



International Civil Aviation Organization

MIDANPIRG/18 and RASG-MID/8 Virtual Meetings

(15-22 February 2021)

Agenda Item 5.2.4 Revised MID ANP (Vol II and Vol III)

AMENDMENTS TO MID eANP
(Presented by the Secretariat)

SUMMARY

This paper provides an update related to the MID Air Navigation Plan (MID eANP) and presents a revised version of Volume III for the meeting review and endorsement.

Action by the meeting is at paragraph 3

REFERENCES

- ICAO GANP 6th edition
- MIDANPIRG/17 Report
- Proposals for Amendment to MID ANP

1. INTRODUCTION

1.1 The ICAO Council approved the new eANP Template (Volumes I, II and III) and corresponding procedure for amendment on 18 June 2014 (202nd session, fourth meeting).

1.2 The meeting may wish to recall that the MIDANPIRG/17 meeting reviewed and endorsed the MID eANP III (MIDANPIRG/17 Conclusion 17/13 refers).

1.3 The MID eANP Volume I, II and III are available on the ICAO MID website: <http://www.icao.int/MID/Pages/MIDeANP.aspx>

2. DISCUSSION

2.1 The meeting may wish to note that any amendment to the content of the MID eANP should be processed and approved in accordance with the Procedure for amendment of the ANP at Appendix A to the eANP Volume I. The following is to be highlighted:

- a) Volume I contains stable plan elements, the amendment of which require approval by the Council;
- b) Volume II contains dynamic plan elements, the amendment of which does not require approval by the Council (approval is by regional agreement involving the relevant PIRG); and

- c) Volume III contains dynamic/flexible plan elements providing implementation planning guidance for air navigation systems and their modernization taking into consideration emerging programmes such as the ASBUs and associated technology roadmaps described in the GANP. The ANP Volume III also includes appropriate additional guidance, particularly with regard to implementation, to complement the material contained in the ANP Volumes I and II. The amendment of Volume III does not require approval by the Council (approval of Part II is under the responsibility of the relevant PIRG).

2.1 The eANPs web-based platform is accessible through the ANP application under SPACE/iSTARS (<https://portal.icao.int/space/arp/Pages/newanp.aspx#>)

2.2 The following is an update on the MID eANP:

Volume I:

FIR Boundary Descriptions

2.3 The meeting may wish to note that the MID eANP was published without the FIRs/UIRs boundary coordinates (Tables ATM I-1 *MID Region Flight Information Regions (FIRs)/ Upper Information Regions (UIRs)* and SAR I-1 *MID Region Search and Rescue Regions (SRRs)*). The publication of the FIR Boundary coordinates/descriptions necessitates bi-lateral/multi-lateral agreements between concerned States.

2.4 The meeting may wish to recall that the MSG/5 meeting agreed that the Guidelines for the publication of FIR boundary points, to be taken into consideration for the publication of the FIR descriptions in the States' AIPs. The meeting reviewed the Draft Table ATM I-1 *MID Region Flight Information Regions (FIRs)/Upper Information Regions (UIRs)*, highlighting the inconsistencies between adjacent FIRs and agreed to the following MSG Conclusion:

MSG CONCLUSION 5/5: PUBLICATION OF FIR BOUNDARY POINTS

That, States be urged to:

- a) take into consideration the Guidelines at Appendix 5D for the description of their FIR boundaries;*
- b) review the Table ATM I-1 MID Region Flight Information Regions (FIRs)/Upper Information Regions (UIRs) at Appendix 5E and coordinate with neighboring States, as appropriate, the definition of common boundaries; and*
- c) provide the ICAO MID Regional Office with their updates and comments before 15 October 2016.*

2.5 As a follow-up action to the MSG/5 Conclusion 5/5, the ICAO MID Office issued State Letter Ref.: AN 6/3-16/338 dated 1 December 2016 requesting States to provide an update on the actions undertaken. Few replies were received. Follow-up was also undertaken by both the AIM and ATM Sub-Groups, but no progress has been achieved.

Volume II**Table ATM II-MID-1: MID Region ATS Route Network:**

2.6 A comprehensive review of the TABLE ATM II-MID-1: MID Region ATS Route Network is ongoing for the consolidation of a revised version of the table, considering the numerous changes to the ATS route network in the Region, including, inter-alia, the COVID-19 crisis, the agreement reached during the GCC 2021 Summit on 5 January 2021 related to the re-opening of airspaces for Qatari registered aircraft, the projects of airspace re-organization in some States, etc. In this respect, the meeting may wish to note that the ICAO MID Office received already requests from Bahrain, Egypt, Qatar and UAE for Routes proposals.

2.7 Based on the above, the meeting may wish to urge States and airspace users to provide the ICAO MID Office with their inputs to the Table ATM II-MID-1 before 30 April 2021 and, request the Secretariat to consolidate a draft Proposal for Amendment (PfA) to the MID ANP Volume II, in coordination with all concerned stakeholders, before circulation of the PfA by 1 June 2021; and agree to the following Draft Conclusion:

Why	To reflect the States' and airspace users' requirements in the Table ATM II-MID-1: MID Region ATS Route Network, considering the latest developments.
What	PfA to update the Table ATM II-MID-1: MID Region ATS Route Network
Who	ICAO MID Office, in coordination with focal points from States and airspace users.
When	June 2021

DRAFT MIDANPIRG/18 CONCLUSION 18/XX: PROPOSAL FOR AMENDMENT TO THE MID EANP VOLUME II, TABLE ATM II-MID-1: MID REGION ATS ROUTE NETWORK

That,

- a) *States and airspace users provide the ICAO MID Office with their inputs to the Table ATM II-MID-1 before 30 April 2021; and*
- b) *The ICAO MID Office, carry out necessary coordination to consolidate and process a proposal for amendment to the MID ANP Volume II, by 1 June 2021.*

TABLE CNS II-1 - AERONAUTICAL FIXED TELECOMMUNICATIONS NETWORK (AFTN) PLAN

2.8 As a follow-up to the MIDANPIRG Conclusion 17/28, the CNS Table II-1 was updated to mandate the AMHS implementation in the MID Region as at **Appendix A**.

2.9 The meeting may wish to recall that MIDANPIRG/17, through Conclusion 17/27, agreed to change Khartoum COM Centre to be Main COM Centre in the MID Region (new entry/exit point with AFI Region). Therefore, the CNS Table II-2 was updated as at **Appendix B**.

2.10 The meeting may wish to agree to amend the CNS Specific Regional Requirements in Vol II as at **Appendix C**, to mandate that all Mode S radars in the MID Region accommodate the SI/II code operation (MIDANPIRG Conclusion 17/34, refers).

2.11 Based on the above, the meeting may wish to agree to the following Draft Conclusion:

Why	To reflect the latest regional requirements (as per MIDANPIRG/17 Conclusions) in the CNS Part of the MID eANP Vol II
What	PfA to update the CNS Table II-1, CNS Table II-2 and CNS Specific Regional Requirements
Who	ICAO MID Office
When	March 2021

DRAFT MIDANPIRG/18 CONCLUSION 18/XX: PROPOSAL FOR AMENDMENT TO THE MID eANP VOLUME II, PART III - CNS

*That, the ICAO MID Office, process a proposal for amendment to the MID ANP Volume II, Part III – CNS to amend the CNS Table II-1, Table II-2 and CNS Specific Regional Requirements, as at **Appendices, A, B and C**, respectively.*

Volume III

2.12 The MID eANP Volume III was reviewed and updated by MIDANPIRG/17 meeting (Cairo, Egypt, 15-18 April 2019). The meeting approved the amendments to the MID eANP Volume III through MIDANPIRG CONCLUSION 17/13.

2.13 Taking into consideration the changes brought by the ICAO Global Air Navigation Plan (GANP) 2019 (sixth edition) and the revised version of the MID Air Navigation Strategy (Doc 002), the MID eANP Volume III has to be aligned and amended as at **Appendix D**.

2.14 It is to be highlighted that a link referring to the MID Region Air Navigation Strategy (Doc 002) was added to the Vol III Part 2. Similarly, a link to the MID Region Air Navigation Reports was also added.

2.15 With regard to PART 0 – INTRODUCTION and PART I - GENERAL PLANNING ASPECTS (GEN), it is worth noting that these Parts have not been updated since the approval of the new eANP Template by the Council in 2014. With reference to the Procedure for the Amendment of Regional Air Navigation Plans (Approved by Council on 18 June 2014), contained in Appendix A to the Part 0 of Vol I (para. 2.4), the amendment process of Volume III is under the responsibility of the relevant Planning and Implementation Regional Group (PIRG). **The Parts 0 (Introduction) and I (General Planning Aspects) of Volume III are harmonized for all regions and the amendment of these parts should be made following interregional coordination.**

2.16 Based on the above, the meeting may wish to agree to the following Draft Conclusions:

Why	To update the MID eANP Volume III
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What	Endorse the MID eANP Volume III
Who	MIDANPIRG/18
When	February 2021

DRAFT MIDANPIRG/18 CONCLUSION 18/XX: ENDORSEMENT OF NEW VERSION OF THE MID eANP VOLUME III

That, the revised version of the MID eANP Volume III at Appendix D is endorsed.

Why	To update the MID eANP Volume III Part 0 and Part I to keep pace with latest developments, including the GANP 6 th Edition
What	Amendment of the eANP Volume III Part 0 and Part I
Who	ICAO
When	2021

DRAFT MIDANPIRG/18 CONCLUSION 18/XX: AMENDMENT OF THE eANPs VOLUME III PART 0 AND PART I

That, the ICAO MID Office, carry out necessary coordination with ICAO HQ and other Regional Offices to amend the Regional Air Navigation Plans, Vol III, Part 0 and Part I to keep pace with the latest developments, including the alignment with the GANP 6th Edition.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) encourage States to discuss/agree bi-laterally/multi-laterally with neighbouring State(s) on the coordinates of the FIR boundary points and provide the ICAO MID Office with their updates and comments, as soon as possible;
- b) agree to proceed with a step-by-step approach in populating the Tables ATM I-1 *MID Region Flight Information Regions (FIRs)/ Upper Information Regions (UIRs)* and SAR I-1 *MID Region Search and Rescue Regions (SRRs)*), through appropriate Proposals for Amendment to the MID ANP Vol I, starting with the FIRs/UIRs and SRRs whose description do not raise any concern or differences between neighboring States. ; and
- c) endorse the Draft Conclusions contained in this paper.

APPENDIX A

TABLE CNS II-1 - AERONAUTICAL FIXED TELECOMMUNICATIONS NETWORK (AFTN) PLAN

EXPLANATION OF THE TABLE

Column

- 1 The AFTN Centres/Stations of each State are listed alphabetically. Each circuit appears twice in the table. The categories of these facilities are as follows:
M - Main AFTN COM Centre
T - Tributary AFTN COM Centre
S - AFTN Station
- 2 Category of circuit:
M - Main trunk circuit connecting Main AFTN communication centres.
T - Tributary circuit connecting Main AFTN communication centre and Tributary AFTN Communications Centre.
S - AFTN circuit connecting an AFTN Station to an AFTN Communication Centre.
- 3 Type of circuit provided:
LTT/a - Landline teletypewriter, analogue (e.g. cable, microwave)
LTT/d - Landline teletypewriter, digital (e.g. cable, microwave)
LDD/a - Landline data circuit, analogue (e.g. cable, microwave)
LDD/d - Landline data circuit, digital (e.g. cable, microwave)
SAT/a/d - Satellite link, with /a for analogue or /d for digital
- 4 Circuit signalling speed in bits/s.
- 5 Circuit protocols
- 6 Data transfer code (syntax):
ITA-2 - International Telegraph Alphabet No. 2 (5-unit code).
IA-5 - International Alphabet No. 5 (ICAO 7-unit code).
CBI - Code and Byte Independency (ATN compliant).
- 7 Remarks

State/Station	Category	Requirement				Remarks
		Type	Signalling Speed	Protocol	Code	
1	2	3	4	5	6	
BAHRAIN						
BAHRAIN						
ABU DHABI	M		64 —9.6Kbps	CIDIN	IA-5	
ANKARA	M		64Kbps	AFTN	IA-5	
BEIRUT	M		64 —9.6Kbps	AMHS	IA-5	
DOHA	T		64 —9.6Kbps	AMHS	IA-5	
JEDDAH	M		64 —9.6Kbps	AMHS	IA-5	
KUWAIT	M		64 —9.6Kbps	CIDIN	IA-5	
MUSCAT	M		64 —9.6Kbps	None	IA-5	
NICOSIA	M		649.6Kbps	CIDIN	IA-5	
SINGAPORE	M		64 —9.6Kbps	None	IA-5	
TEHRAN	M		64 —9.6Kbps	None	IA-5	

All:
AMHS by
2017

State/Station	Category	Requirement				Remarks
		Type	Signalling Speed	Protocol	Code	
1	2	3	4	5	6	
EGYPT CAIRO AMMAN ATHENS BEN GURION BEIRUT JEDDAH KHARTOUM NAIROBI TUNIS TRIPOLI TRIPOLI DAMASCUS ASMARA	M M M M M M T M M T T T T		64-9.6Kbps 64-9.6Kbps 64-9.6Kbps 9.6 Kbps 128-9.6Kbps 9.6Kbps 9.6Kbps 64-9.6Kbps 64-9.6Kbps 9.6Kbps 64-9.6Kbps 9.6Kbps	AMHS AMHSCIDIN AMHSNone AMHSCIDIN AMHS AMHSNone AMHSNone AMHS AMHSNone AMHSNone AMHSNone AMHSNone	IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5	STND BY
IRAN TEHRAN BAHRAIN KUWAIT ABU-DHABI KARACHI ANKARA MUSCAT DAMASCUS BAGHDAD	M M M M M M T T		64 Kbps 64 Kbps 9.6 Kbps 64Kbps 64Kbps 64Kbps 50-BD 64Kbps	AMHSNone AMHSNone AMHSNone AMHSNone AMHSAFTN AMHSNone AMHSNone AMHSNone	IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 ITA-2 IA-5	Planned
IRAQ BAGHDAD AMMAN BEIRUT KUWAIT ANKARA	T T T T T	SAT	2MBps 2MBps 9.6Kbps	AMHSNone AMHSNone AMHSNone AMHS	IA-5 IA-5 IA-5 IA-5	VPN VPN Planned

State/Station	Category	Requirement				Remarks
		Type	Signalling Speed	Protocol	Code	
1	2	3	4	5	6	
JORDAN						
AMMAN						
ABU DHABI	T		2MBps	AMHS	IA-5	VPN
ANKARA	M		64Kpbs	AMHSAFTN	IA-5	Land
BAGHDAD	T		2MBps	AMHS	IA-5	Line
BEIRUT	T		2MBps	AMHS	IA-5	VPN
BEN GURION	M		9.6 Kbps	AMHSNone	IA-5	Planned
CAIRO	T		64 – 9.6Kbps	AMHS	IA-5	VPN
DAMASCUS	T		64 – 9.6Kbps	AMHSNone	IA-5	Planned
JEDDAH	M		64Kbps	AMHS	X400	
NICOSIA	T		64Kbps	AMHSAFTN	IA-5	
KUWAIT	T					
KUWAIT	M	LDD/d	64 – 9.6Kbps	AMHSNone	IA-5	
BAHRAIN	M	LDD/a	64- 9.6 Kbps	AMHSNone	IA-5	
DAMASCUS	T	LDD/a	64-9.6 Kbps	AMHSNone	IA-5	
BEIRUT	T	LDD/a	64 – 9.6Kbps	AMHSNone	IA-5	Back-
DOHA	M		256Kbps	AMHSNone	IA-5	up
Hamad-Airport	M	LDD/d	64-9.6 Kbps	AMHSNone	IA-5	
KARACHI	T	LDD/d	64 – 9.6Kbps	AMHSNone	IA-5	
TEHRAN		SAT/ad	64 9.6Kbps	AMHSNone	IA-5	
BAGHDAD						
LEBANON						
BEIRUT	M					
AMMAN	M		2Mbps	AMHS	IA-5	VPN in
BAGHDAD	T		2Mbps	AMHSCIDIN	IA-5	process
BAHRAIN	M		64-9.6Kbps	AMHSCIDIN	A-5IA-5	VPN
CAIRO	M		649.6Kbps	AMHSNone	IA-5	planned
DAMASCUS	T		649.6Kbps	AMHSNone	IA-5	
JEDDAH	M		649.6Kbps	AMHSNone	IA-5	
KUWAIT	M		64-9.6Kbps	AMHSCIDIN	IA-5	
NICOSIA	M		649.6-Kbps	AMHS	IA-5	
LIBYA						
TRIPOLI	T			AMHS	IA-5	
MALTA	T			AMHS	IA-5	
TUNIS	M		649.6Kbps	AMHSNone	IA-5	
BENGHAZI	T		64 Kpbs	AMHS	IA-5	
CAIRO	M		649.6Kbps	AMHSNone	IA-5	
KHARTOUM	T		649.6Kbps	AMHSNone	IA-5	

State/Station	Category	Requirement				Remarks
		Type	Signalling Speed	Protocol	Code	
1	2	3	4	5	6	
OMAN MUSCAT ABU DHABI BAHRAIN MUMBAI JEDDAH SANA'A KARACHI TEHRAN	T M M M T M M		64Kbps 64Kbps 64Kbps 64Kbps 64 kbps+00-BD 64Kbps 64Kbps	AMHS AMHSNone AMHSNone AMHSNone AMHSNone AMHSNone AMHSNone	IA-5 IA-5 IA-5 IA-5 ITA-2 IA-5 IA-5	
QATAR DOHA BAHRAIN KUWAIT ABU DHABI	M M T		2Mbps 2Mbps 2Mbps	AMHSAFTN AMHS AMHS	IA-5 (TCP) x400(TCP) IA-5 x400(TCP) IA-5	
SAUDI ARABIA JEDDAH ADDIS-ABABA BAHRAIN BEIRUT CAIRO MUSCAT SANA'A AMMAN KHARTOUM ABUDHABI NICOSIA	M M M M M T M T T M	SAT SAT SAT	649.6Kbps 649.6Kbps 649.6Kbps 128 9.6Kbps 64 Kbps 64 9.6Kbps 64Kbps 64Kbps 64Kbps 64Kbps	AMHSNone AMHSCIDIN AMHSNone AMHS AMHSNone AMHSNone AMHS AMHS AMHS AMHSCIDIN	IA-5 IA-5 IA-5 x400 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5	AMHS S (2015 AMHS S (2015 AMHS S (2015 AMHS EUR/ MID OPME T

State/Station	Category	Requirement				Remarks
		Type	Signalling Speed	Protocol	Code	
1	2	3	4	5	6	
SUDAN KHARTOUM ADDIS ABABA ASMARA CAIRO JEDDAH TRIPOLI NDJAMENA	MM T M M T M		649.6Kbps 649.6Kbps 649.6Kbps 64Kbps 649.6Kbps 649.6Kbps	AMHSNone AMHSNone AMHSNone AMHS AMHSNone AMHSNone	IA-5 IA-5 IA-5 IA-5 IA-5 IA-5	
SYRIA DAMASCUS ATHENS AMMAN BEIRUT CAIRO KUWAIT TEHRAN	M T M M M T		2 X 50 BD 649.6Kbps 649.6Kbps 649.6Kbps 649.6Kbps 64 Kbps-50 BD	AMHSNone AMHSNone AMHSNone AMHSNone AMHSNone AMHSNone	IA-5 ITA-2 IA-5 IA-5 IA-5 IA-5 ITA-2	
UAE ABU DHABI BAHRAIN AMMAN MUSCAT DOHA TEHRAN JEDDAH	M T M T M T	VPN SAT	649.6Kbps 2 Mbps 64Kbps 128Kbps 649.6Kbps 64Kbps	AMHSCIDIN AMHS AMHS AMHS AMHSNone AMHS	IA-5 IA-5 IA-5 IA-5 IA-5 IA-5	VPN
YEMEN SANA'A JEDDAH MUSCAT	T T		649.6Kbps 649.6Kbps	AMHSNone AMHSNone	IA-5 IA-5	

APPENDIX B

TABLE CNS II-2 - REQUIRED ATN INFRASTRUCTURE ROUTING PLAN

EXPLANATION OF THE TABLE

Column

- 1 Name of the Administration and Location of the ATN Router
- 2 Type of Router (in end systems (ES) of the Administration shown in column 1)
- 3 Type of Interconnection:
Inter Regional: Connection between different Regions/ domains
Intra Regional: Connection within a Region/ domain.
- 4 Connected Router: List of the Administration and location of the ATN routers to be connected with the router shown in column 1.
- 5 Bandwidth: Link Speed expressed in bits per second (bps)
- 6 Network Protocol: If Internet Protocol Suite is used, indicate version of IP (IPv4 or IPv6)
- 7 Via: The media used to implement the interconnection of the routers. (in case of IP service bought from a service provider, indicate VPN)
- 8 Remarks

APPENDIX B

B-2

Administration and Location	Type of Router	Type of Interconnection	Connected Router	Bandwidth	Network Protocol	Via	Remarks
1	2	3	4	5	6	7	8
BAHRAIN, Bahrain	BIS	Inter-Regional Intra Regional	ASIA/PAC Oman, Saudi Arabia Kuwait, Lebanon Iran, Qatar, UAE		IPv4		
EGYPT, Cairo	BIS	Inter-Regional Intra Regional	AFI, EUR Israel, Jordan, Lebanon, Athena Saudi Arabia		IPv4		
IRAN, Tehran	BIS	Intra Regional	ASIA/PAC Kuwait, Bahrain Afganistan		IPv4		
IRAQ, Baghdad	IS	Intra Regional	Jordan, Lebanon		IPv4		
JORDAN, Amman	BIS	Intra Regional	Egypt, Israel Lebanon, Iraq, Syria		IPv4 VPN	JT	
KUWAIT, Kuwait	BIS	Inter-Regional Intra Regional	EUR, Pakistan, Iran, Qatar, Bahrain, Lebanon		IPv4		
LEBANON, Beirut	BIS	Inter-Regional Intra Regional	EUR Jordan, Syria Iraq, Kuwait, Bahrain Saudi Arabia, Egypt		IPv4		
LIBYA	IS	Intra Regional			IPv4		
OMAN, Muscat	BIS	Inter-Regional Intra Regional	ASIA/PAC Yemen, Bahrain, UAE, Saudi Arabia		IPv4 VPN	OT	
QATAR, Doha	IS	Intra Regional	Kuwait, Bahrain Abu Dhabi		IPv4		
SAUDI ARABIA, Jeddah	BIS	Inter-Regional Intra Regional	AFI Egypt, Lebanon Bahrain, Oman Yemen		IPv4		
SUDAN	<u>BIS</u>	<u>Inter-Regional</u> Intra Regional	<u>AFI</u> <u>Saudi Arabia, Egypt</u>		IPv4		
SYRIA, Damascus	IS	Intra Regional	Jordan, Lebanon		IPv4 VPN		
U.A.E, Abu Dhabi	BIS	Intra Regional	Bahrain, Oman Qatar		IPv4 VPN		
YEMEN, Sana'a	IS	Intra Regional	Oman, Saudi Arabia		IPv4	YT	

APPENDIX C

SPECIFIC REGIONAL REQUIREMENTS

3.1 The MIDAMC application available at: <http://www.midamc.jo> should be used for all AMHS address coordination and other AMHS and Network related matters.

3.2 The EUROCONTROL MICA application available at: <https://extranet.eurocontrol.int/http://webprisme.cfm.eurocontrol.int/mica/Index.action> should be used for the Mode S SSR IC allocation and coordination.

3.3 States should ensure that all Mode S Radars support SI/II code operation to enable the use of SI codes by Mode S interrogators even in an environment where all Mode S targets would not be equipped for the use of SI codes.

MID AIR NAVIGATION PLAN

VOLUME III

MID AIR NAVIGATION PLAN

VOLUME III

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MID ANP, VOLUME III
PART 0 – INTRODUCTION

1. INTRODUCTION

1.1 The background to the publication of ANPs in three volumes is explained in the Introduction in Volume I. The procedure for amendment of Volume III is also described in Volume I. Volume III contains dynamic/flexible plan elements related to the implementation of the air navigation system and its modernization in line with the ICAO Aviation System Block Upgrades (ASBUs) and associated technology roadmaps described in the Global Air Navigation Plan (GANP).

1.2 The information contained in Volume III is related mainly to:

- Planning: objectives set, priorities and targets planned at regional or sub-regional levels;
- Implementation monitoring and reporting: monitoring of the progress of implementation towards targets planned. This information should be used as the basis for reporting purposes (i.e.: global and regional air navigation reports and performance dashboards); and/or
- Guidance: providing regional guidance material for the implementation of specific system/procedures in a harmonized manner.

1.3 The management of Volume III is the responsibility of the MIDANPIRG.

1.4 Volume III should be used as a tool for monitoring and reporting the status of implementation of the elements planned here above, through the use of tables/databases and/or references to online monitoring tools, as endorsed by MIDANPIRG. The status of implementation is updated on a regular basis as endorsed by MIDANPIRG.

2. AVIATION SYSTEM BLOCK UPGRADES (ASBUs), MODULES AND ROADMAPS

3.1 The ASBU Modules and Roadmaps form a key component to the GANP, noting that they will continue to evolve as more work is done on refining and updating their content and in subsequent development of related provisions, support material and training.

3.2 Although the GANP has a worldwide perspective, it is not intended that all Block Upgrade Modules are required to be applied in every State, sub-region and/or region. Many of the Block Upgrade Modules contained in the GANP are specialized packages that should be applied only where the specific operational requirement exists or corresponding benefits can be realistically projected. Accordingly, the Block Upgrade methodology establishes an important flexibility in the implementation of its various Modules depending on a region, sub-region and/or State's specific operational requirements. Guided by the GANP, ICAO MID regional, sub-regional and State planning should identify Modules which best provide the needed operational improvements.

MID ANP, VOLUME III

PART I - GENERAL PLANNING ASPECTS (GEN)

1. PLANNING METHODOLOGY

1.1 Guided by the GANP, the regional planning process starts by identifying the homogeneous ATM areas, major traffic flows and international aerodromes. An analysis of this data leads to the identification of opportunities for performance improvement. Modules from the Aviation System Block Upgrades (ASBUs) are evaluated to identify which of those modules best provide the needed operational improvements. Depending on the complexity of the module, additional planning steps may need to be undertaken including financing and training needs. Finally, regional plans would be developed for the deployment of modules by drawing on supporting technology requirements. This is an iterative planning process which may require repeating several steps until a final plan with specific regional targets is in place. This planning methodology requires full involvement of States, service providers, airspace users and other stakeholders, thus ensuring commitment by all for implementation.

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

2. REVIEW AND EVALUATION OF AIR NAVIGATION PLANNING

2.1. The progress and effectiveness against the priorities set out in the regional air navigation plans should be annually reported, using a consistent reporting format, to ICAO.

2.2. Performance monitoring requires a measurement strategy. Data collection, processing, storage and reporting activities supporting the identified global/regional performance metrics are fundamental to the success of performance-based approaches.

2.3. The air navigation planning and implementation performance framework prescribes reporting, monitoring, analysis and review activities being conducted on a cyclical, annual basis. An Air Navigation Reporting Form (ANRF) reflecting selected key performance areas as defined in the Manual on Global Performance of the Air Navigation System (ICAO Doc 9883) has been developed for each ASBU Module. The ANRF is a customized tool which is recommended for the application of setting planning targets, monitoring implementation, and identifying challenges, measuring implementation/performance and reporting. If necessary, other reporting formats that provide more details may be used but should contain as a minimum the elements described in the ANRF template. A sample of the ANRF is provided in **Appendix A**. A sample Template of a planning table which may be used to show the elements planned in an ICAO region is provided in **Appendix B**.

3. REPORTING AND MONITORING RESULTS

3.1 Reporting and monitoring results will be analyzed by the PIRGs, States and ICAO Secretariat to steer the air navigation improvements, take corrective actions and review the allocated objectives, priorities and targets if needed. The results will also be used by ICAO and aviation partner stakeholders to develop the annual Global Air Navigation Report. The report results will provide an opportunity for the international civil aviation community to compare progress across different ICAO regions in the establishment of air navigation infrastructure and performance-based procedures.

3.2 The reports will also provide the ICAO Council with detailed annual results on the basis of which tactical adjustments will be made to the performance framework work programme, as well as triennial policy adjustments to the GANP and the Block Upgrade Modules.

3.3 **Table GEN III-1** contains a minimum set of Implementation Indicator(s) for each of the eighteen ASBU Block 0 Modules necessary for the monitoring of these Modules (if identified as a priority for implementation at regional or sub-regional level). These indicators are intended to enable comparison between ICAO Regions with respect to ASBU Block 0 Modules and will apply only to commonly selected ASBU Modules. All regions/PIRGs reserve the right to select the ASBU Modules relevant to their needs and to endorse additional indicators, as deemed necessary. No reporting is required for ASBU Block 0 Modules that have not been selected.

Note: The priority for implementation as well as the applicability area of each selected ASBU Block 0 Module is to be defined by the MIDANPIRG.



TABLE GEN III-1 – IMPLEMENTATION INDICATOR(S) FOR EACH ASBU BLOCK 0 MODULE**Explanation of the Table**

1	Block 0 Module Code
2	Block 0 Module Title
3	Implementation Indicator
4	Remarks

Module Code	Module Title	Implementation Indicator	Remarks
1	2	3	4
B0-APTA	Optimization of Approach Procedures including vertical guidance	% of international aerodromes having at least one runway end provided with APV Baro-VNAV or LPV procedures	
B0-WAKE	Increased Runway Throughput through Optimized Wake Turbulence Separation	% of applicable international aerodromes having implemented increased runway throughput through optimized wake turbulence separation	<ol style="list-style-type: none"> 1. Not to be considered for the first reporting cycles due to lack of maturity. 2. List of ADs to be established through regional air navigation agreement.
B0-RSEQ	Improve Traffic flow through Runway Sequencing (AMAN/DMAN)	% of applicable international aerodromes having implemented AMAN / DMAN	<ol style="list-style-type: none"> 1. Not to be considered for the first reporting cycles due to lack of maturity. 2. List of ADs to be established through regional air navigation agreement.
B0-SURF	Safety and Efficiency of Surface Operations (A-SMGCS Level 1-2)	% of applicable international aerodromes having implemented A-SMGCS Level 2	List of ADs to be established through regional air navigation agreement.
B0-ACDM	Improved Airport Operations through Airport-CDM	% of applicable international aerodromes having implemented improved airport operations through airport-CDM	List of ADs to be established through regional air navigation agreement.
B0-FICE	Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration	% of FIRs within which all applicable ACCs have implemented at least one interface to use AIDC / OLDI with neighbouring ACCs	
B0-DATM	Service Improvement through Digital Aeronautical Information Management	<ul style="list-style-type: none"> - % of States having implemented an AIXM based AIS database - % of States having implemented QMS 	

Module Code	Module Title	Implementation Indicator	Remarks
1	2	3	4
B0-AMET	Meteorological information supporting enhanced operational efficiency and safety	- % of States having implemented SADIS / WIFS - % of States having implemented QMS	
B0-FRTO	Improved Operations through Enhanced En-Route Trajectories	% of FIRs in which FUA is implemented	
B0-NOPS	Improved Flow Performance through Planning based on a Network-Wide view	% of FIRs within which all ACCs utilize ATFM systems	
B0-ASUR	Initial capability for ground surveillance	% of FIRs where ADS-B OUT and/or MLAT are implemented for the provision of surveillance services in identified areas.	Not to be considered for the first reporting cycles due to lack of maturity.
B0-ASEP	Air Traffic Situational Awareness (ATSA)	% of States having implemented air traffic situational awareness	Not to be considered for the first reporting cycles due to lack of maturity.
B0-OPFL	Improved access to optimum flight levels through climb/descent procedures using ADS-B	% of FIRs having implemented in-trail procedures	Not to be considered for the first reporting cycles due to lack of maturity.
B0-ACAS	ACAS Improvements	% of States requiring carriage of ACAS (with TCAS 7.1 evolution)	
B0-SNET	Increased Effectiveness of Ground-Based Safety Nets	% of States having implemented ground-based safety-nets (STCA, APW, MSAW, etc.)	
B0-CDO	Improved Flexibility and Efficiency in Descent Profiles (CDO)	- % of international aerodromes / TMAs with PBN STAR implemented - % of international aerodromes/TMA where CDO is implemented	
B0-TBO	Improved Safety and Efficiency through the initial application of Data Link En-Route	% of FIRs utilising data link en-route in applicable airspace	
B0-CCO	Improved Flexibility and Efficiency Departure Profiles - Continuous Climb Operations (CCO)	- % of international aerodromes / TMAs with PBN SID implemented - % of international aerodromes/TMA where CCO is implemented	

Appendix A

SAMPLE TEMPLATE

1. AIR NAVIGATION REPORT FORM (ANRF)

(This template demonstrates how ANRF to be used.

The data inserted here refers to ASBU B0-05/CDO as an example only)

Regional and National planning for ASBU Modules

2. REGIONAL/NATIONAL PERFORMANCE OBJECTIVE – B0-05/CDO: Improved Flexibility and Efficiency in Descent Profiles

Performance Improvement Area 4:

Efficient Flight Path – Through Trajectory-based Operations

3. ASBU B0-05/CDO: Impact on Main Key Performance Areas (KPA)

	Access & Equity	Capacity	Efficiency	Environment	Safety
Applicable	N	N	Y	Y	Y

4. ASBU B0-05/CDO: Planning Targets and Implementation Progress

5. Elements	6. Targets and implementation progress (Ground and Air)
1. CDO	
2. PBN STARs	

7. ASBU B0-05/CDO: Implementation Challenges

Elements	Implementation Area			
	Ground system Implementation	Avionics Implementation	Procedures Availability	Operational Approvals
1. CDO				
2. PBN STARs				

8. Performance Monitoring and Measurement

8A. ASBU B0-05/CDO: Implementation Monitoring

Elements	Performance Indicators/Supporting Metrics
1. CDO	Indicator: Percentage of international aerodromes/TMAs with CDO implemented Supporting metric: Number of international aerodromes/TMAs with CDO implemented
2. PBN STARs	Indicator: Percentage of international aerodromes/TMAs with PBN STARs implemented Supporting metric: Number of international aerodromes/TMAs with PBN STARs implemented

8. Performance Monitoring and Measurement 8 B. ASBU B0-05/CDO: Performance Monitoring	
Key Performance Areas (Out of eleven KPAs, for the present until experienced gained, only five have been selected for reporting through ANRF)	Where applicable, indicate qualitative Benefits,
Access & Equity	Not applicable
Capacity	Not applicable
Efficiency	Cost savings through reduced fuel burn. Reduction in the number of required radio transmissions.
Environment	Reduced emissions as a result of reduced fuel burn
Safety	More consistent flight paths and stabilized approach paths. Reduction in the incidence of controlled flight into terrain (CFIT).
9. Identification of performance metrics: It is not necessary that every module contributes to all of the five KPAs. Consequently, a limited number of metrics per type of KPA, serving as an example to measure the module(s)' implementation benefits, without trying to apportion these benefits between module, have been identified on page 5. For the family of ASBU modules selected for air navigation implementation, States/Region to choose the applicable performance (benefit) metrics from the list available on page 5. This approach would facilitate States in collecting data for the chosen performance metrics. States/Region, however, could add new metrics for different KPAs based on maturity of the system and ability to collect relevant data.	



AIR NAVIGATION REPORT FORM
HOW TO USE - EXPLANATORY NOTES

1. **Air Navigation Report Form (ANRF):** This form is nothing but the revised version of Performance Framework Form that was being used by Planning and Implementation Regional Groups (PIRGs)/States until now. The ANRF is a customized tool for Aviation System Block Upgrades (ASBU) Modules which is recommended for application for setting planning targets, monitoring implementation, identifying challenges, measuring implementation/performance and reporting. Also, the PIRGs and States could use this report format for any other air navigation improvement programmes such as Search and Rescue. If necessary, other reporting formats that provide more details may be used but should contain as a minimum the elements described in this ANRF template. The results will be analysed by ICAO and aviation partners and utilized in the Regional Performance Dashboards and the Annual Air Navigation Report. The conclusions from the Air Navigation Report will serve as the basis for future policy adjustments, aiding safety practicality, affordability and global harmonization, amongst other concerns.
2. **Regional/National Performance objective:** In the ASBU methodology, the performance objective will be the title of the ASBU module itself. Furthermore, indicate alongside corresponding Performance Improvement area (PIA).
3. **Impact on Main Key Performance Areas:** Key to the achievement of a globally interoperable ATM system is a clear statement of the expectations/benefits to the ATM community. The expectations/benefits are referred to eleven Key Performance Areas (KPA) and are interrelated and cannot be considered in isolation since all are necessary for the achievement of the objectives established for the system as a whole. It should be noted that while safety is the highest priority, the eleven KPAs shown below are in alphabetical order as they would appear in English. They are access/equity; capacity; cost effectiveness; efficiency; environment; flexibility; global interoperability; participation of ATM community; predictability; safety; and security. However, out of these eleven KPAs, for the present, only five have been selected for reporting through ANRF, which are Access & Equity, Capacity, Efficiency, Environment and Safety. The KPAs applicable to respective ASBU module are to be identified by marking Y (Yes) or N (No). The impact assessment could be extended to more than five KPAs mentioned above if maturity of the national system allows and the process is available within the State to collect the data.
4. **Planning Targets and Implementation Progress:** This section indicates planning targets and status of progress in the implementation of different elements of the ASBU Module for both air and ground segments.
5. **Elements related to ASBU module:** Under this section list elements that are needed to implement the respective ASBU Module. Furthermore, should there be elements that are not reflected in the ASBU Module (example: In ASBU B0-80/ACDM, Aerodrome certification and data link applications D-VOLMET, D-ATIS, D-FIS are not included; Similarly in ASBU B0-30/DAIM, note that WGS-84 and eTOD are not included) but at the same time if they are closely linked to the module, ANRF should specify those elements. As a part of guidance to PIRGs/States, every Regional ANP will have the complete list of all 18 Modules of ASBU Block 0 along with corresponding elements, equipage required on the ground and in the air as well as metrics specific to both implementation and performance (benefits).
6. **Targets and implementation progress (Ground and Air):** Planned implementation date (month/year) and the current status/responsibility for each element are to be reported in this section. Please provide as much details as possible and should cover both avionics and ground systems. This ANRF being high level document, develop necessary detailed action plan separately for each element/equipage.

7. **Implementation challenges:** Any challenges/problems that are foreseen for the implementation of elements of the Module are to be reported in this section. The purpose of the section is to identify in advance any issues that will delay the implementation and if so, corrective action is to be initiated by the concerned person/entity. The four areas, under which implementation issues, if any, for the ASBU Module to be identified, are as follows:

- Ground System Implementation;
- Avionics Implementation;
- Procedures Availability;
- Operational Approvals;

Should be there no challenges to be resolved for the implementation of ASBU Module, indicate as “NIL”.

8. **Performance Monitoring and Measurement:** Performance monitoring and measurement is done through the collection of data for the supporting metrics. In other words, metrics are quantitative measure of system performance – how well the system is functioning. The metrics fulfil three functions. They form a basis for assessing and monitoring the provision of ATM services, they define what ATM services user value and they can provide common criteria for cost benefit analysis for air navigation systems development. The Metrics are of two types:

A. **Implementation Monitoring:** Under this section, the indicator supported by the data collected for the metric reflects the status of implementation of elements of the Module. For example- Percentage of international aerodromes with CDO implemented. This indicator requires data for the metric “number of international aerodromes with CDO”.

B. **Performance Monitoring:** The metric in this section allows to asses benefits accrued as a result of implementation of the module. The benefits or expectations, also known as Key Performance Areas (KPA), are interrelated and cannot be considered in isolation since all are necessary for the achievement of the objectives established for the system as a whole. It should be noted that while safety is the highest priority, the eleven KPAs shown below are in alphabetical order as they would appear in English. They are access/equity; capacity; cost effectiveness; efficiency; environment; flexibility; global interoperability; participation of ATM community; predictability; safety; and security. However, out of these eleven KPAs, for the present until experienced gained, only five have been selected for reporting through ANRF, which are Access & Equity, Capacity, Efficiency, Environment and Safety. Where applicable, mention qualitative benefits under this section.

9. **Identification of performance metrics:** It is not necessary that every module contributes to all of the five KPAs. Consequently, a limited number of metrics per type of KPA, serving as an example to measure the module(s)’ implementation benefits, without trying to apportion these benefits between module, have been identified on page 6. For the family of ASBU modules selected for air navigation implementation, States/Region to choose the applicable performance (benefit) metrics from the list available on page 6. This approach would facilitate States in collecting data for the chosen performance metrics. States/Region, however, could add new metrics for different KPAs based on maturity of the system and ability to collect relevant data.



MID ANP, VOLUME III

PART II – AIR NAVIGATION SYSTEM/ASBU IMPLEMENTATION

1. INTRODUCTION

1.1 The planning and implementation of the ICAO Aviation System Block Upgrades (ASBUs) should be undertaken within the framework of the MIDANPIRG with the participation and support of all stakeholders, including regulatory personnel.

1.2 The ASBU Threads/Elements adopted by the MID Region should be followed in accordance with the specific ASBU requirements to ensure global interoperability and harmonization of air traffic management. The MIDANPIRG should determine the ASBU Threads/Elements, which best provide the needed operational improvements in the MID Region.

2. ICAO MID REGION AIR NAVIGATION OBJECTIVES, PRIORITIES AND TARGETS

2.1 PIRGs are requested to establish priorities and targets for air navigation, in line with the ASBU methodology.

2.2 Considering that some of the ASBU threads and elements contained in the GANP are specialized packages that may be applied where specific operational requirements or corresponding benefits exist, States and PIRGs should clarify how each Block Upgrade thread/element would fit into the national and regional plans.

2.3 In establishing and updating the MID Air Navigation Plan, the MIDANPIRG and States should give due consideration to the safety priorities set out in the Global and Regional Aviation Safety Plans (GASP) and in particular the MID Region Safety Strategy attached to the MID Regional Aviation Safety Plan (MID RASP).

2.4 The MID Region air navigation priorities and targets are reflected in the MID Region Air Navigation Strategy, which is being reviewed on regular basis to ensure that is aligned with the GANP (latest edition) and also reflecting the regional priorities. The MID Region Air Navigation Strategy is available at: https://portal.icao.int/RO_MID/Pages/MIDDocs.aspx

2.5 States contribute to the implementation of the GANP by developing national air navigation plans to ensure the provision of essential air navigation services for international civil aviation and the modernization of their air navigation system based on local performance and operational needs, taking into consideration regional requirements. In addition, States contribute to the implementation of the GANP by sharing best practices and lessons learned from implementation challenges, performing cost-benefit analyses and assessing environmental impact, human performance and safety.

3. MONITORING AND REPORTING ON THE STATUS OF IMPLEMENTATION OF THE PRIORITY 1 ASBU THREADS/ELEMENTS

3.1 The monitoring of air navigation performance and its enhancement should be carried out through identification of relevant air navigation Metrics and Indicators as well as the adoption and attainment of air navigation system Targets.

3.2 The monitoring of the regional implementation progress and performance Metrics/Indicators should be done for all Elements planned by MIDANPIRG. The monitoring should allow global correlation of status and expectations, appreciation of benefits achieved for the airspace users, as well as corrective actions to be taken by MIDANPIRG on implementation plans.

3.3 On the basis of operational requirements and taking into consideration the associated benefits, the MID Region has prioritized the implementation of each ASBU Thread/Element from Block 0 and Block 1, and agreed on the subsidiary bodies that will be monitoring and supporting the implementation of the ASBU Threads/Elements.

3.4 The process of ASBU Threads/Elements implementation against the objectives and targets as set forth in the MID Air Navigation Strategy (Doc002), available via https://portal.icao.int/RO_MID/Pages/MIDDocs.aspx, is tracked through a regional picture that is periodically updated and posted on the ICAO MID webpage MID Region Air Navigation Report <https://www.icao.int/mid/Pages/default.aspx>.

Data collection

3.5 The process of data collection is one of the most critical processes at National and Regional levels to support the monitoring and reporting of the status of implementation of the priority 1 ASBU Threads/Elements. MIDANPIRG urged MID States to provide the ICAO MID Office, with necessary data on implementation progress at least once a year (by 1 December every year) for the development of the MID Region Air Navigation Reports, on annual basis.

3.6 The following Tables available in the Appendix are used for the collection of detailed information related to the implementation of associated priority 1 ASBU Threads/Elements, which used also for the determination of the performance indicators included in the MID Region Air Navigation Strategy: DAIM 3-1, AMET 3-1, APTA 3-1, ACAS 3-1 and ASUR 3-1. Other Tables might be developed for other Threads/Elements.

4. PERFORMANCE MONITORING OF THE MID REGION AIR NAVIGATION SYSTEM

4.1 In addition to the monitoring of the MID Region priority 1 ASBU Threads/Elements (Block 0 and 1) and as part of the performance-based approach, an initial set of KPIs has been identified to be used for monitoring the performance of the Air Navigation System at National and Regional Levels, and has been addressed in the MID DOC 002 MID Region Air Navigation Strategy.

4.2 Reporting and monitoring results of these KPIs will be analysed by the MIDANPIRG, States and ICAO Secretariat to steer the air navigation improvements, take corrective actions and review the allocated objectives, priorities and targets, as appropriate.

APPENDIX

DAIM Digital Aeronautical Information Management

In order to assist States in the planning for the transition from AIS to AIM in an expeditious manner, the following Tables, should be used:

- 1- **Table DAIM 3-1** sets out the requirements for the Provision of AIS/AIM products and services based on the Integrated Aeronautical Information Database (IAID). It reflects the transition from the current product centric AIS to data centric AIM. For the future digital environment, it is important that the authoritative databases are clearly designated and such designation must be published for the users. This is achieved with the concept of the Integrated Aeronautical Information Database (IAID), a single access point for one or more authoritative databases (AIP, Terrain, Obstacles, AMDB, data-driven charting, etc.) for which the State is responsible. This Table will be used for the monitoring of the GANP and MID Region Air Navigation Strategy element DAIM-B1/1.
- 2- **Table DAIM 3-2** sets out the requirements for aeronautical data quality. It will be used for the monitoring of the GANP and MID Region Air Navigation Strategy element DAIM-B1/1.
- 3- **Table DAIM 3-3** sets out the requirements for the implementation of the World Geodetic System – 1984 (WGS-84). The requirement to use a common geodetic system remains essential to facilitate the exchange of data between different systems. The expression of all coordinates in the AIP and charts using WGS-84 is an important first step for the transition to AIM. This Table will be used for the monitoring of the GANP and MID Region Air Navigation Strategy element DAIM-B1/1.
- 4- **Table DAIM 3-4-1** sets out the requirements for the provision of Terrain and Obstacle data sets for Area 1 and Area 4. It will be used for the monitoring of the GANP and MID Region Air Navigation Strategy elements DAIM-B1/3 and DAIM-B1/4.
- 5- **Table DAIM 3-4-2** sets out the requirements for the provision of Terrain and Obstacle data sets for Area 2. It will be used for the monitoring of the GANP and MID Region Air Navigation Strategy elements DAIM-B1/3 and DAIM-B1/4.
- 6- **Table DAIM 3-4-3** sets out the requirements for the provision of Terrain and Obstacle data sets for Area 3 and implementation of Airport Mapping Databases (AMDB). It will be used for the monitoring of the GANP and MID Region Air Navigation Strategy elements DAIM-B1/3, DAIM-B1/4 and B1/5.

Table DAIM 3-1

Provision of AIS/AIM products and services based on the Integrated Aeronautical Information Database (IAID)

EXPLANATION OF THE TABLE

Column:

- 1 Name of the State or territory for which the provision of AIS/AIM products and services based on the IAID is required.
- 2 Requirement for the implementation and designation of the authoritative IAID, shown by:
 - FI – Fully Implemented
 - PI – Partially Implemented
 - NI – Not Implemented

Note 1 — The IAID of a State is a single access point for one or more databases (AIP, Terrain, Obstacles, AMDB, etc.). The minimum set of databases which should be integrated is defined in Annex 15.

Note 2 — The information related to the designation of the authoritative IAID should be published in the AIP (GEN 3.1)
- 3 Requirement for an IAID driven AIP production, shown by:
 - FI – Fully Implemented (eAIP: Text, Tables and Charts)
 - PI – Partially Implemented
 - NI – Not Implemented

Note 3 — AIP production includes, production of AIP, AIP Amendments and AIP Supplements

Note 4 — Charts' GIS-based database should be interoperable with AIP database
- 4 Requirement for an IAID driven NOTAM production, shown by:
 - FC – Fully Compliant
 - NC – Not Compliant
- 5 Requirement for an IAID driven SNOWTAM processing, shown by:
 - FI – Fully Implemented
 - NI – Not Implemented
- 6 Requirement for an IAID driven PIB production, shown by:
 - FC – Fully Compliant
 - PC – Partially Compliant
 - NC – Not Compliant
- 7 Requirement for Procedure design systems to be interoperable with the IAID, shown by:
 - FI – Fully Implemented
 - PI – Partially Implemented
 - NI – Not Implemented

Note 5 — full implementation includes the use of the IAID for the design of the procedures and for the storage of the encoded procedures in the IAID
- 8 Requirement for ATS systems to be interoperable with the IAID, shown by:
 - FI – Fully Implemented

PI – Partially Implemented

NI – Not Implemented

- 9 Action Plan — short description of the State’s Action Plan with regard to the provision of AIM products and services based on the IAID, especially for items with a “PC”, “PI”, “NC” or “NI” status, including planned date(s) of full compliance, as appropriate.
- 10 Remarks — additional information, including detail of “PC”, “NC”, “PI” and “NI”, as appropriate.

TABLE DAIM-3-1
Provision of AIS/AIM products and services based on the Integrated Aeronautical Information Database (IAID)

State	IAID	AIP	NOTAM	SNOWTAM	PIB	Procedure Design	ATS	Action Plan	Remarks
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>
BAHARAIN	FI	FI	FC	FI	FC	FI	FI		AIXM: 5.1
EGYPT	FI	PI	FC	FI	FC	PI	PI		AIXM: 5.1 (by 2020) 3 and 7 by 2020
IRAN,	NI	NI	NC	NI	NC	NI	NI		AIXM: NI Separate semi-automated NOTAM/SNOWTAM system is operative
IRAQ	NI	NI	NC	NI	NC	NI	NI		AIXM: NI
JORDAN	FI	NI	FC	FI	FC	NI	NI	2021	AIXM: 4.5 (through EAD)
KUWAIT	NI	NI	FC	NI	PC	NI	NI		AIXM: NI (5.1 in progress)
LEBANON	NI	NI	NC	NI	NC	NI	NI		AIXM: 4.5
LIBYA	NI	NI	NC	NI	NC	NI	NI		AIXM: NI
OMAN	NI	NI	NC	NI	NC	NI	NI	Apr 2021	AIXM: NI (5.1 in progress)
QATAR	PI	PI	FC	NI	FC	PI	NI	2021 – Data Integration (AIP, Terrain, Obstacle, Procedure Design and AMDB)	AIXM: 5.1
SAUDI ARABIA	NI	NI	NC	NI	NC	NI	NI	AIXM 5.1 & NOTAM: 2020	AIXM: 4.5
SUDAN	FI	FI	FC	NI	FC	FI	FI		AIXM: 5.1
SYRIA	NI	NI	NC	NI	NC	NI	NI	No Action Plan	AIXM: NI
UAE	FI	FI	NC	NI	PC	NI	PI	AMDB: 2016-2021; PIB: AVBL at OMAA, OMDB,	AIXM: 5.1.1

State	IAID	AIP	NOTAM	SNOWTAM	PIB	Procedure Design	ATS	Action Plan	Remarks
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>
								OMDW, OMFJ, other ADs 2020; Procedure Design 2020; ATS: ACC AVBL, ADs 2020 Digital NOTAM: 2016-2021	
YEMEN	NI	NI	NC	NI	NC	NI	NI	No Action Plan	AIXM: NI

Table DAIM-3-2

Aeronautical Data Quality

EXPLANATION OF THE TABLE

Column:

- 1 Name of the State or territory.
- 2 Compliance with the requirement for implementation of QMS for Aeronautical Information Services including safety and security objectives, shown by:
 - FC – Fully compliant
 - NC – Not compliant
- 3 Compliance with the requirement for the establishment of formal arrangements with approved data originators concerning aeronautical data quality, shown by:
 - FC – Fully compliant
 - PC – Partially compliant
 - NC – Not compliant
- 4 Implementation of digital data exchange with originators, shown by:
 - FI – Implemented
 - PI – Partially Implemented
 - NI – Not implemented

Note 1 — Information providing detail of “PI” and “NI” should be given in the Remarks column (percentage of implementation).
- 5 Compliance with the requirement for metadata, shown by:
 - FC – Fully compliant
 - PC – Partially compliant
 - NC – Not compliant
- 6 Compliance with the requirements related to aeronautical data quality monitoring (accuracy, resolution, timeliness, completeness), shown by:
 - FC – Fully compliant
 - PC – Partially compliant
 - NC – Not compliant
- 7 Compliance with the requirements related to aeronautical data integrity monitoring, shown by:
 - FC – Fully compliant
 - PC – Partially compliant
 - NC – Not compliant
- 8 Compliance with the requirements related to the AIRAC adherence, shown by:
 - FC – Fully compliant
 - NC – Not compliant
- 9 Action Plan — short description of the State’s Action Plan with regard to aeronautical data quality requirements implementation, especially for items with a “PC”, “PI”, “NC” or “NI” status, including planned date(s) of full compliance, as appropriate.
- 10 Remarks — additional information, including detail of “PC”, “NC”, “PI” and “NI”, as appropriate.

TABLE DAIM-3-2
Aeronautical Data Quality

	QMS	Establishment of formal agreements	Digital data exchange with originators	Metadata	Data quality monitoring	Data integrity monitoring	AIRAC adherence	Action Plan	Remarks
State	2	3	4	5	6	7	8	9	10
BAHARAIN	FC	FC	FI	FC	FC	FC	FC		
EGYPT	FC	FC	PI	FC	PC	PC	FC	4, 6 and 7 by 2022	
IRAN,	FC	PC	NI	NC	FC	FC	FC		
IRAQ	NC	PC	NI	NC	NC	NC	FC		
JORDAN	FC	PC	NI	FC	FC	FC	FC	3, 4: 2021	
KUWAIT	FC	PC	NI	NC	NC	NC	FC		
LEBANON	NC	PC	NI	PC	PC	PC	FC		
LIBYA	NC	NC	NI	NC	NC	NC	NC	No Action Plan	
OMAN	NC	PC	NI	NC	PC	PC	FC	Apr 2021	
QATAR	FC	PC	NI	FC	FC	FC	FC	4: 2021, 3: 2020	
SAUDI ARABIA	FC	FC	NI	FC	FC	FC	FC	4: 2020	
SUDAN	FC	FC	PI	FC	FC	FC	FC	4: 2021	
SYRIA	NC	NC	NI	NC	NC	NC	NC	No Action Plan	
UAE	FC	PC	PI	FC	FC	FC	FC	4: implemented for some of internal stakeholders. Completion by 2020	
YEMEN	NC	NC	NI	PC	NC	NC	NC	No Action Plan	

Table DAIM-3-3

World Geodetic System-1984 (WGS-84)

EXPLANATION OF THE TABLE

Column:

- 1 Name of the State or territory for which implementation of WGS-84 is required.
- 2 Compliance with the requirements for implementation of WGS-84 for FIR and En-route points, shown by:
 - FC – Fully compliant
 - PC – Partially compliant
 - NC – Not compliant
- 3 Compliance with the requirements for implementation of WGS-84 for Terminal Areas (arrival, departure and instrument approach procedures), shown by:
 - FC – Fully compliant
 - PC – Partially compliant
 - NC – Not compliant
- 4 Compliance with the requirements for implementation of WGS-84 for Aerodrome, shown by:
 - FC – Fully compliant
 - PC – Partially compliant
 - NC – Not compliant
- 5 Compliance with the requirements for implementation of Geoid Undulation, shown by:
 - FC – Fully compliant
 - PC – Partially compliant
 - NC – Not compliant
- 6 Action Plan — short description of the State’s Action Plan with regard to WGS-84 implementation, especially for items with a “PC”, “PI”, “NC” or “NI” status, including planned date(s) of full compliance, as appropriate.
- 7 Remarks — additional information, including detail of “PC” and “NC”, as appropriate.

TABLE DAIM-3-3
World Geodetic System-1984 (WGS-84)

State	FIR/ENR	Terminal	AD	GUND	Action Plan	Remarks
1	2	3	4	5	6	7
BAHARAIN	FC	FC	FC	FC		
EGYPT	FC	FC	FC	FC		
IRAN	FC	FC	FC	FC		
IRAQ	FC	FC	FC	NC		
JORDAN	FC	FC	FC	FC		
KUWAIT	FC	FC	FC	FC		Last survey FEB 2015
LEBANON	FC	FC	FC	FC		
LIBYA	PC	PC	NC	NC	No Action Plan	
OMAN	FC	FC	FC	FC		
QATAR	FC	FC	FC	FC		Annual Validation/Survey
SAUDI ARABIA	FC	FC	FC	FC		
SUDAN	FC	FC	FC	FC		
SYRIA	FC	FC	FC	NC	No Action Plan	
UAE	FC	FC	FC	FC		
YEMEN	FC	FC	FC	FC		

Table DAIM-3-4-1

Provision of Terrain and Obstacle data sets for Areas 1 and 4

EXPLANATION OF THE TABLE

Column

- | | |
|---|--|
| 1 | Name of the State or territory for which Terrain and Obstacle data sets for Areas 1 and 4 are required. |
| 2 | Compliance with requirement for the provision of Terrain data sets for Area 1, shown by:
FC – Fully Compliant
PC – Partially Compliant
NC – Not Compliant |
| 3 | Compliance with requirement for the provision of Terrain data sets for Area 4, shown by:
FC – Fully Compliant
PC – Partially Compliant
NC – Not Compliant
N/A – Not Applicable |
| 4 | Compliance with requirement for the provision of Obstacle data sets for Area 1, shown by:
FC – Fully Compliant
PC – Partially Compliant
NC – Not Compliant |
| 5 | Compliance with requirement for the provision of Obstacle data sets for Area 4, shown by:
FC – Fully Compliant
PC – Partially Compliant
NC – Not Compliant
N/A – Not Applicable |
| 6 | Action plan — short description of the State’s Action Plan with regard to compliance with the requirements for provision of Terrain and Obstacle data sets for Areas 1 and 4, especially for items with a “PC” or “NC” status, including planned date(s) of full compliance, as appropriate. |
| 7 | Remarks— additional information, including detail of “PC” and “NC”, as appropriate. |

TABLE DAIM-3-4-1**Provision of Terrain and Obstacle data sets for Areas 1 and 4**

State	Terrain data sets		Obstacle data sets		Action Plan	Remarks
	Area 1	Area 4	Area 1	Area 4		
1	2	3	4	5	6	7
BAHARAIN	FC	FC	FC	FC		
EGYPT	FC	FC	NC	NC	Completion of area 4 (HECA & HESH): Dec. 2019	
IRAN	FC	FC	FC	FC		
IRAQ	NC	NC	NC	NC		
JORDAN	PC	PC	NC	NC	2021	
KUWAIT	FC	FC	FC	FC		
LEBANON	NC	N/A	NC	N/A	2 & 4: Q2-2019	
LIBYA	NC	N/A	NC	N/A		
OMAN	NC	N/A	NC	N/A	Apr 2021	
QATAR	FC	FC	FC	FC		
SAUDI ARABIA	FC	FC	FC	FC		
SUDAN	NC	N/A	NC	N/A	2021	
SYRIA	NC	N/A	NC	N/A	No Action Plan	
UAE	FC	FC	FC	FC		
YEMEN	NC	N/A	NC	N/A	No Action Plan	

Table DAIM-3-4-2
Provision of Terrain and Obstacle data sets for Area 2, the take-off flight path area (TOFP) and the obstacle limitation surfaces (OLS)

EXPLANATION OF THE TABLE

Column

- | | |
|---|---|
| 1 | Name of the State or territory for which Terrain and Obstacle data sets for Area 2 are required. |
| 2 | Compliance with requirement for the provision of Terrain data sets for Area 2a, shown by:
FC – Fully Compliant
PC – Partially Compliant
NC – Not Compliant |
| 3 | Compliance with requirement for the provision of Terrain data sets for Area 2b, shown by:
FI – Fully Implemented
PI – Partially Implemented
NI – Not implemented
N/A – Not Applicable |
| 4 | Compliance with requirement for the provision of Terrain data sets for Area 2c, shown by:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
N/A – Not Applicable |
| 5 | Compliance with requirement for the provision of Terrain data sets for Area 2d, shown by:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
N/A – Not Applicable |
| 6 | Compliance with requirement for the provision of Terrain data sets for the take-off flight path area (TOFP), shown by:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
N/A – Not Applicable |
| 7 | Compliance with requirement for the provision of Terrain data sets for the obstacle limitation surfaces (OLS) shown by:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
N/A – Not Applicable |

- 8 Compliance with requirement for the provision of Obstacle data sets for Area 2a, shown by:
FC – Fully Compliant
PC – Partially Compliant
NC – Not Compliant
- 9 Compliance with requirement for the provision of Obstacle data sets for Area 2b, shown by:
FI – Fully Implemented
PI – Partially Implemented
NI – Not implemented
N/A – Not Applicable
- 10 Compliance with requirement for the provision of Obstacle data sets for Area 2c, shown by:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
N/A – Not Applicable
- 11 Compliance with requirement for the provision of Obstacle data sets for Area 2d, shown by:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
N/A – Not Applicable
- 12 Compliance with requirement for the provision of Obstacle data sets for the take-off flight path area (TOFP), shown by:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
N/A – Not Applicable
- 13 Compliance with requirement for the provision of Obstacle data sets for the obstacle limitation surfaces (OLS), shown by:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
N/A – Not Applicable
- 14 Action plan — short description of the State’s Action Plan with regard to compliance with the requirements for provision of Terrain and Obstacle data sets for Area 2, especially for items with a “PC”, “PI”, “NC” or “NI” status.
- 15 Remarks— additional information, including detail of “PC”, “PI” and “NC”, “NI”, as appropriate.

TABLE DAIM-3-4-2**Provision of Terrain and Obstacle data sets for Area 2, the take-off flight path area (TOFP) and the obstacle limitation surfaces (OLS)**

State	Terrain data sets						Obstacle data sets						Action Plan	Remarks
	Area 2a	Area 2b	Area 2c	Area 2d	TOFP	OLS	Area 2a	Area 2b	Area 2c	Area 2d	TOFP	OLS		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
BAHARA IN	FC	NI	NI	NI	FI	FI	FC	FI	FI	FI	FI	FI		
EGYPT	PC	PI	PI	PI	NI	NI	NC	NI	NI	NI	NI	NI	To be completed by 2022	
IRAN,	FC	FI	FI	FI	NI	NI	FC	FI	FI	FI	NI	NI		
IRAQ	NC	NI	NI	NI	NI	NI	NC	NI	NI	NI	NI	NI	To be completed by 2024	
JORDAN	NC	NI	NI	NI	NI	NI	NC	NI	NI	NI	NI	NI	To be completed by 2022	Area 2a, 2b and 2c implemented for OJAI RWY 26R/08L
KUWAIT	NC	NI	NI	NI	NI	NI	NC	NI	NI	NI	NI	NI		
LEBANON	NC	NI	NI	NI	NI	NI	NC	NI	NI	NI	NI	NI	To be completed by Dec 2021	
LIBYA	NC	NI	NI	NI	NI	NI	NC	NI	NI	NI	NI	NI	No Action Plan	
OMAN	NC	NI	NI	NI	NI	NI	NC	NI	NI	NI	NI	NI	Apr 2021	
QATAR	FC	FI	FI	FI	FI	FI	FC	FI	FI	FI	FI	FI		

SAUDI ARABIA	PC	PI	PI	PI	PI	PI	FC	FI	FI	FI	PI	PI	To be completed by 2021	Obstacle and terrain data sets for area 2a, TOFP and OLS are provided in: OERK, OEDF, OEMA, and OEJN
SUDAN	NC	NI	NI	NI	NI	NI	NC	NI	NI	NI	NI	NI	2021	
SYRIA	NC	NI	NI	NI			NC	NI	NI	NI			No Action Plan	
UAE	PC	PI	PI	PI	PI	PI	PC	PI	PI	PI	PI	PI	To be completed by 2020	TOD Area 2 (all sub-areas) survey & data acquisition through international airport service providers
YEMEN	NC	NI	NI	NI	NI	NI	NC	NI	NI	NI	NI	NI	No Action Plan	

Table DAIM-3-4-3
Provision of Terrain and Obstacle data sets for Area 3 and Airport Mapping
Databases (AMDB)

EXPLANATION OF THE TABLE

Column

- 1 Name of the State or territory for which Terrain and Obstacle data sets for Area 3 and AMDB are required.
- 2 Compliance with requirement for the provision of Terrain data sets for Area 3, shown by:
 - FI – Fully Implemented
 - PI – Partially Implemented
 - NI – Not Implemented
 - N/A – Not Applicable
- 3 Compliance with requirement for the provision of Obstacle data sets for Area 3, shown by:
 - FI – Fully Implemented
 - PI – Partially Implemented
 - NI – Not Implemented
 - N/A – Not Applicable
- 4 Implementation of AMDB, shown by:
 - FI – Fully Implemented
 - PI – Partially Implemented
 - NI – Not Implemented
 - N/A – Not Applicable
- 5 Action plan — short description of the State’s Action Plan with regard to compliance with the requirements for provision of Terrain and Obstacle data sets for Area 3 and AMDB implementation, especially for items with a “PC”, “PI”, “NC” or “NI” status.
- 6 Remarks— additional information, including detail of “PI” and “NI”, as appropriate.

TABLE DAIM-3-4-3**Provision of Terrain and Obstacle data sets for Area 3 and Airport Mapping Databases (AMDB)**

State	Terrain data sets (Area 3)	Obstacle data sets (Area 3)	AMDB	Action Plan	Remarks
1	2	3	4	5	6
BAHARAIN	NI	FI	NI	To be completed by 2021	
EGYPT	NI	NI	NI	To be completed by 2022	
IRAN	FI	FI	NI	AMDB 2021	
IRAQ	NI	NI	NI		
JORDAN	PI	PI	NI		Area 3 implemented for OJAI RWY 26R/08L
KUWAIT	FI	FI	NI		
LEBANON	NI	NI	NI	Area 3: Q4-2019 AMDB: no plan	
LIBYA	NI	NI	NI	No Action Plan	
OMAN	NI	NI	NI	Apr 2021	
QATAR	FI	FI	PI	AMDB: 2021	
SAUDI ARABIA	PI	PI	NI	Area 3 2022	
SUDAN	NI	NI	NI	2021	
SYRIA	NI	NI	NI	No Action Plan	
UAE	FI	FI	NI	AMDB: completed by 2021	AMDB technical infrastructure (metadata, model) implemented in IAID, pending compatibility analysis AIXM 5.1 with revised AMDB model (RTCA DO-272D) when released.
YEMEN	NI	NI	NI	No Action Plan	

AMET Meteorological information

Table AMET 3-1

Meteorological observations products

EXPLANATION OF THE TABLE

Column

- 1 Name of the State
- 2 Status of implementation of Automatic Weather Observation System (AWOS) information, where:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
N/A – Not Applicable
- 3 Status of implementation of Local reports (MET REPORT/SPECIAL), where:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
N/A – Not Applicable
- 4 Status of implementation of Aerodrome reports (METAR/SPECI), where:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
N/A – Not Applicable
- 5 Status of implementation of Lightning Information, where:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
N/A – Not Applicable
- 6 Status of implementation of Ground-based weather radar information, where:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
N/A – Not Applicable

- 7 Status of implementation of Meteorological satellite imagery, where:
 FI – Fully Implemented
 PI – Partially Implemented
 NI – Not Implemented
 N/A – Not Applicable
- 8 Status of implementation of Aircraft meteorological report (ie. ADS-B, AIREP, etc.), where:
 FI – Fully Implemented
 PI – Partially Implemented
 NI – Not Implemented
 N/A – Not Applicable
- 9 Status of implementation of Vertical wind and temperature profiles, where:
 FI – Fully Implemented
 PI – Partially Implemented
 NI – Not Implemented
 N/A – Not Applicable
- 10 Status of implementation of Wind shear alerts, where:
 FI – Fully Implemented
 PI – Partially Implemented
 NI – Not Implemented
 N/A – Not Applicable
- 11 Remarks

State	Implementation									Remarks
	AWOS	MET REPORT/SPECIAL	METAR/SPECI	Lightning Information	Ground-based weather radar information	Meteorological satellite imagery	Aircraft meteorological report	Vertical wind and temperature profiles	Wind shear alerts	
1	2	3	4	5	6	7	8	9	10	11
BAHRAIN			FI							
EGYPT			FI							

State	Implementation									Remarks
	AWOS	MET REPORT/SPECIAL	METAR/SPECI	Lightning Information	Ground-based weather radar information	Meteorological satellite imagery	Aircraft meteorological report	Vertical wind and temperature profiles	Wind shear alerts	
1	2	3	4	5	6	7	8	9	10	11
IRAN			FI							
IRAQ			NI							Need METAR for ORBM
JORDAN			FI							
KUWAIT			FI							
LEBANON			FI							
LIBYA			FI							
OMAN			FI							
QATAR			FI							
SAUDI ARABIA			FI							
SUDAN			FI							
SYRIA			NI							Need METAR for OSAP
UAE			FI							
YEMEN			NI							Need METAR for OYAA, OYHD, OYRN, OYSN and OYZZ

Table AMET 3-2

Meteorological forecast and warning products

EXPLANATION OF THE TABLE

Column

- 1 Name of the State
- 2 Status of implementation of World Area Forecast System (WAFS) gridded products, where:
 - FI – Fully Implemented
 - PI – Partially Implemented
 - NI – Not Implemented
 - N/A – Not Applicable
- 3 Status of implementation of Significant Weather (SIGWX), where:
 - FI – Fully Implemented
 - PI – Partially Implemented
 - NI – Not Implemented
 - N/A – Not Applicable
- 4 Status of implementation of Aerodrome Forecast (TAF), where:
 - FI – Fully Implemented
 - PI – Partially Implemented
 - NI – Not Implemented
 - N/A – Not Applicable
- 5 Status of implementation of Trend Forecast (TREND), where:
 - FI – Fully Implemented
 - PI – Partially Implemented
 - NI – Not Implemented
 - N/A – Not Applicable
- 6 Status of implementation of Take-off Forecast, where:
 - FI – Fully Implemented
 - PI – Partially Implemented
 - NI – Not Implemented
 - N/A – Not Applicable
- 7 Status of implementation of SIGMET, where:
 - FI – Fully Implemented
 - PI – Partially Implemented

- NI – Not Implemented
- N/A – Not Applicable
- 8 Status of implementation of Aerodrome Warning, where:
 - FI – Fully Implemented
 - PI – Partially Implemented
 - NI – Not Implemented
 - N/A – Not Applicable
- 9 Status of implementation of Wind Shear Warning, where:
 - FI – Fully Implemented
 - PI – Partially Implemented
 - NI – Not Implemented
 - N/A – Not Applicable
- 10 Remarks

State	Implementation								Remarks
	WAFS	SIGWX	TAF	TREND	Take-off Forecast	SIGMET	Aerodrome Warning	Wind Shear Warning	
1	2	3	4	5	6	7	8	9	10
BAHRAIN	FI		FI			FI			
EGYPT	FI		FI			FI			
IRAN	NI		FI			FI			
IRAQ	FI		NI			FI			Need TAF for ORBM
JORDAN	FI		FI			FI			
KUWAIT	FI		FI			FI			
LEBANON	NI		FI			FI			
LIBYA	FI		FI			FI			
OMAN	FI		FI			FI			
QATAR	FI		FI			NA			SIGMET not applicable

State	Implementation								Remarks
	WAFS	SIGWX	TAF	TREND	Take-off Forecast	SIGMET	Aerodrome Warning	Wind Shear Warning	
1	2	3	4	5	6	7	8	9	10
SAUDI ARABIA	FI		FI			FI			
SUDAN	FI		FI			FI			
SYRIA	NI		NI			NI			Need TAF for OSAP
UAE	FI		FI			FI			
YEMEN	FI		NI			NI			Need TAF for OYAA, OYHD, OYRN, OYSN and OYTZ

Table AMET 3-3

Climatological and historical meteorological Products

EXPLANATION OF THE TABLE

Column

- 1 Name of the State
- 2 Status of availability of Aerodrome climatological tables, where:
 FI – Fully Implemented
 PI – Partially Implemented
 NI – Not Implemented
- 3 Status of availability of Aerodrome climatological summaries, where:
 FI – Fully Implemented
 PI – Partially Implemented
 NI – Not Implemented
- 4 Remarks

State	Implementation		Remarks
	Aerodrome climatological tables;	Aerodrome climatological summaries	
1	2	3	4
BAHRAIN			
EGYPT			
IRAN			

State	Implementation		Remarks
	Aerodrome climatological tables;	Aerodrome climatological summaries	
1	2	3	4
IRAQ			
JORDAN			
KUWAIT			
LEBANON			
LIBYA			
OMAN			
QATAR			
SAUDI ARABIA			
SUDAN			
SYRIA			
UAE			
YEMEN			

Table AMET 3-4

Dissemination of meteorological products

Column

- 1 Name of the State
- 2 Dissemination of meteorological products using TAC, where:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
- 3 Dissemination of meteorological products using Gridded, where:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
- 4 Dissemination of meteorological products using Graphical, where:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
- 5 Dissemination of meteorological products using BUFR code, where:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
- 6 Dissemination of meteorological products using IWXXM (in XML/GML), where:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
- 7 Dissemination means includes AFTN, where:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
- 8 Dissemination means includes AMHS, where:
FI – Fully Implemented
PI – Partially Implemented
NI – Not Implemented
- 9 Dissemination means includes ssecure internet services (WIFS/SADIS), where:

FI – Fully Implemented
 PI – Partially Implemented
 NI – Not Implemented
 Remarks

10

State	Dissemination of meteorological products							Remarks	
	Formats				Means				
1	(TAC) 2	(Gridded) 3	(Graphical) 4	(BUFR) 5	(IWXXM) 6	(AFTN) 7	(AMHS) 8	(WIFS/SADIS) 9	10
BAHRAIN	FI				NI	Y		Y	
EGYPT	FI				NI	Y		Y	
IRAN	FI				NI	Y		N	
IRAQ	FI				NI	Y		Y	
JORDAN	FI				NI	Y		Y	
KUWAIT	FI				NI	FI		FI	
LEBANON	FI				NI	FI		NI	
LIBYA	FI				NI	FI		FI	
OMAN	FI				NI	FI		FI	
QATAR	FI				FI	FI	FI	FI	
SAUDI ARABIA	FI				FI	FI	FI	FI	
SUDAN	FI				FI	FI		FI	
SYRIA	FI				NI	FI		NI	
UAE	FI				FI	FI	FI	FI	
YEMEN	NI				NI			FI	

APTA : Improve arrival and departure operations

TABLE -APTA 3-1

EXPLANATION OF THE TABLE

Column	
1	Name of the State / International Aerodromes' Location Indicator
2	Runway Designator
3, 4, 5	Conventional Approaches (ILS / VOR or NDB)
6, 7, 8, 9	Elements of APTA B0/1 PBN Approaches with basic capabilities (Status of PBN Plan and implementation of LNAV, LNAV/VNAV), where: Y – Yes, implemented N – No, not implemented
10	PBN Runway: where any type of PBN approach is implemented
12, 15	Elements of APTA B0/2 PBN SID and STAR procedures (with basic capabilities) Y – Yes, implemented N – No, not implemented
11, 13	Elements of B0/5 CCO basic (Status of implementation of CCO) per runway end and per aerodrome, where: Y – Yes, implemented N – No, not implemented
14, 16	Elements of - B0/4 CDO basic (Status of implementation of CDO) per runway end and per aerodrome, where: Y – Yes, implemented N – No, not implemented
17	Elements of B0/7 Performance based aerodrome operating minima – Advanced aircraft (Compliance with the requirements for PB AOM) per State, where: FC – Fully compliant NC – Not compliant
18	Remarks

Int'l AD (Ref.)	RWY (2)	Conventional Approaches (3)	APTA (6)		CCO (11)	CDO (14)	PB AOM (17)	Remarks (18)
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MID ANP (1)		Precision (4)		VOR or NDB (5)	PBN PLAN (7) Update date	LNAV (8)	LNAV / VNAV (9)	PBN RWY (10)	RNAV SID (12)		CCO (13)		RNAV STAR (15)		CDO (16)			
		xLS	CAT						RWY	AD	RWY	AD	RWY	AD	RWY	AD		
BAHRAIN																		1
OBBI	12L	ILS	I	VORDME		Y	Y	Y			Y	Y	Y	Y	Y	Y		
	12R			VORDME		Y	Y	Y										
	30L			VORDME		Y	Y	Y										
	30R	ILS	I	VORDME		Y	Y	Y			Y		Y		Y			
Total	4	2		4	Y	4	4	4	0	0	2	1	2	1	2	1		
%		50		100	Y	100	100	100	0	0	50	100	50	100	50	100		
EGYPT																		7
HEBA	14							Y		Y								
	32	ILS	I			Y		Y	Y									
HESN	17			VORDME		Y	Y	Y	Y	Y			Y	Y				
	35	ILS	I	VORDME		Y	Y	Y	Y				Y					
HECA	05L	ILS	I	VORDME		Y		Y										
	05C	ILS	II	VORDME		Y		Y										
	05R	ILS	II			Y		Y										
	23L	ILS	II	VORDME		Y		Y										
	23C	ILS	II	VORDME		Y		Y										
	23R	ILS	I	VORDME		Y		Y										
HEGN	16L			VORDME		Y	Y	Y		Y				Y				
	16R			VORDME		Y	Y	Y										
	34L			VORDME		Y	Y	Y	Y				Y					

	34R	IL S	I	VORDME		Y	Y	Y	Y			Y					
HELX	2	IL S	I	VORDME		Y	Y	Y	Y	Y			Y	Y			
	20	IL S	I	VORDME		Y	Y	Y	Y			Y					
HEMA	15			VORDME		Y		Y	Y	Y			Y	Y			
	33			VORDME		Y		Y	Y			Y					
HESH	04L	IL S	I	VORDME		Y	Y	Y	Y	Y			Y	Y			
	04R			VORDME		Y	Y	Y	Y			Y					
	22L			-		Y	Y	Y	Y			Y					
	22R			-		Y	Y	Y	Y			Y					
Total	22	12		17	Y	22	12	22	13	6	0	0	12	5	0	0	
%		55		77	Y	100	55	100	59	86	0	0	55	71	0	0	
I.R. IRAN																	9
OIKB	03L																
	03R			VORDME / NDB													
	21L	IL S	I	VORDME / NDB													
	21R																
OIFM	08L			VORDME / NDB													
	08R			VORDME / NDB													
	26L			VORDME / NDB													
	26R	IL S	I	VORDME / NDB													
OIMM	13L			VORDME													
	13R			VORDME													
	31L			VORDME / NDB													
	31R	IL S	I	VORDME / NDB													
OISS	11L																

	11R																	
	29L	IL S	I	VORDME / NDB														
	29R			VORDME / NDB														
OITT	12L			VORDME / NDB														
	12R			VORDME / NDB														
	30L	IL S	I	VORDME / NDB														
	30R	IL S	I	VORDME / NDB														
OIIE	11L	-	-	VORDME														
	11R			VORDME														
	29L			-														
	29R	IL S	II	VORDME		Y	Y	Y					Y					
OIII	11L			VORDME														
	11R			VORDME														
	29L	IL S	I	VORDME		Y	Y	Y										
	29R			VORDME														
OIZH	17					Y	Y	Y					Y	Y				
	35	IL S	I	VORDME		Y	Y	Y					Y					
OIYY	13			VORDME														
	31			VORDME														
Total	32	9		26	Y	4	4	4	0	0	0	0	6	2	0	0		
%		28		81	Y	13	13	13	0	0	0	0	19	22	0	0		
IRAQ																		6
ORBI	15L	IL S	I	VORDME														
	15R					Y		Y										
	33L					Y		Y										

	33R	IL S	I	VORDME														
ORMM	14			VORDME														
	32	IL S	I	VORDME														
ORER	18	IL S	II			Y		Y										
	36	IL S	I			Y		Y										
ORSU	13	IL S	I	VOR		Y		Y										
	31	IL S	I	VOR		Y		Y										
ORNI	10	IL S	I	VOR		Y	Y	Y	Y	Y			Y	Y				
	28	IL S	I	VOR		Y	Y	Y	Y				Y					
ORB	15																	
	33																	-
Total	14	9		8	N	8	2	8	2	1	0	0	2	1	0	0		
%		64		57		57	14	57	14	17	0	0	14	16.6 7	0	0		
JORDAN																		2
OJAI	08L	IL S	I	NDB		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		
	08R			NDB		Y	Y	Y	Y				Y					
	26L	IL S	II	VOR		Y	Y	Y	Y				Y					
	26R	IL S	I	VORDME		Y	Y	Y	Y				Y					
OJAJ	1	IL S	I	-		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		
	19	IL S	I			Y	N/A	Y	Y				Y					LNAV/VNAV not feasible
Total	6	5		4	Y	6	6	6	6	2	2	2	6	2	2	2		
%		83		67		100	100	100	100	100	33	100	100	100	33	100		
KUWAIT																		1
OKBK	15L	IL S	II	VORDME		Y	Y	Y	Y	Y			Y	Y				

	15R	IL S	II	VORDME		Y	Y	Y	Y				Y					
	33L	IL S	II	VORDME		Y	Y	Y	Y				Y					
	33R	IL S	II	VORDME		Y	Y	Y	Y				Y					
Total	4	4		4	Y	4	4	4	4	1	0	0	4	1	0	0		
%		100		100		100	100	100	100	100	0	0	100	100	0	0		
LEBANO N																		1
OLBA	3	IL S	I	VORDME		Y		Y			Y	Y	Y	Y	Y	Y		
	16	IL S	I	VORDME		Y		Y			Y		Y		Y			
	17	IL S	I	VORDME / NDB		Y		Y			Y		Y		Y			
	21					Y		Y			Y		Y		Y			
	34	N/ A		N/A							Y							Not used for landing
	35	N/ A		N/A							Y							Not used for landing
Total	4	5		5	N	4	0	4	0	0	6	1	4	1	4	1		
%		125		125		100	0	100	0	0	150	100	100	100	100	100		
LIBYA																		3
HLLB	15R			VORDME														
	15L			VORDME														
	33R			VORDME														
	33L	IL S	I	VORDME														
HLLS	13	IL S	I	VORDME														
	31			VORDME														
HLLT	9			VORDME														
	27	IL S	I	VORDME														
Total	8	3		8	N	0												
%		38		100		0												
OMAN																		2

OOMS	08L	IL S	I	VORDME		Y	Y	Y	Y	Y			Y	Y				
	26R	IL S	I	VORDME		Y	Y	Y	Y				Y					
OOSA	7	IL S	I	VORDME		Y	Y	Y	Y	Y			Y	Y				
	25	IL S	I	VORDME		Y	Y	Y	Y				Y					
Total	4	4		4	Y	4	4	4	4	2	0	0	4	2	0	0		
%		100		100		100	100	100	100	100	0	0	100	100	0	0		
QATAR																		2
OTBD	15	IL S	I	VORDME		Y	N/A	Y	Y	Y	Y	Y	Y	Y	Y	Y		LNAV/VNAV not feasible
	33	IL S	II/III	VORDME/ NDB		Y	Y	Y	Y		Y		Y		Y			CCO/CDO tactically achieved
OTHH	16L	IL S	I/II/I II	VORDME		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		CCO/CDO tactically achieved
	16R	IL S	I/II/I II	VORDME		Y	Y	Y	Y		Y		Y		Y			CCO/CDO tactically achieved
	34L	IL S	I/II/I II	VORDME		Y	Y	Y	Y		Y		Y		Y			CCO/CDO tactically achieved
	34R	IL S	I/II/I II	VORDME		Y	Y	Y	Y		Y		Y		Y			CCO/CDO tactically achieved
Total	6	6		6	Y	6	5	6	6	2	6	2	6	2	6	2		
%		100		100		100												
SAUDI ARABIA																		4
OEDF	16L	IL S	I	VORDME														
	16R	IL S	I	VORDME														
	34L	IL S	I	VORDME														
	34R	IL S	I	VORDME														

OEJN	16L	IL S	I			Y	Y	Y	Y	Y		Y	Y	Y				
	16C	IL S	I			Y	Y	Y	Y		Y		Y					
	16R	IL S	I	VORDME		Y	Y	Y	Y		Y		Y					
	34L	IL S	I	VORDME			N/F	-	Y				Y					LNAV/VNA V not feasible
	34C	IL S	I	VORDME		Y	Y	Y	Y				Y					
	34R	IL S	I			Y	Y	Y	Y				Y					
OEMA	17	IL S	I	VORDME		Y		Y	Y	Y			Y	Y				
	18			VORDME		Y		Y	Y				Y					
	35	IL S	I	VORDME		Y		Y	Y				Y					
	36	IL S	I	VORDME		Y		Y	Y				Y					
OERK	15L	IL S	I	VORDME		Y	Y	Y	Y	Y			Y	Y				
	15R	IL S	I			Y	Y	Y	Y				Y					
	33L	IL S	I			Y	Y	Y	Y				Y					
	33R	IL S	I	VORDME		Y	Y	Y	Y				Y					
Total	18	17		13	Y	13	10	13	14	3	2	1	14	3	0	0		
%		94		72		72	56	72	78	76	11	25	78	75	0	0		Plan needs update
SUDAN																		4
HSNN	4					Y	-	Y	Y	Y			Y	Y				
	22					Y	-	Y	Y				Y					
HSOB	1					Y	-	Y	Y	Y			Y	Y				
	19					Y	-	Y	Y				Y					
HSSS	18	IL S	I	VORDME		Y	-	Y	Y	Y			Y	Y				
	36	IL S	I	VORDME		Y	-	Y	Y				Y					

HSPN	17			VORDME / NDB		Y	-	Y	Y	Y			Y	Y				
	35	IL S	I	VORDME / NDB		Y	-	Y	Y				Y					
Total	8	4		4	Y	8	0	8	8	4	0	0	8	4	0	0		
%		50		50		100	0	100	100	100	0	0	100	100	0	0		
SYRIA																		3
OSAP	9			VORDME														
	27	IL S	II	VORDME / NDB														
OSLK	17	IL S	I	VORDME / NDB														
	35																	
OSDI	05L			VOR														
	05R	IL S	II	VORDME / NDB														
	23L			VORDME / NDB DME														
	23R	IL S	II	VORDME		Y	Y	Y										
Total	8	4		7		1	1	1	0	0	0	0	0	0	0	0		
%		50		88		13	13	13	0	0	0	0	0	0	0	0		
UNITED ARAB EMIRATES																		8
OMAA	13L	IL S	II			AR	AR	Y	Y	Y	Y	Y	Y	Y	Y	Y		RNP AR
	13R	IL S	I	VOR		AR	AR	Y	Y		Y		Y		Y			RNP AR
	31L	IL S	II/III	VOR		AR	AR	Y	Y		Y		Y		Y			RNP AR
	31R	IL S	II			AR	AR	Y	Y		Y		Y		Y			RNP AR
OMAD	13			VORDME		Y		Y	Y	Y	Y	Y	Y	Y	Y	Y		
	31	IL S	I	VORDME		Y		Y	Y		Y		Y		Y			

OMAL	1	IL S	I	VOR		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		
	19			VOR		Y	Y	Y	Y		Y		Y		Y			
OMDB	12L	IL S	I/II/I II	-		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		
	12R	IL S	I/II/I II	-		Y	Y	Y	Y		Y		Y		Y			
	30L	IL S	I/II/I II			Y	Y	Y	Y		Y		Y		Y			
	30R	IL S	I/II/I II	-		Y	Y	Y	Y		Y		Y		Y			
OMDW	12	IL S	II/III			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		
	30	IL S	II/III			Y	Y	Y	Y		Y		Y		Y			
OMFJ	11					N/A	N/A	N/A	Y	Y	Y	Y		Y		Y		Not used for landing
	29	IL S	I	VOR		Y	Y	Y	Y		Y		Y		Y			
OMRK	16			VOR		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		
	34	IL S	I	VOR		Y	Y	Y	Y		Y		Y		Y			
OMSJ	12	IL S	I			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		RNP AR
	30	IL S	II			Y	Y	Y	Y		Y		Y		Y			RNP AR
Total	20	16		9	Y	20	18	20	20	8	20	8	19	8	19	8		
%		80		45		100	90	100	100	100	100	100	95	100	95	100		
YEMEN																		5
OYAA	8	IL S	I	VORDME														
	26			VORDME														
OYHD	3			VOR									Y					
	21			VOR / NDB		Y		Y					Y					
OYRN	6																	
	24			VORDME														

OYSN	18	IL S	I	VORDME/ NDB		Y	Y	Y	Y	Y			Y	Y				
	36			VOR		Y	Y	Y	Y				Y					
OYZZ	1																	-
	19																	
Total	10	2		7		3	2	3	2	1	0	0	3	2	0	0	58	
%		20		70		30	20	30	20	20	0	0	30	40	0	0		
Results					Plans	LNA V	LNAV/VN AV	PBN RW Ys		SI D		CC O		STA R		CD O		
Total	166	10 1		126	13	100	66	100	67	26	36	14	78	30	33	14	10 PBN APV + 101 ILS (111/166)	
Percenta ge (%)		61		76	87	60	40	60	40	45	22	24	18	52	20	24	67% RWY Ends with Vertical guidance	
58	Aerodr mes																	
Note. 6 RNP AR Approach were implemented in UAE (OMAA and OMSJ)																		

ACAS Airborne Collision Avoidance System (ACAS)

Table ACAS 3-1

EXPLANATION OF THE TABLE

Column

- 1 Name of the State
- 2 Status of implementation:
Y – Fully Implemented
N – Not Implemented
- 3 National Regulation(s) Reference(s)
- 4 Remarks

State	Status	Regulation Reference	Effective Date	Remarks
1	2	3	4	5
Bahrain	Y	Aeronautical Circular AC/OPS/05/2015 dated 10th of March 2015		Air Navigation Technical Regulations (ANTR) updated to reflect Annex 10 (Volume IV) Reference needs to be provided http://www.mtt.gov.bh/content/caa-laws-and-regulations
Egypt	Y	ECAR Part 121.356 & ECAR Part 91.221		Egyptian Civil Aviation Regulation (ECAR) Parts 121 and 91 have been updated in accordance with the relevant provisions of ICAO Annex 10, Volume IV, Ch.4 http://www.civilaviation.gov.eg/Regulations/regulation.html

State	Status	Regulation Reference	Effective Date	Remarks
1	2	3	4	5
Iran	Y	Aeronautical Telecommunications bylaw, articles 3 and 4	1 Jan 2017	According to articles 3 and 4 of Iran aeronautical telecommunications by law, ratified by board of ministers, Airborne collision avoidance systems are categorized as aeronautical telecommunications systems and should be manufactured, installed and maintained according to standards of Annex 10. -Since no difference to ICAO annex 10 is notified, ACAS V 7.1 is mandatory according to provisions of annex 10 amendment 85. -Airworthiness directives issued by FAA and EASA shall to be implemented by Iranian AOC holders.
Iraq	N			
Jordan	Y	JCAR-OPS.1 (1.668 airborne collision avoidance system)	15 April 2015	
Kuwait	Y	Kuwait Civil Aviation Safety Regulations – Part 6 – Operation of Aircraft, Para. 6.20.4		

State	Status	Regulation Reference	Effective Date	Remarks
1	2	3	4	5
Lebanon	Y	Lebanese Aviation Regulations Part V subpart 605.12		http://dgca.gov.lb/index.php/en/pd-cat-8-lar6-en/file/72-part-vi-subpart-5-general-operating-and-flight-rules-new-2015
Libya	N			
Oman	Y	CAR-OPS 1, Subpart K, CAR-OPS 1.668-Airborne Collision Avoidance System		Regulation reference needs to be provided
Qatar	Y	QCAR – OPS 1, Subpart K, QCAR – OPS 1.668 – Airborne collision avoidance system QCAR Part 10 - Volume4 Chapter 4 Airborne Collision Avoidance System		References: http://www.caa.gov.qa/en/safety_regulations
Saudi Arabia	Y	GACAR PART 91 – Appendix C		
Sudan	Y	Amended Annex 10 (V4)- ANNEX 6 (V2)		According to adopted annexes to Sudan Regulations (SUCAR 10 V4 Par. 4.3.5.3.1 and SUCAR 6 V2 par 2.05.15)
Syria	N			

State	Status	Regulation Reference	Effective Date	Remarks
1	2	3	4	5
UAE	Y	CAR-OPS 1.668 Airborne Collision Avoidance System (See IEM OPS 1.668) and CAAP 29 and AIP 1.5.6.6	1 July 2011	https://www.gcaa.gov.ae/en/ePublication/Pages/CARs.aspx?CertD=CARs
Yemen	Y			Reference need to be provided

ASUR Surveillance systems

Table ASUR 3-1

Surveillance Implementation Monitoring Table

EXPLANATION OF THE TABLE

Column

- 1 Name of the State / ATS Units where Radar service provided
- 2 Surveillance Gap
 - Y – Yes, non-radar covered area (GAP) exist
 - N – No, GAP areas not existed
- 3 Multi- Surveillance Data processing capability
 - Y – Yes, implemented
 - N – No, not implemented
- 4 Surveillance Sensor used
 - Y – Yes, implemented
 - N – No, not implemented
- 5 Dual Surveillance sources
 - Y – Yes, available
 - N – No, not available
- 6 Issuance of ADS-B Carriage Mandate
 - N – No, not issued
 - Date – effective date of ADS-B carriage mandate
 - Reference - link to mandate regulation

ATS Units Served	Surveillance Gaps	Multi-Surveillance Data Processing Capability	Surveillance Sensor Used						Dual Surveillance Sources	ADS-B carriage mandate	
			PSR	SSR Mode A/C	SSR Mode S	MLAT	ADS-B	Data Sharing		Date	Reference
1	2	3	4						5	6	
Bahrain											
Bahrain ACC	N	Y	Y	Y	Y	Y	N	Y	Y		
Bahrain APP	N	Y	Y	Y	Y	Y	N	Y	Y		
OBBI TWR/GND	N	Y	Y	Y	Y	Y	Y	Y	Y		
Egypt											
Cairo ACC	Y	Y	N	Y	Y	N	N	Y	Y		
Cairo APP	N	Y	Y	Y	Y	N	N	N	Y		
HELX TWR/GND	N	Y	Y	Y	Y	N	Y	N	N		
HECA TWR/GND	N	Y	Y	Y	Y	Y	N	N	Y		
Aswan APP	N	Y	N	Y	N	N	N	N	N		
HESN TWR/GND	N	Y	N	Y	N	N	N	N	N		
Alex APP	N	Y	Y	Y	Y	N	Y	N	N		
Luxor APP	N	Y	N	Y	N	N	N	N	N		
Hurghada APP	N	Y	Y	Y	Y	N	N	N	Y		
Sharm APP	N	Y	N	Y	N	N	N	N	N		
HEBA TWR/GND	N	Y	Y	Y	Y	N	Y	N	N		
HESH TWR/GND	N	Y	N	Y	N	N	N	N	N		
HEGN TWR/GND	N	Y	Y	Y	Y	N	N	N	N		

Iran											
Tehran ACC											
Esfahan APP											
Mashhad APP											
Mehrabad APP											
Shiraz APP											
OIII TWR/GND											
OIIE TWR/GND											
Iraq											
Baghdad ACC	Y	Y	Y	Y	Y	N	N	N			
Baghdad APP	Y	Y	Y	Y	Y	N	N	N			
ORBS TWR/GND	N	Y	Y	Y	Y	N	N	N			
Jordan											
Amman ACC	Y	Y	N	Y	Y	N	Y	N	Y		
Amman APP	N	Y	N	Y	Y	N	Y	N	Y		
OJAI TWR/GND	N	Y	N	Y	Y	N	Y	N	Y		
OJAQ TWR/GND	N	Y	N	N	N	N	Y	N	N		
Kuwait											
Kuwait ACC	N	Y			Y	N			Y		
Kuwait APP	N	Y			Y	N			Y		
OKBK TWR/GND	N	Y				N					
Lebanon											

Beirut ACC	N	Y	Y	Y	Y	N	N	Y	Y		
Beirut APP	N	Y	Y	Y	Y	N	N	Y	Y		
OLBA TWR/GND	N	Y	Y	Y	Y	N	N		Y		
Libya											
Oman											
Muscat ACC	N	Y	Y	Y	Y	N	N	N	Y		
OOMS TWR/GND	N	Y	Y	Y	Y	N	N	N	Y		
Seeb APP	N	Y	Y	Y	Y	N	N	N	Y		
Salalah APP	N	Y	Y	Y	Y	N	Y	N	Y		
OOSA TWR/GND	N	Y	Y	Y	Y	N	Y	N	Y		
Qatar											
Doha ACC	N	Y	Y	Y	Y	Y	Y	Y	Y		
OTBD TWR/GND	N	Y	Y	Y	Y	Y	Y	Y	Y		
Saudi Arabia										1 January 2023	GACAR Part 91 (OEJD A1433/20)
Jeddah ACC	N	Y	Y	Y	Y	N	N	N	Y		
OEJN TWR/GND	N	Y	Y	Y	Y	Y	Y	N	Y		
Riyadh ACC	N	Y	Y	Y	Y	N	N	N	Y		
OERK TWR/GND	N	Y	Y	Y	Y	Y	Y	N	Y		

Jeddah APP	N	Y	Y	Y	Y	N	N	N	Y		
Riyadh APP	N	Y	Y	Y	Y	N	N	N	Y		
Madina APP	Y	Y	Y	Y	Y	N	N	N	N		
OEMD TWR/GND	N	Y	Y	Y	Y	Y	Y	N	Y		
OEDF TWR/GND	N	Y	Y	Y	Y	Y	Y	N	Y		
Damam APP	N	Y	Y	Y	Y	N	N	N	Y		
Sudan											
Khartoum ACC	Y	Y			Y			Y	Y		
Khartoum APP					Y			Y	Y		
HSSS TWR/GND								Y			
Syria											
Damascus ACC					N	N	N				
UAE										2 Dec 2021	https://www.gcaa.gov.ae/en/ePublication/Pages/CARs.aspx?CertID=CAR
SZC	N	Y	N	Y	Y	N	Y	Y	Y		
Al Ain APP	N	Y	N	Y	Y	N	N	Y	Y		
Abu Dhabi Radar	N	Y	N	Y	Y	Y	Y	Y	Y		
Al Maktoum APP	N	Y	Y	Y	Y	Y	Y	Y	Y		
Dubai Radar	N	Y	Y	Y	Y	Y	Y	Y	Y		
Fujairah APP	N	Y	N	N	N	Y	Y	Y	Y		
RAS AL KHAIMAH	N	Y	N	Y	Y	N	Y	Y	Y		

OMAE TWR/GND	N	Y	N	Y	Y	Y	Y	Y	Y		
OMDB TWR/GND	N	Y	Y	Y	Y	Y	Y	Y	Y		
Yemen											
Sanaa ACC	Y	N	N	N	N	N	N	N	N		

- END -