1       |
| QATAR        | 1  | 1                           | Qatar CAA  |   | 1       |         |
| SAUDI ARABIA | 4  | 3                           | Saudi GACA   | 3   |         |         |
| SYRIA        | 3  | 3                           | Syrian Aerodromes Rehabilitation & Cert. and Env. Protection Authority |   | 3       |         |
| U.A.E.       | 6  | 6                           | U.A.E. GCAA  | 6   |         |         |
| YEMEN        | 4  |                             |  |   |         |         |
| <b>TOTAL</b> | <b>59</b>                                      |                             |  | <b>13</b>                                       |         |         |

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AOP SG/6  
Appendix 4C1 to the report on Agenda Item 4

**MIDDLE EAST REGION AIR NAVIGATION PLAN**  
**AERODROMES REQUIRED FOR INTERNATIONAL OPERATIONS**

(Ref. MID Basic ANP Doc. 9708, Final Draft Rev. April 2007)

| STATES               | No of Int'l ADs  | Regular use, Scheduled Int'l Aerodromes | Regular use, Non-Scheduled Int'l Aerodromes | Alternate use, Scheduled Int'l Aerodromes | Alternate use, Non-Scheduled Int'l Aerodromes |
|----------------------|--|---|---|---|---|
|                      |  | RS                                      | RNS   | AS  | ANS   |
| Afghanistan          | 2  | 1                                       |   | 1   |   |
| Bahrain              | 1  | 1                                       |   |   |   |
| Egypt                | 15   | 8                                       | 1   | 5   | 1   |
| Iran                 | 8  | 7                                       | 1   |   |   |
| Iraq                 | 2  | 2                                       |   |   |   |
| Israel               | 6  | 2 (one of which is closed)              | 4   |   |   |
| Jordan               | 3  | 1                                       |   | 2   |   |
| Kuwait               | 1  | 1                                       |   |   |   |
| Lebanon              | 1  | 1                                       |   |   |   |
| Oman                 | 2  | 1                                       |   | 1   |   |
| Qatar                | 1  | 1                                       |   |   |   |
| Saudi Arabia         | 4  | 4                                       |   |   |   |
| Syria                | 3  | 3                                       |   |   |   |
| United Arab Emirates | 6  | 6                                       |   |   |   |
| Yemen                | 5  | 5                                       |   |   |   |
| <b>Sub-Total</b>     | <b>60</b>  | <b>44</b>                               | <b>6</b>                                    | <b>9</b>                                  | <b>1</b>                                      |
| <b>Total</b>         | <p><b>60 (Sixty) Aerodromes are required for international operations in the MID Region</b><br/>           Note: one of the sixty is closed for political reasons (OJJR-Jerusalem Int'l Aerodrome) so; <b>only 59 MID Aerodromes are currently, open for Int'l Operations.</b></p> |   |   |   |   |

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Appendix 4C2 to the report on Agenda Item 4

**MIDDLE EAST REGION  
AERODROMES REQUIRED FOR INTERNATIONAL OPERATIONS**

(Ref. MID Basic ANP Doc. 9708, Final Draft Rev. April 2007)

| STATES             | No of Int'l ADs | Regular use, Scheduled Int'l Aerodromes<br>RS |   | Regular use, Non-Scheduled Int'l Aerodromes<br>RNS |                                 | Alternate use, Scheduled Int'l Aerodromes<br>AS |  | Alternate use, Non-Scheduled Int'l Aerodromes<br>ANS |                      |
|--------------------|-----------------|---|---|--|---------------------------------|---|--|--|----------------------|
|                    |                 | No.   | Aerodrome Name  | No.  | Aerodrome Name                  | No.   | Aerodrome Name   | No.  | Aerodrome Name       |
| <b>Afghanistan</b> | <b>2</b>        | 1   | OAKB<br>KABUL/Kabul   |  |                                 | 1   | OAKN<br>KANDAHAR/Kandahar  |  |                      |
| <b>Bahrain</b>     | <b>1</b>        | 1   | OBBI BAHRAIN/Bahrain  |  |                                 |   |  |  |                      |
| <b>Egypt</b>       | <b>15</b>       | 8   | HEAX<br>ALEXANDRIA/Alexandria<br><br>HEBA<br>ALEXANDRIA/Borg El Arab<br><br>HESN ASWAN/Aswan<br><br>HECA CAIRO/Cairo<br><br>HEGN<br>HURGHADA/Hurghada<br><br>HELX LUXOR/Luxor<br><br>HESH SHARM EL SHIEKH/Sharm El Sheikh<br><br>HESC<br>ST. CATHERINE/St Catherine | 1  | HEMA MARSALA<br>ALAM/Marsa Alam | 5   | HEAT ASYUT/Asyut<br><br>HEAR EL ARISH/ El Arish<br><br>HEPS PORT SAID/ Port Said<br><br>HEOW SHARK EL OWEINAT/Shark El Oweinat<br><br>HETB TABA/Taba | 1  | HEAZ<br>CAIRO/Almaza |

| STATES        | No of Int'l ADs | Regular use, Scheduled Int'l Aerodromes<br>RS |   | Regular use, Non-Scheduled Int'l Aerodromes<br>RNS |  | Alternate use, Scheduled Int'l Aerodromes<br>AS |                | Alternate use, Non-Scheduled Int'l Aerodromes<br>ANS |                |
|---------------|-----------------|---|---|--|--|---|----------------|--|----------------|
|               |                 | No.   | Aerodrome Name  | No.  | Aerodrome Name   | No.   | Aerodrome Name | No.  | Aerodrome Name |
| <b>Iran</b>   | <b>8</b>        | 7   | OIKB BANDAR<br>ABBASS/Bandar Abbass<br><br>OIFM ESFAHAN/Shahid Beheshti<br><br>OIMM MASHHAD/Shahid Hashemi Nejad<br><br>OISS SHIRAZ/Shahid Dastghaib<br><br>OIIE TEHRAN/Imam Khomeini<br><br>OIII TEHRAN/Mehrabad Intl RS<br><br>OIZH ZAHEDAN/Zahedan | 1  | OITT TABRIZ/Tabriz   |   |                |  |                |
| <b>Iraq</b>   | <b>2</b>        | 2   | ORBI<br>BAGHDAD/Baghdad<br><br>ORMM BASRAH/Basrah   |  |  |   |                |  |                |
| <b>Israel</b> | <b>6</b>        | 2<br>(one of which is closed)                 | LLBG<br>TEL AVIV/Ben Gurion   | 4  | LLET EILAT/Eilat   |   |                |  |                |
|               |                 |   | OJJR<br>JERUSALEM/Jerusalem   |  | LLHA HAIFA/Haifa<br>LLOV OVDA/Ovda<br>LLSD TELAVIV/Sde Dov |   |                |  |                |

| STATES       | No of Int'l ADs | Regular use, Scheduled Int'l Aerodromes<br>RS |   | Regular use, Non-Scheduled Int'l Aerodromes<br>RNS |                | Alternate use, Scheduled Int'l Aerodromes<br>AS |                                      | Alternate use, Non-Scheduled Int'l Aerodromes<br>ANS |                |
|--------------|-----------------|---|---|--|----------------|---|--------------------------------------|--|----------------|
|              |                 | No.   | Aerodrome Name  | No.  | Aerodrome Name | No.   | Aerodrome Name                       | No.  | Aerodrome Name |
| Jordan       | 3               | 1   | OJAI AMMAN/Queen Alia   |  |                | 2   | OJAM AMMAN/Marka<br>OJAQ AQABA/Aqaba |  |                |
| Kuwait       | 1               | 1   | OKBK<br>KUWAIT/KUWAIT   |  |                |   |                                      |  |                |
| Lebanon      | 1               | 1   | OLBA BEIRUT/Beirut  |  |                |   |                                      |  |                |
| Oman         | 2               | 1   | OOMS MUSCAT/Seeb  |  |                | 1   | OOSA SALALAH/Salalah                 |  |                |
| Qatar        | 1               | 1   | OTBD DOHA/Doha  |  |                |   |                                      |  |                |
| Saudi Arabia | 4               | 4   | OEDF DAMMAM/King Fahd<br>OEJN JEDDAH/King Abdulaziz<br>OEMA MADINAH/Prince Mohammad Bin Abdulaziz |  |                |   |                                      |  |                |
|              |                 |   | OERK RIYADH/King Khalid   |  |                |   |                                      |  |                |
| Syria        | 3               | 3   | OSAP ALEPPO/Aleppo<br>OSLK BASSEL AL-ASSAD/Lattakia<br>OSDI DAMASCUS/Damascus                     |  |                |   |                                      |  |                |

| STATES  | No of Int'l ADs | Regular use, Scheduled Int'l Aerodromes<br>RS  |  | Regular use, Non-Scheduled Int'l Aerodromes<br>RNS |                | Alternate use, Scheduled Int'l Aerodromes<br>AS |                | Alternate use, Non-Scheduled Int'l Aerodromes<br>ANS |                |
|---|-----------------|--|--|--|----------------|---|----------------|--|----------------|
|   |                 | No.  | Aerodrome Name   | No.  | Aerodrome Name | No.   | Aerodrome Name | No.  | Aerodrome Name |
| United Arab Emirates                            | 6               | 6  | OMAA ABU DHABI/Abu Dhabi<br><br>OMAL AL AIN/AI Ain<br>OMDB DUBAI/Dubai<br>OMFJ FUJAIRAH/Fujairah<br>OMRK RAS AL KHAIMAH/Ras Al Khaimah<br>OMSJ SHARJAH/Sharjah |  |                |   |                |  |                |
| Yemen   | 5               | 5  | OYAA ADEN/Aden<br><br>OYHD HODEIDAH/Hodeidah<br>OYRN MUKALLA/Riyan<br>OYSN SANA'A/Sana'a<br>OYTZ TAIZ/Ganad  |  |                |   |                |  |                |
| <b>Total</b>                                    | <b>60</b>       | <b>44</b>  |  | <b>6</b>   |                | <b>9</b>  |                | <b>1</b>   |                |
| <b>Total - a (MIDANPIRG 15 Provider States)</b> |                 | <b>60 (Sixty)</b> Aerodromes are required for international operations in 15 MID States<br><b>Note: one of which is closed for political reasons (OJJR-Jerusalem Int'l Aerodrome) so;</b><br>only 59 Int'l Aerodromes are currently, open for Int'l Operations in 15 MID States. |  |  |                |   |                |  |                |

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**REPORT ON AGENDA ITEM 5: ESTABLISHMENT OF STATE' SAFETY PROGRAMME AND IMPLEMENTATION OF SAFETY MANAGEMENT SYSTEM (SMS) AT AERODROMES**

5.1 Under this Agenda Item and in accordance with Annex 14 Volume I – Chapter 1.5 provisions and relevant ICAO specifications and guidance material contained at Doc 9859 –Safety Management Manual and Doc 9774 – Manual on Certification of Aerodromes; and *Attachment E to Annex 11 –Air Traffic Services*; the meeting recalled ICAO requirement for States to:

- a) establish a safety programme in order to achieve an acceptable level(s) of safety for aerodrome operations;
- b) establish the acceptable level(s) of safety to be achieved; and
- c) as part of their safety programme, require that a certified aerodrome operator implement a Safety Management System (SMS) acceptable to the state that as a minimum:
  - identify safety hazards;
  - ensure that remedial actions necessary to mitigate the risks/hazards are implemented;
  - provide for continuous monitoring and regular assessment of the safety level achieved; and
  - aims to make continuous improvement to the overall level of safety.

5.2 The meeting noted ICAO definition for *Safety* which is “*the state in which the risk of harm to persons or of property damage is reduced to, and maintained at or below, an acceptable level through a continuing process of hazard identification and risk management*”.

5.3 The meeting was invited to recognize that a safety programme will be broad in scope, including many safety activities aimed at fulfilling the programme’s objectives and it has to be established by the State regulatory entity.

5.4 The meeting noted that the concept of *acceptable level of safety* responds to the need to complement the prevailing approach to the management of safety based upon regulatory compliance, with a performance-based approach. Acceptable level of safety expresses the safety goals (or expectations) of an oversight authority, an operator or a service provider. From the perspective of the relationship between oversight authorities and operators/service providers, it provides an objective in terms of the safety performance operators/service providers should achieve while conducting their core business functions, as a minimum acceptable to the oversight authority. It is a reference against which the oversight authority can measure safety performance.

5.5 The meeting was invited to refer to the guidance material on phased approach concept, functional steps and confirmation checklists for establishment of a State’s Safety programme and acceptable level (s) of safety which are contained at Chapter 12 of Doc 9859 - Safety Management Manual.

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5.6 The meeting was referred to the results of consecutive surveys conducted for the MID Region and worldwide in addition to MID AGA SIP/2006 missions' observations on the assessment of the level of implementation of Safety Management Systems at aerodromes (Report on Agenda Item 4, Para 4.7 refers) and as a first step the requirement for State regulatory entity to establish a Safety Programme.

5.7 The meeting was of the view that; an implementation plan of actions would improve and foster the implementation of ICAO requirements and facilitate follow-up process as follows:

- a) each MIDANPIRG Provider State, who has not done so, provide the following information, not later than 31 December 2007, on:
  - status of compliance with ICAO requirement in accordance with Chapter 1.5 of Annex 14 Volume I; or
  - prepare a detailed action plan, to:
    - i) establish a Safety Programme for aerodrome operations based upon a phased approach concept.
    - ii) establish acceptable levels of safety for aerodrome operations;
    - iii) as part of its Safety Programme; ensure that a certified aerodrome operator implements a Safety Management System acceptable to the State;
    - iv) rationale for non-compliance ; and
    - v) expected dates for fulfilment of these requirements.
- b) advise if ICAO assistance is needed; and
- c) AOP SG to review information provided and collected by MID Regional Office for further course of actions with a view to harmonize and assist States in timely and proper implementation of relevant ICAO requirements.

5.8 Based on the above the meeting formulated the following Draft Conclusion:

***DRAFT CONCLUSION 6/4: ACTION PLAN FOR THE ESTABLISHMENT OF STATE'S SAFETY PROGRAMME AND ACCEPTABLE LEVEL(S) OF SAFETY TO BE ACHIEVED IN THE AERODROME OPERATIONS***

*That,*

- a) *each MIDANPIRG Provider State, who has not done so, provide the following information, not later than 31 December 2007, on:*
  - *status of compliance with ICAO requirement in accordance with Chapter 1.5 of Annex 14 Volume I; or*
  - *prepare a detailed action plan, to fulfil relevant ICAO requirement*
- b) *advise if ICAO assistance is needed; and*
- c) *AOP SG to review information collected by MID Regional Office for further course of actions with a view to harmonize and assist States in timely and proper implementation of relevant ICAO requirements.*

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5.9 The meeting recalled ICAO requirement for States to establish a mandatory incident reporting system in order to facilitate the collection of information on actual or potential safety deficiencies. In addition, States are encouraged to establish a voluntary incident reporting system (a Sample for Voluntary Safety Report is contained in **Appendix 5A** to the report on Agenda Item 5) and adjust their laws, regulations and policies so that the voluntary programme:

- a) facilitates the collection of information that may not be captured by a mandatory incident reporting system;
- b) is non-punitive; and
- c) affords protection to the sources of the information

5.10 The meeting recalled that MIDANPIRG/10 meeting urged States to put strong efforts to update their legislations to support a “just culture” reporting environment, develop and implement non-punitive reporting mechanisms as part of their safety programme. In this regard, the meeting underlined also the importance to comply with Annex 13 provisions, especially those contained in Chapter 8 “*ACCIDENT PREVENTION MEASURES*” and in Attachment E, which contains legal guidance for the protection of information from Safety Data Collection and Processing System (SDCPS). Accordingly, MIDANPIRG/10 meeting agreed on Conclusion 10/80.

5.11 The meeting was invited also to recall ICAO SL Ref AN/17 – 06/47 dated 26 May 2006 on Reporting of Aircraft Accidents and incidents at Airdromes which was based on relevant ICAO requirement contained at Annex 13 and 14 in addition to the Model Regulation in paragraph 30.4.3 in Section D, Section 4.10 of the Manual on Certification of Aerodromes –Doc 9774 and ICAO Safety Management Manual (Doc 9859), Chapter 7 which provides guidance on hazards and incident reporting and describes both mandatory and voluntary incident reporting systems.

5.12 Accordingly, the meeting reiterated MIDANPIRG/10 Conclusion 10/80 and was also of the view of inviting MID States, who have not done so, to examine their national *regulations to ensure compliance with Annex 13 provisions* on Reporting of aircraft accidents and incidents at aerodromes and agree to the following Draft Conclusion:

**DRAFT CONCLUSION 6/5:           REPORTING OF AIRCRAFT ACCIDENTS AND INCIDENTS  
AT AERODROMES**

*That MID States, who have not done so, be urged to revise their existing national regulations and ensure compliance with Annex 13 provisions on Reporting of aircraft accidents and incidents at aerodromes.*

5.13 The Meeting recalled ICAO requirement for an aerodrome’s Safety Management System accepted by the State has to clearly define lines of safety accountability, including a direct accountability for safety on the part of senior management.

5.14 The meeting was of the view that effective safety management requires commitment to safety on the part of senior management, and that key indicator of management’s commitment to safety is the adequacy of resource allocations. Establishing an appropriate management structure, assigning responsibilities and accountabilities, and allocating appropriate resources must be consistent with the aerodrome’s stated safety objectives. Sufficient experienced staff, relevant and timely training, and funding for the necessary equipment and facilities are fundamental to creating a working environment in which everyone takes safety seriously.

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5.15 The meeting recognized that one of the first steps required from an organization for the implementation of SMS is to find out exactly what is already in place within the organization and identify what remains to be developed and implemented. In SMS terms, this is called a “Gap Analysis”. A model is contained at **Appendix 5B** to the report on Agenda Item 5.

5.16 The meeting was invited to note that the framework of a Safety Management System consists of four components and fourteen elements, as follows: (Detailed conceptual SMS framework and a sample of SMS Standards are outlined at **Appendices 5C and 5D** to the report on Agenda Item 5, respectively.

5.17 The meeting may recall that safety management systems involve the reactive and proactive identification of safety hazards. The meeting also recognized that; in effective safety cultures, there are clear reporting lines, clearly defined duties and well-understood procedures and that safety reporting systems should not just be restricted to incidents but should include provision for the reporting of hazards, i.e. unsafe conditions that have not yet caused an incident. A sample of “Accident and Incident Report Form” is contained at **Appendix E** to the Report on Agenda Item 5.

5.18 The meeting noted that it is essential to ensure the continued availability of all relevant safety-related information to enable proper and timely preventive actions to be taken by aerodrome operators aimed at improving aviation safety.

5.19 The meeting was invited to refer to the Safety Management Manual Doc 9859 for guidance material on: Hazard Identification, safety assessment process & Risk Management, Content of a Safety Management Manual, Emergency Response Planning, Compliance with Legal Requirements, Performance Monitoring and Measurement, Safety Reporting and Investigation, Audits and Surveys, Analysis of Data, Reporting and Records, Management (Information Management), Review, safety promotion including Training, Awareness, Competence and Communication.

5.20 The meeting also was informed that specialized guidance on the fulfilment of Annex 14 SARPs with respect to the implementation of SMS by aerodrome service providers are also contained at Chapters 15 & 18 of Doc 9859 Safety Management Manual (SMM), and at the Manual on certification of aerodromes (Doc 9774).

5.21 Based on the above, Para. 4.2 & 4.6 of the Report on Agenda Item 4 and also on line with MIDANPIRG Conclusion 10/82, the meeting formulated the following Draft Conclusion:

***DRAFT CONCLUSION 6/6: ACTION PLAN FOR THE IMPLEMENTATION OF SAFETY MANAGEMENT SYSTEM ACCEPTABLE TO THE STATE AT EACH CERTIFIED AERODROME***

*That,*

- a) *each MIDANPIRG Provider State, who has not done so, provide the following information, not later than 31 December 2007, on:*
  - *status of implementation of safety management system compliance with ICAO requirement in accordance with Chapter 1.5 of Annex 14 Volume I; or*
  - *prepare a detailed action plan, to fulfil relevant ICAO requirement*
- b) *advise if ICAO assistance is needed; and*

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- c) *AOP SG to review information collected by MID Regional Office for further course of actions with a view to harmonize and assist States in timely and proper implementation of relevant ICAO requirement.*

5.22 Recognizing that ICAO is also verifying via the Universal Safety Oversight Audit Programme (USOAP) the degree of implementation of Safety Management System at aerodromes, The meeting reiterated MIDANPIRG /10 meeting views that Global Plan Initiative – (GPI-13) “*Aerodrome Design and Management*” should be considered when developing plans to implement Safety Management Systems for aerodrome operations.

5.23 In support to MIDANPIRG/10 Meeting Conclusions 10/78 and 10/79 on “*Enhancement of MID States' Capabilities for Safety Oversight*” and “*Regional Cooperation for Safety Oversight*”; the meeting was of the view that the most effective and transparent means of ensuring compliance with applicable specifications is the availability of a separate safety oversight entity and a well-defined safety oversight mechanism with support of appropriate legislation to be able to carry out the function of safety regulation of aerodromes.

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Appendix 5A to the report on Agenda Item 5

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**Voluntary Safety Report**

The information supplied in this form will only be used to enhance safety. You may choose to not provide your name. If you do provide your name, upon receipt of this form your name and position will be removed and discarded. Under no circumstances will your identity be disclosed to any person in the airport or to any other organization, agency or person without your express permission.

When you have completed your part of the form, it should be given to the Airport Safety Officer or any member of the Airport Safety Committee.

Name: \_\_\_\_\_

Organization Position: \_\_\_\_\_

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[Name and position to be discarded by the Safety Officer]

**PART A**  
**TO BE COMPLETED BY THE PERSON IDENTIFYING THE HAZARD**

**Please fully describe the Hazard.**

Date of occurrence: \_\_\_\_\_ Time: \_\_\_\_\_

Location: \_\_\_\_\_

Description: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

In your opinion, what is the likelihood of a similar occurrence happening again?

Likely 2 3 4 Rare  
1    5

What do you consider could be the worse possible consequence if this occurrence did happen again?

Catastrophic 1                      2                      3                      4                      Minor damage 5

**PART B  
TO BE COMPLETED BY THE SAFETY OFFICER**

The report has been de-identified and entered into the company database

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Name \_\_\_\_\_

Rate the likelihood of the hazard recurring  
Very Likely 1                      2                      3                      4                      Rare 5

Rate the worst-case consequences  
Catastrophic 1                      2                      3                      4                      Minor Damage 5

What action is required to ELIMINATE or CONTROL the hazard and PREVENT injury?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Resources Required: \_\_\_\_\_

\_\_\_\_\_

Responsibility for action: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Referred to \_\_\_\_\_ for further action.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

---

Forwarded to the Airport Safety Committee for review.

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

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Appropriate Feedback given to staff.

Signed \_\_\_\_\_ Date \_\_\_\_\_

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SAMPLE

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Appendix 5B to the report on Agenda Item 5

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**GAP ANALYSIS**

**MODEL FORM**

**1. Background**

This gap analysis model form is intended to assist a service provider with the implementation of an Safety Management System (SMS) in accordance with the Standards and Recommended Practices (SARPs) contained in ICAO Annex 6 — *Operation of Aircraft, Part I — International Commercial Air Transport — Aeroplanes, and Part III — International Operations — Helicopters*, ICAO Annex 11 — *Air Traffic Services*, and ICAO Annex 14 — *Aerodromes, Volume I — Aerodrome Design and Operations*. A gap analysis is conducted against generally accepted SMS concepts and component/elements. In this case, the gap analysis is conducted against the ICAO frame work for the implementation and maintenance of an SMS. The model form provides, in checklist format, information to assist the evaluation of the components of a safety system presently in place, and the identification of those components/elements of an SMS that need to be developed.

**2. ICAO Safety Management Systems Framework**

The ICAO SMS framework for the implementation and maintenance of an SMS consists of four components and fourteen elements, outlined below.

1. Safety policy and objectives
  - 1.1 – Management commitment and responsibility
  - 1.2 – Safety accountabilities of managers
  - 1.3 – Appointment of key safety personnel
  - 1.4 – SMS implementation plan
  - 1.5 – Coordination of the emergency response plan
  - 1.6 – Documentation
2. Safety risk management
  - 2.1 – Hazard identification processes
  - 2.2 – Risk assessment and mitigation processes
  - 2.3 – Internal safety investigations
3. Safety assurance
  - 3.1 – Safety performance monitoring and measurement
  - 3.2 – The management of change
  - 3.3 – Continuous improvement of the safety system
4. Safety promotion
  - 4.1 – Training and education
  - 4.2 – Safety communication

*Note. – Within the context of this model form the term “service provider” designates any organization providing aviation related services. The term includes aircraft operators, maintenance organizations, air traffic service providers and aerodrome operators, as applicable.*

The implementation of an SMS requires a service provider to conduct an analysis of its system to determine which components/elements of a safety management system are currently in place and which components/elements must be added or modified to meet the SMS implementation requirements. The analysis involves comparing the SMS components/elements included in the SMS implementation requirements against those existing in the service provider system.

The model gap analysis presented in this section can be used for a service provider as a template to conduct a gap analysis. Each analysis question is designed for a “yes” or “no” response. A “yes” answer indicates that the organization already complies with the requirement for that particular SMS component/element. A “no” answer indicates that a gap exists between the stated criteria and the organization's policies, procedures or processes. If the response is “yes”, the next column of the analysis form can be used to indicate where (in company documentation) the requirement is addressed. If the response is “no”, the same column can be used to indicate how and/or where the policy, procedure or process will be further developed to bring the organization into compliance with the requirement.

Once the gap analysis is complete and documented, the requirements identified as missing or deficient will form one basis of the SMS implementation plan. Each requirement will be assessed to determine how the organization will create or modify policies, procedures or processes to incorporate the required SMS components/elements. Components/elements can be grouped into larger projects and assigned to project manager(s) who will oversee the development and implementation of that project. Each project should be assigned milestones including a termination date to ensure that completion does not fall outside acceptable time limits.

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**Gap Analysis Model Form**

| <b>ICAO SMS Framework</b>  | <b>Response (Yes/No)</b> | <b>If yes, state where the requirement is addressed. If no, record how compliance with the requirement will be achieved</b> |
|--|--------------------------|---|
| <b>Safety Policy and Objectives</b>  |                          |   |
| Is a safety management system (SMS) with defined components/elements established, maintained and adhered to?   |                          |   |
| Is the SMS appropriate to the size, nature and complexity of the organization?   |                          |   |
| Is there a safety policy in place?   |                          |   |
| Is the safety policy approved by the accountable executive?  |                          |   |
| Is the safety policy promoted by the accountable executive?  |                          |   |
| Is the safety policy reviewed periodically?  |                          |   |
| Does the safety policy clearly indicate which types of operational behaviours are acceptable or unacceptable?  |                          |   |
| Is there a safety reporting policy that clearly includes the conditions under which reporter immunity from disciplinary action would be considered?                            |                          |   |
| Have safety objectives been established?   |                          |   |
| Is there a formal process to develop safety objectives?  |                          |   |
| Are safety objectives publicized and distributed?  |                          |   |
| Is there a formal process to develop and maintain a set of safety performance indicators and safety performance markers?   |                          |   |
| Has an accountable executive been identified?  |                          |   |
| Does the accountable executive have responsibility for ensuring that the SMS is properly implemented and performing to requirements in all relevant areas of the organization? |                          |   |
| Does the accountable executive have control of the financial and human resources required to ensure the proper performance of the SMS?   |                          |   |

|   |  |  |
|---|--|--|
| Have the safety accountabilities of all members of senior management been identified, documented and communicated throughout the organization?    |  |  |
| Has a qualified person been appointed to be the focal point for the daily operation of the SMS?   |  |  |
| Does the person appointed as focal point for the daily operation of the SMS fulfill the required job functions and responsibilities?              |  |  |
| Are the safety responsibilities and accountabilities of personnel at all levels of the organization defined and documented?                       |  |  |
| Is there consolidated documentation that describes the SMS and the interrelationships between all its components?                                 |  |  |
| Has a documented procedure been established and maintained for identifying applicable regulatory requirements?                                    |  |  |
| Are regulations, standards and exemptions periodically reviewed to ensure that the most current information is available?                         |  |  |
| Does the organization have an emergency response/contingency procedure appropriate to the size, nature and complexity of the organization?        |  |  |
| Have the emergency response/contingency procedures been documented, implemented and assigned to a responsible manager?                            |  |  |
| Are the emergency response/contingency procedures been periodically reviewed?   |  |  |
| Does the organization have a process to distribute the emergency response/contingency procedures and to communicate the content to all personnel? |  |  |
| Does the organization conduct drills and exercises with all key personnel at specified intervals, as applicable?                                  |  |  |

|   |  |  |
|---|--|--|
| <p>Does this information reside or is it incorporated into approved documentation, such as the Operations Manual, Maintenance Control Manual, or Airport Operations Manual, as applicable, and where these approved documents are not required by regulation, the organization includes the information in a separate, controlled document?</p> |  |  |
| <p>Does the organization have a records system that ensures the generation and retention of all records necessary to document and support operational requirements, and is in accordance with applicable regulatory requirements and industry best practices?</p>   |  |  |
| <p>Does the system provide the control processes necessary to ensure appropriate identification, legibility, storage, protection, archiving, retrieval, retention time, and disposition of records?</p>   |  |  |
| <b>Safety Risk Management</b>   |  |  |
| <p>Does the organization have a reactive method that provides for the capture of internal safety information including hazard identification, occurrences and other data relevant to safety risk management?</p>  |  |  |
| <p>Is the reactive reporting process simple, accessible and commensurate with the size of the organization?</p>   |  |  |
| <p>Are reactive reports reviewed at the appropriate level of management?</p>  |  |  |
| <p>Does the organization have a proactive method that provides for the capture of internal information including hazard identification, occurrences and other data relevant to safety risk management?</p>  |  |  |
| <p>Is the proactive reporting process simple, accessible and commensurate with the size of the organization?</p>  |  |  |
| <p>Are proactive reports reviewed at the appropriate level of management?</p>   |  |  |

|  |  |  |
|--|--|--|
| Does the organization have a predictive method that provides for the capture of internal information including hazard identification, occurrences and other data relevant to safety risk management? |  |  |
| Is predictive safety information reviewed at the appropriate level of management?  |  |  |
| Is there a feed back process to notify contributors that their reports have been received and to share the results of the analysis?  |  |  |
| Are corrective and preventive actions generated in response to safety data analysis?   |  |  |
| Is there a structured process for the analysis of risk associated with identified hazards, expressed in terms of severity, and probability of occurrence?  |  |  |
| Are there criteria for assessing risk in terms of tolerability (i.e., the acceptable level of risk the organization is willing to accept)?   |  |  |
| Does the organization have risk management control strategies that include corrective/preventive mitigation action of risks to an acceptable level?  |  |  |
| Are there procedures in place for the conduct of internal safety investigations?   |  |  |
| <b>Safety Assurance</b>  |  |  |
| Is there a process in place to monitor and analyze safety trends?  |  |  |
| Do measures exist that ensure all reported occurrences and deficiencies are investigated?  |  |  |
| Is there a process to ensure that occurrences and deficiencies reported are analyzed to identify all associated hazards?   |  |  |
| Are corrective and preventative actions generated in response to event investigation and risk analysis?  |  |  |
| Does the organization have a process for evaluating the effectiveness of the corrective/ preventive measures that have been developed?   |  |  |
| Are corrective/ preventive actions, including timelines, documented?   |  |  |

|  |  |  |
|--|--|--|
| Is there a process to evaluate the effectiveness of corrective actions?  |  |  |
| Does the organization have a system to monitor the internal reporting process and the associated corrective actions?   |  |  |
| Are regular and periodic reviews conducted regarding the organization safety performance, internal audit results, hazard and occurrence investigations, hazard and occurrence analysis results, internal/external feedback analysis results, status of corrective actions, follow-up actions from management reviews, changes that could affect safety, recommendations for improvement and sharing of best practices across the organization? |  |  |
| Has the organization implemented self-evaluation processes, such as regularly scheduled safety audits, safety surveys, safety reviews, and safety studies?   |  |  |
| Is there an operationally independent audit function with the authority required to carry out an effective internal evaluation program?  |  |  |
| Does the audit system cover all functions, activities and organizations within the company?  |  |  |
| Are there defined audit scope, criteria, frequency and methods?  |  |  |
| Are there selection/training process to ensure the objectivity and competence of auditors as well as the impartiality of the audit process?  |  |  |
| Is there a procedure for reporting audit results and maintaining records?  |  |  |
| Is there a procedure outlining requirements for timely corrective and preventive action in response to audit results?  |  |  |
| Is there a procedure to record verification of action(s) taken and the reporting of verification results?  |  |  |
| Is a process in place for analyzing changes to operations or key personnel for risks?  |  |  |

|   |  |  |
|---|--|--|
| Does the organization perform periodic management reviews of safety critical functions and relevant safety issues that arise from the internal evaluation program?              |  |  |
| <b>Safety Promotion</b>   |  |  |
| Is there a documented process to identify training requirements so that personnel are competent to perform their duties?  |  |  |
| Is there a process that measures the effectiveness of training?   |  |  |
| Is the organization's safety training incorporated into indoctrination training upon employment?  |  |  |
| Is there emergency response and response training for affected personnel?   |  |  |
| Does the safety training ensure that all personnel understand their responsibilities and accountabilities in regards to all safety management processes, decisions and actions? |  |  |
| Are there communication processes in place within the organization that permit the safety management system to function effectively?  |  |  |
| Are communication processes (written, meetings, electronic, etc.) commensurate with the size and scope of the organization?   |  |  |
| Is information established and maintained in a suitable medium that provides direction in related documents?  |  |  |
| Is there a process for the dissemination of safety information throughout the organization and a means of monitoring the effectiveness of this process?                         |  |  |

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AOP SG/6  
Appendix 5C to the report on Agenda Item 5

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**ATTACHMENT F – FRAME WORK FOR  
SAFETY MANAGEMENT SYSTEMS (SMS)**

**Introduction**

This appendix introduces a frame work for the implementation and maintenance of a safety management system (SMS) by a service provider. The frame work consists of four components and fourteen elements, as outlined hereunder. A brief description of each element is discussed in the attachment.

1. Safety policy and objectives
  - 1.1 – Management commitment and responsibility
  - 1.2 – Safety accountabilities of managers
  - 1.3 – Appointment of key safety personnel
  - 1.4 – SMS implementation plan
  - 1.5 – Coordination of the emergency response plan
  - 1.6 – Documentation
2. Safety risk management
  - 2.1 – Hazard identification process
  - 2.2 – Risk assessment and mitigation process
  - 2.3 – Internal safety investigations
3. Safety assurance
  - 3.1 – Safety performance monitoring and measurement
  - 3.2 – The management of change
  - 3.3 – Continuous improvement of the safety system
4. Safety promotion
  - 4.1 – Training and education
  - 4.2 – Safety communication

*Note. – Within the context of this attachment the term “service provider” designates any organization providing aviation related services. The term includes aircraft operators, maintenance organizations, air traffic service providers and aerodrome operators, as applicable.*

**1. Safety policy and objectives**

**1.1 Management commitment and responsibility**

The service provider has defined the organization’s safety policy, in accordance with international and national requirements, and the safety policy is signed by the chief executive officer of the organization. The safety policy reflects organizational commitments regarding safety, includes a clear statement about the provision of the necessary human and financial resources for its implementation, and is communicated, with visible endorsement, throughout the organization. The safety policy is periodically reviewed to ensure it remains relevant and appropriate to the organization.

## 1.2 **Safety accountabilities of managers**

The service provider has identified an accountable executive who, irrespective of other functions, has ultimate responsibility and accountability, on behalf of the service provider, for the implementation and maintenance of the SMS. The service provider has also identified the safety accountabilities of all members of senior management, irrespective of other functions. Safety accountabilities and authorities are documented and communicated throughout the organization.

## 1.3 **Appointment of key safety personnel**

The service provider has identified a safety manager to be the responsible individual and focal point for the implementation and maintenance of an effective SMS.

## 1.4 **SMS implementation plan**

The service provider has developed and maintains an SMS implementation plan to define the organization's approach to manage safety in a manner that meets the organization's safety needs. The SMS implementation plan is endorsed by senior management of the organization.

## 1.5 **Coordination of the emergency response plan**

The service provider has developed and maintains, or coordinates, as appropriate, an emergency response/contingency plan that ensures orderly and efficient transition from normal to emergency operations, or return to normal operations.

## 1.6 **Documentation**

The service provider has developed and maintains SMS documentation to describe the safety policy and objectives; the SMS requirements; procedures and processes; the accountabilities, responsibilities and authorities for procedures and processes; and the SMS outputs. As part of the SMS documentation, the service provider has developed and maintains a safety management manual (SMM), to communicate its approach to safety throughout the organization.

## 2. **Safety risk management**

### 2.1 **Hazard identification process**

The service provider has developed and maintains a formal process for collecting, recording, acting on and generating feedback about hazards in operations, based on a combination of reactive, proactive and predictive methods of safety data collection.

### 2.2 **Risk assessment and mitigation process**

The service provider has developed and maintains a formal risk management process that ensures the analysis (in terms of probability and severity of occurrence), assessment (in terms of tolerability) and control (in terms of mitigation) of risks to an acceptable level. The service provider has also defined those levels of management with authority to make decisions regarding safety risks tolerability.

### 2.3 **Internal safety investigations**

The service provider has developed and maintains a formal process for the internal investigation of occurrences that are not required to be investigated by the State or reported to the oversight authority.

## 3. **Safety assurance**

### 3.1 **Safety performance and monitoring**

The service provider has developed and maintains the means to verify the safety performance of the organization compared to the safety policy and objectives, and to validate the effectiveness of safety risks controls. The safety reporting procedures related to safety performance and monitoring clearly indicate which types of behaviours are acceptable or unacceptable, and include the conditions under which immunity from disciplinary action would be considered.

### 3.2 **Management of change**

The service provider has developed and maintains a formal process to identify changes within the organization which may affect established processes and services; describe the arrangements to ensure safety performance before implementing changes; and eliminate or modify safety risk controls that are no longer needed due to changes in the operational environment.

### 3.3 **Continuous improvement of the safety system**

The service provider has developed and maintains a formal process to identify the causes of below standard performance of the SMS, determine its implications in operations, and eliminate such causes.

## 4. **Safety promotion**

### 4.1 **Training and education**

The service provider has developed and maintains a safety training programme that ensures that personnel are trained and competent to perform the SMS duties. The scope of the safety training is appropriate to each individual's involvement in the SMS.

### 4.2 **Safety communication**

4.2.1 The service provider has developed and maintains formal means for safety communication, to ensure that all personnel are fully aware of the SMS; convey safety critical information; explain why particular safety actions are taken; and why safety procedures are introduced or changed.

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AOP SG/6  
Appendix 5D to the report on Agenda Item 5

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**SMS Standard**

1. Scope and Applicability
2. References
3. Definitions
4. Safety Policy and Objectives
  - 4.1 General Requirements
  - 4.2 Organizational Structure and Responsibilities
  - 4.3 Safety Policy
    - 4.3.1 Quality Policy
  - 4.4 SMS Implementation Plan
  - 4.5 Documentation & Document Control
5. Safety Hazard Identification and Risk Management
  - 5.1 Safety Objectives
    - 5.1.1 Quality Objectives
  - 5.2 Hazard Identification & Risk Management
  - 5.3 Safety Management Manual
  - 5.4 Emergency Response Planning
  - 5.5 Compliance with Legal Requirements
6. Safety Assurance
  - 6.1 Performance Monitoring and Measurement
  - 6.2 Safety Reporting and Investigation
  - 6.3 Audits and Surveys
  - 6.4 Analysis of Data
  - 6.5 Records and Records Management (Information Management)
  - 6.6 Change Management
  - 6.7 Management Review
7. Safety Promotion
  - 7.1 Training, Awareness and Competence
  - 7.2 Communication

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AOP SG/6  
Appendix 5E to the report on Agenda Item 5

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**Accident and Incident Report Form**

To be completed by the Airport Safety Officer or senior representative of the Airside Operator for all accidents and incidents which would likely seriously endanger people, aircraft, vehicles, or equipment.

Name of person that completed this report: \_\_\_\_\_

Organization and Position: \_\_\_\_\_

Telephone number: \_\_\_\_\_

Date of Accident/Incident: \_\_\_\_\_

Time: \_\_\_\_\_

Location: \_\_\_\_\_

Date of Report: \_\_\_\_\_

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**Names of Witnesses**

**Witness 1**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

**Witness 2**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

**Witness 3**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

**Details**

Details of the accident/incident: (Include details of people involved, aircraft, vehicles, and equipment. Include details of what took place that contributed to the accident /incident)

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Details of any injuries:

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Details of damage to aircraft/vehicles/equipment/facilities:

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SAMPLE

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AOP SG/6  
Report on Agenda Item 6

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**REPORT ON AGENDA ITEM 6: RUNWAY SAFETY AND EFFICIENCY AT MID AERODROMES**

6.1 Under this Agenda Item the meeting recalled that Runway incursion prevention was closely examined by the Eleventh Air Navigation Conference, September 2003. The Conference recommended that States take appropriate actions to improve runway safety worldwide through the implementation of runway safety programmes. It was also recommended that when capacity-enhancing procedures at aerodromes are considered, appropriate safety studies should be conducted which would take due consideration of the effect on runway safety

6.2 The meeting agreed that aviation safety programmes have a common goal — to reduce hazards, mitigate and manage residual risk in air transportation. Runway operations are an integral part of aviation; the hazards and risks associated with runway operations need to be managed in order to prevent runway incursions that may lead to accidents

6.3 The meeting recalled that Runway incursion is defined as: “Any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle or person on the protected area of a surface designated for the landing and take-off of aircraft”, According to the *Procedures for Air Navigation Services — Air Traffic Management* (PANS-ATM, Doc 4444).

6.4 Recognizing that ICAO is also verifying via the Universal Safety Oversight Audit Programme (USOAP) the degree of implementation of runway safety programmes by States and that MIDANPIRG/10 meeting was of the view that Global Plan Initiative – (*GPI-14*)” *Aerodrome Operations*” should be considered when developing plans to enhance safety and efficiency of runway operations.

6.5 Beginning with a high-level discussion of causal factors, the Meeting agreed that those factors can result in runway incursions and identified initiatives that aerodrome operators can adopt to remove hazards, mitigate residual risks and create a cooperative, effective and safe operational environment in coordination with aircraft and air navigation service providers; should be defined for each aerodrome.

6.6 The meeting was of the view that safety management systems should be implemented in accordance with ICAO provisions and continued focus on runway safety should be ensured. The implementation of Annex 14 provisions should be confirmed, and maintenance programmes relating to runway operations (e.g. markings, lighting, and signage) should be implemented.

6.7 The meeting reiterated ICAO requirements for reporting accident / incidents with regard to aviation safety. Annex 13 — *Aircraft Accident and Incident Investigation*, 8.1, requires States to establish a mandatory incident reporting system to facilitate collection of information on actual or potential safety deficiencies.

6.8 The meeting recognized that sharing related safety data with other aviation safety entities should enhance lesson learning and that a process to insure accuracy, integrity and timely dissemination of critical aeronautical information that may affect operations on or near the runway is established. The process should allow users to provide feedback on the quality of aeronautical information for better enhancement.

AOP SG/6  
Report on Agenda Item 6

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6.9 After defining what is already in place and run a “Gab Analysis,” the meeting agreed on the following for development and/or enhancement of the implementation of Runway Incursion Prevention programme at MID aerodromes:

- a) Ensure that national regulators focus on runway incursion risk reduction in their oversight activities.
- b) In each aerodrome, a Runway Safety Team should be established and maintained in accordance with the Terms of Reference (TOR) described at **Appendix A** to the report on Agenda Item 6.
- c) Develop a plan containing action items for mitigating risks of runway incursions. Action items should be aerodrome specific and linked to a runway safety concern, issue or problem at that aerodrome.
- d) Action items may include suggested changes to the physical features of, or facilities at, the aerodrome; airfield access requirements; vehicle operator awareness; and production of hot spot maps.
- e) Action Items should include development of a formal airside and manoeuvring area vehicle driver training programme that includes RTF phraseology training.
- f) Each action item should have a designated person or entity which is responsible for completing the relevant tasks; however, one person or entity should take the lead and be responsible for the completion of all the tasks associated with the action items.
- g) A realistic time frame to accomplish the work should also be associated with each action item.

6.10 The meeting was advised that guidance material on Runway incursion prevention are contained at “*Manual for Preventing Runway Incursion*” - Doc 9870 (First Edition – May 2006) and noted that a “Runway Safety Tool Kit” which is an interactive combination of best educational material available produced by ICAO; Runway Incursion Severity Classification (RISC) Calculator – ICAO Version 1.3) is available for download at: <http://www.icao.int/fsix/Risc.cfm>.

6.11 Based on the above the meeting reviewed set of actions to be taken as detailed in Para. 2.9 accordingly developed the following Draft Conclusion:

***DRAFT CONCLUSION 6/7: DEVELOPMENT OF RUNWAY INCURSION PREVENTION PROGRAMME AT MID AERODROMES***

*That,*

- a) *MID States who has not done so are urged to provide the following information, not later than 31 January 2008, on:*
  - *status of compliance with ICAO requirement; and*
  - *prepare a detailed action plan, to fulfil relevant ICAO requirement*
- b) *advise if ICAO assistance is needed; and*
- c) *AOP SG to review information collected by MID Regional Office for further course of actions with a view to harmonize and assist States in timely and proper implementation of relevant ICAO requirements.*

AOP SG/6  
Report on Agenda Item 6

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6.12 MIDANPIRG/10 meeting recognized that in the AOP field, significant parts of deficiencies were in the area of runway pavement conditions, and that the regularity and efficiency of aeroplane operations can become significantly impaired as a result of poor friction characteristics, especially when the runway is wet.

6.13 The meeting was invited to recall that,

- Annex 14 Volume I – Chapter 10.2
- Annex 15 - *Aeronautical Information Services*, Chapter 4, contains provisions for the promulgation of information on runway surface friction. However, it is observed that many States do not report this information in their national Aeronautical Information Publication (AIP)

6.14 One of the types of pavement distress, that present an immediate safety concern in the MID Region, is the continued build up of rubber on runways, The meeting reiterated MIDANPIRG/10 Conclusion 10/22 and was of the view that establishing, implementing and maintaining an effective “Pavement Management System” by each State to evaluate the technical and operational pavement condition is a strategic objective to ensure that a “Pavement Surface Maintenance Programme” and a “Correction Programme for the Removal of Rubber Build-Up on Runways” should be established and updated, and agreed on the main particulars to be included, as a minimum, in a State “Pavement Maintenance Programme” as contained at **Appendix 6B** to the report on Agenda Item 6.

6.15 In an effort to ensure the uniform application of ICAO specification for the airfield pavement surface conditions aiming at enhancing runway operations safety and efficiency; and as a follow up of MIDANPIRG Conclusion 10/22 the meeting is inviting to agree on a plan of actions for the establishment and implementation of the following:

- a) ensure that national regulations include provisions requiring the following in accordance with ICAO Specifications contained at Chapter 10.2 and other relevant ICAO Specifications:
  - mandatory reporting of runway surface condition;
  - periodic friction measurement and measuring devices;
  - minimum friction values for pavement corrective maintenance; and
  - conditions related to runway pavement overlays
- b) develop a plan of action for developing procedures and processes, evaluation techniques, supply of measuring devices, training of technical staff, Reporting and recording system, documentation ... etc;
- e) action items should include development of a formal airside and manoeuvring area pavement maintenance programme;
- f) each action item should have a designated person or entity which is responsible for completing the relevant tasks; however, one person or entity should take the lead and be responsible for the completion of all the tasks associated with the action items; and
- g) a realistic time frame to accomplish the work should also be associated with each action item.

AOP SG/6  
Report on Agenda Item 6

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6.16 Based on the above and as a follow-up of MIDANPIRG/10 meeting Conclusion 10/22, the meeting reviewed set of actions to be taken as detailed in Para. 2.9 accordingly developed the following Draft Conclusion:

**CONCLUSION 6/8: ESTABLISHMENT OF “PAVEMENT SURFACE MAINTENANCE PROGRAMME” AND “CORRECTION PROGRAMME FOR THE REMOVAL OF RUBBER BUILD-UP ON RUNWAYS” IN THE MID REGION**

*That,*

a) *MID States who has not done so are urged to provide the following information, not later than 31 January 2008, on:*

- *status of compliance with ICAO requirement contained in Annex 14 Chapter 10.2 & 10.3 and the relevant ICAO specifications; and*
- *prepare a detailed action plan, to fulfil relevant ICAO requirement*

b) *advise if ICAO assistance is needed; and*

c) *AOP SG to review information collected by MID Regional Office for further course of actions with a view to harmonize and assist States in timely and proper implementation of relevant ICAO requirements.*

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AOP SG/6  
Appendix 6A to the report on Agenda Item 6

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**RUNWAY SAFETY TEAM  
GENERIC TERMS OF REFERENCE**

Suggested runway safety Team generic Terms Of Reference are to assist in enhancing runway safety by:

- a) determining the number, type and, if available, the severity of runway incursions;
- b) considering the outcome of investigation reports in order to establish local hot spots or problem areas at the aerodrome;
- c) working as a cohesive team to better understand the operating difficulties of personnel working in other areas and recommending areas for improvement;
- d) ensuring that the recommendations contained in the *Manual on the Prevention of Runway Incursions* (Doc 9870) are implemented;
- e) identifying any local problem areas and suggesting improvements;
- f) conducting a runway safety awareness campaign that focuses on local issues, for example, producing and distributing local hot spot maps or other guidance material as considered necessary; and
- g) regularly reviewing the aerodrome airfield to ensure its adequacy and compliance with ICAO SARPs.

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AOP SG/6  
Appendix 6B to the report on Agenda Item 6

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**PAVEMENT SURFACE MAINTENANCE PROGRAMME IN THE MID REGION AND  
CORRECTION PROGRAMME FOR THE REMOVAL OF RUBBER BUILD-UP ON RUNWAYS**

**MINIMUM REQUIREMENTS TO BE INCLUDED**

1. Pavement Inventory: The following needs to be depicted in an appropriate form and level of details:
  - Location of all Runways, taxiways and aprons
  - Dimensions
  - Type of Pavement
  - Year of construction or most recent major rehabilitation
2. Inspection Type and Schedule: A detailed inspection schedule that should be performed at least once a year, details is contained in table A2-1 to the Airport Service Manual Doc. 9137 - Part 2, Appendix A.
3. Drive-by Inspections: A drive-by inspection should be performed at a minimum of once per month to detect unexpected changes in the pavement surface condition.
4. Record Keeping: For detailed and drive-by inspections; the Aerodrome Operators should record and keep on file complete information on the findings and on the maintenance performed. Minimum information for record keeping documentation is listed below:
  - Inspection date
  - Location
  - Distress types
  - Remedial Actions (scheduled or performed)
5. Record Keeping Retrieval: Member States should use any form of record keeping it deems appropriate, so long as the pavement inventories and records obtained from pavement surveys and inspections can be retrieved to provide an adequate report when requested by an authority.
6. Reference Documents: Are available to Member States that provide specific guidelines for conducting inspections, determining types of surface distresses, their probable causes and recommended methods of repairs.

**CORRECTION PROGRAMME FOR THE REMOVAL OF RUBBER BUILD-UP ON RUNWAYS**

Particulars to be included:

- a) Scheduling Runway friction Surveys: Aerodrome operators whose runways receive significant jet traffic should schedule periodic friction surveys of both ends of the runway. Table 2A -1 the Airport Service Manual Doc. 9137 - Part 2, Appendix A.
- b) Evaluation Techniques for Rubber Build-Up:
  - Visual inspection
  - Mechanical inspection
  - Continuous friction measuring equipment qualifications, limitations, operating and training requirements
  - Continuous friction measuring equipment, readings and corrective scheduling in accordance with guidance on runway friction level classification as contained in table 3-1 to Annex 14, Volume 1- Attachment A, Section 7.9 on runway surface condition level
- c) Methods available to the aerodrome operator that could be chemical removal or mechanical removal or combination as listed below, the selected method should not only remove rubber build-up, but do so in a way that will increase friction to an acceptable level without destroying or damaging the integrity of the surface:
  - i) High-pressure water blasting (up to 35,000 psi)
  - ii) Chemical solvents
  - iii) Chemical solvents and high-pressure water blasting
  - iv) Hot compressed air
- d) A computer software Programme for evaluation of friction data may be studied.
- e) Guidance for removing rubber build-up is given in the Airport Service Manual Doc 9137 - Part 2, Chapter 8.

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AOP SG/6  
Report on Agenda Item 7

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**REPORT ON AGENDA ITEM 7: REVIEW OF AIR NAVIGATION DEFICIENCIES IN THE AOP FIELD**

7.1 Under this Agenda Item the meeting was provided information on the Air Navigation Deficiencies Database (including AOP deficiencies) that was developed by ICAO MID Regional Office to enhance the process of identification, assessment, reporting and elimination of deficiencies and allow authorized users to propose updates to their deficiencies on-line. The website can be accessed with a username/password. A reporting form is available for MID States to report online deficiencies updates. Database searching feature is considered by MID Regional Office in accordance with MIDANPIRG/10 meeting Conclusion 10/76.

7.2 As a follow-up to MIDANPIRG Conclusion 10/77, the meeting reviewed and updated the list of deficiencies in the AOP field and particular attention was given to the action plan for their elimination as contained at **Appendix 7A** to the report on Agenda Item 7.

7.3 It was noted that significant number of AOP deficiencies were initially in the area of aerodrome operational services and that MIDANPIRG/10 meeting agreed to Conclusion 10/23 with a view to assist MID States in eliminating deficiencies in Aerodrome Operational Services hence; requested ICAO to consider organizing a workshop/seminar on one of the following areas: Aerodrome Rescue and Fire Fighting, Aerodrome Emergency Plan, Removal of Disabled Aircraft, Apron Management and Surface Movement Guidance and Control System.

7.4 The meeting decided on Aerodrome Emergency Plan and Aerodrome Rescue and fire Fighting are the most demanding topics and those would be the areas to be covered. The duration of the workshop/ seminar was proposed to be 3 to 4 days. Date is tentatively scheduled in the 2nd quarter of 2008 and venue is to be defined in a later stage and will be confirmed by an invitation letter.

7.5 The meeting was presented with IATA review of the MID region deficiencies in the aerodrome field that affect flight safety and operating efficiency raising a concern over the slow action by many States to correct ongoing deficiencies in the Region.

7.6 IATA invited the meeting to focus all attention on getting the basic aerodrome operations' requirements across the Region, to an internationally acceptable level, so that consistency in flight safety can be maintained. IATA expressed a concern on the minimum dimensions of the Runway End Safety Area (RESA) and runway strip dimensions and requested them to be revised; matter which is under consideration by ICAO.

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AOP SG/6  
Appendix 7A to the report on Agenda Item 7

**Deficiencies in the AOP field**

**AFGHANISTAN**

| 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 RAN Rec. 1/3ASIA/PAC 3 RAN, Rec.3/1 | Kabul Intl. Airport  | No VASIS on RWY 11/29 | 01/04/2000          | Operations should be restricted to daylight VMC only | F, H, S | Operations should be restricted to daylight VMC only | DGCA           | Dec. 2007          | U                   |
| 2       | Annex 14 Vol. IFASID Table AOP-1MID/3 RAN Rec. 1/3ASIA/PAC 3 RAN, Rec.3/1 | Kabul Intl. Airport  | No ILS RWY 11/29      | 01/04/2000          |  | F, H, S |  | DGCA           | Dec. 2007          | U                   |

<sup>(1)</sup> 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, 1.4.3, 1.4.4         | Kabul & Kandahar Intl. Airports | Implementation of Certification of Aerodromes used for international operations | 23/11/2006          |  | F, H, O           | Need to establish an appropriate regulatory framework. Need to establish 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 the aerodrome certificate | DGCA               | 2010                | U |
| 4       | Annex 14 Vol. 1.5.1, 1.5.2, 1.5.3 & 1.5.4 | Kabul & Kandahar Intl. Airports | Implementation of Aerodrome Operations Safety Management                        | 23/11/2006          |  | F, H, O           | Need to establish a safety programme in order to achieve an acceptable level of safety in Aerodrome Operations  | DGCA               | 2010                | U |

<sup>(1)</sup> Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

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 |   |
| 1       | Annex 14 Vol. 1.4.1, 1.4.4                | Bahrain Int'l Airport | Implementation of Certification of Aerodromes used for international operations | 23/11/2006          |  | H                 | Need to develop an Aerodrome Manual for the international aerodrome and insure it includes a Safety management system prior to granting the aerodrome certificate.<br><br>Updated Information on Oct 2007: Aerodrome Manual for Bahrain Int'l Airport is ready awaiting the completion of Legislations. | BCAA               | Jan. 2008           | U |
| 2       | Annex 14 Vol. 1.5.1, 1.5.2, 1.5.3 & 1.5.4 | Bahrain Int'l Airport | Implementation of Aerodrome Operations Safety Management                        | 23/11/2006          |  | H                 | Need to establish a safety programme in order to achieve an acceptable level of safety in Aerodrome Operations.   | BCAA               | Oct. 2007           | U |

<sup>(1)</sup> 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       | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3                              | Hurghada Int'l Airport | Apron & Taxiway lighting inadequate  | 01/09/2002          |  | F                 | New Lighting of Apron was installed. TXY lighting to be improved on July 2008                          | EAC                | July 2008           | U |
| 2       | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3                              | Luxor Int'l Airport    | PAPIS/VASIS not available  | 01/09/2002          |  | F, H              |  | EAC                | Dec. 2007           | U |
| 3       | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3, ASIA/PAC /3, Rec. 4/2, 4/10 | Cairo Int'l Airport    | RWY 05R/23L surface is severely coated with rubber deposits, in particular TDZ | 01/09/2002          | Exported rubber removal equipments are planned to be in place within 2005/2006 financial budget. | F                 | Rubber deposits are to be removed  | CAC                | Dec. 2007           | A |
| 4       | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3                              | Luxor Int'l Airport    | Runway surface rough with heavy rubber accretion                               | 01/09/2002          |  | F, H              | Parallel RWY used as main RWY on Sep. 2002. Then the main RWY used after repaved on Nov. 2003 till now | EAC                | Dec. 2007           | A |

<sup>(1)</sup> 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 |   |
| 5       | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3                              | Hurghada Int'l Airport        | Heavy rubber accretion on runway                                | 01/09/2002          |   | F, H              | RWY to be repaved, start 7/6/2007, Duration 8 months                          | EAC                | Jan. 2008           | A |
| 6       | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3, ASIA/PAC /3, Rec. 4/2, 4/10 | Cairo Int'l Airport           | RWY 05R lights have variable luminosity                         | 01/04/2003          | Preventive maintenance is made to overcome light variable luminosity to cope with required operational safety | F                 | Lights to be rectified (Improved and be completely alleviated)                | CAC                | Dec. 2007           | U |
| 7       | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3                              | Hurghada Int'l Airport        | Runway Marking inadequate                                       | 01/04/2003          |   | F                 | RWY to be repaved, start 7/6/2007, Duration 8 months.                         | EAC                | Jan. 2008           | A |
| 8       | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3                              | Sharm El Sheikh Int'l Airport | Taxiway & Apron lighting inadequate                             | 01/09/2003          |   | F                 | New lighting of apron was installed. TWY lighting to be improved on July 2008 | EAC                | July 2008           | U |
| 9       | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3                              | Sharm El Sheikh Int'l Airport | RWY 04 surface rough and undulation with heavy rubber accretion | 01/09/2003          |   | F, H              | RWY to be repaved, start 1/7/2007, duration 8 months                          | EAC                | Feb. 2008           | A |

<sup>(1)</sup> 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 |   |
| 10      | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3, ASIA/PAC /3, Rec. 4/2, 4/10 | Cairo Int'l Airport  | Taxiway markings to stands confusing as old markings not removed. Stop markings at new Terminal 2 difficult to interpret. | 01/09/2003          | Problem exacerbated at night and when wet. Old markings are being removed and repainting is being done to all airport surface markings. | H                 | Remove old markings  | CAC                | Dec. 2007           | A |
| 12      | Annex 14 Vol. 1.4.1, 1.4.4  | Hurghada, 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   | 23/11/2006          |   | 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 | ECAA               | Dec. 2007           | U |

<sup>(1)</sup> 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 |
| 13      | Annex 14 Vol. 1.5.1, 1.5.2, 1.5.3 & 1.5.4      | Cairo, Hurghada, Sharm El-Shiekh, Luxor, Aswan, Borg El Arab, Alexandria, Marsa Alam, ALamainTaba, El-Arish, Shark El Owenat, Port Said, St. Cathrine Intl. Airports | Implementation of Aerodrome Operations Safety Management  | 23/11/2006          |  | F, H              | Need to establish a safety programme in order to achieve an acceptable level of safety in Aerodrome Operations.   | ECAA           | Dec. 2008          | U                   |
| 14      | 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 | 01/05/2007          |  |                   | need to have a visual cues to define a safe holding position prior to the intersection point of RWY's 18/36 and 04/22 and not to be left to the pilot judgment to decide where to hold and how far from the RWY edge. | EAC            |                    | U                   |

<sup>(1)</sup> 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. IFASID Table AOP-1MID/3 Rec. 1/3MID/3, Conc.1/6, Rec. 1/3ASIA/PAC 3 RAN, Rec.3/1 | Mehrabad Int'l Airport | Precision approach lighting of RWY 29L has decreased to 600m due to highway interference | 01/07/2001          | Require is for ILS APP has increased to 1200m (State response: The length of precision APCH lighting will be completed up to dec 2006) | F, S, O | Lighting needs to be reinstalled on supports(Under progress) | CAO            | Dec. 2007          | U                   |
| 2       | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3MID/3, Conc.1/6, Rec. 1/3ASIA/PAC 3 RAN, Rec.3/1 | Mehrabad Int'l Airport | Taxiways markings inadequate   | 01/11/2004          | Impose difficulty on aircraft to maneuver  | F, H    | Markings to be improved                                      | CAO            | Dec. 2007          | U                   |

<sup>(1)</sup> 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, 1.4.3, 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 | 23/11/2006          |  | 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 the aerodrome certificate | DGCA               | 2010                | U |
| 4       | 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                        | 23/11/2006          |  | F, H              | Need to establish a safety programme in order to achieve an acceptable level of safety in Aerodrome Operations  | DGCA               | 2010                | U |

<sup>(1)</sup> 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. 1.4.1, 1.4.3, 1.4.4         | Baghdad & Basrah Intl. Airport, | Implementation of Certification of Aerodromes used for international operations  | 23/11/2006          |  | 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 the aerodrome certificate | ICAA               | 2010                | U |
| 2       | Annex 14 Vol. 1.5.1, 1.5.2, 1.5.3 & 1.5.4 | Baghdad & Basrah Intl. Airports | Implementation of Aerodrome Operations Safety Management Implementation of Certification of Aerodromes used for international operations | 23/11/2006          |  | F, H, O           | Need to establish a safety programme in order to achieve an acceptable level of safety in Aerodrome Operations  | ICAA               | 2010                | U |

<sup>(1)</sup> Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

**Deficiencies in the AOP field**

**ISRAEL**

| 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 | Ovda Int. Airport    | No approach lights on RWY 02R/20L.                        | 01/07/2000          | Usually RWY 02L/20/20R in use (with non-standard PP. lights-SALS and PAPI) – available with VOR App. | F<br>H | App. Lighting to be provided as soon as possible | IDF            | Dec. 2007          | U                   |
| 2       | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3 | Ovda Int. Airport    | Threshold markings/lighting do not conform to ICAO SARPs. | 01/07/2000          |  | H      | To be rectified                                  | EDF            | Dec. 2007          | A                   |
| 3       | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3 | Ovda Int. Airport    | No lighted sign with RWY designators                      | 01/01/2002          |  | H      | Sign to be provided                              | IDF            | Dec. 2007          | U                   |
| 4       | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3 | Ovda Int. Airport    | Non-Standard taxiways lighting                            | 01/01/2002          |  | H      | Lightings are to be rectifies                    | IDF            | Dec. 2007          | U                   |

<sup>(1)</sup> 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 |
| 5       | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3                       | Ovda Int. Airport                | Limited parking space                                     | 01/01/2002          | One wide-body plus 3 smaller aircraft<br>Note: Recommended for operations with minimum not less than alternate minima | H<br>S<br>O | Reconsider Apron planning | IDF            | Dec. 2007          | A                   |
| 6       | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3                       | Elat Int. Airport                | No approach lighting                                      | 01/01/2003          | PAPI (RWY 03) and APAPI (RWY 21)  | F           |                           | EDF            | Dec. 2007          | U                   |
| 7       | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3 ASIA/PAC/3, Rec. 4/10 | Tel Aviv/Ben Gurion Int. Airport | No taxiways to RWYs 26 and 21, and inbound from 08 and 03 | 01/01/2003          | For RWYs 26 and 21, taxiing is on active RWYS   | S<br>O      |                           | EDF            | Dec. 2007          | U                   |
| 8       | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3                       | Elat Int. Airport                | Aprons – limited space that is too close to runway        | 01/01/2003          |   | S<br>O      |                           | EDF            | Dec. 2007          | U                   |

<sup>(1)</sup> 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 |
| 9       | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3 | Elat Int. Airport    | Localizer (LOC) App. and DME plus PAPIS   | 01/01/2003          | VOR/DME (LOT) available. Unstable LOC App due to ground movement interference (Notamed)Note:N ot recommended for use by big jets (wide-body/4 engines) | H O |                   | EDF            | Dec. 2007          | A                   |
| 10      | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3 | Elat Int. Airport    | No taxiway  | 01/01/2003          |  | F   |                   | EDF            | Dec. 2007          | A                   |
| 11      | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3 | Elat Int. Airport    | Single runway used as taxiway, two turn-offs at south end (other turn-off is restricted), Runway width is 30 meters A/P defined as non instrument RWY- CVFRRWY has limited performance due to low PCN | 01/01/2003          | Loop available at end of RWY 03Limited to A/C up to 757  | F S |                   | EDF            | Dec. 2007          | A                   |

<sup>(1)</sup> 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 |
| 12      | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3ASIA/PAC/3, Rec. 4/10 | Tel Aviv/Ben Gurion Int. Airport | No high speed turn off end of RWYs: 21/03 and RWY 26                        | 01/01/2003          |  | S<br>O            |  | EDF            | Dec. 2007          | A                   |
| 13      | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3ASIA/PAC/3, Rec. 4/10 | Tel Aviv/Ben Gurion Int. Airport | Using visuals to runway 30 for arrivals and for departures                  | 01/02/2004          |  | S<br>H<br>O       | ATC insist on maintaining 4000ft until Past abeam runway threshold then cleared visual for runway. Performance requires stay inside 3.8 DME BGN for safety reasons | EDF            | Dec. 2007          | U                   |
| 14      | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3ASIA/PAC/3, Rec. 4/10 | Tel Aviv/Ben Gurion Int. Airport | Centre light RWY 26 too high from the asphalt may cause damage to tyres     | 01/09/2004          |  | S<br>O            | Resurfacing RWY 26 will commence October 2004. Runway will be closed for 5 months  | EDF            | Dec. 2007          | U                   |
| 15      | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3ASIA/PAC/3, Rec. 4/10 | Tel Aviv/Ben Gurion Int. Airport | Parking position marking very poor, sometimes even confusing due to changes | 01/09/2004          |  | F                 | This will not improve until new apron is opened  | EDF            | Dec. 2007          | A                   |

<sup>(1)</sup> 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 |
| 16      | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3ASIA/PAC/3, Rec. 4/10 | Tel Aviv/Ben Gurion Int. Airport  | Runway 26 Poor surface condition                    | 01/09/2005          | Requires resurfacing immediately  | S<br>O            |   | EDF            | Dec. 2007          | U                   |
| 17      | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3ASIA/PAC/3, Rec. 4/10 | Tel Aviv/Ben Gurion Int. Airport  | Junction of taxiways “M”, “K”, “F” is a hot spot    | 01/09/2005          | Out bound traffic on “M” may find traffic vacating Runway 12 on “F” turning to “K” as opposite direction. | S<br>O            |   | EDF            | Dec. 2007          | U                   |
| 18      | Annex 14 Vol. IFASID Table AOP-1                                    | Tel Aviv/Ben Gurion, Int. Airport | New terminal apron and taxiway                      | 01/09/2005          |   | S<br>O            | Pilots should exercise extreme caution taxing inbound and on the new apron. | EDF            | Dec. 2007          | A                   |
| 19      | Annex 14 Vol. IFASID Table AOP-1                                    | Tel Aviv/Ben Gurion Int. Airport  | Bird strike problem exist at all times of the year. | 01/09/2005          |   | S<br>O            |   | EDF            | Dec. 2007          | A                   |
| 20      | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3ASIA/PAC/3, Rec. 4/10 | Tel Aviv/Ben Gurion Int. Airport  | Lack of starting position causing pushback delays   | 01/09/2005          | More starting positions required  | S<br>O            |   | EDF            | Dec. 2007          | A                   |

<sup>(1)</sup> 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 |   |
| 21      | Annex 14 Vol. IFASID Table AOP-1         | Tel Aviv/Ben Gurion Int. Airport  | Rapid population has increased around the rynways and taxiways                 | 01/09/2005          |  | S<br>O            | EDF   | Dec. 2007          | A                   |   |
| 22      | Annex 14 Vol.1.5.1, 1.5.2, 1.5.3 & 1.5.4 | Tel Aviv/Ben Gurion, Tel Avive/SDE DOV, Eilat, Ovda, Haifa Intl. Airports | Implementation of Aerodrome Operations Safety Management                       | 23/11/2006          |  | F,<br>H           | Need to establish a safety programme in order to achieve an acceptable level of safety in Aerodrome Operations  | EDF                | 2010                | U |
| 23      | Annex 14 Vol. 1.4.1, 1.4.3               | Tel Aviv/Ben Gurion, Tel Avive/SDE DOV, Eilat, Ovda, Haifa Intl. Airport, | mplementation of Certification of Aerodromes used for international operations | 23/11/2006          |  | F,<br>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 granting the aerodrome certificate | EDF                | 2008                | U |

<sup>(1)</sup> 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 , Aqaba, Jerusalem Intl. Airport, | Implementation of Aerodrome Operations Safety Management                        | 23/11/2006          |  | F, H              | Need to establish a safety programme in order to achieve an acceptable level of safety in Aerodrome Operations   | CAA                | Jan. 2008           | U |
| 2       | Annex 14 Vol. 1.4.1, 1.4.4                | Amman/Queen Alia, Amman/Marka , Aqaba, Jerusalem Intl. Airports | Implementation of Certification of Aerodromes used for international operations | 23/11/2006          |  | 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<br>Need to establish a safety programme in order to achieve an acceptable level of safety in Aerodrome Operations | CAA                | Jan. 2008           | U |

<sup>(1)</sup> 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 |   |
| 1       | Annex 14 Vol. 1.4.1, 1.4.3, 1.4.4         | Kuwait Intl. Airport | Implementation of Certification of Aerodromes used for international operations  | 23/11/2006          |  | H                 | Need to establish an appropriate regulatory framework. Need to establish 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 the aerodrome certificate | DGCA               | Jan 2008            | U |
| 2       | Annex 14 Vol. 1.5.1, 1.5.2, 1.5.3 & 1.5.4 | Kuwait Intl. Airport | Implementation of Aerodrome Operations Safety Management mplementation of Certification of Aerodromes used for international operations Implementation of Aerodrome Operations Safety Management | 23/11/2006          |  | H                 | Need to establish a safety programme in order to achieve an acceptable level of safety in Aerodrome Operations  | DGCA               | Jan 2008            | U |

<sup>(1)</sup> 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. 1.5.1, 1.5.2, 1.5.3 & 1.5.4 | Beirut Intl. Airport | Implementation of Aerodrome Operations Safety Management                        | 23/11/2006          |  | F, H | Need to establish a safety programme in order to achieve an acceptable level of safety in Aerodrome Operations   | LCAA           | 2010`              | U                   |
| 2       | Annex 14 Vol. 1.4.1, 1.4.4                | Beirut Intl. Airport | Implementation of Certification of Aerodromes used for international operations | 23/11/2006          |  | 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 | LCAA           | 2010               | U                   |

<sup>(1)</sup> 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. 1.5.1, 1.5.2, 1.5.3 & 1.5.4 | Muscat/Seeb, Salalah Intl. Airports | Implementation of Aerodrome Operations Safety Management                        | 23/11/2006          |  | F, H              | Need to establish a safety programme in order to achieve an acceptable level of safety in Aerodrome Operations   | DGCAM              | 2010                | U |
| 2       | Annex 14 Vol. 1.4.1, 1.4.4                | Muscat/Seeb, Salalah Intl. Airports | Implementation of Certification of Aerodromes used for international operations | 23/11/2006          |  | 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 | DGCAM              | 2010                | U |

<sup>(1)</sup> 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 |
| 1       | Annex 14 Vol. 1.5.1, 1.5.2, 1.5.3 & 1.5.4 | Doha Intl. Airport   | Implementation of Aerodrome Operations Safety Management                        | 23/11/2006          |  | H | Need to establish a safety programme in order to achieve an acceptable level of safety in Aerodrome Operations  | CAA            | 2010               | U                   |
| 2       | Annex 14 Vol. 1.4.1, 1.4.3, 1.4.4         | Doha Intl. Airport   | Implementation of Certification of Aerodromes used for international operations | 23/11/2006          |  | 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 the aerodrome certificate | CAA            | 2010               | U                   |

<sup>(1)</sup> 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 |
| 1       | Annex 14 Vol. 1.5.1, 1.5.2, 1.5.3 & 1.5.4 | Riyadh/King khalid, Geddah/King Abdulaziz, Madinah/Prince Mohammad Bin Addulaziz Intl. Airports | Implementation of Aerodrome Operations Safety Management | 23/11/2006          |  | H | Need to establish a safety programme in order to achieve an acceptable level of safety in Aerodrome Operations | GACA           | Jan. 2008          | U                   |

<sup>(1)</sup> 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 | Difficulty parking B747-400 and B777 at Stands A10 and A11       | 01/09/2002          | Syrian AIP Chart dated 15 May 2004 _ Ground surface Movement/Stands is not clear, while no explanatory table was attachedState (ref. Fax dated 2 Mar. 05) advised that Difficulty parking B747-400 and B777 at stands A10 & A11 was solved | H<br>S            |   | CAA                | Dec. 2007           | A |
| 2       | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3 | Damascus int'l Airport | Apron lighting inadequate  | 01/09/2003          |  | F<br>H            | Apron lighting is to be improved  | CAA                | Dec. 2007           | U |
| 3       | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3 | Damascus int'l Airport | Runway surface rough and damaged. Runway markings unsatisfactory | 01/09/2003          |  | F<br>H            | RWY Surface to be repaired and refurbished, Markings are to be improved | CAA                | Dec. 2007           | A |

<sup>(1)</sup> 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 |   |
| 4       | Annex 14 Vol. IFASID Table AOP-1MID/3 Rec. 1/3 | Damascus int'l Airport                                   | DAM/DVOR 116 MHZ Out of Service   | 01/06/2004          |  | F                 | The VOR/DME to be replaced   | CAA                | Dec. 2007           | A |
| 5       | Annex 14 Vol. 1.5.1, 1.5.2, 1.5.3 & 1.5.4      | Damascus, Aleppo, Bassel Al-Assad/Latakia Intl. Airports | Implementation of Aerodrome Operations Safety Management                        | 23/11/2006          |  | F, H              | Need to establish a safety programme in order to achieve an acceptable level of safety in Aerodrome Operations   | CAA                | 2010                | U |
| 6       | Annex 14 Vol. 1.4.1, 1.4.4                     | Damascus, Aleppo, Bassel Al-Assad/Latakia Intl. Airports | Implementation of Certification of Aerodromes used for international operations | 23/11/2006          |  | 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 | CAA                | 2010                | U |

<sup>(1)</sup> 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 |   |
| 1       | Annex 14 Vol. 1.5.1, 1.5.2, 1.5.3 & 1.5.4 | Abu Dhabi, Al Ain, Dubai, Fujairah, Ras Al Khaimah, Sharjah int'l Airports | Implementation of Aerodrome Operations Safety Management | 23/10/2007          |  | H                 | Need to establish a safety programme in order to achieve an acceptable level of safety in Aerodrome Operations | GCAA               | 2008                | U |

<sup>(1)</sup> 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 | Sana'a, Aden, Hodeibah, Taiz/Ganad Intl. Airports | Implementation of Aerodrome Operations Safety Management                        | 23/11/2006          |  | F, H              | Need to establish a safety programme in order to achieve an acceptable level of safety in Aerodrome Operations  | DGCA               | 2010                | U |
| 2       | Annex 14 Vol. 1.4.1, 1.4.3, 1.4.4         | Sana'a, Aden, Hodeibah, Taiz/Ganad Intl. Airports | Implementation of Certification of Aerodromes used for international operations | 23/11/2006          |  | 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 granting the aerodrome certificate | GCAA               | 2010                | U |

<sup>(1)</sup> Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

**Note:\* Priority for action to remedy a deficiency is based on the following safety assessments:**

**'U' priority = Urgent requirements having a direct impact on safety and requiring immediate corrective actions.**

**Urgent requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is urgently required for air navigation safety.**

**'A' priority = Top priority requirements necessary for air navigation safety.**

**Top priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for air navigation safety.**

**'B' priority = Intermediate requirements necessary for air navigation regularity and efficiency.**

**Intermediate priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for air navigation regularity and efficiency.**

**Definition:**

**A deficiency is a situation where a facility, service or procedure does not comply with a regional air navigation plan approved by the Council, or with related ICAO Standards and Recommended Practices, and which situation has a negative impact on the safety, regularity and/or efficiency of international civil aviation.**

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<sup>(1)</sup> Rationale for non-elimination: “F”= Financial

“H”= Human Resources

“S”= State (Military/political)

“O”= Other unknown causes

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**REPORT ON AGENDA ITEM 8: REVIEW OF OTHER AGA TECHNICAL MATTERS:**

**8.1 *Global Air Navigation Plan and MID Region Strategy for the Implementation of the Global Plan Initiatives (GPIs) related to aerodrome design and operations***

8.1.1 The meeting was provided with brief information on the Global Air Navigation Plan which contains guidance on ATM improvements necessary to support a uniform transition to the ATM system envisioned in the global ATM operational concept (Doc 9854). The operational concept presents the ICAO vision of an integrated, harmonized and globally interoperable ATM system. A global ATM system can be described as a worldwide system that, on a global basis, achieves interoperability and seamlessness across regions for all users during all phases of flight; meets agreed levels of safety; provides for optimum economic operations; is environmentally sustainable; and meets national security requirements.

8.1.2 The first issue of the Global Plan focuses on one perspective, which is the operational and technical improvements that will bring near and medium term benefits to aircraft operators. Long term initiatives, necessary to guide the evolution to a global ATM system as envisioned in the operational concept, will be added to the Global Plan as they are developed and agreed to.

8.1.3 On the basis of the above, the meeting was informed that, planning was focused on specific performance objectives, supported by a set of “Global Plan Initiatives” (GPIs). States and regions would have to choose initiatives that meet performance objectives, identified through an analytical process, specific to the particular needs of a State, region, homogeneous ATM area or major traffic flow. Planning tools would assist with the analytical process.

8.1.4 The meeting was informed that, most significantly, the second amendment to the Global Plan, now contains a set of twenty-three Global Plan Initiatives (GPIs) which stem from the industry roadmap and consolidated by the Secretariat and the Commission. The initiatives are a logical progression of the evolutionary work already accomplished by the Planning and Implementation Regional Groups (PIRGs) and will integrate into the present planning framework.

8.1.5 The meeting was also informed that The Global Plan will be supported by planning tools (e.g. software applications, planning documentation, web-based reporting forms, project management tools). As States and PIRGs consider improvements to the regional air navigation infrastructures, they will use the GPIs and associated common programme templates as the basis for establishing performance objectives and implementation timelines, as well as to develop a comprehensive schedule and programme of planning activities to accomplish the work.

8.1.6 The Global Plan therefore, focuses efforts on maintaining consistent global harmonization and improving implementation efficiencies by drawing on the existing capabilities of the air navigation infrastructure and successful regional implementation.

8.1.7 The meeting was invited to note the detailed MID Region strategy for the Global Plan Initiative (GPIs) as contained at **Appendix 8A** to the report on Agenda Item 8.

8.1.8 The attention of the meeting was drawn to:

- a) GPI 13: Aerodrome Design and Management aimed at enhancement of aerodrome infrastructure and management
- b) GPI 14: Runway Operation aimed at Improvement of State’s Aerodrome operations

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8.1.9 The meeting reviewed and agreed on the proposed regional implementation projects and activities and focused on those related to GPIs 13 and 14 in the revised Global Air Navigation Plan that was discussed and approved by MIDANPIRG/9 meeting.

## **8.2 *Application of Amendments 8 and 9 to Annex 14***

8.2.1 Under this Agenda Item the meeting was reminded with the latest amendments 8 & 9 to Annex 14 Volume I and their applicability date in addition to brief note on their contents.

8.2.2 The attention of the meeting was drawn to the latest list of ICAO publications related to the specifications of aerodrome design and operations contained in Annex 14.

## **8.3 *Readiness of MID aerodromes to accommodate New Larger aircrafts***

8.3.1 The meeting was presented with result of a survey conducted on readiness of MID aerodromes to accommodate New Larger Aircrafts (NLAs). The survey was requested by MIDANPIRG /9 to assist MID States in planning future developments in their aerodromes.

8.3.2 Based on information received from seven States and IATA the meeting noted that four MID international aerodromes might be ready to accommodate NLAs by 2008: Bahrain, Doha (Qatar), King Abdulaziz (Jeddah-Saudi Arabia), and Dubai (UAE). The meeting noted also areas of safety concern that need more attention in order to enhance readiness of some existing Int'l aerodromes to accommodate NLAs.

8.3.3 Noting the significant growth of air traffic volume to and from the MID Region and the airlines information on using NLAs; and noting the significant number of current major development in aerodrome area in the MID Region; The meeting may wish to encourage MID States to inform ICAO, as part of MID ANP/ FSAID (Doc 9807) related information on their development plan to meet air navigation requirement and air traffic forecast demands, also allow for better future planning by end users and the industry.

8.3.4 Information on readiness of UAE aerodromes to accommodate NLAs was provided during the meeting, accordingly MID survey results was updated as contained at **Appendix 8B** to the Report on Agenda Item 8.

8.3.5 Guidance on the sources of data on the physical characteristics of the NLA, minimum facilities and services needed for its operations for Airport planning as well as ICAO minimum requirement were provided to the meeting.

## **8.4 *Other relevant aspects of Annex 14***

8.4.1 Under this Agenda Item the meeting was provided with a list of specific Annex 14 Volumes I & II provisions, as contained at **Appendix 8C** to the report on Agenda Item 8, that are having applicability dates later than 23 November 2006 with a view to assist States in better planning the necessary resources for meeting their obligations in a timely manner.

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**MID REGION STRATEGY FOR THE IMPLEMENTATION OF THE GLOBAL PLAN INITIATIVES (GPIs)**

Considering:

- a) the ICAO strategic objectives;
- b) the ICAO Business Plan;
- c) the Global Air Traffic Management Operational Concept;
- d) the revised Global Air Navigation Plan and associated GPIs; and
- e) the outcome of ALLPIRG/5 meeting; and

Recognizing that:

- i) the evolution continues from a systems-based to a performance-based approach to planning and implementation of the air navigation infrastructure; and
- ii) the Global Air Navigation Plan is a significant component in the development of regional and national plans and that, together with the global ATM operational concept, it provides an effective architecture for achieving a safe, harmonized, interoperable, and seamless - *expected dates for full implementation of safety management system at all its International Aerodromes* listed in the MID Basic ANP, Part III - Doc 9708 Global ATM system;

The MID Region strategy for the implementation of the Global Plan Initiatives (GPIs) is detailed below:

- A) the MID Region implementation plan should:
  - 1) be evolutionary and consistent with the Global Air Navigation Plan taking into consideration the region priorities;
  - 2) cope with the development of an ATM Performance framework;
  - 3) satisfy performance needs just in time and at minimal cost;
  - 4) provide States with clearer objectives for the implementation of ATM and supporting CNS systems;
  - 5) identify the GPIs that would be most effective in achieving the objectives of the region while ensuring continuation of the work already accomplished;
  - 6) take into account the Initiatives across regions, to align work programmes and to develop national and regional plans that facilitate achieving a Global ATM system;
- B) the GPIs status of implementation in the MID Region is at **Attachment 1**;
- C) the progress achieved and the challenges identified in the implementation of GPIs should be monitored and reviewed on a regular basis; and
- D) taking into consideration the above, the implementation plan should be considered as a living document, which should be updated on a regular basis.

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## GLOBAL AIR NAVIGATION PLAN: GLOBAL INITIATIVES

Table 1. Global Plan Initiatives (GPIs) and their relationships to the major groupings

| GPI    |  | En-route | Terminal Area | Aerodrome | Supporting Infrastructure | Related Operational Concept Components |
|--------|--|----------|---------------|-----------|---------------------------|--|
| GPI-1  | Flexible use of airspace                                       | X        | X             |           |                           | AOM, AUO                               |
| GPI-2  | Reduced vertical separation minima                             | X        |               |           |                           | AOM, CM                                |
| GPI-3  | Harmonization of level systems                                 | X        |               |           |                           | AOM, CM, AUO                           |
| GPI-4  | Alignment of upper airspace classifications                    | X        |               |           |                           | AOM, CM, AUO                           |
| GPI-5  | RNAV and RNP (Performance-based navigation)                    | X        | X             | X         |                           | AOM, AO, TS, CM, AUO                   |
| GPI-6  | Air traffic flow management                                    | X        | X             | X         |                           | AOM, AO, DCB, TS, CM, AUO              |
| GPI-7  | Dynamic and flexible ATS route management                      | X        | X             |           |                           | AOM, AUO                               |
| GPI-8  | Collaborative airspace design and management                   | X        | X             |           |                           | AOM, AUO                               |
| GPI-9  | Situational awareness  | X        | X             | X         | X                         | AO, TS, CM, AUO                        |
| GPI-10 | Terminal area design and management                            |          | X             |           |                           | AOM, AO, TS, CM, AUO                   |
| GPI-11 | RNP and RNAV SIDs and STARs                                    |          | X             |           |                           | AOM, AO, TS, CM, AUO                   |
| GPI-12 | Functional integration of ground systems with airborne systems |          | X             |           | X                         | AOM, AO, TS, CM, AUO                   |
| GPI-13 | Aerodrome design and management                                |          |               | X         |                           | AO, CM, AUO                            |
| GPI-14 | Runway operations  |          |               | X         |                           | AO, TS, CM, AUO                        |
| GPI-15 | Match IMC and VMC operating capacity                           |          | X             | X         | X                         | AO, CM, AUO                            |
| GPI-16 | Decision support systems and alerting systems                  | X        | X             | X         | X                         | DCB, TS, CM, AUO                       |
| GPI-17 | Data link applications   | X        | X             | X         | X                         | DCB, AO, TS, CM, AUO, ATMSDM           |
| GPI-18 | Aeronautical information                                       | X        | X             | X         | X                         | AOM, DCB, AO, TS, CM, AUO, ATMSDM      |
| GPI-19 | Meteorological systems   | X        | X             | X         | X                         | AOM, DCB, AO, AUO                      |
| GPI-20 | WGS-84   | X        | X             | X         | X                         | AO, CM, AUO                            |
| GPI-21 | Navigation systems   | X        | X             | X         | X                         | AO, TS, CM, AUO                        |
| GPI-22 | Communication infrastructure                                   | X        | X             | X         | X                         | AO, TS, CM, AUO                        |
| GPI-23 | Aeronautical radio spectrum                                    | X        | X             | X         | X                         | AO, TS, CM, AUO, ATMSDM                |

## ABBREVIATIONS:

Airspace Organization and Management

Demand and Capacity Balancing

Aerodrome Operations

Traffic Synchronization

Conflict Management

Airspace User Operations

ATM Service Delivery Management

AOM

DCB

AO

TS

CM

AUO

ATMSDM

**IMPROVEMENT OF THE MID ATS ROUTE STRUCTURE**

- GPI-1: FLEXIBLE USE OF AIRSPACE**  
**GPI-4: ALIGNMENT OF UPPER AIRSPACE CLASSIFICATIONS**  
**GPI-5: RNAV AND RNP (PERFORMANCE-BASED NAVIGATION)**  
**GPI-7: DYNAMIC AND FLEXIBLE ATS ROUTE MANAGEMENT**  
**GPI-8: COLLABORATIVE AIRSPACE DESIGN AND MANAGEMENT**

| <b>Strategic Objectives</b> | <b>Actions</b>                                   | <b>Description/Tasks</b>   | <b>Target Date</b> | <b>Initiated by</b> | <b>Benefits</b>  | <b>Status</b> |
|-----------------------------|--|--|--------------------|---------------------|--|---------------|
| A, C, D                     | Improvement of MID ATS routes structure          | <ul style="list-style-type: none"> <li>– Analyse the en-route ATS route structure and implement identifiable improvements;</li> <li>– Increased accommodation of user-preferred flight profiles;</li> <li>– Monitor planning and implementation process.</li> </ul>  | 2009               | ICAO, States, users | <ul style="list-style-type: none"> <li>– Shorter routes/reduced travel times</li> <li>– Increased airspace capacity and efficiency</li> <li>– Reduced fuel consumption</li> <li>– Reduced environmental impact</li> </ul>                            |               |
| A, C, D                     | Implement Flexible Use of Airspace (FUA) Concept | <ul style="list-style-type: none"> <li>– Conduct Regional review of special use of airspace;</li> <li>– Remove large tracts of permanent restricted airspace;</li> <li>– Establish civil/military coordination bodies at national level;</li> <li>– Implement collaborative civil/military airspace planning at national level;</li> <li>– Increase role of civil/military coordination forums;</li> <li>– Implement dynamic and flexible ATS routes structure concept.</li> <li>– Monitor implementation</li> </ul> | 2010               | ICAO, States, users | <ul style="list-style-type: none"> <li>– Improved safety</li> <li>– Shorter routes/reduced travel times</li> <li>– Increased airspace capacity and efficiency</li> <li>– Reduced fuel consumption</li> <li>– Reduced environmental impact</li> </ul> |               |

8A1-3

| Strategic Objectives | Actions                                      | Description/Tasks   | Target Date | Initiated by        | Benefits   | Status |
|----------------------|--|---|-------------|---------------------|--|--------|
| A, E                 | Implement Regional ATM contingency planning  | <ul style="list-style-type: none"> <li>– Define route schemes for contingency situations;</li> <li>– Promulgation of contingency plans.</li> </ul>  | 2008        | States, ICAO, users | Ensure continuity and safety of air transport  |        |
| A, C, D              | Collaborative airspace design and management | <ul style="list-style-type: none"> <li>– Collaboration with users and adjacent airspaces on airspace design and management;</li> <li>– Extend the implementation of RNAV 5 areas to cover the whole airspace in the MID Region above FL 195;</li> <li>– Reorganize the MID airspace to ensure application of a common airspace classification in the upper airspace, above an agreed common level.</li> </ul> | 2009        | ICAO, States, users | <ul style="list-style-type: none"> <li>– Improvement in safety;</li> <li>– Improved airspace capacity;</li> <li>– Improved interoperability and seamlessness;</li> <li>– Reduced fuel consumption;</li> <li>– Reduced environmental impact.</li> </ul> |        |

**RVSM OPERATIONS IN THE MID REGION**

**GPI-2: REDUCED VERTICAL SEPARATION MINIMA**

| Strategic Objectives | Actions                                       | Description/Tasks   | Target Date | Initiated by          | Benefits  | Status |
|----------------------|---|---|-------------|-----------------------|---|--------|
| C, D                 | Ensure safe RVSM operations in the MID Region | <ul style="list-style-type: none"> <li>– Monitor/follow-up RVSM operations in the MID Region;</li> <li>– Ensure MID RMA operations continuity;</li> <li>– Plan for the implementation of RVSM in Baghdad and Kabul FIRs;</li> <li>– Follow-up/coordinate RVSM implementation/operations in adjacent regions.</li> </ul> | 2009        | ICAO, States, MID-RMA | <ul style="list-style-type: none"> <li>– Increased airspace capacity and efficiency;</li> <li>– Reduced fuel consumption;</li> <li>– Reduced environmental impact.</li> </ul> |        |

**DECISION SUPPORT AND IMPROVEMENT OF SITUATIONAL AWARENESS**

**GPI-9: SITUATIONAL AWARENESS**  
**GPI-16: DECISION SUPPORT AND ALERTING SYSTEMS**  
**GPI-17: DATA LINK APPLICATIONS**  
**GPI-19: METEOROLOGICAL SYSTEMS**

| <b>Strategic Objectives</b> | <b>Actions</b>   | <b>Description/Tasks</b>   | <b>Target Date</b> | <b>Initiated by</b>   | <b>Benefits</b>   | <b>Status</b> |
|-----------------------------|--|--|--------------------|-----------------------|---|---------------|
| A, D                        | Implement an IFPS in the MID Region                    | <ul style="list-style-type: none"> <li>-Develop a feasibility study;</li> <li>- Define the legal framework for the MID IFPS;</li> <li>- Commitment of States through the signature of MOU;</li> <li>- Agreement on a funding mechanism;</li> <li>- Implementation and operation of the MID IFPS</li> </ul> | 2010               | Bahrain, States, ICAO | <ul style="list-style-type: none"> <li>- Reduce the number of occurrences of non-receipt of FPLs and associated ATS messages;</li> <li>- Improved planning and coordination between adjacent Centres;</li> <li>- Improved safety and efficiency.</li> </ul> |               |
| A, D                        | Improve surveillance and air/ground data link services | <ul style="list-style-type: none"> <li>- Implement ATS data link surveillance technologies, ADS-B, CPDLC, etc., where applicable ;</li> <li>- Exchange of radar data between adjacent Centres,</li> <li>- Implement automation in coordination tasks between adjacent Centres/Sectors</li> </ul>           | 2010               | ICAO, States, Users   | <ul style="list-style-type: none"> <li>- Improvement in safety;</li> <li>- Reduced workload for both pilots and controllers;</li> <li>- Improved efficiency.</li> </ul>   |               |

|      |  |   |      |              |  |  |
|------|--|---|------|--------------|--|--|
| A    | Implement operations decision support and alerting systems | <ul style="list-style-type: none"> <li>- Implement ground air electronic warnings, as needed for short and for long term conflict predictions:<br/> + ACAS II<br/> + MSAW<br/> + DAIW</li> <li>- Implement D-ATIS, where applicable.</li> </ul>   | 2009 | ICAO, States | <ul style="list-style-type: none"> <li>- Improved safety;</li> <li>- Reduction in risk of CFIT;</li> </ul> |  |
| A    | Provision of eTOD  | <ul style="list-style-type: none"> <li>- Promote the awareness about the requirements for the provision of electronic Terrain and Obstacle Data (eTOD);</li> <li>- Analyse eTOD requirements develop a common understanding of the requirements (needs in terms of data format, temporality, cross-border harmonisation, etc);</li> <li>- Develop a MID Region eTOD implementation strategy and action plan;</li> <li>- Harmonize, coordinate and support the eTOD implementation activities on a regional basis;</li> <li>- Provide eTOD.</li> </ul> | 2009 | ICAO, States | <ul style="list-style-type: none"> <li>- Improved safety;</li> <li>- Reduction in risk of CFIT;</li> </ul> |  |
| A, D | Provision of MET information                               | <ul style="list-style-type: none"> <li>- Implement D-VOLMET, where applicable;</li> <li>- Provision of OPMET information from automated ground-based meteorological systems (automated low-level wind shear alerts and RWY wake vortex reports, hazardous weather phenomena).</li> </ul>  | 2010 | States       | <ul style="list-style-type: none"> <li>- Improved safety;</li> <li>- Improved efficiency.</li> </ul>       |  |

**ENHANCEMENT OF MID STATES' TMA MANAGEMENT**

- GPI-1: FLEXIBLE USE OF AIRSPACE**
- GPI-5: RNAV AND RNP (PERFORMANCE-BASED NAVIGATION)**
- GPI- 8: COLLABORATIVE AIRSPACE DESIGN AND MANAGEMENT**
- GPI-10: TERMINAL AREA DESIGN AND MANAGEMENT**
- GPI-11: RNP AND RNAV STANDARD INSTRUMENT DEPARTURES (SIDS) AND STANDARD TERMINAL ARRIVALS (STARS)**
- GPI-12: FUNCTIONAL INTEGRATION OF GROUND SYSTEMS WITH AIRBORNE SYSTEMS**
- GPI-20: WGS-84**
- GPI-21: NAVIGATION SYSTEMS**

| Strategic Objectives | Actions                             | Description/Tasks  | Target Date | Initiated by        | Benefits   | Status |
|----------------------|-------------------------------------|--|-------------|---------------------|--|--------|
| A, C, D              | Improve TMA capacity and efficiency | <ul style="list-style-type: none"> <li>– Collaboration with users on TMA design and management;</li> <li>– Increased accommodation of user-preferred flight profiles;</li> <li>– Remove, as much as possible, permanent restricted airspace close to airports and carry out strategic coordination and dynamic interaction with the military to improve TMA capacity;</li> <li>– Finalize implementation of WGS-84;</li> <li>– Develop MID Region PBN Strategy;</li> <li>– Develop and implement optimized RNP and RNAV SIDs, STARS and approach procedures in accordance with the PBN concept, taking into consideration aircraft capabilities;</li> <li>– Develop and implement GNSS procedures for Non-Precision Approaches and approaches with vertical guidance (APV).</li> </ul> | 2010        | ICAO, States, Users | <ul style="list-style-type: none"> <li>– Improvement in safety</li> <li>– Increased airspace capacity and efficiency;</li> <li>– Efficient flight trajectories;</li> <li>– Reduction in CFIT;</li> <li>– Reduced fuel consumption;</li> <li>– Reduced environmental impact.</li> </ul> |        |

| Strategic Objectives | Actions  | Description/Tasks   | Target Date | Initiated by        | Benefits   | Status |
|----------------------|--|---|-------------|---------------------|--|--------|
| C, D                 | Plan for the implementation of Continuous descent procedures and unrestricted climb departure procedures | <ul style="list-style-type: none"> <li>– Enable optimal application of advanced technologies including FMS based arrival procedures;</li> <li>– Develop a plan for the implementation of continuous descent procedures;</li> <li>– Develop a plan for the implementation of unrestricted climb departure procedures.</li> </ul> | 2011        | States, Users, ICAO | <ul style="list-style-type: none"> <li>– Efficient flight trajectories;</li> <li>– Increased airspace efficiency;</li> <li>– Reduced fuel consumption;</li> <li>– Reduced environmental impact.</li> </ul> |        |

**ENHANCEMENT OF AERODROME INFRASTRUCTURE AND MANAGEMENT**

**GPI-13: AERODROME DESIGN AND MANAGEMENT**  
**GPI-15: MATCH IMC AND VMC OPERATING CAPACITY**

| Strategic Objectives | Actions  | Description/Tasks  | Target Date | Initiated by        | Benefits   | Status |
|----------------------|--|--|-------------|---------------------|--|--------|
| A, D                 | Implement collaborative aerodrome SARPs and safety management (13) | <ul style="list-style-type: none"> <li>– Establish collaborative bodies with ATM, aircraft operators and aerodrome operators for developing plans to increase aerodrome capacity to meet the actual air traffic or forecast demand</li> <li>– Implement aerodrome ground infrastructure commensurate with operational expectations including operations of new larger aircrafts at existing aerodromes,</li> <li>– Implement, where warranted, precise surface guidance to and from a runway to improve capacity and efficiency,</li> <li>– Implement collaborative aerodrome operational procedures with ATM, ground services providers and associated operations support services</li> <li>– Develop, Implement and make available to ATM at aerodromes a positioning system for all vehicles and aircrafts operating on the movement area on a cost-benefit basis.</li> <li>– Implement advance surface movement guidance and control, associated procedures and implement electronic conflict alert systems, as required.</li> <li>– Implement safety management system at aerodromes</li> </ul> | 2010        | ICAO, States, Users | <ul style="list-style-type: none"> <li>– Improvement in safety</li> <li>– more efficient use of aerodrome resources and ground handling</li> <li>– Increased aerodrome capacity and efficiency</li> <li>– allow minimal and precise ATFM measures to be applied</li> <li>– reduction in delays and higher predictability of flight schedules</li> <li>– increased ability to safely manoeuvre in all weather conditions</li> </ul> |        |

**IMPROVEMENT OF STATE'S AERODROME OPERATIONS**

**GPI-14: RUNWAY OPERATIONS**  
**GPI-15: MATCH IMC AND VMC OPERATING CAPACITY**

| Strategic Objectives | Actions  | Description/Tasks   | Target Date | Initiated by | Benefits   | Status |
|----------------------|--|---|-------------|--------------|--|--------|
| A                    | Implement procedures and technologies to enhance the performance of runway operations and optimize runway capacity | <ul style="list-style-type: none"> <li>– Undertake analysis to determine most favourable ATM factors and measures (procedures, management, etc) for runway capacity optimization</li> <li>– Establish collaborative bodies with ATM, aircraft operators and aerodrome operators for implementing plans and measures aimed at prevention of runway incursion</li> <li>– Develop and implement a runway physical characteristics maintenance programme</li> <li>– Implement, where warranted, precise surface guidance to and from a runway to improve capacity and efficiency</li> </ul> | 2010        | ICAO, States | <ul style="list-style-type: none"> <li>– Improvement in safety</li> <li>– Reduction in runway incursion</li> <li>– reduce runway occupancy time and maximize runway capacity</li> <li>– Enhance the performance of runway operations</li> <li>– Increased aerodrome capacity and efficiency</li> </ul> |        |

**IMPROVEMENT OF THE QUALITY AND EFFICIENCY OF AERONAUTICAL INFORMATION SERVICES  
 PROVIDED BY MID STATES**

**GPI-18: AERONAUTICAL INFORMATION**

| Strategic Objectives | Actions  | Description/Tasks   | Target Date | Initiated by | Benefits   | Status |
|----------------------|--|---|-------------|--------------|--|--------|
| A, D                 | Provide timely and quality assured aeronautical information to users | <ul style="list-style-type: none"> <li>– Improve the compliance with the AIRAC system;</li> <li>– Advance posting of the AIRAC information on the web;</li> <li>– Use of email to enhance the communication between the AIS community in the MID Region;</li> <li>– Implement AIS automation in order to ensure availability, sharing and management of electronic aeronautical information;</li> <li>– Complete the implementation of Quality Management Systems (QMS);</li> <li>– Monitor implementation progress.</li> </ul> | 2009        | States, ICAO | <ul style="list-style-type: none"> <li>– Improved safety;</li> <li>– Improved planning and management of flights;</li> <li>– Efficient use of airspace.</li> </ul> |        |

**IMPLEMENTATION OF GNSS IN THE MID REGION**

**GPI-21: NAVIGATION SYSTEMS**  
**GPI-23: AERONAUTICAL RADIO SPECTRUM**

| <b>Strategic Objectives</b> | <b>Actions</b>   | <b>Description/Tasks</b>   | <b>Target Date</b> | <b>Action by</b> | <b>Benefits</b>  | <b>Status</b> |
|-----------------------------|--|--|--------------------|------------------|--|---------------|
| C, D                        | Implement GNSS   | <ul style="list-style-type: none"> <li>– Implement GNSS for En-route;</li> <li>– Implement GNSS for NPAs;</li> <li>– Carry out GNSS trials, demonstrations and test beds;</li> <li>– Determine the most appropriate augmentation system for the MID Region based on cost-benefit analysis;</li> <li>– Introduce, in an evolutionary manner, the use of GNSS with appropriate augmentation system in the MID Region;</li> <li>– Monitor implementation progress.</li> </ul> | 2010               | ICAO, States     | <ul style="list-style-type: none"> <li>– Optimal use of advanced technologies;</li> <li>– Operational Efficiency;</li> <li>– Reduction in environmental impact.</li> </ul> |               |
| A, D                        | Implement Radio Spectrum Management and processes to protect the aeronautical spectrum | <ul style="list-style-type: none"> <li>– Ensure Regional coordination for the protection of the aviation spectrum at WRC2007, and beyond</li> <li>– Disseminate ICAO policy statements of requirements for aeronautical radio frequency spectrum;</li> <li>– Implement frequency spectrum management.</li> </ul>   | 2009               | ICAO, States     | <ul style="list-style-type: none"> <li>– Assurance of aviation spectrum</li> <li>– Administer the use of the allocated aviation spectrum</li> </ul>                        |               |

**IMPROVEMENT OF COMMUNICATION INFRASTRUCTURE**

**GPI-17: DATA LINK APPLICATIONS**  
**GPI-22: COMMUNICATION INFRASTRUCTURE**

| <b>Strategic Objectives</b> | <b>Actions</b>   | <b>Description/Tasks</b>   | <b>Target Date</b> | <b>Action by</b> | <b>Benefits</b>   | <b>Status</b> |
|-----------------------------|--|--|--------------------|------------------|---|---------------|
| A, D                        | Implement communication infrastructure to support voice and data communication | <ul style="list-style-type: none"> <li>– Follow up on the implementation of the Aeronautical Fixed Services (AFS)</li> <li>– Follow up the implementation on voice communications</li> <li>– Migrate from AFTN/CIDIN to AMHS</li> <li>– Implement high speed digital circuits between main centres</li> <li>– Monitor the implementations</li> <li>– Follow up the developments in the Panels</li> <li>– Implement harmonally the appropriate developments.</li> </ul> | 2010               | ICAO, States     | <ul style="list-style-type: none"> <li>– Improved safety</li> <li>– Improvement in operational efficiency</li> <li>– Better coordination</li> </ul>   |               |
| D                           | Implementation of ATN in the MID region  | <ul style="list-style-type: none"> <li>– Develop Regional ATN Planning document</li> <li>– Review of ATN implementation problems and develop coordinated solutions</li> <li>– Develop ATN Operation procedures</li> <li>– Develop conformance procedures and check list for AMHS and ATN routers</li> </ul>  | 2010               | ICAO, States     | <ul style="list-style-type: none"> <li>– Optimal usage of advanced technologies</li> <li>– Increase the use of the data</li> <li>– Better cost effective integrations</li> <li>– Easier in maintenance and operation</li> </ul> |               |

|     |   |   |      |              |   |  |
|-----|---|---|------|--------------|---|--|
|     |   | <ul style="list-style-type: none"> <li>– Develop Information Security policy</li> <li>– Develop information Security Guidance</li> <li>– Coordinate and monitor implementation to be harmonized and interoperable globally;</li> <li>– Follow-up activities of panels and other regions.</li> </ul>                   |      |              |   |  |
|     | Implement advanced technologies to support data link services | <ul style="list-style-type: none"> <li>– Identify &amp; implement selected, harmonized data links to ensure interoperability between States and Regions;</li> <li>– Implement available technologies in support of and to facilitate ground and airborne applications (CPDLC, ADS, D-ATIS)</li> </ul>                 | 2010 | ICAO, States | <ul style="list-style-type: none"> <li>– Reduce work load for pilot and controllers</li> <li>– Seamless interoperable operation</li> <li>– Efficient linkage between ground and airborne systems</li> </ul>                           |  |
| A,D | Implement MID VSAT network                                    | <ul style="list-style-type: none"> <li>– Identify States requirement;</li> <li>– Signature of MOU by concerned States;</li> <li>– Explore technical cooperation for establishing a mechanism for progress;</li> <li>– Harmonize the implementation of VSAT Network;</li> <li>– Monitor the implementation.</li> </ul> | 2010 | ICAO, States | <ul style="list-style-type: none"> <li>– Eliminate many communication deficiencies thus Increase safety</li> <li>– Robust network</li> <li>– Easier development and management</li> <li>– Support new CNS/ATM technologies</li> </ul> |  |

**NOTE:**

- **GPI-3:** Harmonization of Level Systems: Not Applicable to the MID Region
- **GPI-6:** Air Traffic Flow Management: Not reflected

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AOP SG/6  
Appendix 8B to the report on Agenda Item 8

RESPONSE TO QUESTIONNAIRE ON  
MIDDLE EAST AERODROMES READINESS TO ACCOMMODATE  
THE NEW LARGER AIRCRAFTS

|  | Yemen | United Arab Emirates | Syria                   | Saudi Arabia                                  | Qatar                   | Oman                           | Lebanon    | Kuwait | Jordan           | Israel | Iraq | Iran | Egypt       | Bahrain       | Afghanistan |
|--|-------|----------------------|-------------------------|---|-------------------------|--------------------------------|------------|--------|------------------|--------|------|------|-------------|---------------|-------------|
| <b>1. General information:</b>   |       |                      |                         |   |                         |                                |            |        |                  |        |      |      |             |               |             |
| <b>1.2 Name of aerodrome:</b>  |       | Dubai Int'l Airport  | Abu Dhabi Int'l Airport | Dubai World Central (Jebel Ali) Int'l Airport | King Fahd Int'l, Dammam | King Abdel Aziz, Int'l, Jeddah | Doha Int'l |        | Queen Alia Int'l |        |      |      | Cairo Int'l | Bahrain Int'l |             |
| <b>2. Compliance with the applicable Standards &amp; Recommended Practices of Annex 14 Volume I, 4th Edition July 2004</b> |       |                      |                         |   |                         |                                |            |        |                  |        |      |      |             |               |             |
| <b>2.1 AERODROME FACILITIES</b>  |       |                      |                         |   |                         |                                |            |        |                  |        |      |      |             |               |             |
| <b>2.1.1 Runways and Shoulders</b>   |       | ✓                    | P                       | P   | ✓                       | ✓                              |            |        | ✓                | P      |      |      | ✓           | ✓             |             |
| § 3.1.9 The runway width should be not less than 60m.  |       | ✓                    | P                       | P   |                         |                                |            |        | X                |        |      |      |             |               |             |

|  | Afghanistan | Bahrain | Egypt | Iran | Iraq | Israel | Jordan | Kuwait | Lebanon | Oman | Qatar | Saudi Arabia | Syria | United Arab Emirates | Yemen |   |
|--|-------------|---------|-------|------|------|--------|--------|--------|---------|------|-------|--------------|-------|----------------------|-------|---|
| § 3.2.3 Runway shoulders should extend symmetrically on each side of the runway so that the overall width of the runway and shoulders is not less than 75m.  |             |         |       |      |      |        |        | ✓      |         |      |       | ✓            |       | P                    | P     | ✓ |
| <b>2.1.2 Runway Strips and runway end safety areas</b>   |             | ✓       | ✓     |      |      |        | ✓      | ✓      |         |      | P     | P            | ✓     |                      |       |   |
| § 3.4.2 The runway strip shall extend before the threshold and beyond the end of RWY for a distance of at least 60 m.  |             |         |       |      |      |        |        | ✓      |         |      |       | ✓            |       | P                    | ✓     | ✓ |
| § 3.4.3 The runway strip width should extend laterally to a distance of at least 150 m on each side of the centre line of the runway and its extended centre line through the length of the strip. |             |         |       |      |      |        |        | ✓      |         |      |       | ✓            |       | P                    | ✓     | ✓ |
| § 3.4.3 The runway safety end area should extend from the end of the runway strip to a distance of at least 240 m.   |             |         |       |      |      |        |        | ✓      |         |      |       | x            |       | P                    | ✓     | ✓ |
| § 3.5.4 The width of a runway safety end area shall be at least 120 m.   |             |         |       |      |      |        |        | ✓      |         |      |       | ✓            |       | P                    | ✓     | ✓ |
| <b>2.1.3 Taxiways and shoulders</b>  |             | P       | ✓     |      |      |        | ✓      | ✓      |         |      | X     | P            | ✓     |                      |       |   |
| § 3.9.3 The clearance between an outer main wheel of an aeroplane and the taxiway edge should be not less than 4.5m (the same as for Code E);  |             |         |       |      |      |        |        | ✓      |         |      |       | ✓            |       | P                    | ✓     | ✓ |

|   | Afghanistan | Bahrain | Egypt | Iran | Iraq | Israel | Jordan | Kuwait | Lebanon | Oman | Qatar | Saudi Arabia | Syria | United Arab Emirates | Yemen |   |
|---|-------------|---------|-------|------|------|--------|--------|--------|---------|------|-------|--------------|-------|----------------------|-------|---|
| however, a greater clearance than 4.5 m may provided to permit higher taxiing speeds.   |             |         |       |      |      |        |        |        |         |      |       |              |       |                      |       |   |
| § 3.9.4 The minimum width of a taxiway should be not less than 25m.   |             |         |       |      |      |        |        | ✓      |         |      |       | ✓            |       | P                    | ✓     | ✓ |
| § 3.10.1 Taxiway shoulders and grading of the taxiway strip should be provided to give a minimum overall width of 60m   |             |         |       |      |      |        |        | ✓      |         |      |       | ✓            |       | P                    | ✓     | ✓ |
| § 3.11.1 The Taxiway strip should extend symmetrically on each side of the centre line of the taxiway throughout the length of the taxiway to at least 57.5 m   |             |         |       |      |      |        |        | ✓      |         |      |       |              |       | P                    | ✓     | ✓ |
| <b>2.1.4 Taxiways curves and intersections</b>  |             | ✓       | ✓     |      |      |        | ✓      | ✓      |         |      | ✓     | ✓            |       |                      |       |   |
| § 3.9.5 The design of curves should be such that, when the cockpit of the aeroplane remains over the taxiway centre line marking, the clearance distance between the outer main wheels of the aeroplane and the edge of the taxiway should be not less than 4.5m. |             |         |       |      |      |        |        | ✓      |         |      |       |              |       | P                    | ✓     | ✓ |
| § 3.9.5 The design of fillets at junctions and intersections of taxiways with runways, aprons and other taxiways should ensure that the minimum wheel clearances of 4.5 m   |             |         |       |      |      |        |        | ✓      |         |      |       |              |       | P                    | ✓     | ✓ |

|   | Afghanistan | Bahrain | Egypt | Iran | Iraq | Israel | Jordan | Kuwait | Lebanon | Oman | Qatar | Saudi Arabia | Syria | United Arab Emirates | Yemen |     |
|---|-------------|---------|-------|------|------|--------|--------|--------|---------|------|-------|--------------|-------|----------------------|-------|-----|
| are maintained when aeroplane are manoeuvring through the junctions and intersections.  |             |         |       |      |      |        |        |        |         |      |       |              |       |                      |       |     |
| <b>2.1.5. Bridges, tunnels, and culverts under taxiways</b>   |             | NA      | NA    |      |      |        | NA     | NA     |         |      | NA    | NA           | ✓     |                      |       |     |
| § 3.9.19 The width of that portion of a taxiway bridge capable of supporting aeroplanes, as measured perpendicularly to the taxiway centreline, shall not be less than the width of the graded area of the strip provided for that taxiway. |             |         |       |      |      |        |        |        |         |      |       |              |       | P                    | P     | N/A |
| §3.9.20 Access should be provided for RFF vehicles to intervene in both directions within the specified response time.  |             |         |       |      |      |        |        |        |         |      |       |              |       | P                    | P     | N/A |
| <b>2.1.6 Taxiway minimum separation distance</b>  |             | ✓       | ✓     |      |      |        | ✓      |        |         |      | NA    | P            | ✓     |                      |       |     |
| § 3.9.7 The following minimum separation distances should apply:  |             |         |       |      |      |        |        |        |         |      |       |              |       |                      |       |     |
| Table 3-1<br>Taxiway centreline to instrument code 4 runway centreline<br>190m  |             |         |       |      |      |        |        | ✓      |         |      |       | ✓            |       | P                    | P     | ✓   |
| Taxiway centreline to non-instrument code 4 runway centreline 115m  |             |         |       |      |      |        |        | NA     |         |      |       | ✓            |       | N/A                  | N/A   | N/A |

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|  | Afghanistan | Bahrain | Egypt | Iran | Iraq | Israel | Jordan | Kuwait | Lebanon | Oman | Qatar | Saudi Arabia | Syria | United Arab Emirates |   |     | Yemen |
|--|-------------|---------|-------|------|------|--------|--------|--------|---------|------|-------|--------------|-------|----------------------|---|-----|-------|
| Taxiway centreline to taxiway centreline<br>97.5m  |             |         |       |      |      |        |        | ✓      |         |      |       | N            |       | P                    | P | ✓   |       |
| Taxiway centreline to object (including taxiway strip)<br>57.5m  |             |         |       |      |      |        |        | ✓      |         |      |       | N            |       | P                    | P | ✓   |       |
| Aircraft stand taxi lane centre line – object<br>50.5m   |             |         |       |      |      |        |        | ✓      |         |      |       | N            |       | P                    | P | ✓   |       |
| § 3.11.3 The taxiway strip should provide an area clear of objects which may endanger taxiing aeroplane  |             |         |       |      |      |        |        | ✓      |         |      |       | ✓            |       | P                    | P | ✓   |       |
| <b>2.1.7 Holding bays</b>  |             | P       | P     |      |      |        | X      | X      |         |      | ✓     | ✓            |       | P                    |   |     |       |
| § 3.12.6 The distance between a holding bay, runway-holding position at a taxiway/runway intersection or road-holding position and the centre line of a runway shall be 107.5 m where the code letter is F. The distance may need to be increased to avoid interference with radio navigation aids in case of precision approach runway. |             |         |       |      |      |        |        | X      |         |      |       | ✓            |       | P                    | ✓ | ✓   |       |
| § 3.12.8 If a holding bay, runway-holding position at a taxiway/runway intersection or road-holding position for a precision approach runway code number 4 is at greater elevation compared to the threshold, the distance of 107.5 m should be further increased 5 m for every metre the bay  |             |         |       |      |      |        |        | X      |         |      |       | ✓            |       | N/A                  | ✓ | N/A |       |

|  | Afghanistan | Bahrain  | Egypt    | Iran | Iraq | Israel | Jordan   | Kuwait | Lebanon | Oman | Qatar    | Saudi Arabia | Syria    | United Arab Emirates   | Yemen    |
|--|-------------|----------|----------|------|------|--------|----------|--------|---------|------|----------|--------------|----------|--|----------|
| or position is higher than the threshold.  |             |          |          |      |      |        |          |        |         |      |          |              |          |  |          |
| <b>2.1.8 Aprons</b>  |             | <b>P</b> | <b>P</b> |      |      |        | <b>P</b> |        |         |      | <b>P</b> |              |          |  |          |
| § 3.13.2 The total apron area should be adequate to permit expeditious handling of aerodrome traffic at its maximum anticipated density.   |             |          |          |      |      |        |          |        |         |      |          |              | <b>P</b> | <b>P</b>   | <b>P</b> |
| <i>Adequate stands and size</i>  |             |          |          |      |      |        |          |        |         |      |          | <b>N</b>     |          |  |          |
| <i>There should be room enough on the apron to provide for the number and types of aircraft expected to use it with adequate safety margins from obstructions including parked aircraft. The design of the apron should aim at facilitating the movement of aircraft and avoiding difficult manoeuvres, which might require undesirable use of excessive amounts of engine, thrust, or imposes abnormal stress on tyres.</i> |             |          |          |      |      |        |          |        |         |      |          | <b>N</b>     |          |  |          |
| Please indicate the number of stands available for Code F aircraft and other relevant information.   |             | <b>P</b> | <b>P</b> |      |      |        | <b>X</b> |        |         |      | <b>X</b> | <b>N</b>     |          | <u>2007</u><br><b>P</b> 1 6<br><u>2008</u><br><b>P</b> 2 11<br><u>2009</u><br><b>P</b> 2 11<br><u>2010</u><br><b>P</b> 10 29 |          |



|  | Afghanistan | Bahrain | Egypt | Iran | Iraq | Israel | Jordan | Kuwait | Lebanon | Oman | Qatar | Saudi Arabia | Syria | United Arab Emirates | Yemen |   |
|--|-------------|---------|-------|------|------|--------|--------|--------|---------|------|-------|--------------|-------|----------------------|-------|---|
| <b>2.2.1 Aerodrome emergency planning</b>  |             | P       | P     |      |      |        | X      | ✓      |         |      | NA    |              |       | P                    |       |   |
| § 9.1.1 An aerodrome emergency plan shall be established at an aerodrome, commensurate with the aircraft operations and other activities conducted at the aerodrome.   |             |         |       |      |      |        |        | ✓      |         |      |       | N            |       | P                    | ✓     | ✓ |
| § 9.1.2 The aerodrome emergency plan shall provide for the coordination of the actions to be taken in an emergency occurring at an aerodrome or in its vicinity.   |             |         |       |      |      |        |        |        |         |      |       | N            |       | P                    | ✓     | ✓ |
| § 9.1.3 The plan shall coordinate the response or participation of all agencies which, could be of assistance in responding to an emergency.   |             |         |       |      |      |        |        | ✓      |         |      |       | N            |       | P                    | ✓     | ✓ |
| Prior to the introduction of NLA the aerodrome emergency plan will need to be reviewed, An aerodrome operator will need to conduct a task resources analysis and generic assessment that should consider the provision of specific resources, trained personnel and rescue equipment commensurate with the level of operation of NLAs (Critical elements to be considered include among others; increased number of passengers, full length upper decks, size of airframe, exceeded fuel quantities, fuel tank locations and |             |         |       |      |      |        |        | N      |         |      |       | N            |       | P                    | P     | ✓ |

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|  | Afghanistan | Bahrain | Egypt | Iran | Iraq | Israel | Jordan | Kuwait | Lebanon | Oman | Qatar | Saudi Arabia | Syria | United Arab Emirates | Yemen |   |
|--|-------------|---------|-------|------|------|--------|--------|--------|---------|------|-------|--------------|-------|----------------------|-------|---|
| additional specialized rescue capability that will be needed in areas of difficult terrain or water).  |             |         |       |      |      |        |        |        |         |      |       |              |       |                      |       |   |
| Please indicate whether the aerodrome emergency plan considering NLAs operations has been established/reviewed, coordinated, assessed and tested.  |             |         |       |      |      |        |        |        |         |      |       | N            |       | P                    | P     | ✓ |
| <b>2.2.2 Rescue and Fire Fighting</b>  |             | ✓       | P     |      |      |        | ✓      | ✓      |         |      | NA    | P            | ✓     |                      |       |   |
| § 9.2.3 The level of protection provided at an aerodrome for rescue and fire fighting shall be appropriate to the aerodrome category with a remission factor of one where the number of movements of the aeroplanes in the highest category normally using the aerodrome is less than 700 in the busiest consecutive three months. |             |         |       |      |      |        |        |        |         |      |       | P            |       |                      |       |   |
| § 9.2.4 As of 1 January 2005, The RFF category should be equal to the largest aeroplane operating at that aerodrome regardless of the number of movements.   |             |         |       |      |      |        |        |        |         |      |       | P            |       | P                    | ✓     | ✓ |
| § 9.2.5 The aerodrome category shall be determined from Annex 14, Volume I, table 9-1 and shall be based on the longest aeroplanes normally using the aerodrome and their fuselage width.  |             |         |       |      |      |        |        |        |         |      |       | P            |       | P                    | ✓     | ✓ |

|  | Afghanistan | Bahrain | Egypt | Iran | Iraq | Israel | Jordan | Kuwait | Lebanon | Oman | Qatar | Saudi Arabia |   | Syria | United Arab Emirates |   |   | Yemen |
|--|-------------|---------|-------|------|------|--------|--------|--------|---------|------|-------|--------------|---|-------|----------------------|---|---|-------|
| <b>2.2.3 Disabled aircraft removal</b>   |             | ✓       | ✓     |      |      |        | X      | ✓      |         |      | NA    | P            | ✓ |       |                      |   |   |       |
| § 9.3.2 The disabled aircraft removal plan should be based on the characteristics of the aircraft that may normally be expected to operate at the aerodrome, and include among others things:  |             |         |       |      |      |        |        |        |         |      |       |              |   |       |                      |   |   |       |
| a) a list of equipment and personnel on, or in the vicinity of, the aerodrome which would be available for such purpose; and   |             |         |       |      |      |        |        |        |         |      |       | P            |   |       | P                    | ✓ | ✓ |       |
| b) arrangements for the rapid receipt of aircraft recovery equipment kits available from other aerodromes.   |             |         |       |      |      |        |        |        |         |      |       | P            |   |       | P                    | ✓ | ✓ |       |
| Please indicate aerodrome plan for the removal of disabled aircraft on, or in the vicinity of the aerodrome considering NLAs operations:   |             |         |       |      |      |        |        |        |         |      |       | P            |   |       | P                    | ✓ | ✓ |       |
| <b>2.2.4 Ground Servicing of Aeroplanes</b>  |             | ✓       | ✓     |      |      |        | ✓      | ✓      |         |      | ✓     |              | ✓ |       |                      |   |   |       |
| § 9.6.1 Fire extinguishing equipment suitable for at least initial intervention in the event of fuel fire and personnel trained in its use shall be readily available during the ground servicing of the NLA, and shall be a mean of quickly summoning the rescue and fire |             |         |       |      |      |        |        |        |         |      |       |              |   |       | P                    | ✓ | ✓ |       |



|  | Afghanistan | Bahrain | Egypt | Iran | Iraq | Israel | Jordan | Kuwait | Lebanon | Oman | Qatar | Saudi Arabia | Syria | United Arab Emirates | Yemen |   |   |   |
|--|-------------|---------|-------|------|------|--------|--------|--------|---------|------|-------|--------------|-------|----------------------|-------|---|---|---|
| <b>2.3.1 Obstacle free zone</b>  |             | NA      | ✓     |      |      |        | X      | X      |         |      | NA    | NA           | ✓     |                      |       |   |   |   |
| Annex 14, Volume I, defines OFZ as: “The air space above the inner approach surface, inner transitional surfaces, and balked landing surface and that portion of the strip bounded by these surfaces, which is not penetrated by any fixed obstacle other than a low-mass and frangible mounted one required for air navigation purposes.”   |             |         |       |      |      |        |        |        |         |      |       |              |       |                      |       |   |   |   |
| <p>§ 4.2.14 &amp; 15 The Obstacle Free Zone (OFZ) shall extend to at least 77.5m either side of the runway centreline for a code 4 precision approach runway Category I, II, or III with regard to code F:</p> <p>a) the width of the inner horizontal surface has been increased from the code E dimension of 120 m to 155 m. The inner approach surface begins 60 m from the threshold and extends to 900 m. It has a slope of 2 per cent;</p> <p>b) the inner transitional surface has a slope of 33.3 percent; and</p> <p>c) the length of the inner edge of the balked landing surface has been increased from the code E dimension of 120 m to 155 m. The distance from the threshold or runway end (whichever is less) is 1 800 m. The divergence (each</p> |             |         |       |      |      |        |        |        |         |      |       |              |       | P                    | ✓     | ✓ |   |   |
|  |             |         |       |      |      |        |        |        |         |      |       |              |       |                      |       | P | ✓ | ✓ |
|  |             |         |       |      |      |        |        |        |         |      |       |              |       |                      |       | P | ✓ | ✓ |

|   | Afghanistan | Bahrain | Egypt | Iran | Iraq | Israel | Jordan | Kuwait | Lebanon | Oman | Qatar | Saudi Arabia | Syria | United Arab Emirates | Yemen |     |
|---|-------------|---------|-------|------|------|--------|--------|--------|---------|------|-------|--------------|-------|----------------------|-------|-----|
| side) is 10 per cent and the slope is 3.33 per cent.  |             |         |       |      |      |        |        |        |         |      |       |              |       |                      |       |     |
| <b>2.4 VISUAL AIDS</b>  |             |         |       |      |      |        |        |        |         |      |       |              |       |                      |       |     |
| <b>2.4.1 Markings and signs</b>   |             | P       | P     |      |      |        | X      | X      |         |      | NA    | NA           | P     |                      |       |     |
| § 5.4.1.3 Signs shall be frangible. Annex 14, Volume I, Table 5-4 specifies location distances for taxiing guidance signs including runway exit signs and their height to near side of sign.  |             |         |       |      |      |        |        |        |         |      |       |              | P     | ✓                    | ✓     |     |
| These distances may need to be increased to ensure that clearance for propellers and the engine pads is obtained for NLA operations. With an increased distance from the taxiway edge, the angle of signs relative to the taxiway may have to be considered. Signs along some taxiways may have to be strengthened or relocated because they may be subject to excessive jet blast. |             |         |       |      |      |        |        |        |         |      |       |              |       |                      |       |     |
| Additional signs may be needed:   |             |         |       |      |      |        |        |        |         |      |       |              |       |                      |       |     |
| a) where ATC procedures require NLA movement along specific taxiway routes,   |             |         |       |      |      |        |        |        |         |      |       |              |       | N/A                  | N/A   | N/A |
| b) along service roads that run adjacent to or across an NLA designated taxiing route to alert vehicle drivers to the potential exposure to excessive jet blast   |             |         |       |      |      |        |        |        |         |      |       |              |       | N/A                  | N/A   | N/A |

|  | Afghanistan | Bahrain | Egypt | Iran | Iraq | Israel | Jordan | Kuwait | Lebanon | Oman | Qatar | Saudi Arabia | Syria | United Arab Emirates | Yemen |     |
|--|-------------|---------|-------|------|------|--------|--------|--------|---------|------|-------|--------------|-------|----------------------|-------|-----|
| c) where separation between taxiways are insufficient to allow NLA-NLA or NLA-other aircraft that may require air traffic procedures to control aircraft movement.                                     |             |         |       |      |      |        |        |        |         |      |       |              |       | N/A                  | N/A   | N/A |
| Additional information and mandatory instruction markings may be required to identify NLA-permitted taxi routes, speed restriction areas, prohibited movement area and specific NLA holding positions. |             |         |       |      |      |        |        |        |         |      |       |              |       | N/A                  | N/A   | N/A |
| <b>2.4.2 Lights</b>  |             | ✓       | ✓     |      |      |        | X      | X      |         |      | ✓     | NA           | ✓     |                      |       |     |
| § 5.3.9.8 The runway edge lights shall show at all angles in azimuth necessary to provide guidance to a pilot landing or taking off in either direction.   |             |         |       |      |      |        |        |        |         |      |       |              |       | P                    | ✓     | ✓   |
| Lights may be liable to the effect of jet blast, elevated runway and taxiway lights may have to be replaced with inset units that should meet the requirement of Annex 14 Volume I, § 5.3.9.8          |             |         |       |      |      |        |        |        |         |      |       |              |       | P                    | P     | ✓   |
| The strength of all lights and fittings over which the NLA may pass may have to be checked for adequacy.   |             |         |       |      |      |        |        |        |         |      |       |              |       |                      |       |     |
| Additional stop bar lights and runway guard lights may be required if runway –holding positions are relocated or new positions provided.   |             |         |       |      |      |        |        |        |         |      |       |              |       | P                    | P     | ✓   |

| Yemen  | United Arab Emirates |  | Syria | Saudi Arabia | Qatar | Oman | Lebanon | Kuwait | Jordan | Israel | Iraq | Iran | Egypt | Bahrain | Afghanistan |
|--|----------------------|--|-------|--------------|-------|------|---------|--------|--------|--------|------|------|-------|---------|-------------|
|  |                      |  |       | P            | NA    |      |         |        | X      |        |      |      | P     | No Need |             |
| <ul style="list-style-type: none"> <li>- UAE Policy to comply with Code F Standards.</li> <li>- Annex requested NLA's operating to foreign destination must submit safety cases if destination/alternate doesn't meet code F requirements.</li> <li>- Circular 305 will be used to assess components of safety.</li> </ul> |                      |  |       |              |       |      |         |        |        |        |      |      |       |         |             |
|  |                      |  |       |              |       |      |         |        |        |        |      |      |       |         |             |



|   | Afghanistan | Bahrain  | Egypt    | Iran                     | Iraq | Israel      | Jordan   | Kuwait | Lebanon   | Oman      | Qatar   | Saudi Arabia   | Syria | United Arab Emirates | Yemen |
|---|-------------|----------|----------|--------------------------|------|-------------|----------|--------|-----------|-----------|---------|--|-------|----------------------|-------|
| 6. IATA is requested to provide information on Airlines plans to operate NLA's at MID Aerodromes (principle, alternate and en-route aerodromes) |             | Bahrain: | Cairo: P | Imam Khomeini, Tehran: P |      | Tel Aviv: P | Amman: P | Kuwait | Beirut: P | Muscat: P | Doha: ✓ | King Fahd Int'l, Damam: P<br>King Abdel Aziz, Int'l, Jeddah: ✓ |       | Dubai: ✓             |       |
| 7. Any other information and/or comments:   |             |          |          |                          |      |             |          |        |           |           |         |  |       |                      |       |

**Legend:**

Ready  In Progress  P Not ready  X Not planned to accommodate NLA's  N

No Comment or No Answer for a particular question  NA.

States that have responded to MID Questionnaire on NLA's

States that did not respond to MID Questionnaire on NLA's  xxx

**Analysis of the Survey based on response received from 6 States and IATA:**

Analysing the responses received from the 6<sup>7</sup> states (Bahrain, Egypt, Jordan, Kuwait, Qatar and Saudi Arabia, UAE) and IATA; it was noted that:

a) Airside facilities needs more efforts for readiness to accommodate NLA's; in particular potential safety risks at the following areas::

- Holding bays,
- Apron arrangement and surface movement control,
- Terminal passenger bridges,
- Visual aids,
- Arrangement for disabled aircraft removal,
- Obstacle free zones, and
- Aerodrome Rescue and Fire Fighting.

- b) Aerodrome Emergency plans needs to be updated before accommodating NLA's
- c) Alternate aerodromes should be decided and prepared.
- d) Accommodating the NLA's is a challenging especially at large airports, 4 MID States might be ready to accommodate NLA's in one of their international aerodromes by 2008 (Bahrain, Bahrain - Doha, Qatar - King Abdel Aziz Jeddah, Saudi Arabia - Dubai, UAE).

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Annex 14 Provisions that are having applicability dates later than 23 November 2006

| Annex/Chapter                                | Paragraph      | Provision text  | Applicability date |
|--|----------------|---|--------------------|
| <b>Annex 10,<br/>Volume 5,<br/>Chapter 4</b> | 4.1.2.2.4      | Until at least 1 January 2010, equipment specifically designed to the VDL Mode 3 and VDL Mode 4 SARPs shall be safeguarded with respect to its suitability for the AM(R)S.  | 1 January 2010     |
| <b>Annex 14,<br/>Volume 1,<br/>Chapter 3</b> | 3.9.4          | As of 20 November 2008, the design of a taxiway shall be such that, when the cockpit of the aeroplane for which the taxiway is intended remains over the taxiway centre line markings, the clearance distance between the outer main wheel of the aeroplane and the edge of the taxiway shall be not less than that given by the following tabulation:  | 20 November 2008   |
| <b>Annex 14,<br/>Volume 1,<br/>Chapter 8</b> | 8.1.5          | 8.1.5 The provision of a definition of switch-over time shall not require the replacement of an existing secondary power supply before 1 January 2010. However, for a secondary power supply installed after 4 November 1999, the electric power supply connections to those facilities for which secondary power is required shall be so arranged that the facilities are capable of meeting the requirements of Table 8-1 for maximum switch-over times as defined in Chapter 1 | 1 January 2010     |
| <b>Annex 14,<br/>Volume 1,<br/>Chapter 9</b> | 9.9.2          | Any equipment or installation required for air navigation purposes which must be located [...]:shall be frangible and mounted as low as possible.   | 1 January 2010     |
|  | 9.9.3          | Existing non-visual aids need not meet the requirement of 9.9.2 until 1 January 2010  | 1 January 2010     |
|  | 9.9.6<br>9.9.7 | Any equipment or installation required for air navigation purposes which must be located on or near a strip of a precision approach runway category I, II or III and which [...]: shall be frangible and mounted as low as possible.<br><br>Existing non-visual aids need not meet the requirement of 9.9.6 b) until 1 January 2010.<br>1.  | 1 January 2010     |
| <b>Annex 14,<br/>Volume 2,<br/>Chapter 5</b> | 5.3.8.13       | The touchdown and lift-off area perimeter lights shall be fixed omnidirectional lights showing green.   | 1 January 2009     |
|  | 5.3.8.14       | At a surface level heliport, ASPSL or LPs shall emit green light when used to define the perimeter of the touchdown and lift-off area.  |                    |
|  | 5.3.8.15       | The provisions of 5.3.8.13 and 5.3.8.14 shall not require the replacement of existing installations before 1 January 2009.  |                    |
| <b>Annex 15,<br/>Chapter 10</b>              | 10.6.1.1       | States shall ensure that as of 20 November 2008, electronic terrain and obstacle data are made available in accordance with Area 1 specifications and terrain data in accordance with Area 4 specifications.  | 20 November 2008   |
| <b>Annex 15,<br/>Chapter 10</b>              | 10.6.1.2       | 10.6.1.2 States shall ensure that as of 18 November 2010, electronic terrain and obstacle data are made available in accordance with Area 2 and Area 3 specifications   | 18 November 2010   |

AOP SG/6  
Report on Agenda Item 9

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**REPORT ON AGENDA ITEM 9: FUTURE WORK PROGRAMME****AOP Sub-Group TOR and Work Programme**

9.1 Under this Agenda Item the meeting recalled that MIDANPIRG/10 noted the ongoing work by the Air Navigation Commission to review the TOR of PIRGs and to align the Work Programme with the Strategic Objectives of ICAO and the Global Air Navigation Plan. It was also noted that the method of reporting to the deliberative bodies of the Organization will be reviewed to ensure efficiency.

9.2 The Meeting recalled MODANPIRG/10 Conclusions with regard to increasing the efficiency and effectiveness of ICAO including the Regional Air Navigation Planning and Implementation Groups (PIRGs), the TOR of MIDANPIRG is being revised to reflect the necessary changes. In this respect, it was also necessary for PIRGs to review the TOR of all subsidiary bodies within the scope of the Strategic Objectives as established by the Council. The meeting also recalled MIDANPIRG/10 Decision 10/6 that the MIDANPIRG Procedural Handbook, Third Edition dated April 2007 was adopted and is now posted to ICAO MID Office website under MIDANPIRG.

9.3 The meeting reviewed and updated TOR of the Aerodrome Operational Planning Sub-Group as at **Appendix 9A** to the report on Agenda Item 9 and agreed on this Draft Decision:

***DRAFT DECISION 6/9: REVISED TOR OF THE AOP SUB-GROUP***

*That, the Terms of Reference and Work Programme of the AOP Sub-Group be updated as at **Appendix 9A** to the report on Agenda Item 9.*

**Follow-up Action Plan**

9.4 In accordance with the ICAO business plan and the requirements for performance monitoring, the meeting developed a draft follow-up action plan on the results of the AOP SG/6 meeting as attached at **Appendix 9B** to the report on Agenda Item 9.

**AOP SG/7 Date, Venue and Provisional Agenda**

9.5 With regard to the date of the next AOP Sub-Group meeting, it was agreed that, in accordance with the MIDANPIRG Procedural Handbook, and based on its Terms of Reference and Action Plan/Work Programme, the date of the AOP SG/7 will be determined by the ICAO MID Regional Office in coordination with the Chairman of the Sub-Group in light of scheduled dates of MIDANPIRG/11.

9.6 The meeting agreed to the Provisional Agenda for the AOP SG/6, as in **Appendix 9C** to the report on Agenda Item 9.

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

**AERODROME OPERATIONAL PLANNING SUB-GROUP  
(AOP SG)**

**REVISED TERMS OF REFERENCE AND WORK PROGRAMME**

**TERMS OF REFERENCE**

In accordance with the MID Region strategy for the implementation of the Global Plan Initiatives (GPIs) and, taking into consideration that the evolution from a systems-based approach to a performance-based approach should be evolutionary and consistent with the Global plan, Paying particular attention to the safety and efficiency of aerodrome operations and the current and anticipated increase of aerodrome capacity in terms of traffic volume and accommodation of New Larger Aircraft (NLA) ; the Aerodrome Operational Planning Sub-Group should:

| <b>Task No.</b> | <b>Strategic Objectives</b> | <b>Tasks</b>  |
|-----------------|-----------------------------|---|
| 1               | A/D                         | Monitor developments in the field of Aerodrome Operations in the MID Region, including the implementation of ICAO world-wide and regional provisions, changes to aircraft operations, new operational requirements and/or technological development, and make proposals to meet the operational requirements of the MID Region related to these developments.   |
| 2               | A/D/E                       | Develop and continuously update, the MID Region Implementation Plan in the light of new developments, taking into consideration the region priorities and MID States national plans.  |
| 3               | D                           | Identify current and anticipated capacity and implementation deficiencies at international aerodromes in the MID Region and their causes through the continuous review of “Basic requirements for facilities and services at international aerodromes”, Tables AOP-1 of Basic ANP and FASID, and Table CNS 3 of FASID of the MID Region   |
| 4               | A/D                         | Identify deficiencies and constraints that would impede implementation of the ICAO SARPS and Regional Air Navigation Plans, and propose solutions that would facilitate the rectification of such problems.   |
| 5               | A/D                         | Monitor operational safety and efficiency of the aerodromes in the Region, identify the associated deficiencies and suggest steps for their resolution, in particular critical areas with priority to: <ul style="list-style-type: none"> <li>• Aerodrome navigational facilities</li> <li>• Obstacles at /around aerodromes</li> <li>• Pavement Surface Conditions</li> <li>• Aerodrome maintenance</li> <li>• Safety of aircraft operations on the movement area</li> <li>• Runway incursion</li> <li>• Bird Hazard Reduction and Control</li> <li>• Secondary Power Supply</li> <li>• Rescue and Fire Fighting Services</li> <li>• Alternate Aerodromes</li> <li>• Removal of disabled aircraft</li> </ul> |

**WORK PROGRAMME**

- 1) Conduct of regular Regional Consultations for the basic requirements for facilities and services at international aerodromes (Tables AOP 1 of MID Basic ANP and FASID and Table CNS 3 of FASID). In this regard, carry out a regular review of the BORPC and suggest any modifications required. Review the MID Basic ANP and FASID on a regular basis and update the Tables as required with **priority A**.
- 2) Identify deficiencies relevant to required facilities and services at international aerodromes in accordance with uniform methodology for identification, assessment and reporting of air navigation deficiencies and the single definition of a “Deficiency”, approved by ICAO Council on 30 November 2001 with **priority A**.
- 3) Analyse the implementation of ICAO provisions relevant to the Aerodrome Emergency Plan in the MID region, and propose local and/or regional remedial action with **priority A**.
- 4) Identify from 1 to 3 above those items related to Aerodrome Operational Safety issues which merit further consideration within the MID Region and propose an action plan including target dates in particular critical areas with **priority A** to:
  - a) Aerodrome navigational facilities
  - b) Obstacles at / around aerodromes
  - c) Pavement Surface Conditions
  - d) Aerodrome maintenance
  - e) Bird Hazard Reduction and Control
  - f) Safety of aircraft operations on the movement area
  - g) Secondary Power Supply
  - h) Rescue and Fire Fighting Services
  - i) Alternate Aerodromes, in particular for En-Route
  - j) Removal of disabled aircraft
- 5) Follow up suggested appropriate steps to be taken by States to keep up with latest developments requirements related to:
  - The introduction of New Large type Aircraft with **priority A**
  - Advanced Surface Movement Guidance and Control Systems (ASMGCS) with **priority B**
  - CNS/ATM systems and their impact on aerodrome facilities and services with **priority B**
  - Other technological developments related to aerodromes with **priority B**

**Composition:**

Provider States and International Organizations concerned.

**Priority:**

- A High priority tasks, on which work should be undertaken as soon as possible.
- B Medium priority tasks, on which work should be undertaken as time and resources permit, but without detriment to priority A tasks.
- C lesser priority tasks, on which work should be undertaken as time and resources permit, but without detriment to priority A and B tasks.

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

AOP SG/6  
FOLLOW-UP TO AOP SG/6 CONCLUSIONS/DECISIONS - ACTION PLAN

| DRAFT<br>CONC/DEC<br>NO.<br>---<br>STRATEGIC<br>OBJECTIVE | TITLE OF<br>CONCLUSION/DECISION                                     | TEXT OF CONCLUSION/DECISION   | FOLLOW-UP ACTION                  | TO BE<br>INITIATED BY | DELIVERABLE  | TARGET DATE                              |
|---|---|---|-----------------------------------|-----------------------|--|--|
| Conc. 6/1   | Provision of information on development plans in the aerodrome area | That, MID States provide information on their development Plans in the area of aerodromes for the next 5 years for up-dating MID ANP/FASID (Doc 9708) in accordance with the amendment established procedures.  | States<br><br>AOP SG/7            | States                | Updated AOP planning documents   | 01 Feb. 2008<br><br>2nd half 2009        |
| Conc. 6/2   | Proposal for an Amendment to MID ANP/FASID - AOP Tables             | That, a proposal for an amendment to MID ANP-FASID-AOP Tables contained at <b>Appendices 3A and 3B</b> to the report on Agenda Item 3 be prepared by MID Office for approval according to established procedures.   | ICAO MID Region<br><br>ICAO, HQ   | States                | Amendment proposal (s)<br><br>Updated MID Basic ANP/FASID publications | 01 Apr. 2008<br><br>End of the year 2008 |
| Conc. 6/3   | Action Plan for the Implementation of Certification of Aerodromes   | That,<br><br>a) each MIDANPIRG Provider State, who has not done so, provide the following information, not later than 31 December 2007, on:<br><br>- status of compliance with ICAO requirement in accordance with Chapter 1.4 of Annex 14 Volume I; or<br><br>- prepare a detailed action plan, to fulfill relevant ICAO requirement | MID Regional Office<br><br>States | States                | State Letter<br><br>Action Plan  | 1 Dec. 2007<br><br>31 Mar. 2008          |

| DRAFT CONC/DEC No. --- STRATEGIC OBJECTIVE | TITLE OF CONCLUSION/DECISION   | TEXT OF CONCLUSION/DECISION   | FOLLOW-UP ACTION   | TO BE INITIATED BY | DELIVERABLE  | TARGET DATE  |
|--|--|---|--|--------------------|--|--|
|  |  | <p>b) advise if ICAO assistance is needed; and</p> <p>c) AOP SG to review information collected by MID Regional Office on status of implementation of certification of aerodromes for further course of actions.</p>  | <p>AOP SG/7</p> <p>States</p>  |                    | <p>Revised status of implementation</p> <p>Implementation of Certification of all MID int'l aerodromes</p>   | <p>2nd half 2009</p> <p>TBD</p>  |
| Conc. 6/4                                  | Action Plan for the establishment of State's Safety Programme and Acceptable level(s) of Safety to be achieved in the aerodrome operations | <p>That,</p> <p>a) each MIDANPIRG Provider State, who has not done so, provide the following information, not later than 31 December 2007, on:</p> <ul style="list-style-type: none"> <li>- status of compliance with ICAO requirement in accordance with Chapter 1.5 of Annex 14 Volume I; or</li> <li>- prepare a detailed action plan, to fulfil relevant ICAO requirement</li> </ul> <p>b) advise if ICAO assistance is needed; and</p> <p>c) AOP SG to review information collected by MID Regional Office for further course of actions with a view to harmonize and assist States in timely and proper implementation of relevant ICAO requirements.</p> | <p>MID Regional Office</p> <p>States</p> <p>AOP SG/7</p> <p>States</p> | States             | <p>State Letter</p> <p>Action Plan</p> <p>Revised status of implementation</p> <p>State's Safety Programme are established and acceptable level(s) of Safety to be achieved in aerodrome operations are defined.</p> | <p>1 Dec. 2007</p> <p>31 Mar. 2008</p> <p>2nd half 2009</p> <p>TBD</p> |
| Conc. 6/5                                  | Reporting of aircraft accidents and incidents at aerodromes  | That MID States, who have not done so, be urged to revise their existing national regulations and ensure compliance with Annex 13 provisions on   | ICAO MID Region  | States             | State Letter   | 1 Dec. 2008  |

| DRAFT<br>CONC/DEC<br>NO.<br>---<br>STRATEGIC<br>OBJECTIVE | TITLE OF<br>CONCLUSION/DECISION  | TEXT OF CONCLUSION/DECISION   | FOLLOW-UP ACTION  | TO BE<br>INITIATED BY | DELIVERABLE  | TARGET DATE   |
|---|--|---|---|-----------------------|--|---|
|   |  | Reporting of airport accidents and incidents at aerodromes.   | States<br><br>AOP SG/7, States                                  |                       | survey<br><br>Actions based on survey results  | 15 Apr. 2008<br><br>2nd half 2009                               |
| Conc. 6/6   | Action Plan for the implementation of Safety Management System acceptable to the State at each certified aerodrome | That,<br><br>a) each MIDANPIRG Provider State, who has not done so, provide the following information, not later than 31 December 2007, on:<br><br>- status of implementation of safety management system compliance with ICAO requirement in accordance with Chapter 1.5 of Annex 14 Volume I; or<br><br>- prepare a detailed action plan, to fulfill relevant ICAO requirement<br><br>b) advise if ICAO assistance is needed; and<br><br>c) AOP SG to review information collected by MID Regional Office for further course of actions with a view to harmonize and assist States in timely and proper implementation of relevant ICAO requirements. | MID Regional Office<br><br>States<br><br>AOP SG/7<br><br>States | States                | State Letter<br><br>Action Plan<br><br>Revised status of implementation<br><br>Implementation of SMS at All MID Int'l Aerodromes | 1 Dec. 2007<br><br>15 Mar. 2008<br><br>2nd half 2009<br><br>TBD |
| Conc. 6/7   | Development of runway incursion prevention programme at MID aerodrome  | That,<br><br>a) MID States, who has not done so are urged to provide the following information not later than 31 January 2008 on:   | ICAO MID Region   | States                | State Letter   | 15 Jan. 2008  |



| DRAFT<br>CONC/DEC<br>NO.<br>---<br>STRATEGIC<br>OBJECTIVE | TITLE OF<br>CONCLUSION/DECISION  | TEXT OF CONCLUSION/DECISION   | FOLLOW-UP ACTION | TO BE<br>INITIATED BY | DELIVERABLE                    | TARGET DATE         |
|---|----------------------------------|---|------------------|-----------------------|--------------------------------|---------------------|
|   |                                  | <ul style="list-style-type: none"> <li>- prepare a detailed action plan to fulfill relevant ICAO requirements</li> <li>b) advise if ICAO assistance is needed; and</li> <li>c) AOP SG to review information collected by MID Regional Office for further course of actions with a view to harmonize and assist States in timely and proper implementation of relevant ICAO requirements.</li> </ul> | States           |                       | Implementation of Requirement  | TBD                 |
| Dec. 6/9  | Revised TOR of the AOP Sub-Group | That, the Terms of Reference and Work Programme of the AOP Sub-Group be updated as at <b>Appendix 9A</b> to the report on Agenda Item 9.  | AOP SG/6         | MIDANPIRG & AOP SG    | Updated TOR and Work Programme | October 2007 (Done) |

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AOP SG/6  
Appendix 9C to the report on Agenda Item 9

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**SEVENTH MEETING OF THE AOP SG**

**(AOP SG/7)**

**PROVISIONAL AGENDA**

- Agenda Item 1: Adoption of the Provisional Agenda
- Agenda Item 2: Review the MIDANPIRG conclusions and decisions relevant to AOP field
- Agenda Item 3: Review of Global Air Navigation Plan matters relevant to AOP
- Agenda Item 4: Review of deficiencies in the AOP field
- Agenda Item 5: Follow-up status of implementation of action plans for the following AOP projects for:
- 5.1 Certification of Aerodromes
  - 5.2 State' Safety Programme and Aerodrome Safety Management System
  - 5.3 enhancing runway operations safety and efficiency:
    - 5.3.1 State Runway prevention programme
    - 5.3.2 State Runway maintenance programme
  - 5.4 Increasing of aerodrome capacity, and Enhancing safety and efficiency of aerodrome infrastructure and operations
- Agenda Item 6: Review of other aerodrome technical matters of safety concern in the MID Region
- Agenda Item 7: Future Work Programme
- Agenda Item 8: Any other business

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AOP SG/6  
Report on Agenda Item 10

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**REPORT ON AGENDA ITEM 10: ANY OTHER BUSINESS****Reduction of Bird Strike Hazards at Aerodromes**

10.1 Under this Agenda Item IATA provided the meeting with an analysis of Bird Strikes Hazard at the airport or in the vicinity of the airport in the MID region for the years 2005-2006, and also provided the necessary data on Bird Strike Hazard in view of assisting States to take the necessary measures in order to reduce bird strikes to aircraft and as a follow-up to MIDANPIRG/9 Conclusion 9/3.

10.2 The meeting noted with appreciation the content of the analysis report and reiterated ICAO requirement in accordance with Annex 14 Volume I – Chapter 9.5.1 for bird strike control.

**Filing Differences and Notification to ICAO**

10.3 Information from Saudi Arabia delegate was provided that his State received recently, a State Letter from ICAO requesting States to stop notifying ICAO any differences with regard to non compliance with SARPs, PANS and that all States are to purplish such differences in the designated section of their AIPs only, meaning that there will be no Supplement to any Annex. The Saudi delegate was requested to send a copy of the referred State Letter to ICAO MID Office before to generalize.

10.4 In light of Article 38 of the Convention, verified information on the subject will be coordinated with ICAO HQ and circulated to all MID States shortly.

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AOP SG/6  
Attachment A to the Report

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**LIST OF PARTICIPANTS**

| <b>NAME</b>   | <b>TITLE &amp; ADDRESS</b>  |
|---|---|
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