International Civil Aviation Organization

Third Meeting of the Air Traffic Management Performance Measurement Task Force

(APM TF/3)
(Cairo, Egypt, 5 November 2016)

Agenda Item 3: Development of the Second MID Region Air Navigation Environmental Report

SECOND MID REGION AIR NAVIGATION ENVIRONMENTAL REPORT

(Presented by the Secretariat)

SUMMARY

This paper presents a draft of the second MID Air Navigation Environmental Report for the review and input by the meeting.

Action by the meeting is at paragraph 3.

REFERENCES

- MIDANPIRG/14 Report
- MIDANPIRG/15 Report

1. INTRODUCTION

1.1 The meeting may wish to recall that the First MID Region Air Navigation Environmental Report was endorsed by MIDANPIRG/14 meeting (Jeddah, Saudi Arabia, 15 - 19 December 2013).

2. DISCUSSION

2.1 The meeting may wish to note that the implementation of operational improvements will generally have benefits in areas such as improved airport and airspace capacity, shorter cruise, climb and descent times through the use of more optimized routes and an increase of unimpeded taxi times. These improvements have the potential to reduce fuel burn and lower levels of pollutants.

2.2 The meeting may wish to recall that the MIDANPIRG/14 meeting agreed to the MIDANPIRG Conclusion 14/29 on the Estimation and reporting of the environmental benefits:

CONCLUSION 14/29: ESTIMATING AND REPORTING ENVIRONMENTAL BENEFITS

That, in order to follow-up the implementation of the ATM operational improvements and estimate the accrued fuel savings and associated CO_2 emission reduction from the corresponding improvements on regional basis:

a) States be encouraged to develop/update their Action Plans for CO_2 emissions and submit them to ICAO through the APER website on the ICAO Portal or the ICAO MID Regional Office;

b) States be urged to:

i) *identify the operational improvements which have been implemented within their FIR and/or international aerodromes;*

ii) *collect necessary data for the estimation of the environmental benefits accrued from the identified operational improvements;*

iii) *use IFSET to estimate the environmental benefits accrued from operational improvements; and*

iv) *send the IFSET reports/the accrued environmental benefits to ICAO on bi-annual basis; and*

c) IATA to:

i) *encourage users to support the APM TF in the development of the MID Region Air Navigation Environmental Reports; and*

ii) *consolidate users' inputs and report the accrued environmental benefits to the ICAO MID Regional Office on bi-annual basis.*

2.3 The meeting may wish to recall that the MIDANPIRG/15 meeting (Bahrain, 8-11 June 2015) noted with concern that the provisions of the MIDANPIRG/14 Conclusion 14/29 have not been implemented, despite the follow-up actions undertaken by the ICAO MID Regional Office, in particular the issuance of the State Letter Ref: AN 6/15-14/247 dated 23 September 2014, urging States and Users to provide the ICAO MID Regional Office with their data related to the environmental benefits accrued from the implementation of operational improvements, before 20 October 2014, in order to be incorporated in the Second MID Air Navigation Environmental Report, which was supposed to be developed by the APM TF/2 meeting. However, the second MID Air Navigation Environmental report could not be developed by the APM TF/2 meeting due to low level of inputs from the States.

2.4 Based on the above, the MIDANPIRG/15 meeting emphasized that the contribution of States and Users to the work programme of the APM TF is essential in particular for the development of the Air Navigation Environmental Report. Accordingly, the meeting urged Sates and Users to support the Task Force and ensure the implementation of the provisions of the MIDANPIRG/14 Conclusion 14/29 and agreed that the Second MID Region Air Navigation Environmental Report should be developed by the APM TF/3 meeting.

2.5 As a follow-up action, the ICAO MID Regional Office issued State Letter Ref.: EN 1/1-16/230 urging States to provide inputs (estimation of the environmental benefits accrued from the identified operational improvements) to the Second MID Region Air Navigation Environmental Report. No reply was received in response to the mentioned State Letter.

2.6 A draft of the second MID Air Navigation Environmental Report is at **Appendix A** for the review and input by the meeting.

3. ACTION BY THE MEETING

3.1 The meeting is invited to review and provide inputs to the draft of the second MID Air Navigation Environmental Report at **Appendix A**.

DRAFT

INTERNATIONAL CIVIL AVIATION ORGANIZATION

MIDDLE EAST AIR NAVIGATION PLANNING AND IMPLEMENTATION REGIONAL GROUP (MIDANPIRG)

MID REGION

SECOND AIR NAVIGATION ENVIRONMENTAL REPORT

2016 | AIR NAVIGATION ENVIRONMENTAL REPORT

OVERVIEW

ICAO first initiated the development of Standards and Recommended Practices related to aircraft noise in the 1960s with similar work on smoke emissions from aircraft engine following shortly thereafter. These efforts were aimed to limit the adverse impact of international civil aviation on the environment becoming a strategic objective of the Organization. To ensure a sound basis for policy decisions to achieve this objective, since 2010, the Assembly has agreed that the environmental trends projections prepared by the ICAO Committee on Aviation Environmental Protection (CAEP) be the basis for their decision-making on matters related to the environment. Today, ICAO has agreed a comprehensive set of environmental aircraft design Standards that cover noise, five pollutants that affect local air quality, and CO2 emissions to protect the global climate.

ICAO's policies are established by its 191 member States, who meet normally every three years at the ICAO Assembly. Given that decisions taken by ICAO are international in nature, a solid and common basis for its consensus-based decision-making is needed, and ICAO is quite unique as it develops these trends assessments in-house.

The Committee on Aviation Environmental Protection (CAEP) is a technical committee of the ICAO Council established in 1983. CAEP assists the Council in formulating new policies and adopting new Standards and Recommended Practices (SARPs) related to aircraft noise and emissions, and more generally to aviation environmental impact.

CAEP brings together the most comprehensive set of data on aircraft performance and operations available and a cadre of experts from all regions of the world to apply a state-of-the art modelling framework in order to prepare the trends. The scenarios presented for the consideration of the Assembly reflect the inputs of all relevant stakeholders, including aircraft and engine manufacturers, airlines, air navigation service providers and non-governmental organizations. In addition, panels of independent experts provide unbiased input related to noise, emissions, and operational changes. The involvement of this broad range of expertise allows the effects of traffic growth, fleet turnover, technology improvement, and operational enhancements to be accurately captured.

The First MID Region Air Navigation Environmental Report was endorsed by MIDANPIRG/14 meeting, Jeddah, Saudi Arabia, 15 - 19 December 2013.

Implementation of operational improvements will generally have benefits in areas such as improved airport and airspace capacity, shorter cruise, climb and descent times through the use of more optimized routes and an increase of unimpeded taxi times. These improvements have the potential to reduce fuel burn and lower levels of pollutants.

This Report consolidates the identified operational improvements and the environmental benefits accrued from the operational improvements as well as other environment-related matters in the MID Region such as the status of the States' action plans on CO2 emission.

CONTENTS

1. INTRODUCTION

1.1 Objectives

Environmental Protection represents one of the ICAO strategic objectives. The Operational improvements are a key strategy that can be applied to deliver tangible reductions in aircraft fuel consumption and consequently environmental benefits. The Global Air Navigation Plan (Doc 9750) and the Operational Opportunities to Minimize Fuel Use and Reduce Emissions (Circular 303) are among several documents providing guidance regarding operational improvements being implemented to improve efficiency of the ATM System.

Implementation of operational improvements will generally have benefits in areas such as improved airport and airspace capacity, shorter cruise, climb and descend times through the use of more optimized routes and an increase of unimpeded taxi times. These improvements have the potential to reduce fuel burn and lower levels of pollutants.

This report provides the Implemented Operational Improvements for the years 2014-2016 and Planned Operational Improvements for the upcoming years 2017-2019 in the MID Region. The Report addresses the status of the State's action plans on CO2 emission and also noise management in the MID Region.

1.2 Scope

This MID Air Navigation Environmental Report addresses the key environmental issues in the ICAO MID Region.

The Report covers the fifteen (15) ICAO MID States:

Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Oman, Qatar, Saudi Arabia, Sudan, Syria, United Arab Emirates and Yemen.

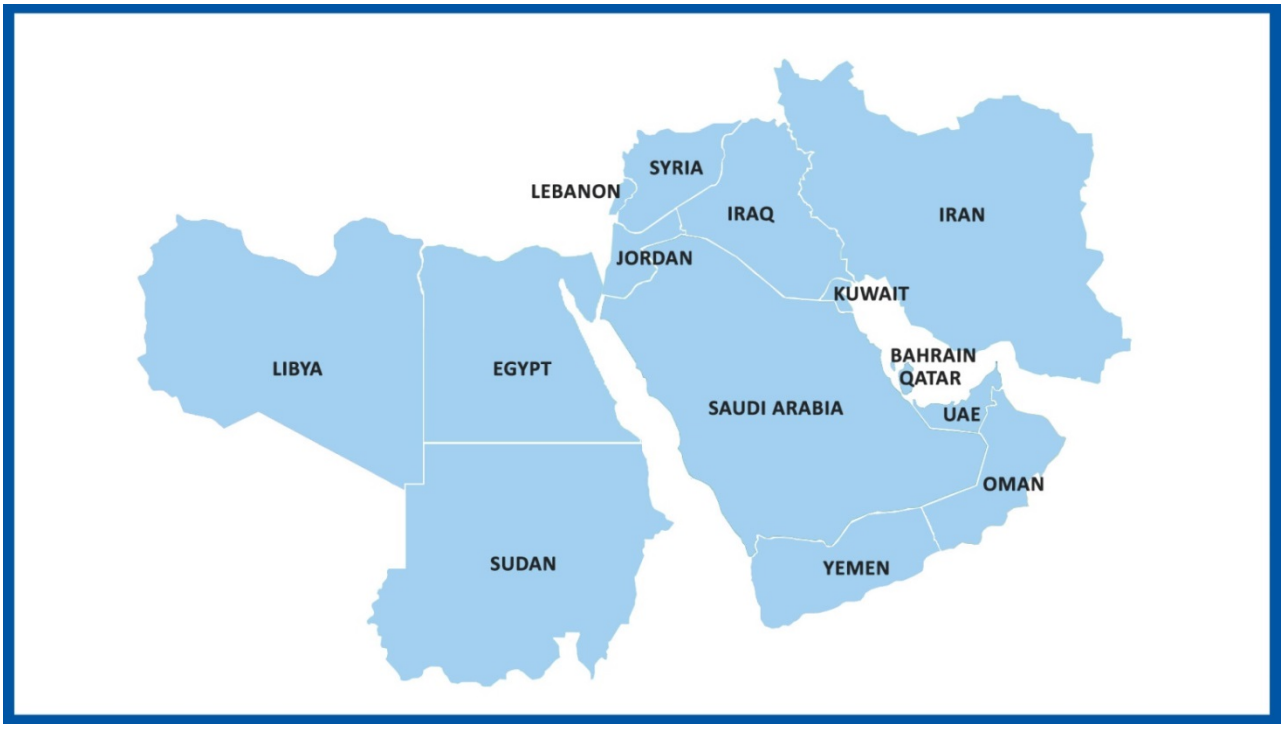


Figure 1. ICAO MID Region

1.3 Collection of data

The necessary data for the MID Air Navigation Report were collected through the ATM Performance Measurement Task Force, States, ...

1.4 Structure of the Report

Chapter 1 (Introduction) presents the objective of the report as well as the scope that is covered by the MID Air Navigation Environmental Report and the method of data collection.

Chapter 2 lists the implemented operational improvements during the period of 2014 to 2016 and the associated estimation of environmental benefits. This chapter also provides the planned operational improvements for 2017-2019. Status of the States' action plans on CO2 emissions and the aviation noise management conclude this chapter.

List of MID States' Environment Focal Points as well as the status of noise abatement and monitoring are at Appendices A and B, respectively.

2. AIR NAVIGATION ENVIRONMENTAL STATUS

2.1 Implemented Operational Improvements 2014-2016

This part of the report lists the implemented operational improvements for the period of 2014 to 2016:

State	Implemented Operational Improvements 2014-2016	Remarks
Bahrain	XXX	
Egypt	XXX	
Iran	XXX	
Iraq	XXX	
Jordan	XXX	
Kuwait	XXX	
Lebanon	XXX	
Libya	XXX	
Oman	XXX	
Qatar	XXX	
Saudi Arabia	XXX	
Sudan	XXX	
Syria	XXX	
UAE	XXX	
Yemen	XXX	

2.2 Estimation of Environmental Benefits

Estimation of environmental benefits accrued from the operational improvements in the region is as follows:

State	Planned Operational Improvements 2017-2019	Remarks
Bahrain	XXX	
Egypt	XXX	
Iran	XXX	
Iraq	XXX	
Jordan	XXX	
Kuwait	XXX	
Lebanon	XXX	
Libya	XXX	
Oman	XXX	
Qatar	XXX	
Saudi Arabia	XXX	
Sudan	XXX	
Syria	XXX	
UAE	XXX	
Yemen	XXX	

2.3 Planned Operational Improvements 2017-2019

Planned operational improvements in the States for the period of 2017 to 2019 have been identified as follows:

State	Planned Operational Improvements 2017-2019	Remarks
Bahrain	XXX	
Egypt	XXX	
Iran	XXX	
Iraq	XXX	
Jordan	XXX	
Kuwait	XXX	
Lebanon	XXX	
Libya	XXX	
Oman	XXX	
Qatar	XXX	
Saudi Arabia	XXX	
Sudan	XXX	
Syria	XXX	
UAE	XXX	
Yemen	XXX	

2.4 State's action plan on CO2 emission

The meeting may wish to recall that the ICAO Assembly 38 (24 September to 4 October 2013) endorsed the Resolution 38-18 *Consolidated statement of continuing ICAO policies and practices related to environmental protection – Climate Change* which encouraged States to voluntarily prepare and submit action plans on CO2 emission reduction to ICAO. An ambitious work programme was further laid down for capacity building and assistance to States in the development and implementation of their action plans to reduce emissions, which States were initially invited to submit by the 37th Session of the ICAO Assembly in October 2010.

ICAO Assembly 39 (Montreal, Canada, 27 September – 6 October 2016) encouraged States, through Assembly Resolution 39-1 *Consolidated statement of continuing ICAO policies and practices related to environmental protection – Climate change*, to submit voluntary action plans outlining respective policies and actions, and annual reporting on international aviation CO2 emissions to ICAO.

The MIDANPIRG/14 meeting (Jeddah, Saudi Arabia, 15 - 19 December 2013) encouraged States to develop/update their Action Plans for CO2 emissions and submit them to ICAO through the APER website on the ICAO Portal or the ICAO MID Regional Office.

An action plan is a means for States to communicate to ICAO information on activities to address CO2 emissions from international aviation. The level of information contained in an action plan should be sufficient to demonstrate the effectiveness of actions and to enable ICAO to measure progress towards meeting the global goals set by Assembly Resolution A38-18. Action plans give States the ability to: establish partnerships; promote cooperation and capacity building; facilitate technology transfer; and provide assistance.

At a minimum the following information should be contained in the plan:

- Contact information;
- Baseline (without action) fuel consumption and traffic (2010 or earlier to 2050);
- List of measures proposed to address CO2 emission from international civil aviation;
- Expected results (fuel consumption and traffic with the actions being taken 2014 to 2050); and
- Information on any assistance needs (financial, technological, training, etc.).

States are encouraged States to develop/update their Action Plans for CO2 emissions on a triennial basis and submit them to the ICAO MID Regional Office or through the APER website on the ICAO Portal:
http://www.icao.int/environmentalprotection/Pages/action-plan.asp

ICAO conducted MBM Global Aviation Dialogues (GLADs) in April 2015 and March 2016 in five ICAO Regions, including one in Cairo, Egypt from 20 to 21 April 2015 and 20-21 March 2016, to share up-to-date information on the work of ICAO related to the development of a global MBM scheme for international aviation, and provide an important opportunity for ICAO to receive feedback from all its Member States and relevant organizations.

ICAO convened also a series of back-to-back Seminars in 2014 and 2015 on International Aviation and Environment and on States' Action Plans. In total, seven Seminars were held in Mexico and Peru in April 2014, in Cameroon and Kenya in June 2014, in Malaysia in October 2014, in the United Arab Emirates (UAE), from 10 to 12 March 2015, and in Poland in March 2015.

The Status of the provision of Action Plans on CO2 emission in the MID Region is as follows:

State	State's Action Plan	Remarks
Bahrain	June 2015	
Egypt	July 2016	
Iran	-	
Iraq	June 2012	
Jordan	September 2013	
Kuwait	-	
Lebanon	-	
Libya	-	
Oman	-	
Qatar	-	
Saudi Arabia	-	
Sudan	January 2015	
Syria	-	
UAE	June 2012	
Yemen	-	
Total: 46% (6 out of 15 States)		

Map of region with color coding

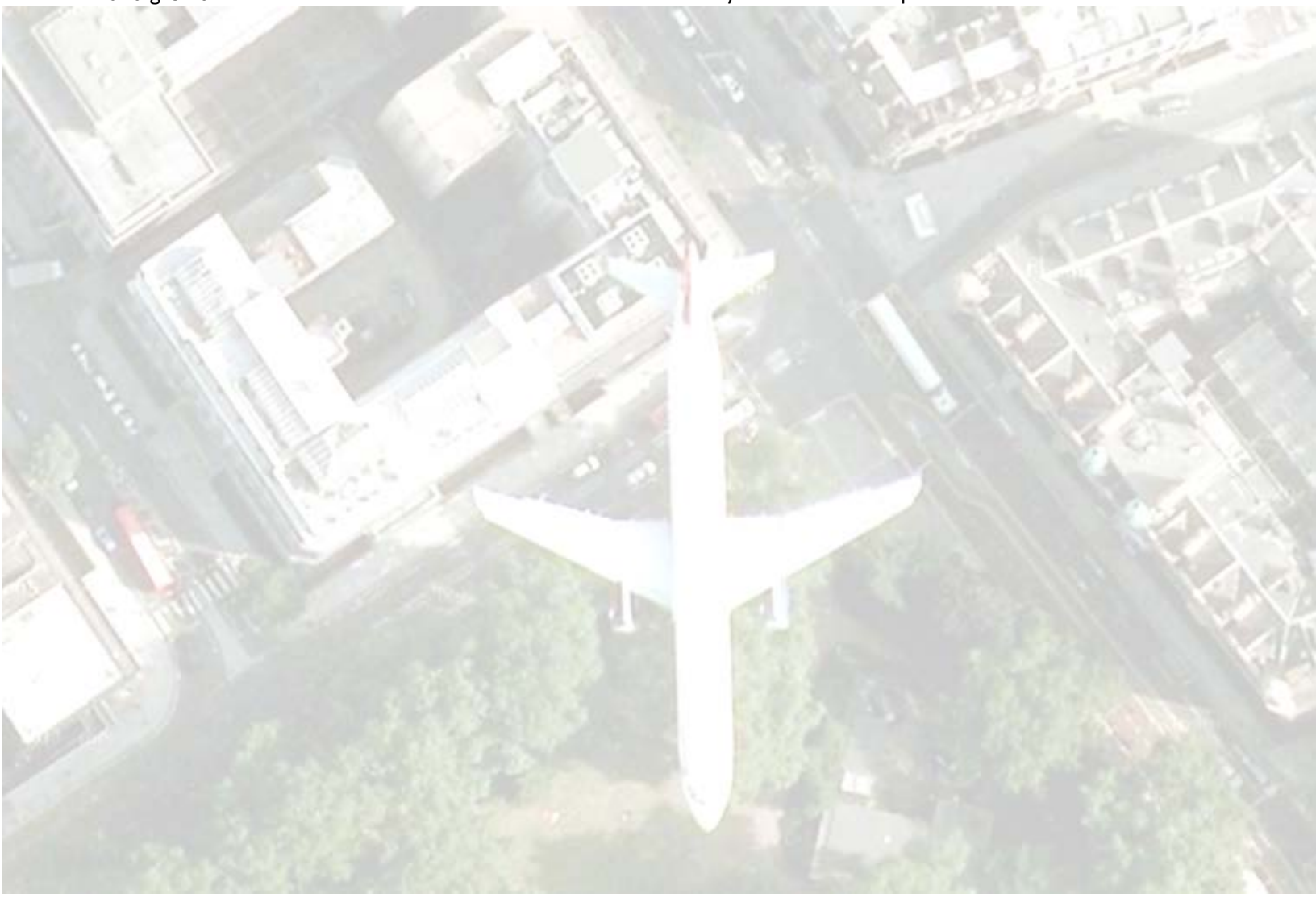
2.5 Aviation Noise

Aircraft noise is the most significant cause of adverse community reaction related to the operation and expansion of airports. This is expected to remain the case in most regions of the world for the foreseeable future. Public pressure against existing operations and the development of new infrastructure could have a negative influence on the future growth of the aviation industry.

Reducing or limiting the effect of aircraft noise on people and the communities they live in is one of ICAO's environmental goals. However, the forecast growth in aviation will result in an increase in the number of people impacted by such significant aircraft noise. This may lead to an increasing community opposition to future airport development and growth.

The Balanced Approach needs to be implemented with equal emphasis given to all of its four elements; reduction of noise at source, land use planning, noise abatement operational procedures and operational restrictions. Because local conditions need to be taken into account, the implementation will continue to be on an airport-by-airport basis.

The airport authority should work closely with those authorities responsible for land-use management to educate them regarding the noise impact of aviation operations.. ICAO Contracting States should provide a leadership role by encouraging local and regional authorities to implement land-use planning and management around airports through appropriate early action and cooperative mechanisms between



APPENDIX A: MID STATES' ENVIRONMENTAL FOCAL POINTS

State	Name	Title	Address	Email	Fax	Tel. & Mobile
Bahrain	Mr. Khalid Hashim AlSada	Head, Aeronautical Information Operation		Kalsada@caa.gov.bh	+973 1732 9966	Tel: +973 1732 9905
Egypt	Mr. Abdel Ghaffar El Sayed Abdel Ghafar Abdel Halim	Manager, Technical Researches & Environmental Development	Egyptian Civil Aviation Authority (ECAA)	abdelghafar.elsayed@civilaviation.gov.eg abdo_2cu@yahoo.com	+202 22682907/ +202 22688232	Mobile:+201001124358
Islamic Republic of Iran	Mr. Javad Pashaei	Mr. Pashaei and Mr. Taghipoor		ja_pashaei@yahoo.com		Tel: +98-21-44544103
	Mr. Saeed Taghipoor			taghipoor@gmail.com		Tel: +98 21 61022076
Iraq	Mr. Khairi Ibrahim Abdulameer			alanjafy858585@yahoo.com		Mobile: +964 7702717763
Jordan	~~Mr. Saleh Abdallah Alamoush~~	Director of Airport Safety and Standard Department	P.O.Box 7547 Amman 11110 Jordan	dairstand@carc.gov.jo	+ 962 6489 7483	Tel: +962 6489 7483 Mobile: +962 777 934 030
Kuwait	Ms. Susan Santiago,			s.santiago@kuwaitairways.com		Tel: + 969 2434 5555 ext. 4536 Mobile: +965 9794 4418
	Mr. Meshari			malmulla@kuwaitairways.com		
Lebanon	Mr. Ali Shaar			ali.shaar@hotmail.com ashaar@beirutairport.gov.lb		Mob: +9613287819
Libya	Mr. Suliman El-Mesallati			suliman.elmesallati@caa.ly		Tel: +218913219918
Oman	Mr. Nasser ALRiyami			n.alriyami@caa.gov.om		Tel:+968-24-518444
Qatar	Mr. Preben Jensen			preben.jensen@caa.gov.qa		Tel: +974 55447206
Saudi Arabia	Eng. Mohammed S. Habib			mhabib@gaca.gov.sa		Tel: +966 590 289399
	Mr. Yousef Al Salmi			yalsalmi@gaca.gov.sa		
Sudan	Mr. Mohamed Osman Elatta Sulimain			wadelatta2000@yahoo.com		Tel: +249 183 779 147,
Syrian Arab Republic						
UAE	Eng. Maryam Al Balooshi,	Environment Studies Manager.	UAE- Dubai	mbalooshi@gcaa.ae		Tel:+971506525146
Yemen						

APPENDIX B: STATUS OF NOISE ABATEMENT AND MONITORING

STATE/ AD Location Indicator	City/Aerodrome	Procedure Description	Noise monitoring system
BAHRAIN			
		AIP SUP 02/04: Airport Noise Management at Bahrain International Airport (see AIP SUP 02/04)	-
OBBI	BAHRAIN/Bahrain Intl	AIP Page OBBI AD 2.21: 1- Circuit directions at BAHRAIN INTERNATIONAL airport are: R WY 30L / 30R: right hand; RWY 12L / 12R: left hand. 2- Departing and arriving flights are not permitted to operate within the eighty - degree arc subtended by the 180˚ and 260˚ Radials of the BAH DVOR, and containing the main Bahrain Islands. Exceptionally, flights which the Controlling Authority has deemed operationally essential may be permitted to operate within this arc, provided they can remain either visually clear of the land, or be vectored clear by BAHRAIN APPROACH. 3- Usage of reverse thrust: Usage of reverse thrust more than idle is not permitted during landing between the hours of 2100 and 0300, unless an aircraft is in an emergency and has been cleared to use the reverse thrust by the ATC. 4- Engine Run Ups at BAHRAIN INTERNATIONAL airport between the hours of 2100 and 0300, testing of aircraft engines is permissible at ground idle power only. Settings above this, however brief, are not allowed.	NO
EGYPT			
HEAX	ALEXANDRIA/Alexandria Intl	NIL	NO
HEBA	ALEXANDRIA/Borg El-Arab Intl	NIL	NO
HESN	ASWAN/Aswan Intl	NIL	NO
HEAT	ASYUT/Asyut Intl	NIL	NO
HECA	CAIRO/Cairo Intl	FAN JET AIRCRAFT Low drag low power approach: IFR flights should be conducted in clean configuration, as long as possible, unless otherwise instructed. Aircraft should maintain 250 knots IAS below FL 100. Speed should be reduced continuously so as to reach 170 knots IAS, shortly prior to 5NM from any RWY threshold. These speed restrictions should be maintained within a tolerance of ± 10 knots and are compulsory, except when ceiling is below 500FT and /or ground visibility is less than 2 KM. Pilots unable to comply should advise ATC. Landing: -Idle reverse thrust is recommended during landing. Departure : - Take off to 1800 FT QNH, take off power and take off flaps. - Climb at V2+ (10 to 20 knots) or as limited by body angle. - At 1800 FT QNH: Reduce thrust to not less than climb power 1800 FT to 3300FT QNH, climb at V2 + (10 to 20 knots)or as limited by body angle. - At 3300 FT QNH: Accelerate with flap retraction on schedule to en-route climb 250 knots below FL100.	YES
HEAR	EL ARISH/ El Arish Intl	NIL	NO
HEGN	HURGHADA/Hurghada Intl	NIL	YES
HELX	L UXOR/Luxor Intl	NIL	NO

STATE/ AD Location Indicator	City/Aerodrome	Procedure Description	Noise monitoring system
HEMA	MARSA ALAM/Marsa Alam Intl	NIL	NO
HEPS	PORT SAID/ Port Said Intl	NIL	NO
HEOW	SHARK EL OWEINAT/Shark El Oweinat Intl	NIL	NO
HESH	SHARM EL SHEIKH/Sharm El Sheikh Intl	NIL	YES
HESC	ST. CATHERINE/St Catherine Intl	NIL	NO
HETB	TABA/Taba Int	NIL	NO
HEAL	ALAMAIN/Alamain Intl	NIL	NO
HESG	SOHAG/Sohag Intl	NIL	NO
IRAN, ISLAMIC REPUBLIC OF			
OIKB	BANDAR ABBAS/Bandar Abbas Intl	NIL	NO
OIFM	ESFAHAN/Shahid Beheshti Intl	1- If Traffic condition permits and Tail wind component is 10 kt or less, Noise abatement procedures may be applied as follow: a. RWY 08L/R may be used for takeoff and RWY 26R/L may be used for landing. b. Delay may be occurred to all DEP and ARR flights from 1900 to 0230(1800-0130) UTC, due to Noise Abatement. c. Left turn for departing aircraft from RWY 26R/L and right turn for departing aircraft from RWY 08R/L are not authorized between 1930-0230 (1830-0130) UTC.	NO
OIMM	MASHHAD/Shahid Hashemi Nejad Intl	NIL	NO
OISS	SHIRAZ/Shahid Dastghaib Intl	1 - RWY 29L/R is not used for take-off during 1930-0230(1830-0130), except tailwind component for RWY 11L/R is 5KT or more, or traffic/adverse weather condition. 2 - aircraft making Visual approach between 1930-0230(1830-0130) should not descend below 8000 FT AMSL until passing middle of right downwind RWY 29 except all flight in emergency situation. - Visual Right turn for departing aircraft from RWY 29L/R is not authorized between1930-0230(1830-0130).	NO
OITT	TABRIZ/Tabriz Intl	NIL	NO
OIIE	TEHRAN/Imam Khomaini Intl	NIL	NO
OIII	TEHRAN/Mehrabad Intl	1- RWY 11L/R is not used for take-off during 1730-0430 (1630-0330), except tail wind component for RWY 29L/R is 10 KT or more. 2- Aircraft type IL76 (except military), is not authorized to operate at Mehrabad AD between 1930-0330 (1830-0230).	NO
OIZH	ZAHEDAN/Zahedan Intl	NIL	NO
IRAQ			
AIP ENR	ENR 1.1.1 Minimum Safe Height	Civilian aircraft shall not be flown below the minimum safe height except when necessary for take-off and landing. The minimum safe height is the height at which neither an unnecessary noise disturbance nor unnecessary hazards to persons and property in the event of an emergency landing are to be feared. However, over cities, other densely populated areas and assemblies of persons, this height shall be at least 1 000 FT (300 m) above the highest obstacle within a radius of 600 m of the aircraft. Elsewhere, this height shall be at least 500 FT (150 m) above ground or water.	Not Applicable
ORBI	BAGHDAD/Baghdad Intl	NIL	*Information Not Available*
ORMM	BASRAH/Basrah Intl	ORMM 2.21.1 Omni Directional Departures	*Information*

STATE/ AD Location Indicator	City/Aerodrome	Procedure Description	Noise monitoring system
		Take –Off Minimums: RWY 14/32 Standard RWY 14: Climb Gradient 3.3% Climb on Track 134.68 to 600' before proceeding on course. RWY 32: Climb Gradient 3.3% Climb on Track 314.69 to 600' before proceeding on course.	*Not Available*
ORER	ERBIL/Erbil Intl	ORER 2.21.1 Aircraft are to avoid over flying the airport buildings, construction sites, other aircraft, or fuel point/trucks below 1 000FTAGL whenever possible.	*Information Not Available*
ORSU	SULAYMANIYAH/Sulaymaniyah Intl	NIL	*Information Not Available*
ORNI	AL NAJAF/Al Najaf Intl	ORNI 2.21.1Departures: aircraft departing RWY 28 shall execute an immediate left turn out, above 500 FT AGL and not later than 1000 FT AGL. ORNI 2.21.2 Arrivals: Not required	*Information Not Available*
ORBM	MOSUL/Mosul Intl	NIL	*Information Not Available*
JORDAN			
OJAM	AMMAN/Marka Intl	Aircraft of AUW more than 5700 KGS departing from AMMAN/Marka RWY 24 shall climb with take-off thrust to 4000 FT at V2 + 10KT, At 4000 FT QNH reduce to climb thrust and continue at V2 + 10KT. At 5500, FT QNH accelerates to normal climbing speed.	*Information Not Available*
OJAI	AMMAN/Queen Alia Intl	NIL	*Information Not Available*
OJAQ	AQABA/King Hussein Intl	NIL	*Information Not Available*
KUWAIT			
OKBK	KUWAIT/Kuwait Intl	Non Noise Certificated Subsonic Aeroplane (NNC) operations restricted daily between 1830/ 0530 UTC.	*Information Not Available*
LEBANON			
OLBA	BEIRUT/ R. B. H - Beirut Intl-	1. Restriction on non-noise certificated aircraft. 1.1 A subsonic jet aircraft must not land or take-off from Beirut airport unless: a) That aircraft has a valid noise certificate issued by the Aeronautical Authority of a country which is a signatory to the Convention on International Civil Aviation or b) There is other documentary proof of compliance with the noise standards prescribed in Annex 16 to the Convention on International Civil Aviation applicable to the aircraft, or c) Special dispensation from the provisions of the Navigation (Aircraft Noise) Regulations, has been obtained. Such dispensation will be granted by the Directorate General of Civil Aviation if requested. 1.2 Aircraft operator/owners are also reminded that the Noise Certificate or documentary proof of compliance must be carried on board and must be forwarded by the Pilot in command of the aircraft subject to inspection if so requested by an authorized officer	NO
LIBYA			
HLLB	BENGHAZI/Benina	Non Noise Certificated subsonic airplane (NNC) operations restricted daily between sunset/sunrise.	NO

STATE/ AD Location Indicator	City/Aerodrome	Procedure Description	Noise monitoring system
HLLS	SEBHA/Sebha	Non Noise Certificated subsonic airplane (NNC) operations restricted daily between sunset/sunrise.	NO
HLLT	TRIPOLI/Tripoli Intl	Non Noise Certificated subsonic airplane (NNC) operations restricted daily between sunset/sunrise.	NO
OMAN			
OOMS	MUSCAT/ Muscat Intl	NIL	*Information Not Available*
OOSA	SALALAH/Salalah	NIL	*Information Not Available*
QATAR			
OTBD	DOHA/Doha Intl	NIL	*Information Not Available*
OTHH	DOHA/Hamad Intl	NIL	*Information Not Available*
SAUDI ARABIA			
OEDF	DAMMAM/King Fahd Intl	NIL	NO
OEJN	JEDDAH/King Abdulaziz Intl	2.21.1. Jet aircraft taking off from 34L shall not normally be allowed to turn further left than the JDW RDL 310 until at least 5 NM north of JDW DVORTAC unless: a) ATC requirements necessitate such a turn; or b) aircraft are making VFR circuits. 2.21.2. Overflight of the city of Jeddah is prohibited below ALT 5000 FT except for the purposes of take-off and landing in accordance with ATC instructions.	NO
OEMA	MADINAH/Prince Mohammad Bin Abdulaziz Intl	NIL	NO
OERK	RIYADH/King Khalid Intl	NIL	NO
SUDAN			
HSKA	KASSALA/Kassala	NIL	*Information Not Available*
HSSS	KHARTOUM/Khartoum	2.21.1 GENERAL The following noise abatement procedures shall apply for fan jet aircraft. 2.21.2 RUNWAY USAGE Runway 18/36 will be used for departures and arrivals. 2.21.3 ARRIVALS LOW-POWERED /LOW-DRAG APPROACH Aircraft should maintain 250KT IAS (± 10KT) below FL100. Speed should be reduced continuously so as to reach 160KT IAS (± 10KT) shortly prior to 5nm from runway threshold except when ceiling is below 500ft and /or ground visibility is less than 2600m. Pilots unable to comply with should advice ATC. 2.21.4 DEPARTURES Take-off until passing 2760ft: Take-off power, Take-off flaps, Climb at V^2+10KT TO 20KT (or as limited by body angle) Between 2760-4260ft: Reduce thrust to not less than climb power, Climb at V^2+10KT to 20KT (or as limited by body angle) AT 4260ft or above: Accelerate with flap retraction on schedule to en-route; Climb at 250KT IAS below FL 100 2.21.5 LANDINGS	*Information Not Available*

STATE/ AD Location Indicator	City/Aerodrome	Procedure Description	Noise monitoring system
		REVERSE THRUST It is recommended to use idle reverse thrust whenever possible. 2.21.6 RUN-UP TESTS Run-up tests will be done on runway before take-off-for one minute. If more time is needed, it is to be requested from ATC.	
HSPN	PORT SUDAN/Port Sudan	NIL	*Information Not Available*
SYRIAN ARAB REPUBLIC			
OSAP	ALEPPO/Aleppo Intl	*Information Not Available*	*Information Not Available*
OSLB	LATTAKIA/Bassel Al-Assad Intl	*Information Not Available*	*Information Not Available*
OSDI	DAMASCUS/Damascus Intl	*Information Not Available*	*Information Not Available*
UNITED ARAB EMIRATES			
OMAA	ABU DHABI/Abu Dhabi Intl	NIL	*Information Not Available*
OMAD	ABU DHABI/Al Bateen	2.21.1. The area OMR 66 (ABU DHABI city) is primarily a noise abatement area and restricted for over flights below 2000 FT between 1830 - 0200 UTC. Helicopters shall avoid this area except for authorised VIP and CASEVAC flights to/from city helipads and hospitals. 2.21.2. Aircraft Engine ground runs 2.21.2.1 Engine runs at idle settings a. Approval required from ATC b. Engine runs at idle power only permitted between 0400 - 1600 UTC c. Engine runs on Apron D and E require the aircraft to be parked nose-in to the Apron d. Aircraft are to be given start clearance stating "idle power only" 2.21.2.2 High power Engine runs High power Engine runs may only be conducted on RWY 31 THR in a line up position aligned with the RWY CL a. Approval required from ATC b. Engine runs only permitted between 0400 - 1600 UTC c. All fixed wing aircraft are to use RWY 2.21.3. Hovering work Helicopters requesting hover work engine runs can be accommodated on TWYs and on the RWY as traffic permits	*Information Not Available*
OMAL	AL AIN/Al Ain Intl	NIL	*Information Not Available*
OMDB	DUBAI/Dubai Intl	2.21.1. Except for passenger operations, aircraft not in possession of noise certification in accordance with the standards of Annex 16 to the ICAO and/or aircraft whose noise certification does not conform to the minimum standards set out in Annex 16, Chapter, 3 Part 2, Volume 1 are not permitted to operate to/from OMDB.	*Information Not Available*
OMDW	DUBAI/Al Maktoum Intl	NIL	*Information Not Available*
OMFJ	FUJAIRAH/Fujairah Intl	2.21.1 Avoid overflying the city below 5,000 FT.	*Information Not Available*

STATE/ AD Location Indicator	City/Aerodrome	Procedure Description	Noise monitoring system
OMRK	RAS AL KHAIMAH/Ras Al Khaimah Intl	NIL	*Information Not Available*
OMSJ	SHARJAH/Sharjah Intl	NIL	*Information Not Available*
YEMEN			
OYAA	ADEN/Aden Intl	*Information Not Available*	*Information Not Available*
OYHD	HODEIDAH/Hodeidah Intl	*Information Not Available*	*Information Not Available*
OYRN	MUKALLA/Riyan Intl	*Information Not Available*	*Information Not Available*
OYSN	SANA'A/Sana'a Intl	*Information Not Available*	*Information Not Available*
OYTZ	TAIZ/Taiz Intl	*Information Not Available*	*Information Not Available*

SUMMARY:

- Total number of International Airports: 66
- Number of Airports considering Noise Abatement Procedure: 19 (29 %)
- Number of Airport with Noise monitoring system: 3 (5 %)

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