

INTERNATIONAL CIVIL AVIATION ORGANIZATION

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

AOP SG/5

(Cairo, 06 - 08 June 2005)

The views expressed in this Report should be taken as those of the MIDAN PIRG 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.

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.

TABLE OF CONTENTS

PART	I - HISTORY OF THE MEETING	Page
1.	Place and Duration	1
2.	Opening	1
3.	Attendance	1
4.	Officers and Secretariat	1
5.	Language	1
6.	Agenda	1-2
7.	Conclusions and Decisions – Definition	2
8.	List of Draft Conclusions and Decisions	2
PART	II - REPORT ON AGENDA ITEMS	
	Report on Agenda Item 1	1-1
	Report on Agenda Item 2Appendix 2A	2-1
	Report on Agenda Item 3Appendix 3A, 3B & 3C	3-1/3-2
	Report on Agenda Item 4Appendix 4A	4-1/4-2
	Report on Agenda Item 5Appendix 5A & 5B	5-1/5-3
	Report on Agenda Item 6Appendix 6A	6-1/6-2
	Report on Agenda Item 7Appendix 7A	7-1/7-4
	Report on Agenda Item 8Appendix 8A & 8B	8-1
	Report on Agenda Item 9	9-1
ATTA	CHMENT A	
	List of Participants	1-6

AOP SG/5 History of the Meeting

PART I - HISTORY OF THE MEETING

1. PLACE AND DURATION

1.1 The Fifth Meeting of the MIDANPIRG Aerodrome Operational Planning Sub-Group (AOP SG/5) was held at ICAO Middle East Regional Office, Cairo, 06 - 08 June 2005.

OPENING

2.1 Mr. M. Zarroug ICAO Regional Officer, Air Transport, on behalf of Mr. Khonji the 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 tasks assigned to AOP Sub-Group and brought to the attention of the meeting issues to be addressed by the Sub-Group with a focus on elimination of deficiencies, status of implementation of certification of aerodromes and Safety Management systems, latest development in the AOP field related to New Larger Aeroplane operations at existing aerodromes and other aspects of safety concern in the MID Region. Mr. M. Zarroug wished the meeting every success in its deliberations.

3. ATTENDANCE

3.1 The meeting was attended by a total of 31 participants, which included delegates from 8 States and two 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.

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 1 and CNS 3 of MID FASID

Agenda Item 4: Follow up elimination of deficiencies in the AOP field in the MID Region

Agenda Item 5: Certification of Aerodromes and Safety Management System implementation

follow-up in the MID Region

AOP SG/5 History of the Meeting

Agenda Item 6: Follow up latest development in the AOP field (New Larger Aircrafts – NLAs)

Agenda Item 7: Aerodrome Safety Aspects

Agenda Item 8: Future Work Programme

Agenda Item 9: 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
- 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 5/1: PROPOSAL FOR AMENDMENT TO MID FASID TABLES AOP 1 AND CNS 3

DRAFT CONCLUSION 5/2: FOLLOW-UP ELEMINATION OF DEFICIENCIES IN AOP FIELD IN THE MID REGION

DRAFT CONCLUSION 5/3: STATUS OF IMPLEMENTATION OF CERTIFICATION OF AERODROMES

DRAFT CONCLUSION 5/4: PROMULGATION OF INFORMATION ON CERTIFICATION OF AERODROMES IN THE

STATE AIP

DRAFT CONCLUSION 5/5: ASSISTANCE TO MID STATES ON IMPLEMENTING SAFETY MANAGEMENT SYSTEM AT

AERODROMES

DRAFT CONCLUSION 5/6: CONTINUE THE SURVEY ON READINESS OF AERODROMES TO ACCOMMODATE NLAS

IN THE MID REGION

DRAFT CONCLUSION 5/7: ESTABLISHMENT OF "PAVEMENT SURFACE MAINTENANCE PROGRAMME" AND

"CORRECTION PROGRAMME FOR THE REMOVAL OF RUBBER BUILD-UP ON

RUNWAYS: IN THE MID REGION

DRAFT DECISION 5/8: UPDATES TO AOP SG TOR AND WORK PROGRAMME

AOP SG/5 Report on Agenda Item 1

PART II - REPORT ON AGENDA ITEMS

REPORT ON AGENDA ITEM 1:	ADOPTION OF THE PROVISIONAL	AGENDA
ILLEURI ON AGLINDA I I LIVI I .	ADDE HON OF THE LINE VISIONAL	AGLINDA

1.1 The AOP SG was presented with a Provisional Agenda for its fifth meeting. After review, the meeting adopted the Agenda as shown in paragraph 6 of the History of the Meeting.

AOP SG/5 Report on Agenda Item 2

REPORTON AGENDA | TEM 2: FOLLOW-UP THE MIDANPIRG/9 CONCLUSIONS AND DECISIONS RELEVANT TO AOP FIELD

2.1 Under this agenda item, the meeting was apprised of the follow-up actions taken by States and the Secretariat on Conclusions and Decisions taken by MIDANPIRG meetings in connection with Aerodrome Operations Planning. The relevant list of Conclusions and Decisions and a summary of action(s) taken is at **Appendix 2A** to the report on Agenda Item 2.

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

REVIEW OF CURRENT MIDANPIRG CONCLUSIONS/DECISIONS RELATED TO AOP FIELD

CONCLUSIONS AND DECISIONS	ACTION BY	COMMENTS AND FOLLOW-UP	STATUS	REQUIRED ACTION
CONCLUSION 8/4: CERTIFICATION OF AERODROMES IMPLEMENTATION MANDATES				
That,				
 a) MID States be urged to ensure establishment of the necessary regulatory regime to comply with Provisions of Annex 14 Volume I, related ICAO Specifications and guidance material contained in ICAO Manual Doc 9774; and 	States	This issue will be dealt with under Agenda Item 5 – WP/6	Valid	Take action
b) MID States be invited to incorporate publication of an Incident/Accident Prevention Programme document as part of Safety Management System in the Aerodrome Manual.	States/ Aerodrome Operators		Valid	Take action
DECISION 8/7: FOLLOW UP OF STATE SAFETY MEASURES RELATED TO ADEQUACY OF EXISTING INT'L AERODROMES TO ACCOMEDATE NLA OPERATIONS				
That, appropriate mean be studied by AOP SG for follow up safety measures taken by States for the adequacy of their existing aerodromes intended to accommodated NLA operations.	AOP SG	This issue will be dealt with under Agenda Item 6 – WP/7	Action taken	Take note
DECISION 9/1: REVISED STATEMENT OF BORPC FOR REGIONAL AIR NAVIGATION PLANNING AND IMPLEMENTATION				
That, the revised Statement of BORPC for the regional air navigation planning and implementation be incorporated into the MID Basic Air Navigation Plan (ANP).	ICAO	This issue will be dealt with under Agenda Item 3 – WP/3	Action taken	Take note

	CONCLUSIONS AND DECISIONS	ACTION BY	COMMENTS AND FOLLOW-UP	STATUS	REQUIRED ACTION
Conc	LUSION 9/2: MANDATORY IMPLEMENTATION OF CERTIFICATION OF INTERNATIONAL AERODROMES				
That,	MID States:				
a)	that have slow rate of progress or have not yet started the implementation of certification of aerodromes be urged to do so; and to provide information on their implementation plans for Certification of Aerodromes and actions already taken before 12 May 2005;		This issue will be dealt with under Agenda Item 5 – WP/6	Valid	Take action
b)	be encouraged to exchange information and experience in implementing certification of aerodromes in the MID region and worldwide; and	States/ Aerodrome Operators		Valid	Take note
c)	may seek assistance to implement their safety programmes to benefit from the ICAC Technical Cooperation Bureaux Programme if required.	States		Valid	Take note
Conc	LUSION 9/3: REDUCTION OF BIRD STRIKE HAZARDS TO AIRCRAFT OPERATIONS ON OR IN THE VICINITY OF MID AIRPORTS				
That,					
a)	an integrated approach be developed by State authorities to control Birds Hazards at airports; and	States		Valid	Take action
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).	IATA		Valid	Take note

	CONCLUSIONS AND DECISIONS	ACTION BY	COMMENTS AND FOLLOW-UP	STATUS	REQUIRED ACTION
DECISION 9/4	CONDUCT A SURVEY ON THE READINESS OF MID AERODROMES TO ACCOMMODATE NEW LARGER AEROPLANES				
That,					
readin	stionnaire shall be developed and circulated to all MID States and IATA, on the ess of MID States accommodation of NLA operations at their existing romes, as contained in Appendix 5B to the report on Agenda Item 5; and	ICAO MID Office	A Questionnaire was developed and circulated to all MID States and IATA, available results were summarized and presented in	Completed	
b) availabl	e responses to the questionnaire be analysed by next AOP SG/5 meeting.	States/ AOP SG	WP 7	Valid	Review, Analysis and Take action
DECISION 9/5	CONTROL OF OBSTACLES AT AND AROUND AERODROMES INT'L AERODROMES				
That, MID Sta	tes be urged to:				
	y with ICAO Annex 14 and associated documents (relevant Annexes, PANS-Guidance Manuals,etc) governing the control of obstacles at and around omes;	States		Valid	Take action
CAAs/	e relevant national authorities of the importance of coordinating with Airport Operators, the control of construction heights at and around airports fe operations of aircraft as per ICAO specifications and national regulations;	States/ Aerodrome Operators		Valid	Take action
to exp	d every national efforts to develop necessary measures including legislations edite the implementation of Annex 14 provisions and other related ICAO cations.	States		Valid	Take action
Conclusion	9/59: MID BASIC ANP AND FASID (Doc 9708)				
That, ICAO g and Arabic ve	gives priority to the publication of the MID BASIC ANP and FASID in English ersions	ICAO	This issue will be dealt with under Agenda Item 3 – WP/4	Completed	Take note

	Conclusions and Decisions	ACTION BY	COMMENTS AND FOLLOW-UP	STATUS	REQUIRED ACTION
Conclusion 9/60:	AMENDMENT PROPOSAL TO THE MID BASIC ANP AND FASID				
proposal to the MID	Regional Office, on behalf of MIDANPIRG, initiates an amendment Basic ANP and FASID in order to update the AIS, AOP, ATM, CNS quirements and reflect the changes made to the FASID Tables.	ICAO	This issue will be dealt with under Agenda Item 3 – WP/4	Valid	Take note
Conclusion 9/61:	AMENDMENT TO THE FORM USED FOR THE IDENTIFICATION, ASSESSMENT AND REPORTING OF AIR NAVIGATION DEFICIENCIES				
deficiencies, ICAO identification, assess	to analysing the rationale for non-elimination of air navigation considers the amendment of the uniform methodology for the ment and reporting of air navigation deficiencies to incorporate the pendix 6A to the report on Agenda Item 6.	ICAO	This issue will be dealt with under Agenda Item 4 – WP/5	Valid	Take note
Conclusion 9/63:	DEVELOPMENT OF A MID REGION'S AIR NAVIGATION DEFICIENCIES DATABASE				
That, ICAO MID Regi	onal Office:				
a) develops an a	ir navigation deficiencies database for the MID Region;	ICAO MID	This issue will be dealt with	Valid	Take action
b) develops a se	cure process for managing this database on the Internet;		under Agenda Item 4 – WP/5		
, .	ssibility of controlled on-line introduction of updated information by r respective deficiencies; and				
d) allows other a the database.	uthorized users on-line access to view the information contained in				

		CONCLUSIONS AND DECISIONS	ACTION BY	COMMENTS AND FOLLOW-UP	STATUS	REQUIRED ACTION
CONC	LUSION 9/64:	ELIMINATION OF AIR NAVIGATION DEFICIENCIES IN THE MID REGION				
That,						
a)		eir respective lists of identified deficiencies and formulate and plan to the ICAO MID Regional Office for review;	States	This issue will be dealt with under Agenda Item 4 – WP/5	Valid	Review and update list of Deficiencies by concerned States
b)		their efforts to overcome the delay in mitigating air navigation fied by MIDANPIRG;	States			Take note to follow
c)	deficiencies and t	raged to set up an internal group of experts to examine the list of ake appropriate actions with a view to recommend to their higher orities solutions for elimination of deficiencies;	States			Take note to follow
d)	States explore an ways for funding;	d consider ways and means to eliminate deficiencies by reliable	States			Take note to
e)	deficiencies may	ing difficulties in financing the elimination of safety-related; wish to take advantage of the funding opportunity offered by the notal Facility for Aviation Safety (IFFAS);	State/ICAO			follow
f)	cooperation and, air navigation ser	uraged to foster the creation of regional and sub-regional wherever feasible, partnership initiatives with other States, users, vice providers, industry and financial institutions to improve the anal civil aviation; and	States			Take note
g)		tates request ICAO assistance through Technical Co-operation r Special Implementation Projects (SIP).	States/ICAO			Take note

	CONCLUSIONS AND DECISIONS	ACTION BY	COMMENTS AND FOLLOW-UP	STATUS	REQUIRED ACTION
Decision 9/65:	REVISED TERMS OF REFERENCE AND WORK PROGRAMME OF THE ANS WG				
	Reference and Work Programme of the ANS WG be adopted as to the report on Agenda Item 6	ANS WG	This issue will be dealt with under Agenda Item 4 – WP/5	Completed	Take note

AOP SG/5 Report on Agenda Item 3

REPORT ON AGENDA ITEM 3: REVIEW AND UPDATE TABLES AOP 1 AND CNS 3 OF MID FASID IN RELATION TO AERODROME OPERATIONS

- 3.1 The meeting recalled that the FASID AOP Table shows the Facilities and Services to be provided at each State's International aerodromes. The Physical Characteristics of the Runway, Taxiway and Apron are decided on the basis of Traffic Forecasts and the largest aircraft normally expected to use the aerodrome, and that those Facilities and Services should conform to the BORPC and the ICAO SARPs contained at Annex 14 and other relevant ICAO specifications.
- 3.1.1 The meeting was apprised with the rationale for the revision of the statement of Basic Operational and Planning Criteria (BORPC) that has been carried out by the Air Navigation Commission. In this regard, the meeting was informed that ANC had approved the revised Statement of BORPC for use by all ICAO Regions, on 22 February 2005. The revised BORPC reflects recent developments in different areas of air navigation systems. Hence, MIDANPIRG/9 meeting adopted Decision 9/1 to incorporate the revised Statement of BORPC, into the MID Basic air navigation plan (ANP) of all ICAO Regions.
- 3.2 The meeting noted with concern the information that was provided on the revised items of BORPC related to Aerodrome operations planning.
- 3.3 The meeting noted the progress made in the process of preparation and approval of the final version of the MID BASIC ANP and FASID (Doc 9708). It was informed that MIDANPIRG/9 meeting requested ICAO to expedite the publication of the MID BASIC ANP and FASID in English and Arabic versions.
- 3.4 Updates of MID FASID AOP-1 tables were received from seven States (Bahrain, Iran, Iraq, Jordan, Lebanon, Saudi Arabia and Syria) as indicated in **Appendix 3A** to the report on Agenda Item 3. CNS 3 tables updates were received from five States (Iran, Iraq, Jordan, Lebanon, and Syria) as indicated in **Appendix 3B** to the report on Agenda Item 3. In this connection, an appropriate amendment proposal will be prepared based on the information received from States and shall be circulated by ICAO MID office for approval in accordance with ICAO established procedures.
- 3.5 The meeting was informed that seven States have responded to MID Regional Office Fax ME-142 dated 26 April 2005 that requested all MID States to submit information on the main data of their International Aerodromes which was required to remove any inconsistencies in main data related to AOP 1 tables (reflected in different Air Navigation fields; AIS, AOP, CNS and MET Tables). Updated information is indicated at **Appendix 3C** to the report on Agenda Item 3 and was incorporated in the updated AOP 1 and CNS 3 tables.
- 3.6 The meeting requested all MID States to verify main data contained in columns 1,2,3,4,6,7 of **Appendix 3A** to the report on Agenda Item 3, and to inform MID Regional Office not later than **30 July 2005**.
- 3.7 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). These procedures are to be followed to initiate an amendment for the MID Basic ANP and/or MID FASID. It was highlighted, in this respect, that the procedure for the amendment of the FASID, which contains dynamic material, is more simplified. On the other hand, the stable information contained in the Basic ANP shall be subjected to the traditional amendment process and approval.

AOP SG/5 Report on Agenda Item 3

3.8 Accordingly, the meeting formulated the following Draft Conclusion:

DRAFT CONCLUSION 5/1: PROPOSAL FOR AMENDMENT TO MID FASID TABLES AOP 1
AND CNS 3

That, a proposal for Amendment as contained in **Appendices 3A & 3B**, be issued according to established procedures to reflect updates to AOP1 & CNS3 tables of MID FASID.

AOP SG/5 Appendix 3A to the Report on Agenda Item 3

MID FASID – AOP-1 3-AOP 1-1

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.

- 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.

3-AOP 1-2 MID FASID – AOP-1

- 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.

3-AOP 1-4 MID FASID – AOP-1

TABLE AOP 1

CITY/AERODROME/USE VILLE/AERODROME/EMPLOI CIUDAD/AERODROMO/USO	ALTERNATE AERODROMES AERODROMES DE DEGAGEMENT AERODROMOS DE ALTERNATIVA			ODRO!				CA	PHYSICAL CHA RACTERISTIC CARACTERÍS	QUESI	PHYSIQUES	AID	ADIO AII DES RAI	DIO		All	LIGHTING DES LUMIF UDAS LUM	IEUSES			MARKIN MARG SEÑALA				RVR
		RC	RFF	A P	T W R	A T I S	A F I S	RWY NO PISTE NO PISTA NO	RWY TYPE TYPE DE PISTE TIPO DE PISTA	T W Y	RWY LENGTH LONG. DE PISTE LONG. DE PISTA PAV. STRENGTH RESISTANCE RESIST. PAVIM.	PA	NPA	Т	P S		W L	T S		E I	C T T L H D M R Z	S A S M T G	ı v	H / L D	T MEDINZDD
1	2	3	4		į	5 6			7	8	9		10	1		1	11	.	ı		1	2	ı		13
AFGHANISTAN OAKB KABUL/Kabul RS	VIAR Amritsar VIDP Delhi OPRN Islamabac OAKN Kandahar OPKC Karachi OPPS Peshawar UTTT Tashkent		8	x	×			11 29	NPA PA1	x	3000 DC10-30 219	x	×	×	×	(L	x x	x	×	x x	x x x x	x :		< x	x
OAKN KANDAHAR/Kandahar AS	OAKB Kabul	4D	8				X	05 23	NPA NPA	х	2450 DC10-30 193		X X	х	>		x x	x		x x	x x		×	× Χ	

CITY/AERODROME/USE VILLE/AERODROME/EMPLOI CIUDAD/AERODROMO/USO	ALTER AERODRO AERODRO DEGAGI AERODRO ALTERN	ROMES DMES DE EMENT DMOS DE			DDROI DDROI				CA	PHYSICAL CHA RACTERISTIC CARACTERÍS	QUESI	PHYSIQUES	AIE	ADIO AII DES RAI DIOAYUI	OIO		AIDES	HTING A LUMINI AS LUMI	EUSES					MARKINO MARQ SEÑALAN	JES			RV	'R
	ALI LIV	VALIVA	RC	RFF	A P	T W R	A T I S	A F I S	RWY NO PISTE NO PISTA NO	RWY TYPE TYPE DE PISTE TIPO DE PISTA	T W Y	RWY LENGTH LONG. DE PISTE LONG. DE PISTA PAV. STRENGTH RESISTANCE RESIST. PAVIM.	PA	NPA	Т	S V A A	v v	CT/LD	Т				L		S A S M T G	W	H / L D	T MD I	I N
1	2	2	3	4			5		6	7	8	9		10	•		•	11			•			12				13	3
BAHRAIN OBBI BAHRAIN/Bahrain Intl RS	OMAL OEDF OTBD OMDB OKBK OERK	Abu Dhabi Al Ain Dammam Doha Dubai Kuwait Riyadh Sharjah	4E	9 10	×	×	x	×	12 R 30 L 12 L 30 R	NPA NPA PA 2 PA 2	х	2600 B747 290 4000 B747 365	××	x x	×	X L X L	. x		x >	× ×		х	x	x	x x		x x x x x	x x	х

3-AOP 1-6 MID FASID – AOP-1

CITY/AERODROME/USE VILLE/AERODROME/EMPLOI CIUDAD/AERODROMO/USO	AERODA DEGAC AERODA	RNATE DROMES ROMES DE GEMENT ROMOS DE			ODRO				CA	PHYSICAL CH, ARACTERISTIC CARACTERÍS	QUES I	PHYSIQUES	AID	IDIO AII ES RAI	OIO		AIE	LIGHTING A DES LUMINE JDAS LUMIR	EUSES				MARKIN MARQ EÑALAM	UES)		RVR
	ALILI	WATTVA	RC	RFF	A P	T W R	A T I S	A F I S	RWY NO PISTE NO PISTA NO	RWY TYPE TYPE DE PISTE TIPO DE PISTA	T W Y	RWY LENGTH LONG. DE PISTE LONG. DE PISTA PAV. STRENGTH RESISTANCE RESIST. PAVIM.	PA	NPA		P S		R C T W L D Y L Z			E	C T L H M F	•	S A S M T G	/I V	Г Н W L Y D	T MEDIN
1		2	3	4		Ę	5		6	7	8	9		10				11					12	2			13
EGYPT HEAR EL-ARISH/El-Arish Int'l AS HEAT ASYUT/Asyut Int'l AS HEAX ALEXANDRIA/Alexandria Int'l RS	HESH HECA HELX LTAC LGAT OLBA HEBA HECA LCLK	SHARM EL- SHEIKH TABA CAIRO LUXOR ANKARA ATHINAI BEIRUT BORG EL- ARAB CAIRO LUK	4C 4C 4C	7	×	×		x	16 34 13 31 04 22 18 36	NPA NPA NPA NPA NPA	x	3019 B767 PCN 55 3019 B767 PCN 45 2201 B737-200 48		x x x x	x	x x x x x x		x x x x x	x x x x	x	× × × ×	x > x > x > x > x > x > x > x > x > x >	x x x	×	x x x x x x x x x x	x x x x x x x	х

CITY/AERODROME/USE VILLE/AERODROME/EMPLOI CIUDAD/AERODROMO/USO	ALTERNATE AERODROMES AERODROMES DE DEGAGEMENT AERODROMOS DE ALTERNATIVA			ODRON				CA	PHYSICAL CHA RACTERISTIC CARACTERÍS	QUESI	PHYSIQUES	AID	ADIO AII DES RAI DIOAYUI	OIO		AII	LIGHTING A DES LUMINI JDAS LUMI	EUSES				IG AIDS QUES MIENTO			RVR
	, and a second s	RC	RFF	A P P	T W R	A T I S	A F I S	RWY NO PISTE NO PISTA NO	RWY TYPE TYPE DE PISTE TIPO DE PISTA	T W Y	RWY LENGTH LONG. DE PISTE LONG. DE PISTA PAV. STRENGTH RESISTANCE RESIST. PAVIM.	PA	NPA		P S			S T TT E CB		D C		S A S M T G	T	-	T ME D I N Z D D
1	2	3	4		5	5		6	7	8	9		10				11				1	2			13
HEAZ CAIRO/Almaza Int'I ANS HEBA ALEXANDRIA / Borg EI Arab Int'I RS	HEAX ALEXAND RIA HECA CAIRO HELX LUXOR HEAX CAIRO ATHINAI HECA BEIRUTB LGAT LCLK OLBA LCLK LUXOR	3C 4E	8		x			18 36 05 23 14 32	NPA NPA NINST NINST PA1 NPA	×	2050 27 1240 27 3400 A300-600 55	x	x x		× × ×	L	x x x	x	x	x x	x x	x x x	x x	× ×	

3-AOP 1-8 MID FASID – AOP-1

CITY/AERODROME/USE VILLE/AERODROME/EMPLOI CIUDAD/AERODROMO/USO	AERODR AERODR DEGAC AERODR	RNATE DROMES COMES DE GEMENT COMOS DE			DROI				CA	PHYSICAL CHA ARACTERISTIC CARACTERÍS	QUES I	PHYSIQUES	AID	ADIO AID DES RAD	OIO		ΑI	LIGHTING DES LUMIN JDAS LUM	NEUSI	ES			1	ARKINO MARQI ÑALAM				R	RVR
	ALIER	INATIVA	RC	RFF	A P	T W R	A T I S	A F I S	RWY NO PISTE NO PISTA NO	RWY TYPE TYPE DE PISTE TIPO DE PISTA	T W Y	RWY LENGTH LONG. DE PISTE LONG. DE PISTA PAV. STRENGTH RESISTANCE RESIST. PAVIM.	PA	NPA	Т	P S		R C W L I				Е	C T L H M R	D	S A S M T G	w	H L D	D	M E I N D D
1		2	3	4		5	5		6	7	8	9		10				11						12					13
HECA CAIRO/Cairo Int'I	LTAC LGAT OLBA HELX	ANKARA ATHINAI BEIRUT LUXOR	4E	9	х	х	х	х	05L 23R	PA2 PA2	X	3300 B707-300C 153 B747 320	x x	х	x	×	L	x x :			x		x x x x			x x		x x	x x
	LCNC	NICOSIA	4E						05R	PA2		4000	x		х	Х	L	x x	x x	хх		х	x x	х	х	x x	х	X	хх
	LGRP	RODOS							23L	PA2		B747 320	х		х	х	L	x x	x x	x		х	x x		x	x	х	x :	x x
			4D						16	NINST	Х	3178	х	Х	х			х				х	x		х	x x	(
									34	NINST		B707-300C 153	х	х		×		x				x	x		х	x			
HEGN HURGADA/Hurghada	HELX	LUXOR	4E	9	х	х		х	16	NPA	Х	4000		х	х	x	L	x	х		х	Х	x x	Х		x x	х		
RS	HESH	SHARM EL SHEIK							34	PA1	Х	B747 70	х			х	L	х	x			х	x x	х	х	××	×		

CITY/AERODROME/USE VILLE/AERODROME/EMPLOI CIUDAD/AERODROMO/USO	AERODRO DEGAG AERODRO	ROMES DE GEMENT OMOS DE		AERO					CA	PHYSICAL CHA RACTERISTIC CARACTERÍS	QUES I	PHYSIQUES	AII	ADIO AII DES RAI DIOAYU	DIO		AI	LIGHTING DES LUMII UDAS LUN	IEUSES				MARKI MAR SEÑALA	QUE	S			RVR
	ALTER	NATIVA	RC	RFF	A P	T W R	A T I S	A F I S	RWY NO PISTE NO PISTA NO	RWY TYPE TYPE DE PISTE TIPO DE PISTA	T W Y	RWY LENGTH LONG. DE PISTE LONG. DE PISTA PAV. STRENGTH RESISTANCE RESIST. PAVIM.	PA	NPA	Т	P \$		W L	T D T TZ E C		D E S	L	T THDRZ	S S T		T W Y	L	T MEDIN
1	2	2	3	4			5	1	6	7	8	9		10	1			11						12				13
HELX LUXOR/Luxor	HESN HECA HEGN HSSS	ASWAN CAIRO HRUGHA DA KHARTOU	4E	9	R	X		X	02 20	NPA PA1	x x	3000 A300-600 70		x	X	x	(L	x x	x x	X	x	X		x x		x x	X X	x
HEMA MARSA ALAM/Marsa Alam Int'I RNS	HEGN HELX HECA HESN	M HRUGHA DA LUXOR CAIRO ASWAN	4C	7	x				15 33	npa npa	X	3000 B767 54				x	L	x x x x	x x x x				x				x x	
HEOW SHARK EL OWEINAT/ Shark El Oweinat Int'l AS	HECA HEGN HELX HESN	CAIRO HRUGHA DA LUXOR ASWAN	4C	5		x			01 19	NPA NINST		3500 B767 60		x							x x	X	x x x x		X X			

3-AOP 1-10 MID FASID – AOP-1

CITY/AERODROME/USE VILLE/AERODROME/EMPLOI CIUDAD/AERODROMO/USO	AERODR AERODR DEGAG AERODR	RNATE DROMES COMES DE GEMENT OMOS DE			DDRO!				CA	PHYSICAL CHARACTERISTIC	QUESI	PHYSIQUES		AIDE	DIO AID ES RAD OAYUD	OIO		Al	LIGHTI DES LU UDAS L	JMINE	USES				MARKII MAR SEÑAL <i>A</i>	QUE	S			RVR
	ALL LI	NATIVA	RC	RFF	A P P	T W R	A T I S	A F I S	RWY NO PISTE NO PISTA NO	RWY TYPE TYPE DE PISTE TIPO DE PISTA	T W Y	RWY LENG LONG. DE PISTE LON: DE PISTA PAV. STRENGTH RESISTANC RESIST. PAVIM.	G.	PA	NPA	Т	P S		w		S T TT E CB		E	L	T T	s	A M G	T W Y	L	T MEDIN
1		2	3	4		5	5		6	7	8	9			10					11					1	12				13
HEPS PORT-SAID/ Port-Said Int'l	HECA HELX	CAIRO LUXOR	4C	6		х			10 28	NPA NPA			349		x x		×		x x			х		x :		x >	(х (х	×	x x	
HESC ST. CATHERINES/St. Catherine Int'I	HECA HESH	CAIRO SHARM EL- SHEIKH	3C	7					17 35	NPA NINST			40			Х	x	L	x			X	×	x .		×	< > >	x x		
	HEGN	HURGHA DA																												
HESH SHARM EL-SHEIKH/ Sharm El Sheik Int'l RS	HECA HEGN	CAIRO HURGHA DA	4E	9	R	x		X	04L 22R	PA1 NPA	x x	A300-600		X	X	X	X	L	x x		x x	x	x x			x x		x x		x
	HELX	LUXOR							04R	NPA	х	3	081	х			x		x		x		х	x i	X :	x x	ζ X	X	х	
									22L	NPA	х	B747	65				×		x		X		x	x I	x >	x >	< x	X	Х	
HESN ASWAN/Aswan Int'l	HELX	LUXOR	4E	9	R	х		х	17	NPA	х	34	102		Х		Х	L	х		Х	х	х	x I	X .	x	>	x	х	x
RS									35	PA1	Х	A300-600	60	х			Х	L	Х				Х		X .	x >	()	x	Х	

CITY/AERODROME/USE VILLE/AERODROME/EMPLOI CIUDAD/AERODROMO/USO	AERODR DEGAC	RNATE DROMES ROMES DE GEMENT ROMOS DE		AERO					CA	PHYSICAL CHARACTERISTIC	QUES I	PHYSIQUES	3	AID	DIO AIE ES RAE IOAYUE	OIO			IDES L	TING AI LUMINE S LUMIN	USES				MARKIN MARC EÑALA	QUES	3			RVR
			RC	RFF	A P	T W R	A T I S	A F I S	RWY NO PISTE NO PISTA NO	RWY TYPE TYPE DE PISTE TIPO DE PISTA	T W Y	RWY LEN LONG. DE PISTE LO DE PISTA PAV. STRENGT RESISTAN RESIST. PAVIM.	E NG.	PA	NPA	Т		S V A A	w		S T TT E CB			C T L H M R	-	S S T		T W Y	L	T ME D I N Z D D
1		2	3	4		Ę	5	1	6	7	8	ę	9		10	T			1	11		1			1	2		1		13
HETB TABA/Taba Int'l	HESH	SHARM EL SHEIKH	4E	7	R	x			04 22	NPA NINST	X	B747	4000 70			x	Х	X L	x x		x x	X		x x x	()	x x		x	×	
IRAN, ISLAMIC REPUBLIC OF																														
OIKB BANDAR ABBAS/Bandar Abbas RS	OMAA OBBI OTBD	Abu Dhabi Bahrain Doha	4D	8	х	x	х		03R 21L	NPA PA1	х	B747	3645 290	Х	X	х	х	X L	x x		х	x	x x		x x		X X	x	x x	
	OMDB	Dubai Shiraz	3C						03L 21R	NINST NINST	х	F28	3442										x x		x x		X X	x	X X	
OIFM ESFAHAN/Shahid Beheshti RS	OISS	Shiraz Tehran	4E	9	х	x	х		08L 26R	NPA PA1	х	B747	4400 290	х	Х	х		X L	x x		х	x	x x		(х (х		x x	x	Х	
									08R 26L	NPA NPA	X	B747	4400 290		x x			X L			Х		x x		х х		x x		X X	

3-AOP 1-12 MID FASID – AOP-1

CITY/AERODROME/USE VILLE/AERODROME/EMPLOI CIUDAD/AERODROMO/USO	AERODA AERODA DEGAC AERODA	RNATE DROMES ROMES DE GEMENT ROMOS DE			ODROI ODROI				CA	PHYSICAL CHARACTERISTIC	QUES I	PHYSIQUES	AII	ADIO AII DES RAI DIOAYU	DIO		AII	LIGHTING / DES LUMIN JDAS LUMI	EUSES				IARKING MARQ EÑALAN				RVR
	7.6.2.		RC	RFF	A P	T W R	A T I S	A F I S	RWY NO PISTE NO PISTA NO	RWY TYPE TYPE DE PISTE TIPO DE PISTA	T W Y	RWY LENGTH LONG. DE PISTE LONG. DE PISTA PAV. STRENGTH RESISTANCE RESIST. PAVIM.	PA	NPA	Т	P 8			S T TT E CB		D E S	C T L H M R	D	S A S M T G	w	' L	T MEDINZDD
1		2	3	4		5	5		6	7	8	9		10				11					12				13
OIMM MASHHAD/Shahid Hashemi Nejad Intl RS	OIII	Tehran	4D	89	х	x	х		13L 31R 13R 31L	NPA PA1 NPA NPA	x	3776 B747 290 3886 B747 290	X	x	x	Х	(L L	x x x	x	х	х	x x x x x	x x	x >	<	x x x x x x	
OISS SHIRAZ/Shiraz Intl RS	OBBI OIFM	Bahrain Esfahan	4D	89	х	х	х		11R 29L 11L 29R	NINST PA1 NINST NPA	x x	4258 B747 290 4342 B747 290	X	x x x	x	x	L	x x	x	х	х	X	x x	x >	<	x x x x x	
OITT TABRIZ/Tabriz RNS	OIII OIFM	Tehran Esfahan	4D	69	x	х			12L 30R 12R 30L	NPA PA1 NINST NINST	х	3604 B747 290 3517 F27 20	X	×	x	× × × ×	L	x x	x	х	х	x x x x x	x x	x > x > x	<	x x x x	

CITY/AERODROME/USE VILLE/AERODROME/EMPLOI CIUDAD/AERODROMO/USO	AEROI AERODF DEGAG AERODF	ERNATE DROMES ROMES DE GEMENT ROMOS DE			ODRO				CA	PHYSICAL CHA RACTERISTIC CARACTERÍS	UES I	PHYSIQUES	S	AID	DIO AIE ES RAE IOAYUE	OIO		AII	LIGHT DES LU JDAS I	JMINE					ARKIN MARQ ÑALAI	UES				RVR
	ALIEF	RNATIVA	RC	RFF	A P	T W R	A T I S	A F I S	RWY NO PISTE NO PISTA NO	RWY TYPE TYPE DE PISTE TIPO DE PISTA	T W Y	RWY LEN LONG. DE PISTE LO DE PISTA PAV. STRENGT RESISTAI RESIST. PAVIM.	E DNG.	PA	NPA		P S			L D	S T TT E CB		D GE	L H			М	T H W I Y [_	T MEDINZDD
1		2	3	4			5		6	7	8	Ç	9		10					11					12	!				13
OIIE TEHRAN/Emam Khomaini Intl RS (Future) (Re-opened on 30 April 2005)	OISS OIFM OMDB OKBK OMSJ OIII	Shiraz Esfahan Dubai Kuwait Sharjah Tehran	4E	9	x	х	х		11L 29R	NPA PA2	х	B747	4200 365	х	X		x	L	x > x >	(X	x	x	x x	× ×		x	X X	х		х
OIII TEHRAN/Mehrabad Intl	OBBI OMDB OIFM OKBK OMSJ OISS OBBI	Bahrain Dubai Esfahan Kuwait Sharjah Shiraz Bahrain	4E	9	R	x	x		11R 29L 11L 29R	NPA PA1 NPA NPA	×	B747	4070 290 3992 265	X	x x x	x	× × ×	L	x x x		x	x	х	× × × × × ×	x x		Х	х	X	x
OIZH ZAHEDAN/Zahedan Intl RS	OIKB	Bandar Abbas Mashhad	4D	8	х	х	x		17 35	NPA NINST NPA PA1	х	A300	4250 142	X	X *	х	x		x x		x	х	x x	x x		х	x x	х	x	

3-AOP 1-14 MID FASID – AOP-1

CITY/AERODROME/USE VILLE/AERODROME/EMPLOI CIUDAD/AERODROMO/USO	AERODR AERODR DEGAC AERODR	RNATE DROMES COMES DE GEMENT OMOS DE			DDROM				CA	PHYSICAL CHA RACTERISTIC CARACTERÍS	QUESI	PHYSIQUE		AID	ADIO AIE ES RAE	OIO		Al	LIGHT DES LI	JMINE	USES			N	IARQI	AIDS JES IENTO			RVR	\$
	ALILI	NATIVA	RC	RFF	A P	T W R	A T I S	A F I S	RWY NO PISTE NO PISTA NO	RWY TYPE TYPE DE PISTE TIPO DE PISTA	T W Y	RWY LE LONG. D PISTE LO DE PIST. PAV. STRENG RESISTA RESIST. PAVIM.	ONG. A GTH ANCE	PA	NPA		P \$			L D	T TEC		D C	_ Н	D	S A S M T G	T W Y	H L D	T MD IZD	N
1		2	3	4		5	5		6	7	8		9		10				1	11	П	1			12				13	
																														_
IRAQ ORBS BAGHDAD/Saddam Baghdad Int'l RS	OJAI ORMM OSDI OKBK	Amman Basrah Damascus Kuwait	4E	9	R	x	X		15R 33L 15L 33R	NPA NINST PA2 NINST PA2 NINST NPA NINST	×	B747	3300 340 3300 340	×	x		× ×	K L L L L	×	× × × ×	x	×	× × × × ×	x	x x	x x x x x x		x	x x	
ORMM BASRAH/Basrah Inti RS ISRAEL	ORBS	Baghdad	4E	9	×	x			14 32	PA2-NINST PA2-NINST		B747	4000 340	×××			x x	L		x x	x		x x	x x	x x	x x		х	x x	

CITY/AERODROME/USE VILLE/AERODROME/EMPLOI CIUDAD/AERODROMO/USO	AEROD DEGA AEROD	ERNATE DROMES ROMES DE GEMENT ROMOS DE			ODRO				CA	PHYSICAL CHARACTERISTIC	QUES I	PHYSIQU	IES	AID	ADIO AII DES RAI	DIO			AID	LIGHTING IES LUMIN IDAS LUM	IEUS	ES				MARKIN MARC EÑALAI	UES	3			RV	'R
	ALIE	RNATIVA	RC	RFF	A P	T W R	TS A T I S	A F I S	RWY NO PISTE NO PISTA NO	RWY TYPE TYPE DE PISTE TIPO DE PISTA	T W Y	RWY LE LONG. I PISTE L DE PIS' PAV. STREN RESIST RESIST PAVIM.	DE LONG. TA GTH FANCE	PA	NPA	Т	PA	S A	V A	R C W L I	D T					T T D	S S T		T W Y	L	T D Z	I N
1		2	3	4		į	5		6	7	8		9		10					11						12	2				1:	3
LLET EILAT/Eilat RS	LLOV LLBG	Ovda Tel Aviv/Ben Gurion	3C	7	Х	х			03 21	NPA NINST		B757	1900 90			x		x x	L	х	x		Х		x x		×		x	×		
LLHA HAIFA/Haifa RNS	LLBG	Tel Aviv/Sde Dov	2C	5		x			16 34	NINST NINST		AT72	1200 25					х	L	х	x		×	x x x	×	x x	x		x	X		
LLJR JERUSALAM/Atarot RNS	LLBG	Tel Aviv/Ben Gurion	4C	7		x			12 30	PA1 NPA	x	B757	2000	x	x	x	x		L	х	x		×	x x	x x		x x		x	x x	×	
LLOV OVDA/Ovda Intl RNS	LLET LLBG	Elat Tel Aviv/Ben Gurion	4E	9	x	x			02L 20R	NINST NPA		B747	2650 280		x			×	L L	x x	×		x		x x		x x		×	x x		

3-AOP 1-16 MID FASID – AOP-1

CITY/AERODROME/USE VILLE/AERODROME/EMPLOI CIUDAD/AERODROMO/USO	AEROI AERODE DEGA	ERNATE DROMES ROMES DE GEMENT ROMOS DE RNATIVA			ODRO ODRO				CA	PHYSICAL CHARACTERISTIC	QUES	PHYSIQU	ES	AID	ADIO AII DES RAI	OIO			IDES	HTING A LUMINE S LUMIN	USES				MA	RQU	AIDS JES JENTO			RVR
	ACIC	WALLIVA	RC	RFF	A P	T W R	A T I S	A F I S	RWY NO PISTE NO PISTA NO	RWY TYPE TYPE DE PISTE TIPO DE PISTA	T W Y	RWY LE LONG. I PISTE L DE PIS PAV. STREN RESIST RESIST PAVIM.	DE LONG. TA GTH TANCE	PA	NPA	Т		S V A A	w		T TEC	Т	B E	L		o	S A S M T G	w	H L D	T MEDINZDD
1		2	3	4			5		6	7	8		9		10	1				11	1					12				13
LLBG TEL AVIV/Ben Guiron RS	LGAT HECA LCLK LLOV	Athinai Cairo Larnaka Ovda	4E	9	x	x			03 21 08 26 12 30	NPA NINST NPA PA1 PA1 NPA	× ×	B747 B747	1745 300 3965 365 3112 325	×	x	×	x x x	L	x x	x x x	x x x x x x x x x x x x x x x x x x x	x x x	× × × × × × × × × × × × × × × × × × ×	x x x x x x	× × ×	x x x	x x x x x x x x x x	x x	x x x	x x x
LLSD TELAVIV/Sde-Dov RNS	LLBG	Tel Aviv/Ben Gurion	2C	7		x			03 21	NINST NINST	X	AT72	1740 25					L	x		х		×	x x	x x		x x		x x	
JORDAN OJAM AMMAN/Marka Intl AS	OJAI OSDI	Amman/ Queen Alia Damascus	4E	9 8	x	x	x	x	06 24	NINSTNPA PA1	х	B747	3300 285	х	x	x	х	L			×	;	x x	(X		x x	x x x	x	x	xxx

CITY/AERODROME/USE VILLE/AERODROME/EMPLOI CIUDAD/AERODROMO/USO	AEROI AERODF DEGAG AERODF	ERNATE DROMES ROMES DE GEMENT ROMOS DE RNATIVA		AERO					CA	PHYSICAL CHARACTERISTIC	QUES	PHYSIQL	JES	AID	ADIO AII DES RAI	OIO		All		JMINE	IDS :USES NOSAS				М	ARQI	AIDS JES IIENTO			RVR
			RC	RFF	A P	T W R	A T I S	A F I S	RWY NO PISTE NO PISTA NO	RWY TYPE TYPE DE PISTE TIPO DE PISTA	T W Y	RWY L LONG. PISTE DE PIS PAV. STREN RESIS' RESIS' PAVIM.	DE LONG. TA IGTH FANCE	PA	NPA	Т	P 8		w		T T	Т		D C	. н	D	S A S M T G	w	H L D	T MEDINZDD
1		2	3	4			5		6	7	8		9		10					11						12				13
OJAI AMMAN/Queen Alia RS	OJAM OLBA HECA OSDI LCLK	Amman/ Maraka Beirut Cairo Damascus	4E	9	х	х	x	x	08R 26L 08L 26R	NPA PA1 NPA PA1 NPA PA1	x x	B747	3660 317 3660 317	×	x x x	x	×	L	x x x	x	х			× × × × ×	x	х	x x x x x x		Х	x x x
OJAQ AQABA/ Aqaba King Hussein RNS	OJAI OJAM	Amman/ Queen Alia Amman/ Marka	4D	7	x	x	x	x	02 01 20 19	PA1 NPA		B747	3000 150	×						x x					×	X	x x	(Х	×××
OJJR JERUSALEM/Jerusalem RS	OJAM	Amman	4D	8	*	*			12 30	NPA PA1		B 737	2150	×	* *	×		E	*		×		*	× ×	X	-× -×	—× —×	×	 *	
KUWAIT																														
OKBK KUWAIT/Kuwait Intl	ORBS OBBI ORMM	Baghdad Bahrain Basrah	4E	9	R	x	х	x	15R 33L	PA2 PA2	x x	B747	3400 350			x x					x x :						x x x x			x x x
	OEDF OERK	Dammam Riyadh							15L 33R	PA2 PA2	x x	B 747	3500 350			x x					x x :			x x x x	x x	X X	x x x x	x x	X X	x x x

3-AOP 1-18 MID FASID – AOP-1

CITY/AERODROME/USE VILLE/AERODROME/EMPLOI CIUDAD/AERODROMO/USO	ALTERNATE AERODROMES AERODROMES DE DEGAGEMENT AERODROMOS DE ALTERNATIVA			DROM				CA	PHYSICAL CHA RACTERISTIC CARACTERÍS	QUES I	PHYSIQUES	AID	ADIO AII DES RAI	OIO		AIE	LIGHTING A DES LUMINE JDAS LUMII	EUSES			MARKIN MARC SEÑALAI	UES		RVR
	76.1	RC	RFF	A P	T W R	A T	A F I S	RWY NO PISTE NO PISTA NO	RWY TYPE TYPE DE PISTE TIPO DE PISTA		RWY LENGTH LONG. DE PISTE LONG. DE PISTA PAV. STRENGTH RESISTANCE RESIST. PAVIM.	PA	NPA	Т	P S		R C T W L D Y L Z				T T H D R Z	S A S M T G	T H W L Y D	T MEDIN
1	2	3	4		5	·		6	7	8	9		10	1			11	1			12	2	1	13
LEBANON OLBA BEIRUT/R. B. H - Beirut Intl RS	OJAI Amman HECA Cairo OSDI Damascus LCLK Larnaka LCPH Paphos	4E	9	R	х	x	x	17 03 35 21 18 16 36 34 03 17 21 35	PA1 NINST PA1 PA1 NINST PA1 PA1 PA1 PA1	х	3395 3800 B747 320 3250 3395 B747 320 3800 3250 B747 365 320	x x x	*	x x	x x	L	x x x x x x x x x x x x x x x x x x x		×	x x x x x x	x x x x x x	x x x x	x x	x x x x x

CITY/AERODROME/USE VILLE/AERODROME/EMPLOI CIUDAD/AERODROMO/USO	AEROI AERODF DEGAG AERODF	ERNATE DROMES ROMES DE GEMENT ROMOS DE RNATIVA		AERO					CA	PHYSICAL CHARACTERISTIC	QUESI	PHYSIQUES		AID	DIO AII ES RAI IOAYUI	OIO			IDES	HTING LUMII	NEUS	SES				ı	NRKIN MARQ ÑALAN	UES				RVI	R
	7 (6.1		RC	RFF	A P	T W R	A T I S	A F I S	RWY NO PISTE NO PISTA NO	RWY TYPE TYPE DE PISTE TIPO DE PISTA	T W Y	RWY LENG LONG. DE PISTE LON DE PISTA PAV. STRENGTH RESISTANG RESIST. PAVIM.	IG.	PA	NPA	Т		S V A A	W	C / L L	D T	т	Т	B [ΞI	. Н	D		М	T I	L	T MD I	N
1		2	3	4		;	5		6	7	8	9			10					11							12	: T		1		13	;
OMAN OOMS MUSCAT/Seeb Intl RS	OMAA OMAL OMDB OPKC OMRK OOSA OMSJ	Abu Dhabi Al-Ain Dubai Karachi Ras al Khaimah Salalah Sharjah	4E	9	x	×			08 26	PAI PA1	×		350	x x		x x	××	L		×××	>		×			(X X X	x x			x x			
OOSA SALALAH/Salalah AS	OOMS	Muscat	4E	9	х	X			07 25	NPA PA1	Х		3340 320	x	Х	х	2	L		x :		X	X				X X				X X	x :	x
QATAR OTBD DOHA/Doha Intl RS	OBBI OEDF OMSJ	Bahrain Dammam Sharjah	4E	9	х	х			16 34	NPA PA1	х		3400 340	X	X		х	X L			>	(× >	x) x		X	x	x x	x	х	x	

3-AOP 1-20 MID FASID – AOP-1

VILLE/AERODROME/EMPLOI AERODRO CIUDAD/AERODROMO/USO AERODRO DEGAGI AERODRO		ALTERNATE AERODROMES AERODROMES DE DEGAGEMENT AERODROMOS DE ALTERNATIVA		AERODROME AERODROME						PHYSICAL CHA ARACTERISTIC CARACTERÍS	RADIO AIDS AIDES RADIO RADIOAYUDAS			LIGHTING AIDS AIDES LUMINEUSES AYUDAS LUMINOSAS							MARKING AIDS MARQUES SEÑALAMIENTO							RVR			
			RC	RFF	A P P	T W R	A T I S	Ø − Ø	RWY NO PISTE NO PISTA NO	RWY TYPE TYPE DE PISTE TIPO DE PISTA	T W Y	RWY L LONG. PISTE DE PIS PAV. STREM RESIS' RESIS' PAVIM.	LONG. TA IGTH TANCE T.	PA	NPA	Т		S V A A	w	C T L D L Z	Т		В	Е	C T L H	I D	s		T H W L Y E	-	T MED INZDD
1	1 2		3	4	5				6	7	8		10				1	1	11				12							13	
SAUDI ARABIA OEDF DAMMAM/King Fahid Intl	ODDI	Debasis	4E	9	R	×	х		16L	PA1	x		4000	×		×	x	L	×	хх	x	x x	x	x	x >	(X	x	X	x :	x	x xx
RS	OBBI OEMA OEJN OKBK OERK OMSJ	Bahrain Madinah Jeddah Kuwait Riyadh Sharjah			K	*	*		34R 16R 34L	PA1 PA1 PA1	x x x	B 747	390 4000 390	x x x		х	x x x	L L	х	x x	x	x x	x	х	x >	x x x x x	x	х	x :	x	x xx
OEJN JEDDAH/King Abdulaziz Intl RS	HECA OEDF HELX OEMA OERK	Cairo Dammam Luxor Madinah Riyadh	4E	9	x	x	X		16R 34L 16C 34C 16L 34R	PA2 PA2 PA2 PA2 PA1 PA1	x x	B747 B747	3800 350 3300 350 3700 350	X X X X X		×	x x x x x		x x x	x x x x x x x x x x	x	x x	x x	x x x	x x x x x x x x x x x x x x x x x x x	(x x x x x	x x x x	x x x	x x x	x x x x x x x x x
OEMA MADINAH/Prince Mohammad Bin Abdulaziz AS	OEJN	Jeddah	3D 4E	8					17 35 18 36	PA1 PA1 NINST NPA PA1	x	A300 B747	3350 3050 142 260	x x	x		x x	L		x x x x				x x x	× ×	(x		x	x x	x x x

CITY/AERODROME/USE VILLE/AERODROME/EMPLOI CIUDAD/AERODROMO/USO	AEROI AERODE DEGAG AERODE	RNATE DROMES ROMES DE GEMENT ROMOS DE	AERODROME AERODROME						CA	PHYSICAL CHARACTERISTIC	AID	ADIO AII ES RAI	LIGHTING AIDS AIDES LUMINEUSES AYUDAS LUMINOSAS							MARKING AIDS MARQUES SEÑALAMIENTO										
	7 16.1		RC	RFF	A P	T W R	A T I S	A F I S	RWY NO PISTE NO PISTA NO	RWY TYPE TYPE DE PISTE TIPO DE PISTA	T W Y	RWY LI LONG. PISTE I DE PIS PAV. STREN RESIST RESIST PAVIM.	DE LONG. TA GTH FANCE	PA	NPA	Т		S V	w		E CE	-	D E S	L	T 1) !			H L D	T MED INZDD
1		2 T	3	4			5		6	7	8		9		10	1				11	1					12		_		13
OERK RIYADH/King Khalid Intl RS	OBBI OEDF OEJN OEMA	Bahrain Dammam Jeddah Madinah	4E	9	X	x	х		15L 33R 15R	PA1 PA1 PA1	x	B747	4205 340 4205	x x		x	x x	L			x	X	x x x	x	x :	× ×	x x x x x x x	×	x x x	x
SYRIAN ARAB REPUBLIC									33L	PA1		B 747	390	Х																
OSAP ALEPPO/Aleppo Intl RS	OLBA OSDI	Beirut Damascus	4C 4D	67	x	x			09 27	NINST PA2		A300	2900 160	×	×	X		X L			x	x	x x	х	x x		x x		Х	
OSLK BASSELAL- ASSAD/Latakia RS	OSAP	Damascus Aleppo	4D	45					17 35	NPA NINST NPA		A 300	2800 160		X X	x		X L					X		X X		X X		X	
OSDI DAMASCUS/Damascus Intl RS	OSAP OJAI OJAM OLBA LCLK OSLK	Aleppo Amman Amman Beirut Larnaka Latakia Bassel El-Assad	4E	9-8	x	x	х		05L 23R 05R 23L	NPA PA2 PA1 PA2 NPA PA2 NINST PA2	x x	B 747	3600 360 3600 360	x x x	×	X X	Х	X L	. x		x	x	x x x	x	x :		x x x x		Х	x

3-AOP 1-22 MID FASID – AOP-1

CITY/AERODROME/USE VILLE/AERODROME/EMPLOI CIUDAD/AERODROMO/USO	AERODR AERODR DEGAC AERODR	RNATE DROMES COMES DE GEMENT COMOS DE			ODROI ODROI				CA	PHYSICAL CHA RACTERISTIC CARACTERÍS	QUES F	PHYSIQUES		AIDE	DIO AID S RAD DAYUD	Ю		All	LIGHT DES LU UDAS	JMINE	USES					ARKINO MARQI ÑALAM				RVR
	ALIER	INATIVA	RC	RFF	A P	T W R	A T	A F I S	RWY NO PISTE NO PISTA NO	RWY TYPE TYPE DE PISTE TIPO DE PISTA	T W Y	RWY LENGT LONG. DE PISTE LONG DE PISTA PAV. STRENGTH RESISTANCI RESIST. PAVIM.		PA	NPA		P S		w		T TE C			E	C T L H M R	D	S A S M T G	w	H L D	T MEDINZDD
1		2	3	4		5	i .		6	7	8	9		ı	10					11		-				12	I	ı		13
UNITED ARAB EMIRATES OMAA ABU DHABI/Abu Dhabi Intl RS	OBBI OMAL OTBD OMDB OMSJ OOMS	Bahrain Al Ain Doha Dubai Sharjah Muscat fUJAIRA	4E	9	x	×	×		13 R 31 L 13 L 31 R	PA1 PA3 PA3 PA1	×	410 B747 39 41 B747 3	00	× × ×		x x	× × ×	L		x x x x	x x x x x x	x x	x	x x		x x			x x	x x x x x x x x x x x x x x x x x x x
OMAL ALAIN/AI Ain Intl RS	OMAA OBBI OTBD OMDB OMSJ OOMS	Abu Dhabi Bahrain Doha Dubai Sharjah Muscat fUJAIRA	4E	9	x	x	x		01 19	PA1 NPA	x	40 B 747 3	90	×	x	x		L	x x		x x						x :			x

MID FASID – AOP-1 3-AOP 1-23

CITY/AERODROME/USE VILLE/AERODROME/EMPLOI CIUDAD/AERODROMO/USO	AERODA DEGAC AERODA	RNATE DROMES ROMES DE GEMENT ROMOS DE		AERO					CA	PHYSICAL CHA RACTERISTIC CARACTERÍS	QUES I	PHYSIQU	JES	AID	ADIO AII DES RAI	DIO			AID		JMINE	IDS EUSES IOSAS				N	RKIN(I MARQI MALAM	UES				RVR
	ALTER	NYATIVA	RC	RFF	A P	T W R	A T I S	A F I S	RWY NO PISTE NO PISTA NO	RWY TYPE TYPE DE PISTE TIPO DE PISTA	T W Y	RWY L LONG. PISTE DE PIS PAV. STREN RESIS' RESIS' PAVIM.	LONG. STA IGTH TANCE T.	PA	NPA	Т	P A	SA	V A		L D	T T E C		D E S	L	Н	D	S S T	М	T H W L Y D		T MEDINZDD
1		2	3	4			5		6	7	8		9		10	1				1	11	I					12					13
OMDB DUBAI/Dubai Intl RS	OMAA OMAL OBBI OTBD OOMS OOSA OMSJ	Abu Dhabi Al Ain Bahrain Doha Muscat Salalah Sharjah	4E	9	x	×	X		12L 30R 12R 30L	PA3 PA3 PA2 PA2	x x x	B747	4000 390 4000 390	x x x		×	× × ×		L L	x x	< х < х	X X X X X X X X X X X X X X X X X X X	<	x x x x x x x	x	x x	x x x x	х	x x	x x x x x x x x	.	x x x x x x x x x x x
OMFJ FUJAIRAH/Fujairah Intl RS	OMAA OMAL OMDB OMSJ OOMS	Abu Dhabi Al Ain Dubai Sharjah Muscat	4E	9	x	x	х		11 29	NPA PA1		B 747	3750 390	x	x	x	x	x	L L	x x			×			X		x	x x	× ×		x
OMRK RAS AL KHAIMAH/Ras Al Khaimah Intl RS	OMAA OMAL OTBD OMDB OMSJ	Abu Dhabi Al Ain Doha Dubai Sharjah	4E	9	x	x			16 34	NPA PA1		В 747	3750 390	x	x	××		x	L L	x x		x	×	x			x	x	X X	хх		x

3-AOP 1-24 MID FASID – AOP-1

CITY/AERODROME/USE VILLE/AERODROME/EMPLOI CIUDAD/AERODROMO/USO	AEROI AERODE DEGA	ERNATE DROMES ROMES DE GEMENT ROMOS DE RNATIVA		AERO					CA	PHYSICAL CH. ARACTERISTIC CARACTERÍS	QUES	PHYSIQI	JES	AID	ADIO AI DES RAI DIOAYU	DIO			IDES	HTING A LUMINE S LUMIN	USES				MARKIN MARC EÑALA	QUES	3			RVR
			RC	RFF	A P P	T W R	A T I S	A F I S	RWY NO PISTE NO PISTA NO	RWY TYPE TYPE DE PISTE TIPO DE PISTA	T W Y	LONG. PISTE DE PIS PAV. STREN	LONG. STA NGTH TANCE T.	PA	NPA	Т		S V A A	w		S T T T E C B	-	E	C T L H M F		S S T	М	T W Y	L	T MED IN
1		2	3	4			5		6	7	8		9		10					11					1	2				13
OMSJ SHARJAH/Sharjah Intl RS	OMAA OMAL OBBI OTBD OMDB OOMS	Abu Dhabi AL Ain Bahrain Doha Dubai Muscat Ras al Khaimah	4E	9	x	х	x		12 30	NPA PA2	х	B747	4060 390	x x		x	×	L		x x	× ×××		x x		< x < x			×		x
YEMEN																														
OYAA ADEN/Aden Intl RS	HHAS HFFF OYHD OYRN OYSN	Asmara Djibouti Hodeidah Mukalla (Riyan) Sana'a	4E	9	x	x			08 26	NPA PA1	x	B747	3100 350	x	х	х	x	X L			x	x	x x	×	< x		x x	x	X	x
OYHD HODEIDAH/Hodeidah RS	OYA`A OYSN OYTZ	Aden Sana'a Taiz	4E	9	х	х			03 21	NPA NPA	х	B747	3000 260		x x	х		X L	×		x	x	x x	x >			x x	x	x	

MID FASID – AOP-1 3-AOP 1-25

CITY/AERODROME/USE VILLE/AERODROME/EMPLOI CIUDAD/AERODROMO/USO	ALTERNAT AERODROM AERODROME DEGAGEME AERODROMC ALTERNATI	MES ES DE ENT DS DE		RODRO				CA	PHYSICAL CHARACTERISTIC	QUES I	PHYSIQUE		AID	DIO AII ES RAI IOAYUI	OIO		AII	LIGHTIN DES LUN UDAS LU	IINEUS	SES			I	MARQ	GAIDS UES IIENTO			F	RVR
	ALI LIMATI	R	C RFF	A P	T W R	A T I	A F I S	RWY NO PISTE NO PISTA NO	RWY TYPE TYPE DE PISTE TIPO DE PISTA	T W Y	RWY LEN LONG. DE PISTE LO DE PISTA PAV. STRENG RESISTA RESIST. PAVIM.	E DNG. A	PA	NPA	Т	P S			D T	S T T T C B		Е	C T L H M R	D	S AS M	1 V	H / L D	D	M E I N D D
1	2	3	4			5		6	7	8		9		10				1						12					13
OYRN MUKALLA/Riyan RS OYSN SANA'A/Sana'a Intl		en 4f deidah ddah		x				06 24 18 36	NPA NPA PA1 NPA	x	B747	3000 260 3600 290	x	x x	×	× × ×	L	x x x	>		×	x	x x x x x x x x x	x	x	х	× ×	x	
OYTZ TAIZ/Ganad RS	OYHD Hoo	en 4f bouti deidah na'a	≣ 9	x	×			01 19	NPA NPA	x	B747	3000 290		x x	x	×		х	>	<	x	x x	x x			x x	× ×		

AOP SG/5 Appendix 3B to the Report on Agenda Item 3

MID FASID – CNS-3 4-CNS 3-1

TABLE CNS 3 — RADIO NAVIGATION AIDS (MID REGION)

TABLA CNS 3 – AYUDAS PARA LA RADIONAVEGACIÓN (REGIÓN MID)

EXPLANATION OF THE TABLE

Column

- Name of the country, city and aerodrome and, for en-route aids, the location of the installation.
- 2 The designator number and runway type:
 - NPA non-precision approach
 - PA-1 precision approach runway, Category I
 - PA-2 precision approach runway, Category II
 - PA-3 precision approach runway, Category III
- The functions carried out by the aids appear in columns 4 to 8 and 10 to 12:
 - A/L Approach and landing
 - T Terminal
 - E En-route
- 4 ILS Instrument landing system. Roman numeral I and II indicate the acting category of the ILS, I, II or III. (I) indicates that the facility is implemented

The letter "D" indicates a DME requirement to serve as a substitute for a marker beacon component of an ILS

Note.—Indication of category refers to the standard of facility performance to be achieved and maintained in accordance with pertinent specifications in ICAO Annex 10 and not to the specifications of the ILS equipment itself, which are not necessarily the same.

An asterisk (*) indicates that the ILS requires a Category II signal quality, but without reliability and availability provided by redundant equipment and automatic changeover.

- 5 Radio beacon localizer, be it associated with an ILS or to be used as an approach aid to an aerodrome.
- 6 Radiotelemetrical equipment. When an "X" appears in column 6 in line with the VOR in column 7, this indicates the need that the DME be installed at a common site with the VOR.
- 7 VOR VHF omnidirectional radio range.
- 8 NDB Non Directional Beacon
- The distance and altitude to which signal protection of the VOR or VOR/DME are required, indicated in nautical miles (NM) and in thousands of feet.
- 10, 11 GNSS-global navigation satellite system (includes GBAS and SBAS).

GBAS (ground-based augmentation system) implementation planned to be used in precision approach and landing CATI, CATII, CAT III.

4-CNS 3-2 MID FASID – CNS-3

SBAS (Satellite-based augmentation system) implementation planned to be used for route navigation, for terminal, for non precision approach and landing. An "X" indicates service availability,; exact location of installation will be determined.

Note.- GPS receiver is under standard rules and ABAS (aircraft-based augmentation system)

12 Remarks

Note.- Columns 5 to 12 use the following symbols:

X- Required but not implemented

XI- Required and implemented

EXPLICATION DU TABLEAU

(To be completed by HQ)

TABLE CNS 3

Station	RWY Type	Function						Coverage	GN	ISS	REMARKS
			ILS	L	DME	VOR	NDB		GBAS	SBAS	OBSERVACIONES
1	2	3	4	5	6	7	8	9	10	11	12
AFGHANISTAN											
GHAZNI		E				×		200/45			
KABUL/Kabul	11 NPA 29 PA 1	A/L A/L T E	l*	Х	X X X	X X X		300/45			
KANDAHAR/Kandahar	05 NPA 23 NPA	A/L A/L T E		X		X X X		300/45 300/45			
BAHRAIN											
BAHRAIN/Bahrain Intl	12R NPA 30L NPA				X I X I	X I X I					
	12L PA2 30R PA2	A/L A/L	II (I) II (I)	X	XI XI	XI XI		300/45			
EGYPT											
EL-ARISH/ El-Arish Int'l	16 NPA 34 NPA	A/L			ΧI	ΧI		150/45			
ASYUT/ Asyut Int'l	13 NPA 31 NPA	A/L E			ΧI	ΧI		200/45			
ALEXANDRIA/ Alexandria Intl	04 PA 1 22 NPA	A/L E	l*		XI XI	XI XI	ΧI	100/45 150/45			
	18 NPA 36 NPA										

4-CNS 3-4 MID FASID – CNS-3

Station	RWY Type	Function						Coverage	GN	ISS	REMARKS
			ILS	L	DME	VOR	NDB		GBAS	SBAS	OBSERVACIONES
1	2	3	4	5	6	7	8	9	10	11	12
CAIRO/ Almaza Int.	18 NPA 36 NPA	A/L					ΧI	25/45			
	05 NINST 23 NINST										
ALEXANDRIA/ Borg El Arab Int'l	32 PA 1 14 NPA	A/L T	I* (I) D	Х	ΧI	ΧI	ΧI	100/45			
CAIRO/Cairo Intl	05R PA 2 23R PA 2	A/L A/L	 (1)	X X	ΧI	ΧI		150/45			
	23L PA 2 05L PA 2	A/L A/L	II (I) II (I)	X X	ΧI	ΧI		200/45			
	16 NPA 34 NPA	T E									
HURGHADA/ Hurghada Intl	16 NPA 34 PA 2	A/L T E	l*(I)		XI XI	XI XI		100/45			
LUXOR/ Luxor Intl	02 NPA 20 PA 1	A/L T E	I* (I)		XI XI	XI XI		150/45			
MARSA ALAM/ Marsa Alam Int'i	15 NPA 33 NPA	A/L			ΧI	ΧI		150/45			
SHARK EL OWEINAT/ Shark El Oweinat Int'l	01 NPA 19 NPA	L					ΧI	100/45			
PORT –SAID/ Port –Said Int'I	10 NPA 28 NPA	L			ΧI	ΧI		200/45			
ST. CATHERINE/ St. Catherine Intl	17 NPA 35 NINST	L					ΧI	150/45			
SHARM EL SHEIKH/ Sharm El Sheikh Intl	04L PA1 22R NPA	A/L T	l (II)	Х	XI XI	XI XI	ΧI	100/45 200/50			
	04R NPA 22L NPA	E									

Station	RWY Type	Function						Coverage	GN	ISS	REMARKS
			ILS	L	DME	VOR	NDB		GBAS	SBAS	OBSERVACIONES
1	2	3	4	5	6	7	8	9	10	11	12
ASWAN/ Aswan Inti	17 PA1 35 PA1	A/L T E	II	Х	XI XI	XI XI		150/45			
TABA/ Taba Int'l	04 NPA 22 NPA	A/L T			Х	ΧI	ΧI	150/45 100/45			
IRAN, ISLAMIC REPUBLIC OF											
ABADAN	32L PA 1	A/L E	l* (I)		ΧI	ΧI		200/45			
AHWAZ	30 PA 1	A/L E	l* (I)		ΧI	ΧI		300/45			
ARDABIL	31 33 PA 1	A/L E	l* (l)		ΧI	ΧI		200/45			
ASALOYEH	30 PA 1	A/L E	l*		ΧI	ΧI		300/45			
BANDAR ABBAS/Intl	21L PA1	A/L E	l* (I)		ΧI	ΧI		200/45			
BANDAR LENGEH	NPA	A/L E			ΧI	ΧI		200/45			
BANDAR MAHSHAHR / MAHSHAHR	NPA	A/L E			ΧI	ΧI		300/45			
BIRJAND		Е			ΧI	ΧI		300/50			
BOJNORD	NINST	E			ΧI	ΧI		150/45			
BUSHEHR	NPA 30 PA2	A/L E	l*		ΧI	ΧI		300/45			
CHAH BAHAR / KONARAK	NPA	A/L E			ΧI	ΧI		200/45			
DARBAND		E			ΧI	ΧI		300/45			
DEH-NAMAK		Е			ΧI	ΧI		300/45			

4-CNS 3-6 MID FASID – CNS-3

Station	RWY Type	Function						Coverage	GN	ISS	REMARKS
			ILS	L	DME	VOR	NDB		GBAS	SBAS	OBSERVACIONES
1	2	3	4	5	6	7	8	9	10	11	12
ESFAHAN / Shahid Beheshti Intl	26R PA 1	A/L E	l*(I)		ΧI	XI		300/45			
HAMADAN	NPA	A/L E			ΧI	ΧI		200/45			
ILAM	NPA	A/L E			ΧI	ΧI		300/45			
IRAN-SHAHR	NPA	A/L E			X	Х		300/45			
JAM/TOHID	NPA	A/L			ΧI	ΧI		300/45			
KARAJ / PAYAM	NPA	A/L			ΧI	ΧI		200/45			
KERMAN	NPA 34 PA1	A/L E	I *(I)		ΧI	ΧI		200/45			
KERMANSHAH / Shahid Ashrafi Esfahani	29 PA1	A/L E	l* (I)		ΧI	ΧI		300/45			
KHARK ISLAND /Khark	NPA	A/L E			ΧI	XI		300/45			
KHORAM ABAD	29 PA 1	A/L E	l*		ΧI	ΧI		200/45			
KISH ISLAND	NPA	A/L E			ΧI	XI		200/45			
MALAYER		Е			ΧI	ΧI		300/45			
MASHHAD / Shahid Hashemi Nejad Intl	31R PA1	A/L E	l* (I)		ΧI	ΧI		300/45			
NOSHAHR	NPA	A/L E			х	Х		200/45			
OMIDIYEH	NPA	A/L			ΧI	ΧI		200/45			
RASHT	27 PA 1	A/L E	I* (I)		ΧI	ΧI		300/45			
SABZEVAR	NPA	A/L E			ΧI	ΧI		300/45			

Station	RWY Type	Function						Coverage	GN	ISS	REMARKS
			ILS	L	DME	VOR	NDB		GBAS	SBAS	OBSERVACIONES
1	2	3	4	5	6	7	8	9	10	11	12
ANARAK		Е			ΧI	ΧI		300/45			
SANANDAJ	NPA	A/L E			ΧI	XI		200/45			
SARI/Dashte-Naz	NPA	A/L E			ΧI	XI		300/45			
SAVEH		Е			XII	X		300/45			
SHIRAZ / Shahid Dastghaib Intl	29L PA 1	A/L E	l* (l)		ΧI	ΧI		300/45	Х		
SIRJAN	NPA	A/L E			ΧI	XI		200/45			
TABRIZ Intl	30R PA 1	A/L E	l* (l)		ΧI	XI		200/45			
TEHRAN/Imam Khomaini Intl	29R PA 2	A/L	II* (I)		ΧI	XI		300/45			
TEHRAN/Mehrabad Intl	29L PA 1	A/L E	I* (I)	ΧI	ΧI	XI		300/45	x		
UROMIYEH	NPA 21 PA1	A/L E	l* (l)		ΧI	XI		200/45			
YAZD / Shahid Sadooghi	NPA	A/L E			ΧI	XI		300/45			
ZAHEDAN	NPA 35 PA1	A/L E	l* (l)		ΧI	XI		200/45			
ZANJAN	NPA	E			ΧI	ΧI	ΧI	200/45			
IRAQ											
AIN ZALAH		E			Х	Х		100/50			

4-CNS 3-8 MID FASID – CNS-3

Station	RWY Type	Function						Coverage	GN	ISS	REMARKS
			ILS	L	DME	VOR	NDB		GBAS	SBAS	OBSERVACIONES
1	2	3	4	5	6	7	8	9	10	11	12
BAGHDAD/ Saddam Baghdad Int'l	15R PA 2 33L PA 2 15L PA 2 33R PA 2	A/L A/L A/L A/L E	II (I) II (I) II (I) II (I)	X X X	X X X X	X X X X		200/45			
BASRAH/Intl	14 PA 2 32 PA 2	A/L A/L	II (I) II (I)	X X	X X	Х					
	02 F/\ 2	E	11 (1)	^	^	X		300/45			
HASHIMIYA		E			х	Х		200/45			
(HADITHA)		E			x	х		100/50			
MANDALY		E									
MOSUL	PA 2 1	A/L		Х	X	X					
SAMARA		E			Х	Х		200/45			
HAWIJA		E			х	Х		100/50			
SHATRA		E			х	Х		100/50			
ISRAEL											
ELAT/Elat	03 NPA 21 NINST	A/L E			XI XI X	XI XI X		300/45			
HAIFA/Haifa	16 NINST 34 NINST										
JERUSALEM/Atarot	12 NINST 30 PA 1	A/L A/L	l*								
METZADA		Е			Х	Х		150/45			

Station	RWY Type	Function						Coverage	GN	ISS	REMARKS
			ILS	L	DME	VOR	NDB		GBAS	SBAS	OBSERVACIONES
1	2	3	4	5	6	7	8	9	10	11	12
NATANIA		E			х	х		150/45			
OVDA/Intl	20R NPA	A/L	ı		х	Х		150/50			
	02L NINST										
TEL AVIV/Ben Gurion	03 NPA 21 NINST	A/L			XI XI	XI XI					
	08 NINST 26 PA 1	A/L A/L	l* (l) l* (l)	X X	XI XI	ΧI					
	12 PA 1 30 NPA	E E	()		XI XI	XI XI					
	0011171				7.1	X		150/50 200/50			
TEL AVIV/Sde-Dov	03 NINST 21 NINST	A/L A/L									
ZOFAR		E			Х	Х		150/45			
JORDAN											
AMMAN/MARKA	24 PA 1	A/L E	I (I)	ΧI	XI X	XI XI	X	150/50	X		
AMMAN/Queen Alia	08R NPA	A/L			ΧI	ΧI			X		
	26L PA 2 1 08L N PA 1	A/L A/L	l*	ΧI	XI XI	XI XI	X				
	26R NPA1	A/L			XI	XI	_				
AQABA/ Aqaba king	02 01 PA 1	A/L	l*	ΧI	ΧI	ΧI	X	200/50	×		
Hussein		E			Х	Х		200/50			
METSA		Е			Х	Х		150/50			
QATRANEH		E			х	х		100/50			

4-CNS 3-10 MID FASID – CNS-3

Station	RWY Type	Function						Coverage	GN	ISS	REMARKS
			ILS	L	DME	VOR	NDB		GBAS	SBAS	OBSERVACIONES
1	2	3	4	5	6	7	8	9	10	11	12
KUWAIT											
KUWAIT/Intl	15R PA 2 33L PA 2 15L PA 2 33R PA 2	A/L A/L A/L A/L T E	II (I) II (I) II (I) II (I)	XI XI	XI XI XI XI XI	XI XI		300/50 300/50			
LEBANON											
BAYSUR		E				×		180/40			
BEIRUT/Beirut Intl	48 16 PA 1 21 17 PA 1 03 PA 1 21 PA1	A/L A/L A/L E AL	I* (I) D I* (I) D I* (I) D I* (I) D	X X X	XI XI XI XI	XI XI XI XI		150/45			
CHEKKA		E			Xi	ΧI		80 150/50			
SAIDA KHALDE		E/T			Χį	ΧI		150/50			
BOD		E/T					XI	150			
ВАВ		E/T					XI	150			
OMAN											
HAIMA		Е			ХΙ	ΧΙ		200/45			
IZKI		Е			ΧΙ	ΧΙ		200/45			
MARMUL		Е			ΧI	ΧI		200/45			
MUSCAT/Seeb Intl	08 PA 1 26 PA 1	A/L A/L E	I* (I) D I* (I) D		XI XI XI	ΧI		200/45			
SALALAH/Salalah	07 NPA 25 PA 1	A/L A/L E	I* (I) D		XI XI XI	XI XI XI		200/45			

Station	RWY Type	Function						Coverage	GN	ISS	REMARKS
			ILS	L	DME	VOR	NDB		GBAS	SBAS	OBSERVACIONES
1	2	3	4	5	6	7	8	9	10	11	12
SUR		E			ΧΙ	ΧΙ		200/45			
QATAR											
DOHA/Doha Intl	16 NPA 34 PA 1	A/L A/L E	l* (I)	Х	X X X	X X X		300/45			
SAUDI ARABIA											
AL JOUF	10 NPA 28 NPA 28 PA 1	A/L A/L A/L T	 *		XI XI XI X	XI XI XI X		300/50			
AL SHIGAR		E			ΧI	ΧI		300/50			
ARAR	10 NPA 28 NPA	A/L A/L T E			XI XI X XI	XI XI X XI		300/50			
ВАНА	07 NPA 25 NPA 25 NPA	A/L A/L A/L			XI XI	XI XI					
	25 PA 1	A/L T	l*	X	XI X	XI X		300/50			
BIR DURB		E			Х	Х		300/50			
BISHA	18 NPA 36 NPA 18 PA1	A/L A/L A/L T E	 *		XI XI X X	XI XI X		300/50			
BOPAN		Е			ΧI	ΧI		300/50			

4-CNS 3-12 MID FASID – CNS-3

Station	RWY Type	Function						Coverage	GN	ISS	REMARKS
			ILS	L	DME	VOR	NDB		GBAS	SBAS	OBSERVACIONES
1	2	3	4	5	6	7	8	9	10	11	12
DAFINAH		E			ΧI	XI		300/50			
DAMMAM (King Fahad Intl)	16L PA 1 34R PA 1 16R PA 1 34L PA 1	A/L A/L A/L A/L T E	1 (I) 1 (I) 1 (I) 1 (I)		XI XI XI XI XI	XI XI XI XI XI		300/50			
GASSIM	15 NPA 33 NPA 15 PA 1	A/L A/L A/L T E	 *		XI XI X X	XI XI X		300/50			
GURIAT	10 NPA 28 NPA 28 NPA	A/L A/L A/L T E		X	XI XI X X	XI X X X		300/50			
HAFR AL-BATIN	16 NPA 34 NPA	A/L A/L T E			XI XI X XI	XI XI X XI		300/50			
HAIL	18 NPA 36 NPA 18 PA 1	A/L A/L A/L T E	*		XI XI X X	XI XI X		300/50			
HALAIFA		Е			ΧI	ΧI		300/50			

Station	RWY Type	Function						Coverage	GN	ISS	REMARKS
			ILS	L	DME	VOR	NDB		GBAS	SBAS	OBSERVACIONES
1	2	3	4	5	6	7	8	9	10	11	12
JEDDAH/King Abdul Aziz Intl	16R PA 2 34L PA 2 16L PA 1 34R PA 1 16C PA 2 34C PA2	A/L A/L A/L A/L A/L T E	(1) (1) * (1) * (1) (1) (1)		XI XI XI XI XI XI	XI XI XI XI XI XI		300/50			
JUBAIL	17 NPA 35 NPA 35 PA 1	A/L A/L A/L T	l*		×	X X		300/50			
MADINAH/Prince Mohammad Bin Abdulaziz	17 PA 1 35 PA 1 36 PA 1 18 NPA	A/L A/L A/L A/L T E	* * *	××	XI XI XI XI XI	XI XI XI XI XI		300/50			
MAGALA		E			ΧI	ΧI		300/50			
RABIGH		E			ΧI	XI		300/50			
RAFHA	11 NPA 29 NPA	A/L A/L T E			XI XI X XI	XI XI X X		300/50			
RAGHBA		E			ΧI	ΧI		300/50			
RIYADH/King Khalid Intl	15L PA 1 33R PA 1 15R PA 1 33L PA 1	A/L A/L A/L A/L T E	* () * () * () * ()		XI XI XI XI XI	XI XI XI XI XI		300/50			

4-CNS 3-14 MID FASID – CNS-3

Station	RWY Type	Function						Coverage	GN	ISS	REMARKS
			ILS	L	DME	VOR	NDB		GBAS	SBAS	OBSERVACIONES
1	2	3	4	5	6	7	8	9	10	11	12
TURAIF	10 NPA 28 NPA	A/L A/L T E			XI XI X	XI XI X XI		300/50			
WADI AL-DAWASIR	10 NPA 28 NPA 10 PA 1	A/L A/L A/L T E	l*		XI XI XI X	XI XI X XI		300/50			
WEDJH	15 NPA 33 NPA 33 NPA 33 PA 1	A/L A/L A/L A/L T E	l*	X	XI XI X XI	XI XI X XI		300/50			
YENBO	10 NPA 28 NPA 28 PA 1	A/L A/L A/L T E	l*		XI XI XI X	XI XI X XI		300/50			
SYRIAN ARAB REPUBLIC											
ALEPPO/Neirab	27 N PA2	A/L E		Х		X X		150/50			
DAMASCUS/Intl	05L NPA2 23R PA 4 2 05R NPA2	A/L A/L A/L E	l* (I)	x	X X X	X X X		150/50			
KARIATAIN		E			х	Х		150/50			

Station	RWY Type	Function						Coverage	GN	ISS	REMARKS
			ILS	L	DME	VOR	NDB		GBAS	SBAS	OBSERVACIONES
1	2	3	4	5	6	7	8	9	10	11	12
LATAKIA/Bassel -Al- Assad	17 NPA	A/L		Х	Х	Х					
TANF		Е				Х		160/40			
UNITED ARAB EMIRATES											
ABU DHABI/Abu Dhabi Intl	13 PA 1 31 PA 3	A/L A/L E	I* (I) III (I)		XI XI XI	XI XI XI		300/45			
AL AIN/AI Ain Intl	01 PA 1 19 NPA	A/L A/L E	 *		XI XI XI	XI XI XI		300/45			
DUBAI/Dubai Intl	12L PA 3 30R PA 3 12R PA 2 30L PA 2	A/L A/L A/L A/L E	III (I) III (I) II (I) II (I)		X I X I X I X I	X I X I X I X I		300/45			
FUJAIRAH/Fujairah Intl	11 NPA 29 PA 1	A/L A/L T	l* (I)		XI XI XI	XI XI XI		40/25			
RAS AL KHAIMAH/Ras al Khaimah Intl	16 NPA 34 PA 1	A/L A/L	l* (I)	X	ΧΙ	ΧΙ					
SHARJAH/Sharjah Intl	12 NPA 30 PA 1	A/L A/L E	l* (I)	ΧΙ	X I X I	X X XI		300/45			

4-CNS 3-16 MID FASID – CNS-3

Station	RWY Type	Function						Coverage	GN	ISS	REMARKS
			ILS	L	DME	VOR	NDB		GBAS	SBAS	OBSERVACIONES
1	2	3	4	5	6	7	8	9	10	11	12
YEMEN											
ADEN/Intl	08 NPA 26 PA 1	A/L A/L E	l* (I)	Х	X X X	X X X		300/50			
AL-GHAIDAH		E			Х	Х		300/50			
HODEIDAH	03 NPA 21 NPA	A/L A/L E		X X	X X X	X X X		200/45			
RIYAN/Intl	06 NPA 24 NPA	A/L A/L E			X X X	X X X		300/50			
SANA'A/Intl	18 PA 1 36 NPA	A/L A/L E	I* (I)	х	X X X	XI XI XI		200/45			
SIYUN		E			х	х		150/45			
TAIZ/Intl	01 NPA 19 NPA	A/L A/L E		X X	X X X	X X X		200/45			

Appendix to Table CNS 3 GEOGRAPHIC SEPARATION CRITERIA FOR VOR, VOR/DME AND ILS INSTALLATIONS

- 1.1 VHF omnidirectional radio range (VOR)/distance measuring equipment (DME)
 - 1.1.1 In the selection of frequencies for VOR and/or VOR/DME the following criteria are to be applied:
 - a) for VORs required to serve en-route flight operations, geographic separations of:
 - 1) for co-channel, 1020 km (550 NM) between 200 NM/45K (facilities' service distance/ratio of facilities' ERPs) facilities and 1 330 km (720 NM) between 300 NM/45K facilities;
 - for adjacent channel, 410 km (220 NM);
 - b) for VORs required for use in terminal areas (40 NM/25K), geographic separations of:
 - 1) for co-channel, 370 km (200 NM);
 - 2) for adjacent channel*, 110 km (60 NM); and
 - c) for VORs required for use in approach and landing operations (25 NM/10K), geographic separation of:
 - 1) for co-channel, 240 km (130 NM);
 - 2) for adjacent channel*, 55 km (30 NM).
- 1.1.2 Detailed frequency assignment criteria for VOR are provided in Annex 10, Volume I, 3.3.2 and Attachment C to Part I, Sections 3.4. and 3.5, and Part II, Section 4.2 (see the note below).
- 1.1.3 Detailed frequency assignment criteria for DME are provided in Annex 10, Volume I, 3.5.3.3 and Attachment C to Part I, and Part II, Section 4.3 (see the note below).
 - 1.2 Instrument landing system (ILS)
- 1.2.1 Considering the density of ILS installations in the MID Region, the 325 km (175 NM) geographic separation for co-channel operation is to be applied.
- 1.2.2 Detailed frequency assignment criteria for ILS are provided in Annex 10, Volume I, 3.1.3.2, Attachment C to Part I, Section 3.5 and Part II, Section 4.2 (see the note below).

Note.—As a consequence of the restructuring of Annex 10 (see paragraph 6.50 of the report on Agenda Item 6) and following Amendment 71 to this Annex, Attachment C to Part I should be referred to as Attachment C to Volume I, and Part II of Volume I will constitute Volume V of Annex 10.

^{*} Based on 100 kHz channel spacing

AOP SG/5 Appendix 3C to the Report on Agenda Item 3

TABLE AOP 1 June 2005

CITY/AERODROME/USE	ALTERNATE AERODROMES	AERO	DROME		YSICAL CTERISTICS
		RC	RFF	RWY NO	RWY TYPE
1	2	3	4	6	7
AFGHANISTAN					
BAHRAIN					
OBBI BAHRAI/Bahrain int'I RS EGYPT	OMAA Abu Dhabi OMAL Al Ain OEDF Dammam OTBD Doha OMDB Dubai OXBK Kuwait OERK Riyadh OMSJ Sharjah	4E	10	12 R 30L 12L 30R	NPA NPA PA2 PA2
IRAN					
OIKB BANDAR ABBASS / Bandar Abbass RS	OMAA Abu Dhabi OBBI Bahrain OTBD Doha OMDB Dubai OISS Shiraz	4D	8	03R 21L 03L 21R	NPA PA1 NINST NINST
OIFM ESFAHAN/ Shahid Beheshti Int'I RS	OISS Shiraz OIII Tehran	4E	9	08L 26R 08R 26L	NPA PA1 NPA NPA

CITY/AERODROME/USE	ALTERN	IATE AERODROMES	AERO	DROME		/SICAL CTERISTICS
			RC	RFF	RWY NO	RWY TYPE
1		2	3	4	6	7
OIMM MASHAD/ Shahid Hashemi Nejad Int'l	OIII	Tehran	4D	9	13L 31R	NPA PA1
RS					13R 31L	NPA NPA
OISS SHIRAZ/Shiraz Intl	OBBI OIFM	Bahrain Esfahan	4D	9	11R 29L	NINST PA1
RS					11L 29R	NINST NPA
OITT TABRIZ/Tabriz	OIII OIFM	Tehran Esfahan	4D	9	12L 30R	NPA PA1
RNS					12R 30L	NINST NINST
OIIE TEHRAN/Emam Khomaini Intl	OISS OIFM OMDB	Shiraz Esfahan Dubai	4E	9	11L 29R	NPA PA2
	OKBK OMSJ OIII OBBI	Kuwait Sharjah Tehran Bahrain				
OIII TEHRAN/Mehrabad Intl RS	OMDB OIFM OKBK	Dubai Esfahan Kuwait	4E	9	11R 29L	NPA PA1
	OMSJ OISS OBBI	Sharjah Shiraz Bahrain			11L 29R	NPA NPA
OIZH ZAHEDAN/Zahedan Intl	OIKB OIMM	Bandar Abbass Mashhad	4D	8	17 35	NINST PA1
RS						
IRAQ						
ORBS BAGHDAD/ Baghdad Int'l	ORMM	Basrah Int'l	4E	9	15R 33L	NINST NINST
					15L 33R	NINST NINST
ORMM BASRAH/Basrah Int'l	ORBS	Baghdad Int'l	4E	9	14 32	NINST NINST

CITY/AERODROME/USE	ALTERN	NATE AERODROMES	AERO	DROME		YSICAL CTERISTICS
			RC	RFF	RWY NO	RWY TYPE
1		2	3	4	6	7
ISRAEL						
JORDAN						
OJAM AMMAN/Marka Int'I	OJAI	AMMAN/Queen Alia Int'I	4 E	8	06 24	NPA PA1
AS						
OJAI AMMAN/Queen Alia Int'l	OJAM	AMMAN/Marka Int'l	4 E	9	08R 26L	NPA PA1
RS					08L 26R	PA1 PA1
OJAQ AQABA/Aqaba int'I	OJAM	AMMAN/Queen Alia Int'l	4 D	7	01 19	PA1 NPA
RNS						
KUWAIT						
OKBK KUWAIT/Kuwait Int'l	ORBS OBBI	Baghdad Bahrain	4E	9	15R 33L	PA2 PA2
RS	ORMM OEDF	Basrah Dammam			15L	PA2
LEDANON	OERK	Riyadh			33R	PA2
LEBANON OLBA BEIRUT/Beirut Int'I	HECA	Cairo	4E	9	03	PA1
Airport	OSDI	Damascus Larnaca	46	9	21	PA1
RS					16 34	PA1 NINST
					17	PA1
					35	NINST
OMAN						

CITY/AERODROME/USE	ALTERI	NATE AERODROMES	AERO	DROME		YSICAL CTERISTICS
			RC	RFF	RWY NO	RWY TYPE
1		2	3	4	6	7
QATAR						
OTBD DOHA/DOHA Int'I	OBBI	BAHRAIN Int'I	4E	CAT9	16	NPA
RS					34	PA2
SAUDI ARABIA						
SYRIA						
OSDI DAMASCUS/Damascus int'I	OSAP ASLK	Aleppo Bassel Al-Assad	4E	CAT 8	23R 05/L	PA2 PA2
RS	AOLK	Dassel Al-Assau			23L	PA2
OCAD ALEDDO/Alegas Intil	0001	D	45	047.7	05R	PA2
OSAP ALEPPO/Aleppo Int'I	OSDI	Damascus	4D	CAT 7	09 27	PA2 PA2
OSLK LATTAKIA/Bassel Al-Assed int'l	OSDI OSAP	Damascus Aleppo	4D	CAT 5	17 35	NINST NINST
RS						
OSDZ DEIR ZZOR/Deir Zzor Int'l	OSDI	Damascus	4D	Local	10 28	NINST NINST
RS OSKL KAMISHLY/Kamishly Int'l	OSDI	Damascus	4D	Local	03	NINST
RS					21	NINST
UNITED ARAB EMIRATES						
YEMEN						

Column

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

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 Information not required.
- 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

AOP SG/5 Report on Agenda Item 4

REPORT ON AGENDA ITEM 4: FOLLOW UP DEFICIENCIES in the AOP field in the MID Region

- 4.1 The meeting was reminded that ICAO Secretary General had addressed the Ministers of Civil Aviation in State letters M 6/1-02/79 dated 27 September 2002 and M6/1 dated 15 July 2004 which enclosed individual lists of deficiencies pertaining to States concerned inviting their attention to resolve those deficiencies through the allocation of appropriate resources.
- 4.2 The meeting recognized that States were requested to formulate and review on a regular basis an action plan including the rationale for non-elimination of deficiencies.
- 4.3 The meeting recalled that an "Air Navigation Safety Working Group" was established in the MID Region as decided by MIDANPIRG/8 (Decision 8/51; *Safety of Air Navigation Services in the MID Region*), as a good tool to address the issue of deficiencies. The meeting was informed that the first meeting of ANS Working Group was held in Cairo on 21 23 February 2005.
- 4.4 The meeting was informed that The MIDANPIRG/9 adopted Conclusion 9/61 which would be presented to the ICAO Council for approval as follows:

CONCLUSION 9/61: AMENDMENT TO THE FORM USED FOR THE IDENTIFICATION, ASSESSMENT AND REPORTING OF AIR NAVIGATION DEFICIENCIES

That, with a view to analysing the rationale for non-elimination of air navigation deficiencies, ICAO considers the amendment of the uniform methodology for the identification, assessment and reporting of air navigation deficiencies to incorporate the revised form as in Appendix 6A to the report on Agenda Item 6.

- 4.5 The meeting noted that the proposed revised Form contained 4 different root causes that were retained as main rationales for non elimination of deficiencies:
 - F: the rationale for non-elimination is due to a **Finance** problem
 - H: the rationale for non-elimination is due to a lack of **Human** resources/expertise
 - S: the rationale for non-elimination is due to a **State** reason (military/political issue)
 - O: for **Other** unknown causes
- 4.6 Some information was made available by the Users, (IATA and IFALPA, during the meeting. Accordingly, a list of deficiencies in the AOP field was updated, prepared and presented. The meeting, while reviewing/updating the list, urged the States concerned to take appropriate action to resolve their respective listed deficiencies. In this regard the meeting adopted the list of deficiencies in the AOP field given in the **Appendix 4A** to the report on Agenda Item 4, and formulated the following Draft Conclusion:

DRAFT CONCLUSION 5/2: FOLLOW UP ELIMINATION OF DEFICIENCIES IN AOP FIELD IN THE MID REGION

That, concerned MID Region States provide information to the ICAO MID Regional Office on the actions taken to resolve any deficiencies, in particular critical areas related to aerodrome operational safety issues using the form contained in **Appendix 4A** to the report on Agenda Item 4.

AOP SG/5 Report on Agenda Item 4

- 4.7 In recognizing that keeping the list of deficiencies up-to-date by Regional Offices and PIRGs proved to be a challenging task and that the development of a MID air navigation deficiencies database could be a good tool to enhance the process of identification, assessment, reporting and elimination of deficiencies and allow authorized users to propose updates to their deficiencies on-line, therefore, the meeting was informed that MIDANPIRG/9 endorsed Conclusion 9/63 on DEVELOPMENT OF A MID REGION'S AIR NAVIGATION DEFICIENCIES DATABASE.
- 4.8 The meeting noted the information on the MID ANS WG revised Terms of Reference.
- 4.9 The meeting noted the information presented by IFALPA as an example of action carried out by a State to improve safety by eliminating the deficiencies reported by aerodrome users.

AOP SG/5 Appendix 4A to the Report on Agenda Item 4

Deficiencies in the AOP field AFGHANISTAN

Item	ldent	ification	1	Deficiencies			C	orrective Action	n	
No	Requirement	Facilities/ Services	Description Date first reported		Remarks/Rationa for non-eliminatio	4	Description	Executing body	Date of complete	Priority for action*
1	Annex 14 Vol. I FASID Table AOP-1 MID/3 RAN Rec. 1/3 ASIA/PAC 3 RAN, Rec.3/1	Kabul Intl. Airport	No VASIS on RWY 11/29	April 2000	Operations should be restricted to daylight VMC only	F H S	Operations should be restricted to daylight VMC only	DGCA	Dec. 2005	C
2	Annex 14 Vol. I FASID Table AOP-1 MID/3 RAN Rec. 1/3 ASIA/PAC 3 RAN, Rec.3/1	Kabul Intl. Airport	No ILS RWY 11/29	April 2000		F H S		DGCA	Dec. 2005	U

Deficiencies in the AOP field BAHRAIN

Item	Ident	ification		Deficiencies		Corrective Action					
No	Requirement	Facilities/ Services	Description Date first reported		Remarks/Rationale for non-elimination ¹	Description	Executing body	Date of complete	Priority for action*		
	NO DEFICIENCIES REPORTED										

Deficiencies in the AOP field EGYPT

Item	Identification		Deficiencies				Corrective Action				
No	Requirement	Facilities/ Services	Description	Date first reported	Remarks/Rationale for non-elimination ¹		Description	Executing body	Date of complete	Priority for action*	
1	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3, ASIA/PAC/3, Rec. 4/2, 4/10	Aswan Int'l Airport	First 200 m RWY 35 unusable. No displaced threshold markers	Sep. 2003		F H	Displaced threshold markers are required	EAC	Dec. 2005	U	
2	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3, ASIA/PAC/3, Rec. 4/2, 4/10	Aswan Int'l Airport	Inadequate runway markings	Sep. 2003		F H	RWY Markings need to be refurbished	EAC	Dec. 2005	A	
3	Annex 14 Vol. I FASID Table AOP-1 MID/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	Sep. 2002		F H	Rubber deposits are to be removed	CAC	June 2006	А	
4	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3, ASIA/PAC/3, Rec. 4/2, 4/10	Cairo Int'l Airport	RWY 05R lights have variable luminosity	April 2003		F	Lights to be rectified (Improved and be completely alleviated)	CAC	Dec. 2005	U	

⁽¹⁾ Rationale for non-elimination: "F"= Financial

Item	ldent	tification	Deficiencies				Corrective Action				
No	Requirement	Facilities/ Services	Description	Date first reported		Remarks/Rationale for non-elimination ¹		Executing body	Date of complete	Priority for action*	
6	Annex 14 Vol. I FASID Table AOP-1 MID/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.	Sep 2003	Problem exacerbated at night and when wet.	Н	Remove old markings	CAC	Dec2005	А	
7	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3, ASIA/PAC/3, Rec. 4/2, 4/10	Cairo Int'l Airport	Unreliable ILS glide slope operations for runway 05R	Sep. 2001	Abrupt glide slope fluctuations result in erratic aircraft pitch behavior	F	Plan to install a new ILS	CAC	Dec2005	U	
8	MID Basic ANP & FASID (Doc 9708)	Alexandria Int'l Airport	Runway is short and current distance is 7221 FT with runway all up weight maximum 68000kgs	July 2004	Cannot be served as an alternate	0	This restriction require runway upgrade and length extension CAA has no plans, at the time being, to upgrade the said runway as it is not possible, from the engineering point of view, to upgrade these runways. However, Borg el Arab Airport runway can be used for aircraft with Take off weight greater than 68 tones.	CAC	Dec2005	В	

⁽¹⁾ Rationale for non-elimination: "F"= Financial

Item	Ident	tification		eficiencies		Corrective Action					
No	Requirement	Facilities/ Services	Description	Date first reported	Remarks/Rationale for non-elimination ¹		Executing body	Date of complete	Priority for action*		
9	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3	Hurghada Int'l Airport	Apron & Taxiway lighting is inadequate	Sep. 2002	F	Apron &Taxiway lighting is to be improved	EAC	Dec. 2005	U		
10	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3	Hurghada Int'l Airport	Runway Marking inadequate	April 2003	F	Markings are to be improved	EAC	Dec2005	A		
11	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3	Hurghada Int'l Airport	Heavy rubber accretion on runway	Sep. 2002	F H	Rubber coats are to be removed	EAC	Dec2005	А		
12	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3	Luxor Int'l Airport	Runway surface rough with heavy rubber accretion	Sep. 2002	F H	Rubber deposits are to be removed and RWY Surface to be refurbished	EAC	Dec. 2005	A		
13	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3	Luxor Int'l Airport	PAPIS/VASIS not available	Sep. 2002	F H		EAC	Dec. 2005	U		
14	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3	Sharm El Sheikh Int'l Airport	RWY 04 surface rough and undulation with heavy rubber accretion	Sep. 2003	F H	Rubber deposits are to be removed and RWY Surface to be refurbished	EAC	Dec2005	А		

⁽¹⁾ Rationale for non-elimination: "F"= Financial

[&]quot;H"= Human Resources

Item No	Identification		Deficiencies				Corrective Action				
	Requirement	Facilities/ Services	Description	Date first reported	Remarks/Rational for non-elimination	4	Description	Executing body	Date of complete	Priority for action*	
15	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3	Sharm El Sheikh Int'l Airport	Taxiway & Apron lighting inadequate	Sep. 2003		F	Apron &Taxiway lighting is to be improved	EAC	Dec2005	U	

Deficiencies in the AOP field IRAN

Item	Identification		Deficiencies				Corrective Action				
No	Requirement	Facilities/ Services	Description	Date first reported		Remarks/Rationale for non-elimination ¹		Executing body	Date of complete	Priority for action*	
1	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3 MID/3, Conc.1/6, Rec. 1/3 ASIA/PAC 3 RAN, Rec.3/1	Mehrabad Int'l Airport	Precision approach lighting of RWY 29L has decreased to 600m due to highway interference	July 2001	Require is for ILS APP has increased to 1200m	F S O	Lighting needs to be reinstalled on supports (Under progress)	CAO	Dec. 2005	U	
2	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3 MID/3, Conc.1/6, Rec. 1/3 ASIA/PAC 3 RAN, Rec.3/1	Mehrabad Int'l Airport	Apron flood lighting is not adequate	April 2003		F H		CAO	Dec. 2005	U	
3	Annex 14 Vol. I FA SID Table AOP- 1 MID/3 Rec. 1/3 MID/3, Conc.1/6, Rec. 1/3 ASIA/PAC 3 RAN, Rec.3/1	Mehrabad Int'l Airport	Localizer Transmitter inoperative	Dec. 2004	ILS approach cannot be used in such a mountainous area and at night	FS		CAO	Dec2005	U	

⁽¹⁾ Rationale for non-elimination: "F"= Financial

Item	Identification		Deficiencies				Corrective Action				
No	Requirement	Facilities/ Services	Description	Date first reported	Remarks/Rationa for non-eliminatio	- 4	Description	Executing body	Date of complete	Priority for action*	
4	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3 MID/3, Conc.1/6, Rec. 1/3 ASIA/PAC 3 RAN, Rec.3/1	Mehrabad Int'l Airport	Taxiways markings inadequate	Nov. 2004	Impose difficulty on aircraft to maneuver	HF	Markings to be improved	CAO	Dec2005	C	

Deficiencies in the AOP field IRAQ

Item	Ident	ification	Deficiencies			Corrective Action				
No	Requirement	Facilities/ Services	Description	Date first reported	Remarks/Rationale for non-elimination ¹	Description	Executing body	Date of complete	Priority for action*	
			NO E	DEFICIENCIE	S REPORTED					

Deficiencies in the AOP field ISRAEL

Item	Item Identification		Е	Deficiencies			Corrective Action				
No	Requirement	Facilities/ Services	Description	Date first reported	Remarks/Rationale for non-elimination ¹		Description	Executing body	Date of complete	Priority for action*	
1	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3 ASIA/PAC/3, Rec. 4/10	Tel Aviv/Ben Gurion Int. Airport	No high speed turn off end of RWYs: 21/03 and RWY 26	Jan. 2003		S O		EDF	Dec. 2005	А	
2	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3 ASIA/PAC/3, Rec. 4/10	Tel Aviv/Ben Gurion Int. Airport	No taxiways to RWYs 26 and 21, and from 08 and 03	Jan. 2003	For RWYs 26 and 21, taxing is on active RWYS	S O		EDF	Dec. 2005	U	
3	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3 ASIA/PAC/3, Rec. 4/10	Tel Aviv/Ben Gurion Int. Airport	Centre light RWY 26too high from the asphalt may cause damage to tyres	Sep. 2004		S O	Resurfacing RWY 26 will commence October 2004. Runway will be closed for 5 months	EDF	Dec2005	U	

⁽¹⁾ Rationale for non-elimination: "F"= Financial

Item	Ident	tification	Г	Deficiencies			Corrective Action				
No	Requirement	Facilities/ Services	Description	Date first reported	Remarks/Rationa for non-eliminatio		Description	Executing body	Date of complete	Priority for action*	
4	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3 ASIA/PAC/3, Rec. 4/10	Tel Aviv/Ben Gurion Int. Airport	Parking position marking very poor, sometimes even confusing due to changes	Sep 2004		F	This will not improve until new apron is opened	EDF	Dec2005	A	
5	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3 ASIA/PAC/3, Rec. 4/10	Tel Aviv/Ben Gurion Int. Airport	Using visuals to runway 30 for arrivals and for departures	Feb. 2004		S H 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. 2005	U	
6	Annex 14 Vol. I FASID Table AOP-1 MID/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	Jan. 2003	Loop available at end of RWY 03	F S		EDF	Dec. 2005	A	

⁽¹⁾ Rationale for non-elimination: "F"= Financial

Item	Ident	ification	С	Deficiencies			Corrective Action				
No	Requirement	Facilities/ Services	Description	Date first reported	Remarks/Rationa for non-eliminatio		Description	Executing body	Date of complete	Priority for action*	
7	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3	Elat Int. Airport	No approach lighting	Jan. 2003	PAPI (RWY 03) and APAPI (RWY 21)	F		EDF	Dec. 2005	U	
8	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3	Elat Int. Airport	No taxiway	Jan. 2003		F		EDF	Dec. 2005	A	
9	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3	Elat Int. Airport	Aprons – limited space that is too close to runway	Jan. 2003		S O		EDF	Dec. 2005	U	
10	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3	Elat Int. Airport	Localizer (LOC) App. and DME plus PAPIS	Jan. 2003	VOR/DME (LOT) available. Unstable LOC App due to ground movement interference (Notamed) Note: Not recommended for use by big jets (wide-body/4 engines)	НО		EDF	Dec. 2005	A	

⁽¹⁾ Rationale for non-elimination: "F"= Financial

4A-13

Item	Ident	ification		Deficiencies			Corrective Action				
No	Requirement	Facilities/ Services	Description	Date first reported	Remarks/Rationa for non-eliminatio		Description	Executing body	Date of complete	Priority for action*	
11	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3	Ovda Int. Airport	Non-Standard taxiways lighting	Jan 2002		Н	Lightings are to be rectifies	IDF	Dec. 2005	U	
12	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3	Ovda Int. Airport	No approach lighting on RWY 02R/20L.	July 2000	Usually RWY 02L/20/20R in use (with non- standard PP. lights-SALS and PAPI) – available with VOR App.	F H	App. Lighting to be provided as soon as possible	IDF	Dec. 2005	U	
13	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3	Ovda Int. Airport	No lighted sign with RWY designators	Jan 2002		Н	Sign to be provided	IDF	Dec. 2005	U	
14	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3	Ovda Int. Airport	Threshold markings/lighting do not conform to ICAO SARPs.	July 2000		Н	To be rectified	EDF	Dec. 2005	A	
15	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3	Ovda Int. Airport	Limited parking space	Jan 2002	One wide-body plus 3 smaller aircraft Note: Recommended for operations with minima not less than alternate minima	H S O	Reconsider Apron planning	IDF	Dec. 2005	A	

⁽¹⁾ Rationale for non-elimination: "F"= Financial

Deficiencies in the AOP field JORDAN

Item	ldenti	fication	С	Deficiencies			Corrective Action				
No	Requirement	Facilities/ Services	Description	Date first reported	Remarks/Rationale for non-elimination ¹	Description	Executing body	Date of complete	Priority for action*		
			NO E	DEFICIENCIE	S REPORTED						

Deficiencies in the AOP field KUWAIT

Item	Item Identification			Deficiencies		Corrective Action				
No	Requirement	Facilities/ Services	Description	Date first reported	Remarks/Rationale for non-elimination ¹	Description	Executing body	Date of complete	Priority for action*	
			NO	DEFICIENCIE	S REPORTED					

Deficiencies in the AOP field LEBANON

Item	ldenti	fication	С	Deficiencies			Corrective Action				
No	Requirement	Facilities/ Services	Description	Date first reported	Remarks/Rationale for non-elimination ¹	Description	Executing body	Date of complete	Priority for action*		
			NO E	DEFICIENCIE	S REPORTED						

Deficiencies in the AOP field OMAN

Item	Item Identification			Deficiencies		Corrective Action				
No	Requirement	Facilities/ Services	Description	Date first reported	Remarks/Rationale for non-elimination ¹	Description	Executing body	Date of complete	Priority for action*	
			NO	DEFICIENCIE	S REPORTED					

Deficiencies in the AOP field QATAR

Item	ldenti	fication	С	Deficiencies		Corrective Action				
No	Requirement	Facilities/ Services	Description	Date first reported	Remarks/Rationale for non-elimination ¹	Description	Executing body	Date of complete	Priority for action*	
			NO E	DEFICIENCIE	S REPORTED					

Deficiencies in the AOP field SAUDI ARABIA

Item	ldenti	fication	1	Deficiencies		Corrective Action				
No	Requirement	Facilities/ Services	Description	Date first reported	Remarks/Rationale for non-elimination ¹	Description	Executing body	Date of complete	Priority for action*	
			NO I	DEFICIENCIE	S REPORTED					

Deficiencies in the AOP field SYRIA

Item	ldent	ification	С	eficiencies			Corrective Action				
No	Requirement	Facilities/ Services	Description	Date first reported	Remarks/Rationa for non-eliminatio	4	Description	Executing body	Date of complete	Priority for action*	
1	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3	Damascus int'l Airport	Difficulty parking B747- 400 and B777 at Stands A10 and A11	Sep. 2002	Syrian AIP Chart dated 15 May 2004 _ Ground surface Movement/Stands is not clear, while no explanatory table was attached State (ref. Fax dated 2 Mar. 05) advised that Difficulty parking B747-400 and B777 at stands A10 & A11 was solved	HS		DGCA	Dec. 2005	A	
2	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3	Damascus int'l Airport	DAM/DVOR 116 MHZ Out of Service	June 2004		F	The VOR/DME to be replaced	DGCA	Dec2005	A	
3	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3	Damascus int'l Airport	Runway surface rough and damaged. Runway markings unsatisfactory	Sep 2003		F H	RWY Surface to be repaired and refurbished, Markings are to be improved	Sep. 2003	Dec2005	A	

⁽¹⁾ Rationale for non-elimination: "F"= Financial

Item	ldent	ification	С	eficiencies			C	orrective Actio	n	
No	Requirement	Facilities/ Services	Description	Date first reported	Remarks/Rational for non-elimination	4	Description	Executing body	Date of complete	Priority for action*
4	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3	Damascus int'l Airport	Apron lighting inadequate	Sep.2003.		F H	Apron lighting is to be improved	DGCA	Dec 2005	U

Deficiencies in the AOP field U.A.E.

Item	Identi	fication		Deficiencies			C	orrective Acti	ion	
No	Requirement	Facilities/ Services	Description	Date first reported	Remarks/Rationa for non-eliminatio	1	Description	Executing body	Date of complete	Priority for action*
1	Annex 14 Vol. I FASID Table AOP-1 MID/3 Rec. 1/3 MID/3, Conc. 1/4	Dubai Int'l Airport	(X) Category II operations for Dubai -RWY 12L/30/R has been resumed. Category III is expected to take at least one year	Sep. 2002	Refer to CNS List of Deficiencies for same deficiency	S	(X) Completion of regulatory process, Refer to CNS descriptions on same deficiency	DCA	Dec. 2005	U

Deficiencies in the AOP field YEMEN

Item	ldent	ification		Deficiencies			Corrective Acti	ion						
No	Requirement Facilities/ Services		Description	Date first reported	Remarks/Rationale for non-elimination ¹	Description	Executing body	Date of complete	Priority for action*					
	NO DEFICIENCIES REPORTED													

REPORT ON AGENDA ITEM 5: CERTIFICATION OF AERODROMES IMPLEMENTATION FOLLOW UP IN THE MID REGION

- 5.1 Status of implementation of certification of aerodromes and safety management system at aerodromes in the MID Region
- 5.1.1 The meeting recalled that Annex 14 Volume I (Fourth Edition-July 2004) required States to certify their International aerodromes as of 27 November 2003, and that a regulatory framework is required to include the established criteria for the certification of aerodromes. As part of certification process, States should insure that the aerodrome operator has submitted an aerodrome manual for approval/acceptance, prior to granting an aerodrome certificate. A certified aerodrome shall have in operation a safety management system as of 24 November 2005. Meanwhile, all aerodromes open for public use are recommended to be certified in accordance with Annex 14 specifications as well as other relevant ICAO specifications.
- 5.1.2 The meeting was informed that the revised statement of Basic Operational Requirements and Planning Criteria (BORPC) for regional air navigation planning considered certification of aerodromes and safety management system as one of the operational requirement and planning criteria for aerodromes.
- 5.1.3 The meeting was informed that MIDANPIRG/9 meeting when reviewing the AOP SG/4 report has expressed its concern regarding the slow rate of progress in the implementation of related ICAO requirement and formulated Conclusion 9/2: Mandatory implementation of certification of International Aerodromes.
- 5.1.4 The meeting recalled that MID Regional Office invitation letter ref. ME 3/56.4 126 dated 26 April 2005 invited MID States to update information on the status of implementation of certification of their International aerodromes. Information was received from four States only and is contained in **Appendix 5A** to the report on Agenda Item 5.
- 5.1.5 Noting the information contained in Appendix 5A, the meeting formulated the following Draft Conclusion:

DRAFT CONCLUSION 5/3: STATUS OF IMPLEMENTATION OF CERTIFICATION OF AERODROMES

That, MID States not fully implementing certification of each of their international aerodromes are required to:

- a) provide reasons for non implementation;
- b) advise if they need ICAO assistance or not;
- provide information on the expected date for fully certifying each of their international aerodrome; and
- d) inform ICAO MID Regional Office on the above no later than 24 November 2005.
- 5.1.6 The meeting was of the view that there is a need to provide more detailed information on the status of implementation at each State's International aerodrome listed in the MID Basic Air Navigation Plan (Doc 9708). A form was developed as contained at **Appendix 5B** to the report on Agenda Item 5 that includes information received from four States (Bahrain, Kuwait, Oman and UAE) during the meeting. A regular follow up of the status of implementation of certification of aerodromes and safety management system is to be carried out.

5.1.7 The meeting was apprised of MIDANPIRG/9 concern that Annex 15 does not specify any Section/Table of the AIP where the information related to certification of aerodromes should be provided. Noting the importance of providing information on the full implementation of certification of aerodromes by a State and considering Paragraph 4.6 of Doc 9774 - Manual on certification of aerodromes "Promulgation in the AIP of the certified status and details of the aerodrome", accordingly, the meeting formulated the following Draft Conclusion:

DRAFT CONCLUSION 5/4: PROMULGATION OF INFORMATION ON CERTIFICATION OF AERODROMES IN THE STATE AIP

That, ICAO consider 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.

- 5.1.8 Recognizing the closing time line for putting into operation a safety management system at aerodromes (24 November 2005), the meeting expressed its concern and reiterated its request on the urgent need for developing guidance material on Safety Management for aerodrome operators.
- 5.1.9 The meeting expressed its concern regarding the implementation of ICAO requirements related to implantation of Safety Management System at aerodromes. In this regard, the meeting requested ICAO's assistance to help States to meet their responsibilities. Accordingly the meeting formulated the following Draft Conclusion:

DRAFT CONCLUSION 5/5: ASSISTANCE TO MID STATES ON IMPLEMENTING SAFETY MANAGEMENT SYSTEM AT AERODROMES

That.

- a) ICAO consider the urgent need for guidance material on safety management by aerodrome operators; and
- b) ICAO consider convening a Seminar on Safety Management Systems for the MID Region in 2006.

5.2 Information on continuation and expansion of ICAO USOAP applying comprehensive systems approach

- 5.2.1 The meeting was apprised of information that the USOAP evolve from an Annex-by-Annex to a comprehensive systems approach, which would focus on the States' overall safety oversight capabilities. It was, further, informed that the 35th Session of the ICAO Assembly (Resolution A35-6 refers) resolved that USOAP be further expanded to include the safety-related provisions in all safety-related Annexes to the Convention on International Civil Aviation.
- 5.2.2 The meeting noted that a comprehensive systems approach to conducting safety oversight audits would address the safety-related provisions contained in all safety-related Annexes by focusing on the State's overall safety oversight capability and specific safety critical areas, while assessing the implementation of all provisions through the review of the Compliance Checklists applicable to each Annex.

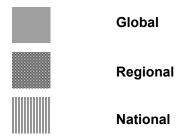
- 5.2.3 The meeting was informed that the envisioned comprehensive systems approach to the conduct of safety oversight audits would consist of two phases. In the first phase, the implementation of Annex provisions and the identification of differences would be determined through the review of the duly completed State Aviation Activity Questionnaire (SAAQ) and Compliance Checklists for all relevant Annexes. In the second phase, the State being audited would be visited by an ICAO audit team, which would validate the information provided by the State and also conduct an on-site audit of the State's overall capability for safety oversight.
- 5.2.4 The meeting was reminded that Egypt and Kuwait are scheduled for ICAO Safety Oversight Audit in November 2005.
- 5.3 Outcomes of the workshop on training aerodrome Inspectors in the MID Region (Cairo 08 to 12 June 2004)
- 5.3.1 The meeting was briefed on the outcome of the workshop on training of aerodrome inspectors that was held in Cairo jointly by ICAO and UK CAA (8 12 June 2004).

MIDDLE EAST

CERTIFICATION OF AERODROMES STATUS OF IMPLEMENATION FOLLOW-UP

(May 2005)

TIMELINES:



AOP SG/5 Appendix 5A to the Report on Agenda Item 5

MIDDLE EAST - CERTIFICATION OF AERODROMES STATUS OF IMPLEMENTATION FOLLOW-UP

(June 2005)

		2001	2002	2003	2004	2005	2006	2007	2008
Global	Legislation								
MID Region									
States	Afghanistan								
	Bahrain								
	Cyprus								
	Egypt								
	Iran, Islamic Rep. of								
	Iraq								
	Israel								
	Jordan								
	Kuwait								
	Lebanon								
	Libya								
	Oman								
	Qatar								
	Pakistan								
	Saudi Arabia								
	Sudan								
	Syrian								
	United Arab Emirates								
	Yemen								
Global	Formation of Separate Regulatory								
	Entity								
MID Region									
States	Afghanistan								
	Bahrain								
	Cyprus								
	Egypt								
	Iran, Islamic Rep. of								
	Iraq								
	Israel								
	Jordan								
	Kuwait								
	Lebanon								
	Libya								
	Oman								
	Qatar								
	Pakistan								
	Saudi Arabia								
	Sudan								
	Syrian								
	United Arab Emirates								
	Yemen								
Global	Preparation of the Aerodrome Manual								
MID Region									
States	Afghanistan								
	Bahrain								
	Cyprus								

	T	2001	2002	2003	2004	2005	2006	2007	2008
	Egypt	2001	2002	1	2001	2000	2000	2007	2000
	Iran, Islamic Rep. of								
	Iraq								
	Israel								
	Jordan								
	Kuwait								
	Lebanon								
	Libya								
	Oman Qatar								
	Pakistan								
	Saudi Arabia								
	Sudan								
	Syrian								
	United Arab Emirates								
	Yemen								
Global	Aerodrome Operational Performance Assessment								
MID Region	r enormance Assessment								
States	Afghanistan								
	Bahrain								
	Cyprus								
	Egypt								
	Iran, Islamic Rep. of								
	Iraq								
	Israel								
	Jordan								
	Kuwait								
	Lebanon								
	Libya								
	Oman								
	Qatar								
	Pakistan								
	Saudi Arabia								
	Sudan								
	Syrian								
	United Arab Emirates								
	Yemen								
	Issue of an Aerodrome Certificate								
Global	for Int'l Airports								
MID Region									
States	Afghanistan								
	Bahrain								
	Cyprus								
	Egypt								
	Iran, Islamic Rep. of								
	Iraq								
	Israel								
	Jordan			<u> </u>					
	Kuwait			 					
	Lebanon	+	 						
	Libya			 					
	Oman	-							-
	Qatar	+	1	1			<u> </u>		
	Pakistan	+	 						-
	Saudi Arabia	+	-	-					
		1	<u> </u>	1					
	Sudan								

		2001	2002	2003	2004	2005	2006	2007	2008
	Syrian								
	United Arab Emirates								
	Yemen								
SAF	ETY MANAGEMENT SYSTEM			l		1	1		ı
Global	Safety Management System								
MID Region	, , ,								
States	Afghanistan								
	Bahrain								
	Cyprus								
	Egypt								
	Iran, Islamic Rep. of								
	Iraq								
	Israel								
	Jordan								
	Kuwait								
	Lebanon								
	Libya			 				1	
	Oman								
	Qatar								
	Pakistan								
	Saudi Arabia								
	Sudan								
	Syrian								
	United Arab Emirates								
	Yemen								
UNIVE	RSAL SAFETY OVERSIGHT AUDIT PRO	OGRAMME	<u> </u>			1		1	
Global	Universal Safety Oversight Audit								
	Programme								
MID Region									
States	Afghanistan								
	Bahrain								
	Cyprus								
	Egypt								
	Iran, Islamic Rep. of								
	Iraq								
	Israel								
	Jordan								
	Kuwait								
	Lebanon								
	Libya								
	Oman								
	Qatar					_			
	Pakistan								
	Saudi Arabia								
	Sudan								
	Syrian								
	United Arab Emirates								
	Yemen								

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)

(Date)

STATE	NO. OF AERODROMES	RESPONSIBLE BODY		/IBER OF CERTIF MES/ON-GOING	
	AERODROWES	BODY	Certified	On-Going	Planned
AFGHANISTAN					
BAHRAIN	1	BCAA Q.A. Directorate	-	1	-
EGYPT					
IRAN					
IRAQ					
ISRAEL					
JORDAN					
KUWAIT	1	DGCA	1	-	-
LEBANON					
OMAN	2	CAA	-	1	1
QATAR					
SAUDI ARABIA					
SYRIA					
U.A.E.	6	CAA	-	6	-
YEMEN					

REPORTON AGENDA | TEM 6: FOLLOW UP LATEST DEVELOPMENTS IN THE FIELD OF AERODROMES - NEW LARGER AIRCRAFTS (NLA)

- 6.1 The meeting recalled that the intent of the ICAO aerodrome reference code F is to provide a simple method for interrelating the numerous specifications concerning the characteristics of aerodromes. States, in developing their aerodromes, are expected to implement the new code F specifications to receive NLAs.
- The meeting recognized that, in order to permit unrestricted operations and enhance aerodrome capacity, the level of aerodrome infrastructure must be at least equal to that specified in Annex14, Volume I if not better. It also noted that some States may have some difficulty in complying with the Annex 14, Volume I requirements at their existing aerodromes before the anticipated entry of NLA into commercial service. In such cases, States should carry out appropriate aeronautical studies to evaluate on an interim basis the suitability of existing facilities and to determine the need for operational procedures, alternate measures, and operating restrictions to meet the safety objectives of Annex 14, Volume I provisions. It was pointed out that States remain responsible for deciding what is acceptable as a measure, procedure or restriction.
- 6.3 The meeting was briefed on the new ICAO Circular No. 305 June 2004, which provides guidance material on conducting aeronautical studies, including the development of alternative measures, operational procedures and operating restrictions that could, while preserving safety, allow aerodromes that do not meet the relevant Annex 14, Volume I, code F criteria to accommodate a specific NLA on an interim basis.
- The meeting recalled that in order to assist States in planning future developments in their aerodromes MIDANPIRG/9 meeting decided to start immediately surveying the readiness of MID Aerodromes that are intended to accommodate NLAs in one or more of their aerodromes as a principle or an alternate aerodrome (Decision 9/4).
- The meeting was presented with information related to available responses to the questionnaire that was developed and attached to MIDANPIRG/9 report and also to MID regional office letter ref AN 5/17-154 dated 05 May 2005 that was circulated to all MID States and IATA. Only 3 States have responded to the questionnaire. IATA has provided information on those aerodromes in the MID region that are ready or are planning to accommodate A380 as contained in **Appendix 6A** to the report on Agenda Item 6.
- Due to limited time that was available for response, the meeting was of the view that responses are to be sent to MID Regional office no later than 01 November 2005. Analysis and results of the survey will be posted to MID Forum accordingly.
- 6.7 Recognizing that the basic ANP and FASID tables AOP 1 contain a list of international aerodromes and their alternates, IATA was requested to define Airline requirements related to minimum facilities and services that should be provided at an alternate aerodrome planned to receive NLAs.
- 6.8 IATA provided each State participating in the meeting with a CD containing information on a survey carried out by IATA on Level of Readiness of 26 worldwide airports expected to accommodate the A380 in 2006/07. Four MID Aerodromes were included in IATA Survey.

- 6.9 IFALPA expressed their interest in sharing information on the results of survey on the readiness of aerodromes to accommodate NLAs in the MID Region.
- The meeting was of the view that ICAO MID Office survey is for planning purposes and that information on the level of readiness of aerodromes to accommodate new larger aircraft would be beneficial to States and airlines in planning for safety requirements at aerodromes. The meeting agreed on posting the results of the survey in ICAO MID Forum with a view to expedite the planning process by sharing information, exchanging comments and suggestions among member States and IATA as early as possible. The results of the survey will be presented to MIDANPIRG/10 Meeting.
- 6.11 In light of the above, the meeting formulated the following Draft Conclusion:

DRAFT CONCLUSION 5/6: CONTINUE THE SURVEY ON READINESS OF AERODROMES TO ACCOMMODATE NLA IN THE MID REGION

That.

- States provide their response to the questionnaire on readiness of MID aerodromes to accommodate new larger aeroplanes no later than 01 November 2005;
- b) IATA provide information on airline alternate aerodrome (Destination, en-route) requirements; and
- MID Regional Office analysis the responses received and posting the results on the MID Forum.

AOP SG/5 Appendix 6A to the Report on Agenda Item 6

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

	Afghanistan	Bahrain	Egypt	Iran	Iraq	Israel	Jordan	Kuwait	Lebanon	Oman	Qatar	Saudi Arabia	Syria	United Arab Emirates	Yemen
1. General information:															
1.2 Name of aerodrome:		Bahrain Int'l	Cairo Int'l								Doha Int'I				
2. Compliance with the applicable Standards & Recommended Practices of Annex 14 Volume I, 4th Edition July 2004															
2.1 AERODROME FACILITIES															
2.1.1 Runways and Shoulders		✓	✓								Р				
§ 3.1.9 The runway width should be not less than 60m.															
§ 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.															
2.1.2 Runway Strips and runway end safety areas		✓	✓								Р				
§ 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.															

	Afghanistan	Bahrain	Egypt	Iran	Iraq	Israel	Jordan	Kuwait	Lebanon	Oman	Qatar	Saudi Arabia	Syria	United Arab Emirates	Yemen
§ 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.															
§ 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.															
§ 3.5.4 The width of a runway safety end area shall be at least 120 m.															
2.1.3 Taxiways and shoulders		Р	✓								x				
§ 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); 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.															
§ 3.10.1 Taxiway shoulders and grading of the taxiway strip should be provided to give a minimum overall width of 60m			_												1
§ 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															
2.1.4 Taxiways curves and intersections		✓	✓								✓				
															_

	Afghanistan	Bahrain	Egypt	Iran	Iraq	Israel	Jordan	Kuwait	Lebanon	Oman	Qatar	Saudi Arabia	Syria	United Arab Emirates	Yemen
§ 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 4.5 m.															
§ 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 are maintained when aeroplane are manoeuvring through the junctions and intersections.															
2.1.5. Bridges, tunnels, and culverts under taxiways		N.A	N. A								N.A				
§ 3.9.19 The width of that port ion 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.															
§3.9.20 Access should be provided for RFF vehicles to intervene in both directions within the specified response time.															
2.1.6 Taxiway minimum separation distance		✓	✓								N.A.				
§ 3.9.7 The following minimum separation distances should apply:															
Table 3-1 Taxiway centreline to instrument code 4 runway centreline 190m															

								,	•	1	1		1		
	Afghanistan	Bahrain	Egypt	Iran	Iraq	Israel	Jordan	Kuwait	Lebanon	Oman	Qatar	Saudi Arabia	Syria	United Arab Emirates	Yemen
Taxiway centreline to non-instrument code 4 runway centreline 115m															
Taxiway centreline to taxiway centreline 97.5m															
Taxiway centreline to object (including taxiway strip) 57.5m															
Aircraft stand taxilane centre line –object 50.5m															
§ 3.11.3 The taxiway strip should provide an area clear of objects which may endanger taxiing aeroplane															
2.1.7 Holding bays		Р	Р								✓				
§ 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.															
§ 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 or position is higher than the threshold.															
2.1.8 Aprons		Р	Р								Р				
§ 3.13.2 The total apron area should be adequate to permit expeditious handling of															

												_			
	Afghanistan	Bahrain	Egypt	Iran	Iraq	Israel	Jordan	Kuwait	Lebanon	Oman	Qatar	Saudi Arabia	Syria	United Arab Emirates	Yemen
aerodrome traffic at its maximum anticipated density.															
Adequate stands and size															
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.															
Please indicate the number of stands available for Code F aircraft and other relevant information.		Р	Р								x				
§ 3.13.6 The dimensions of the apron should be such that the minimum clearance between a manoeuvring aircraft and any obstruction should not be less than 7.5m and may be reduced when special circumstances so warrant:															
a) between the terminal, including any fixed passenger bridge and the nose of an aircraft; and															
b) over any portion of the stand provided with azimuth guidance by a visual docking guidance system.															

	Afghanistan	Bahrain	Egypt	Iran	Iraq	Israel	Jordan	Kuwait	Lebanon	Oman	Qatar	Saudi Arabia	Syria	United Arab Emirates	Yemen
2.1.9 Strength of pavement		66/F/P/X/U	RWYs 05/23 & Apron: PCN 100								PCN 50				
Please indicate pavement strength data for the movement area intended for the operations of NLAs in the aerodrome															
2.2 AERODROME OPERATIONAL SAFETY SERVICES															
2.2.1 Aerodrome emergency planning		Р	Р								N. A				
§ 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.															
§ 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.															
§ 9.1.3 The plan shall coordinate the response or participation of all agencies which, could be of assistance in responding to an emergency.															
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															

	Afghanistan	Bahrain	Egypt	Iran	Iraq	Israel	Jordan	Kuwait	Lebanon	Oman	Qatar	Saudi Arabia	Syria	United Arab Emirates	Yemen
considered include among others; increased number of passengers, full length upper decks, size of airframe, exceeded fuel quantities, fuel tank locations and 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.			_												
2.2.2 Rescue and Fire Fighting		✓	Р								N.A				
§ 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.															
§ 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.															
§ 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.															
2.2.3 Disabled aircraft removal		✓	✓								N.A				

	Afghanistan	Bahrain	Egypt	Iran	Iraq	Israel	Jordan	Kuwait	Lebanon	Oman	Qatar	Saudi Arabia	Syria	United Arab Emirates	Yemen
 § 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 b) arrangements for the rapid receipt of aircraft recovery equipment kits available from other aerodromes. 															
Please indicate aerodrome plan for the removal of disabled aircraft on, or in the vicinity of the aerodrome considering NLAs operations:															
2.2.4 Ground Servicing of Aeroplanes		✓	√								✓				
§ 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 fighting service in the event of a fire or major fuel spill.															
2.2.5 Aerodrome maintenance services		✓	Р								х				
1. With the introduction of NLAs such as the A380, aerodrome maintenance or reconstruction programmes will need to ensure that the specific aircraft requirements in terms of increased aircraft mass, wheelbase and wingspan; the wider location of the outboard engines; and possible jet blast to temporary structures are taken into account. The wing tip															

	Afghanistan	Bahrain	.tot		_	<u>e</u>	Jordan	Kuwait	Lebanon	an	ar	Saudi Arabia	ia	United Arab Emirates	Yemen
	Afg	Bał	Egypt	Iran	Iraq	Israel	Jor	Κu	Leb	Oman	Qatar	Sau	Syria	Uni	Yer
track-in whilst negotiating turns will also need to be considered. Where the specific requirements exceed those of current code E aircraft, special arrangements may be necessary.															
2. Specific instructions will be required to be given to contractors or maintenance staff in terms of control of safety and work in progress. Please indicate that the aerodrome maintenance or reconstruction programmes is considering NLAs operations requirements:		Yes	Yes								N.A				
2.3 OBSTACLE LIMITATION SURFACES															
2.3.1 Obstacle free zone		N.A	✓								N.A				
Annex 14, Volume I, defines OFZ as: "The air space above the inner approach surface, inner transitional surfaces, and balked landing surface and t hat portion of t he 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."															
§ 4.2.14 & 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: 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;															

	Afghanistan	Bahrain	Egypt	Iran	Iraq	Israel	Jordan	Kuwait	Lebanon	Oman	Qatar	Saudi Arabia	Syria	United Arab Emirates	Yemen
 b) the inner transitional surface has a slope of 33.3 percent; and c) the length of the inner edge of the balked landing surface has been in creased 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 side) is 10 per cent and the slope is 3.33 per cent. 															
2.4 VISUAL AIDS			_												
2.4.1 Markings and signs		P	Р								N.A				
§ 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.															
These distances may need to be increased to ensure that clearance for propellers and the engine pads is obtained for NLAs 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, 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															

	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.															
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.															
2.4.2 Lights		✓	✓								✓				
§ 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.															
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															
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															
3. Information guidelines in ICAO Circular 305 Operation of New Larger Aeroplanes at Existing Aerodromes		No Need	Р								N.A.				

												-			
	Afghanistan	Bahrain	Egypt	Iran	Iraq	Israel	Jordan	Kuwait	Lebanon	Oman	Qatar	Saudi Arabia	Syria	United Arab Emirates	Yemen
The purpose of the Circular is to assist States in addressing various aspects of operating NLAs at existing aerodromes. The Circular provides information on issues concerning aerodrome facilities and services, air traffic management and flight operations that should be considered in accommodating NLAs at existing aerodromes. It also provides guidance on conducting aeronautical studies, including the development of alternative measures, operational procedures and operating restrictions that could, while preserving safety, allow aerodromes that do not meet the relevant Annex 14 Volume I - Code F criteria to accommodate the NLA on an interim basis. States remain responsible for deciding what is acceptable as a measure, procedure, restriction or any other alternative that should be temporary only, so that safety is not compromised.															
Please describe the actions taken and/or will be taken by operators to accommodate the NLA at existing aerodromes if no or limited physical modifications are contemplated. (Please use additional pages, if necessary)															
4. Target Completion Dates		2008	N. A								N.A				
Please indicate the timelines, that the above provisions in Items 2 and 3; are expected to be completed.															
5. Alternate Aerodromes		N.A	N.A								N.A				
Annex 6 Vol 1 §4.3.4 requires alternate aerodromes to be selected and specified. The ICAO Doc 9708 Air Navigation Plan requires															

	Afghanistan	Bahrain	Egypt	Iran	Iraq	Israel	Jordan	Kuwait	Lebanon	Oman	Qatar	Saudi Arabia	Syria	United Arab Emirates	Yemen
States to promulgate in Table AOP 1 of both the Basic Air Navigation Plan (Basic ANP) and the Facilities and Services Implementation Document (FASID, inter allia, the names of alternate aerodromes, aerodrome reference code and RFF category. Please indicate the names of alternate (take-off/enroute/destination) aerodromes that have been or will be nominated. Please also indicate if your State aviation authority will be initiating a proposal to amend ICAO Doc 9708.															
6. IATA is requested to provide information on Airlines plans to operate NLAs at MID Aerodromes (principle, alternate and en-route aerodromes)			Cairo: P			Tel Aviv: P	Amman: P		Beirut: P	Muscat: P	Doha: <	Jeddah: < Riyadh: P		Dubai: ✓	
7. Any other information and/or comments:															

Legend:

Ready	In Progress P	Not ready X	Not planned to accommodate NLAs	N
No Comment or No Answer for	or a particular question	N.A.		
States that have responded to M	IID Questionnaire on NLAs			
States that did not respond to M	ID Questionnaire on NLAs	XXX		

REPORT ON AGENDA ITEM 7: AERODROME SAFETY ASPECTS

7.1 Runway Pavement Surface Conditions

- 7.1.1 The meeting noted that a significant part of Deficiencies reported in the MID region was in the area of runway pavement conditions. Evidence from aeroplane overrun and run-off incidents and accidents indicate that in many cases inadequate runway friction characteristics/aeroplane braking performance was the primary cause or at least a contributing factor.
- 7.1.2 The meeting was of the view that the regularity and efficiency of aeroplane operations can become significantly impaired as a result of poor friction characteristics. It also agreed that it is essential that the surface of paved runway provides good friction characteristics, especially when the runway is wet.
- 7.1.3 The meeting recalled that Doc 9774 Manual on certification of aerodromes requires a system for documenting all safety-related aerodrome facilities as well as aerodrome operational and maintenance records including information on aerodrome pavements as one of the essential features of Safety Management Systems at aerodromes.
- 7.1.4 In an effort to ensure at the uniform application of ICAO specification for the airfield pavement surface conditions, the meeting was briefed on Annex 14 Volume I provisions, Airport Service Manual Doc 9137 Part 2 and other relevant specifications. In this regard, the meeting was presented with information related to common deficiencies in runway pavement surface:
 - a) Runway Surface irregularities
 - b) Runway surface contamination
 - c) Foreign objects on runway surface
- 7.1.5 The meeting was apprised on the guidance contained in ICAO specifications related to design tolerances, methods used to measure surface texture and runway friction-measuring devices as well as methods for improving the runway surface texture. It was also provided with information on establishing the design objective for new runway surfaces and on maintenance planning and minimum friction levels for existing runway surface.
- 7.1.6 The meeting recalled that Annex 14, Volume I, requires States to take action as necessary to remove contaminants from the movement area as rapidly and completely as possible so as to minimize their accumulation thus adversely affecting aeroplane performance. The Annex also requires States to make an assessment of the condition of the pavement whenever it has not been possible to fully clear the contaminants and/or debris and to make this information immediately available to the appropriate units at the aerodrome.
- 7.1.7 The meeting noted with concern that degradation of runway surface characteristics creates various levels of unsafe operating conditions for aircraft and to a lesser degree, airfield personnel. 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. Under wet conditions all runways types with rubber build-up loose their skid resistance qualities.
- 7.1.8 Experience has shown that timely removal of rubber build-up is a cost-effective solution for rectifying the frictional deterioration of runway surfaces and maintaining safe aircraft operations. Timely removal is important because the longer the build-up continues, the more laborious and extensive the removal process becomes and that in turn leads to other unnecessary costs.

- 7.1.9 The meeting was apprised of inspection methods for visual estimation of rubber deposits accumulated on runways as well as the most common methods available to aerodrome operators to remove rubber build-up.
- 7.1.10 The meeting was of the view that establishing, implementing and maintaining an effective "Pavement Management System" by each State to evaluate the technical and operational pavement conditions 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" can be established/updated.
- 7.1.11 Recognizing that an effective Pavement Surface Maintenance Programme should detail the procedures to be followed to ensure that pavement maintenance, both preventive and repairs, is performed by the State/Aerodrome Operators. The meeting agreed on the main particulars to be included, as a minimum, in a State "Pavement Maintenance Programme" as contained in Appendix 7A to the report on Agenda Item 7.
- 7.1.12 Accordingly, the meeting formulated the following Draft Conclusion:

DRAFT CONCLUSION 5/7:

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

That, States of the MID Region:

Establish, implement an effective "Pavement Surface Maintenance Programme" and a "Correction Programme for the Removal Of Rubber Build-Up on Runways" on a continuous basis with minimum requirements as outlined in **Appendix 7A** to the report on Agenda Item 7.

7.1.13 The meeting encouraged Member States having experience on Pavement Management Systems to organize workshops, seminars or training sessions with the ICAO support with a view to sharing information and on-the-job experience.

7.2 Aerodrome Operational Services

- 7.2.1 The meeting was briefed on typical examples of the different ways that can be approached by a State for operating a civil aerodrome.
- 7.2.2 The meeting recalled that whichever policy it adopts, the State having jurisdiction over the aerodromes must inevitably remain responsible for a number of aspects of civil aviation such as:
 - control of development of national aerodrome structure and establishment of procedures to ensure coordination between the development and operation of an aerodrome and the development of the bcal neighbourhood of that aerodrome to avoid conflicts of interests;
 - ii. certification of aerodromes and licensing of personnel involved in civil aviation within a legislative framework;
 - iii. the formulation of policies relating to the environmental impact of aerodromes an the community;
 - iv. the coordination of civil and military aviation; and
 - v. the investigation of aircraft accidents.

- 7.2.3 Aside from the Government's responsibilities for civil aviation; the meeting was apprised about a number of vital and specific responsibilities that an aerodrome operator or owner has to carry out. These can be broadly summarized as follows:
 - a) the design and provision of facilities in accordance with relevant SARPs contained in ICAO documents; and
 - b) the adoption and implementation of internationally recognized procedures and services for the safe conduct of aerodrome practices and operations.
- 7.2.4 Recognizing that aerodrome operational services are those related to the safety and efficiency of aircraft operations and do not include those which relate to the administration of aerodrome finances and servicing of passengers, and that a significant number of AOP deficiencies in the MID region were initially in the area of aerodrome operational services to be provided; the meeting noted the aerodrome operational services required by an aerodrome operator or owner and discussed the problems encountered the non-implementation of the following provisions:
 - Aerodrome Emergency Plan
 - Rescue and Fire Fighting
 - Airport Surface Inspections
 - Measurement of Surface Friction
 - Apron Management
 - Apron Safety
 - Adverse Weather Conditions
 - Ground Servicing of Aircraft
 - Aerodrome Vehicle Operations
 - Surface Movement Guidance and Control System
 - Runway incursion preventive measure
 - Control of Work in Progress on the Movement Area and Precautions to be taken
 - Ground Inspections and Flight Checks of Visual Aids
 - Control of Ground Noise
 - Removal of disabled Aircrafts plan
 - Wild life and Bird Hazard Reduction
 - Airport Zoning and Obstacle Clearance
 - Fencina
 - Security
 - Aircraft Accident/Incidents
 - Incidents Affecting People, Environment and Property outside the Aerodrome Boundary
 - The Provision of Aerodrome Data
- 7.2.5 The meeting requested ICAO to consider organizing a workshop/seminar on: Aerodrome rescue and fire fighting, aerodrome emergency plan, removal of disabled aircraft and Apron management with a view to assist States in eliminating AOP deficiencies related to non-implementation of aerodrome operational services.
- 7.2.6 Annex 14 Volume I *Aerodrome design and Operations* Chapter 9 *Aerodrome Operational Services* contained related Standards and Recommended Practices, other relevant guidance material are contained in the Airport Service Manual Doc 9137 Part 8 *Airport Operational Services* and other relevant ICAO specifications.

7.3 Runway incursion prevention programme

7.3.1 The meeting noted with appreciation the information provided by IATA on "Runway Incursion Programme", contained in a CD that was handed to each State participating in the meeting. The Programme is one of several initiatives aimed at reducing or eliminating accidents or incidents attributed to runway incursions.

- 7.3.2 Recognizing that standardized training is essential for the reduction of runway incursion, a programme was designed in accordance with ICAO provisions by IATA, FAA and PAAST (PAN American Aviation Safety Team), to enhance education, awareness and training of aviation community, and to gather and evaluate more data on the causes of runway incursions.
- 7.3.3 The meeting noted the importance of adhering to safe operating procedures at all times:
 - While taxiing an airplane on any airport operations area, regardless of the type of airplane.
 - The understanding of the roles and responsibilities of pilots, controllers and ground personnel.
 - Understanding the causes for and the prevention of runway incursions.

AOP SG/5 Appendix 7A to the Report on Agenda Item 7

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:

- 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 31 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.

REPORT ON AGENDA ITEM 8: FUTURE WORK PROGRAM

AOP Sub-Group Work Programme

8.1 The meeting reviewed the Sub-group's future Work Programme and decided on updates as contained in **Appendix 8A** to the report on Agenda Item 8. The meeting formulated the following Draft Decision:

DRAFT DECISION 5/8: UPDATES TO AOP SG TOR AND WORK PROGRAMME

That, Work Programme of the AOP Sub-Group is revised and updated as shown in **Appendix 8A** to the report on Agenda Item 8.

Date and Venue of the AOP SG/6 meeting and its Provisional Agenda

- 8.2 The meeting agreed that AOP SG/6 tentative date should be in third quarter of 2006 and that the duration of the meeting be three (3) working days. The venue would be ICAO Regional Office in Cairo unless a MID State wished to host the meeting.
- 8.3 The meeting agreed to the Provisional Agenda for the AOP SG/6, as in **Appendix 8B** to the report on Agenda Item 8.

AOP SG/5 Appendix 8A to the Report on Agenda Item 8

TERMS OF REFERENCE, WORK PROGRAMME OF AOP SUB-GROUP

TERMS OF REFERENCE

Paying particular attention to the safety and efficiency of aerodrome operations, the AOP Sub-Group shall be responsible for MIDANPIRG to:

- a) 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;
- b) 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, and
- c) 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:
 - Safety Management System at aerodromes
 - Certification of aerodromes
 - Aerodrome navigational facilities operational services
 - Obstacles at /around aerodromes
 - Pavement Surface Conditions
 - Safety of aircraft operation on the movement area
 - Runway incursion
 - Aerodrome maintenance
 - Bird Hazard Reduction and Control
 - Secondary Power Supply
 - Rescue and Fire Fighting Services
 - Alternate Aerodromes
 - Removal of disabled aircraft
 - Safety Management System at Aerodrome

Work Programme

No.	Task Description	Deliverables	Priority	Target Date
1	Planning and implementation of required facilities and services at international aerodrome	 Conduct of regular Regional Consultation 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 refer). 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. 	А	Continuous
		- 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 single definition of a "Deficiency", approved by ICAO Council on 30 November 2001.	А	Continuous
2	Aerodrome Emergency Plan	 Analysis of implementation of relevant ICAO provisions in the region, and proposal of local and/or regional remedial action 	A	Continuous
3	Aerodrome Operational Safety issues in particular critical areas with priority to: 1) Safety Management System at aerodromes 2) Certification of aerodromes 3) Aerodrome navigational facilities operational services 4) Obstacles at/around aerodromes (*) 5) Pavement Surface Conditions 6) Safety of aircraft operation on the movement area 7) Runway incursion 8) Aerodrome maintenance 9) Bird Hazard Reduction and control 10) Secondary Power Supply 11) Rescue and Fire Fighting Services 12) Alternate Aerodromes, and in particular for En-Route	- Based on outcome of priority A Tasks, Identify from the above list those items which merit further consideration within MID Region and propose action plan including target dates.	A	Continuous

No.	Task Description	Deliverables	Priority	Target Date
	13) Removal of disabled aircraft14) Safety Management System at Aerodrome			
4	Latest Developments	- The introduction of New Large type Aircraft	Α	Continuous
		 Operations of New Larger Aeroplanes (NLAs) at existing aerodromes 	A	
		- Advanced Surface Movement Guidance and Control Systems (ASMGCS)	В	
		- CNS/ATM systems and its impact on aerodrome facilities and services	В	
		Other technological developments related to aerodrome; suggest appropriate steps to be taken by States to keep up with these developments	В	

Note: Priority

- A High Priority tasks, on which work should be speeded up
- **B** Less Priority tasks, on which work should be undertaken as time and resources permit, but without detriment to priority A tasks
- (*) AOP SG has to stress on the importance of identifying obstacles at and around Aerodrome.

COMPOSITION

Provider States and International Organizations concerned, Chairperson and Vice-Chairperson are designated by AOP Sub-Group.

AOP SG/5 Appendix 8B to the Report on Agenda Item 8

APPENDIX B

Provisional Agenda for AOP SG/6 Meeting

Agenda Item 1: Adoption of the Provisional Agenda

Agenda Item 2: Follow-up the MIDANPIRG conclusions and decisions relevant to AOP field

Agenda Item 3: Review of 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 Certification of Aerodromes and Safety

Management System in the MID Region

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

REPORT ON AGENDA ITEM 9: ANY OTHER BUSINESS

Adoption of Amendment 7 to Annex 14 Volume I

- 9.1 The meeting was informed that the Council adopted Amendment 7 to Annex 14 Volume I to the Convention on International Civil Aviation on March 2005. The meeting noted the content of the amendment that would improve safety of aircraft operations at aerodromes. The meeting also noted that Amendment 7 will be applicable on 24 November 2005 except for paragraph 3.9.4 of the Annex which will be applicable from 20 November 2008 and paragraph 9.10.2, 9.10.4, 9.10.6 and 9.10.8 which will be applicable from 23 November 2006.
- 9.2 The meeting was informed that States are required to notify ICAO of the following before 24 October 2005:
 - a) any differences between the national regulations or practices and the provisions of the whole Annex 14, Volume I, as amended by all amendments up to and including Amendment 7; and
 - b) the date or dates by which the State will have complied with the provisions of the whole Annex 14, Volume I, as amended by all amendments up to and including Amendment 7.

ICAO MID Forum

9.3 The meeting was briefed on the implementation of ICAO MID Web Based Forum which has been developed to provide an effective way of communication and sharing of resources between different MID region groups of users and to exchange comments on MID Regional Office meeting working papers while in the preparatory stages and prior to convening of meetings. The ICAO MID Forum URL is: (www.bahraintradanet.com/icao workspace) or (http://212.71.33.150).

AOP SG/5 Attachment A to the Report

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