

INTERNATIONAL CIVIL AVIATION ORGANIZATION

REPORT OF THE FOURTH MEETING OF THE MIDANPIRG STEERING GROUP

MSG/4

(Cairo, Egypt, 24 - 26 November 2014)

The views expressed in this Report should be taken as those of the MIDANPIRG Steering Group and not of the Organization. This Report will, however, be submitted to the MIDANPIRG and any formal action taken will be published in due course as a Supplement to the Report

Approved by the Meeting and published by authority of the Secretary General

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PART I - HISTORY OF THE MEETING

1. PLACE AND DURATION

1.1 The Fourth meeting of the MIDANPIRG Steering Group (MSG/4) was held at the Meeting Room of the ICAO Middle East Regional Office in Cairo, Egypt, from 24 to 26 November 2014

2. OPENING

- 2.1 The meeting was opened by Mr. Mohamed Khonji, Regional Director, ICAO Middle East Office, Cairo. Mr. Khonji welcomed all the participants to Cairo and thanked them for their attendance. He welcomed and introduced the Chairman of MIDANPIRG and MSG, Mr. Ali Ahmed, Director Air Navigation, Bahrain, who chaired the meeting for the first time.
- 2.2 Mr. Khonji recalled that in accordance with its new Terms of Reference, MSG should, inter-alia, direct the work of the MIDANPIRG subsidiary bodies in the best manner, commensurate with the overall MIDANPIRG work programme, with clearly defined tasks, deliverables and target dates. He highlighted also that MIDANPIRG agreed that MSG can approve, on its behalf, those Draft Conclusions/Decisions emanating from MIDANPIRG subsidiary bodies, which necessitate urgent follow-up action(s).
- 2.3 Mr. Khonji highlighted the most important subjects to be addressed by the MSG/4 meeting as part of its agenda. In particular he underlined the importance of the endorsement of the MID Region Air Navigation Strategy on behalf of MIDANPIRG. He wished the meeting all the success.
- 2.4 Mr. Ali Ahmed, Director Air Navigation, Bahrain, Chairman of MIDANPIRG welcomed also all the participants to the MSG/4 meeting. He thanked his predecessor, Mr. Hamad Al-Aufi from Saudi Arabia who chaired the last three (3) meetings of MIDANPIRG for his excellent chairmanship and outstanding achievements of MIDANPIRG. He reiterated his confidence that he would get the same kind of support from all the participants to facilitate his task as chairman of the meeting and MIDANPIRG as a whole.

3. ATTENDANCE

3.1 The meeting was attended by a total of thirty one (31) participants from nine (9) States (Bahrain, Egypt, Iran, Jordan, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates) and two (2) Organizations (IATA and IFALPA). The list of participants is at **Attachment A.**

4. OFFICERS AND SECRETARIAT

- 4.1 The meeting was chaired by Mr. Ali Ahmed, Director Air Navigation, Civil Aviation Affairs, Bahrain who is the Chairperson of MIDANPIRG.
- 4.2 Mr. Mohamed R. M. Khonji, ICAO Middle East Regional Director acted as the Secretary of the Meeting, assisted by:
 - Mr. Mohamed Smaoui Deputy Regional Director

Mr. Raza A. Gulam - Regional Officer, Communications, Navigation and

Surveillance (CNS)

Mr. Adel Ramlawi - Regional Officer, Aerodrome and Ground Aids (AGA)

Mr. Elie El Khoury - Regional Officer, Air Traffic Management and Search

and Rescue (ATM/SAR)

5. LANGUAGE

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

6. AGENDA

6.1 The following Agenda was adopted:

Agenda Item 1: Adoption of the Provisional Agenda

Agenda Item 2: Follow-up on the outcome of MIDANPIRG/14 Meeting

Agenda Item 3: Global, Inter and Intra-Regional Activities

Agenda Item 4: MID Region Air Navigation Planning

Agenda Item 5: Air Navigation Safety Matters and Coordination with RASG-MID

Agenda Item 6: Air Navigation Deficiencies

Agenda Item 7: MIDANPIRG Working Arrangements

Agenda Item 8: Future Work Programme

Agenda Item 9: Any other Business

7. CONCLUSIONS AND DECISIONS – DEFINITION

7.1 The MIDANPIRG records its actions in the form of Conclusions and Decisions with the following significance:

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

b) **Decisions** relate solely to matters dealing with the internal working arrangements of the Group and its Sub-Groups

8. LIST OF CONCLUSIONS AND DECISIONS

MSG CONCLUSION 4/1: GLOBAL AIR NAVIGATION PLAN (DOC 9750) REVIEW AND

UPDATE

MSG CONCLUSION 4/2: MID REGION ATM CONTINGENCY PLAN

DRAFT CONCLUSION 4/1: AVIATION STATISTICS AND TRAFFIC FORECASTS

DRAFT DECISION 4/2: AIR TRAFFIC FLOW MANAGEMENT

MSG CONCLUSION 4/3: MID REGION AIR NAVIGATION STRATEGY

MSG CONCLUSION 4/4: DEVELOPMENT OF THE MID eANP

MSG CONCLUSION 4/5: MAEP ESTABLISHMENT

MSG DECISION 4/6: MAEP STEERING COMMITTEE (MSC)

MSG CONCLUSION 4/7: MAEP FUNDING MECHANISM

MSG CONCLUSION 4/8: REGIONAL IFPS STUDY

MSG CONCLUSION 4/9: LAUNCHING OF THE MID-AMC SERVICE

DRAFT CONCLUSION 4/3: DRAFT MID REGION HIGH LEVEL AIRSPACE CONCEPT

MSG CONCLUSION 4/10: MID REGION PBN IMPLEMENTATION PLAN

MSG CONCLUSION 4/11: STATES PBN IMPLEMENTATION PLANS

MSG CONCLUSION 4/12: STRATEGY FOR IMPLEMENTATION OF AIDC/OLDI

MSG CONCLUSION 4/13: REGIONAL ICD FOR AIDC

MSG CONCLUSION 4/14: MID REGION PROCESS FOR MODE S IC CODES

ALLOCATION

MSG CONCLUSION 4/15: ADS-B PLANNING AND IMPLEMENTATION

MSG Conclusion 4/16: Draft Methodology for Reporting and Assessing

THE PROGRESS RELATED TO THE TRANSITION FROM AIS TO

AIM

MSG CONCLUSION 4/17: NATIONAL AIM IMPLEMENTATION ROADMAP

MSG CONCLUSION 4/18: MIDAD FOCAL POINTS

MSG DECISION 4/19: TERMS OF REFERENCE OF THE MIDAD TASK FORCE

MSG CONCLUSION 4/20: MID SCRAG NOMINATION

MSG CONCLUSION 4/21: AMHS ROUTING FROM MID TO EUR REGIONS

MSG CONCLUSION 4/22: CALL SIGN CONFUSION

MSG DECISION 4/23: CALL SIGN CONFUSION AD-HOC WORKING GROUP

DRAFT DECISION 4/4:	REVISED TORS OF THE MSG, CNS SG AND PBN SG

PART II: REPORT ON AGENDA ITEMS

REPORT ON AGENDA ITEM 1: ADOPTION OF THE PROVISIONAL AGENDA

1.1 The meeting reviewed the Provisional Agenda, and adopted it as at Para 6 of the History of the Meeting.

REPORT ON AGENDA ITEM 2: FOLLOW-UP ON THE OUTCOME OF MIDANPIRG/14 MEETING

- 2.1 The meeting was apprised of the outcome of the Fourteenth meeting of the Middle East Air Navigation Planning and Implementation Regional Group (MIDANPIRG/14) held in Jeddah, Saudi Arabia, 15-19 December 2013.
- 2.2 The meeting reviewed and updated MIDANPIRG/14 Follow up Action Plan as at **Appendix 2A** and urged MID States to take necessary follow-up actions, as appropriate.

REPORT ON AGENDA ITEM 3: GLOBAL, INTER AND INTRA-REGIONAL ACTIVITIES

GLOBAL AIR NAVIGATION PLAN (DOC 9750) REVIEW AND UPDATE

- 3.1 The meeting recalled the 38th Assembly Resolution A38-2 endorsed the first edition of the Global Aviation Safety Plan (GASP) and the fourth edition of the Global Air Navigation Plan (GANP). The Assembly also resolved that these global plans shall be implemented and kept current in close cooperation and coordination with all concerned stakeholders and that the plans shall provide the frameworks in which regional, sub-regional and national implementation plans will be developed and implemented. The objective of the Resolution is ensuring harmonization and coordination of efforts aimed at improving international aviation safety, capacity and efficiency.
- 3.2 The global plans aim to assist ICAO regions and States with Air Navigation and Safety policy, planning and implementation. Therefore, considering the dynamism of the civil aviation sector, the GASP and GANP should be reviewed periodically in order to align both plans with the prevailing ICAO strategic objectives.
- 3.3 ICAO shall review the GASP and GANP every three years and, if necessary, all relevant aviation planning documents through an established and transparent process that includes consultation with States, International Organizations and industry.
- 3.4 The Planning and Implementation Regional Groups (PIRGs), serving as regional focal points for Air Navigation, are the appropriate fora to collaboratively discuss the effective implementation of the ICAO SARPs and efficiency and capacity improvements at the regional levels with the stakeholders by analysing respective information and providing feedback for making the necessary adjustments to the high-level strategy presented in the GANP.
- 3.5 The meeting noted that the GANP will be updated based on inputs received from all stakeholders. The feedback will support ICAO to identify necessary updates/improvements of this global planning document to ensure that it is a valuable tool in the future. The updated GANP will be reviewed by the ANC and approved by the Council during their 2015 Session in order to be presented for endorsement by ICAO Member States at the 39th Session of the Assembly (September/October 2016).
- 3.6 Based on the above, the meeting reviewed and updated the questionnaire at **Appendix 3A**, which addresses the key areas for possible amendment /improvement of the GANP. The meeting urged States and International Organizations to further review the questionnaire and provide feedback on the use of the fourth edition of the GANP and its possible improvement. Accordingly, the meeting agreed to the following MSG Conclusion:

MSG Conclusion 4/1: GLOBAL AIR NAVIGATION PLAN (DOC 9750)
REVIEW AND UPDATE

That, States and air navigation stakeholders in the MID Region be urged to:

- a) review and provide inputs to the questionnaire at Appendix 3A; and
- b) provide feedback on the use of the fourth edition of the GANP and its possible improvement before 15 January 2015.

CONTINGENCY PLANNING

- 3.7 The meeting emphasized that no contingency arrangement can be successful unless it has been consulted with all affected stakeholders, including *inter alia*, airlines, military, ATC units, and aerodrome operators.
- 3.8 The meeting recalled that, the whole world was shocked by the tragic event involving flight MH17 that occurred in the Ukraine Airspace on 17 July 2014. This incident and others demonstrate that commercial flights are not immune from military actions when they operate over areas of conflict.
- 3.9 Based on the above, ICAO issued State Letter Ref: AN 13/4.2-14/59 dated 24 July 2014, addressing the safety and security of civil aircraft operating in airspace affected by conflict, and calling for close coordination between civil and military authorities in the event of armed conflict or the potential for armed conflict and requesting the State responsible for providing air traffic services to identify the geographical area of the conflict, assess the hazards or potential hazards to civil aircraft operations, and determine whether such operations in or through the area of conflict should be avoided or may be continued under specified conditions.
- 3.10 The meeting noted that ICAO established the Task Force on Risk to Civil Aviation arising from Conflict Zones (TF RCZ). The TF RCZ conducted two successful meetings on 29 July 2014 and 25-26 August 2014 and the third meeting is planned for December 2014.
- 3.11 The meeting was apprised of the outcomes of the First and Second meeting of the Ad-Hoc Afghanistan Contingency Group (AHACG), held respectively in Kuala Lumpur, Malaysia, 11-12 September 2014, and Istanbul, Turkey, 17-19 November 2014. These Ad-Hoc meetings were organized by the three ICAO Regional Offices, Asia-Pacific (APAC), Europe and North Atlantic (EUR/NAT) and Middle East (MID), to agree on inter-regional contingency arrangements to be implemented in case of the discontinuity of the Air Traffic Services (ATS) in Afghanistan after 15 December 2014, the date of the termination of the current ANSP contract.
- 3.12 The meeting noted that Afghanistan issues were also addressed by the Eurasia Special Coordination Meeting, Beijing, 22-23 September 2014, and the Fourth meeting of the Trans-Regional Airspace and Supporting ATM Systems Steering Group (TRASAS/4), Bangkok, 29-31 October 2014. It was highlighted that a High Level meeting will be held in Hong Kong, 28 November 2014, back-to-back with the 51thDirectors General of Civil Aviation ASIA Pacific (DGCA APAC) Conference, to review the outcome of the AHACG/2 meeting and recommend actions as appropriate.
- 3.13 The meeting noted that a contract extension of between six and nine months was being offered by the North Atlantic Treaty Organization (NATO)-International Security Assistance Force (ISAF) and United States Air Force Central Command (AFCENT). This was intended to bridge the gap from the day the current arrangements that were due to expire on 15 December 2014 until a new arrangement could be put in place. The inter-agency agreement was signed, which ensures that the Air traffic Services (ATS) will continue to be provided by the current service provider.
- 3.14 The meeting noted that IATA informed the AHACG/2 meeting, that its Members would not operate in a class G Airspace (where only flight information and alerting services exist). In the same vein, IFALPA stated during the AHACG/2 meeting, that it will request from its Members to refuse flying over uncontrolled airspaces or where conflicts exist.
- 3.15 The AHACG/2 meeting offered an opportunity for bi-lateral and tri-lateral meetings between States, which led to the optimization of the route structure at the relevant interfaces, in particular between: Afghanistan Pakistan; **Afghanistan Iran**; Azerbaijan Turkey; Azerbaijan Armenia; **Azerbaijan Iran**; Bulgaria Turkey; Georgia **Turkey**; **Iran** Turkey; **Iran Pakistan**; **Iran Armenia**; Pakistan India; Tajikistan Kyrgyzstan.

- 3.16 The AHACG meetings reports are available on the ICAO APAC Regional Office Website (http://www.icao.int/APAC/Meetings/Pages/2014-AHACG2.aspx).
- 3.17 The meeting was apprised of the outcome of the Special Coordination Meeting on the Implementation of ATM Contingency Arrangements in the MID Region (SCM-IACA), Cairo, Egypt, 24-25 September 2014. The main objectives of the SCM-IACA meeting were to discuss the issues related to the safety of the traffic circumnavigating Iraq, Syria and Ukraine Airspaces through Tehran Flight Information Region (FIR) and to agree on ATM contingency arrangements to be implemented in a harmonized manner to overcome the challenges.
- 3.18 The meeting noted the significant increase of traffic overflying Tehran FIR (the figures approximately doubled after 8 August 2014, 480 to 900 Flights per day). The meeting applauded Iran for their efforts and their quick response to accommodate the extra traffic flows through the implementation of contingency measures.
- 3.19 The meeting commended the efforts and the commitment of the concerned States to solve the issues related to the traffic congestion at the interfaces between Bahrain-Iran and Iran-UAE. The meeting noted that during the SCM-IACA, side meetings between the concerned States took place, which led to the signature of an updated Letter of Agreement (LoA) between Bahrain and Iran and the negotiation of an update to the Bahrain-Kuwait and Iran-UAE LoAs. The new routes and the contingency routes at the interface between Bahrain and Tehran FIRs were successfully implemented on 16 October 2014.
- 3.20 The meeting noted with contingency measures implemented by Iraq to ensure the safety of the traffic operating within Baghdad FIR through the avoidance of the conflict zones. Iraq highlighted that proactive measures have been put in place by the Iraqi Civil Aviation Authority (ICAA) to protect commercial traffic from airspaces with potential conflict. Measures such as fully segregated military airspaces and close coordination with the military ensure the ability to separate civilian traffic from the activities associated with the conflict zones. The meeting noted that ICAA is ready to implement contingency route schemes in coordination with the airspace users. ICAA will continue to publish appropriate aeronautical information related to the status of Iraqi Airspace.
- 3.21 Based on the above, the meeting noted that IATA will convene a meeting, in UAE with the major Air Operators to re-analyze the situation in Iraq Airspace and recommend actions as appropriate.
- 3.22 The meeting was updated of the current situation in some MID Airspaces as follows:
 - the situation in Syria has not changed since the issuance of the ICAO warning Letter Ref: AN 13/4.3 Open 13/25 dated 22 March 2013, drawing States' attention to the possible existence of serious risks to the safety of international civil flights operating within the Damascus FIR.
 - the ATS in Libya were disrupted on 14 July 2014, requiring the activation of the MID Region ATM Contingency Plan through the establishment of the Contingency Coordination Team (CCT). Currently, the Libyan Airspace is closed for international traffic.
 - the Group called the Islamic State in Iraq and Syria (ISIS) overrun Mosul city in Iraq on 10 June 2014 and started the invasion of the north part of Iraq and the North east of Syria, which has been considered as threat to civil aviation operations within Baghdad FIR. Accordingly, many Air Operators decided to circumnavigate Baghdad Flight Information Region (FIR).

- the U.S. Federal Aviation Administration (FAA) issued NOTAM A0056/14 dated 4 November 2014 requesting all U.S. air carriers and commercial operators; all persons exercising the privileges of an airman certificate issued by the FAA, except such persons operating U.S. registered aircraft for a foreign air carrier; and all operators of aircraft registered in the United States, except where the operator of such aircraft is a foreign air carrier, to avoid flying into, out of, within or over the Sinai peninsula in the Cairo FIR at or below FL260.
- the European Aviation Safety Agency (EASA) issued the Safety Information Bulletin Nr. 2014-30 dated 13 November 2014 recommending all operators to take any available information into account in their risk assessments and routing decisions if planning to fly into, out of, within or over the Northern Sinai Governorate of Egypt and to monitor all relevant information, including NOTAMs.
- 3.23 Based on all the foregoing, the meeting encouraged States and concerned stakeholders to support the activities related to the inter-regional contingency arrangements. Moreover, the meeting urged States to take into consideration the recommendations emanated from the SCM-IACA, AHACG/1 and AHACG/2 meetings, while developing their contingency plans/measures.
- Taking into consideration the outcome of the SCM-IACA, the meeting reviewed and endorsed the updated version of the MID Region ATM Contingency Plan available on the ICAO MID Website https://portal.icao.int/RO_MID/Pages/eDocs.aspx . The meeting underlined that the MID Region ATM Contingency Plan should be used to ensure the orderly flow of international air traffic in the event of disruptions of air traffic services and/or related supporting services, or in cases where airspace users decide to circumnavigate certain airspace(s) that cause significant increase of traffic in other airspace(s); and to preserve the availability of major world air routes within the air transportation system in such circumstances.
- 3.25 Accordingly, the meeting agreed to the following MSG Conclusion:

MSG CONCLUSION 4/2: MID REGION ATM CONTINGENCY PLAN

That, the MID Region ATM Contingency Plan (Edition November 2014) is endorsed as a Regional Document to be available on the ICAO MID website.

REPORT ON AGENDA ITEM 4: MID REGION AIR NAVIGATION PLANNING

STATE OF AIR TRANSPORT IN THE MID REGION

- 4.1 The meeting noted that the Air carriers of the MID Region (the 15 Member States to which the MID Office is accredited) recorded the highest annual growth of 11.5 per cent in terms of Revenue Passenger-Kilometers (RPK) on total (i.e. domestic and international services combined) scheduled services in 2013, compared to a 14.0 per cent growth in 2012. This robust growth was supported by the expansion of air carriers such as Emirates, Etihad, Qatar Airways as well as the Low Cost Carriers (LCCs) Air Arabia and Fly Dubai. It was also highlighted that passenger traffic growth was not homogeneous in the region as for instance Gulf Air, the national airline in Bahrain, showed a decrease of -26.8 per cent in 2013. Airlines of the United Arab Emirates, Qatar and Saudi Arabia account for 83 per cent of the total passenger traffic of airlines of the MID Region.
- 4.2 The airlines of the MID Region showed a stable growth in 2012 and in 2013 in terms of aircraft departures. The total number of scheduled commercial departures in 2013 grew at a pace of 5.8 per cent to reach about 1.2 million departures, compared to a growth rate of 5.6 per cent recorded in 2012. The States with a consequent domestic market are Saudi Arabia and Iran. They showed an annual growth of 7.1 per cent and 20.7 per cent, respectively.

OUTCOME OF THE FOURTH MEETING OF THE MIDANDPIRG TRAFFIC FORECASTING SUB-GROUP

The Fourth meeting of the MIDANPIRG Traffic Forecasting Sub Group was held in Cairo, Egypt, 15-17 November 2011. The meeting was presented with a set of updated forecasts for international passenger and aircraft movement traffic to, from and within the MID Region up to the year 2030. According to these forecasts, the passenger traffic to, from and within the MID Region on the five major route groups concerned for the period 2010-2030 is expected to increase at an average annual rate of 9.1 per cent. The Middle East-Africa Route Group is expected to experience the highest average annual growth rate of 10.4 per cent per annum, followed by Intra Middle East, Asia/Pacific-Middle East, North America-Middle East and Europe-Middle East Route Groups with growth rates of 10.3 per cent, 9.2 per cent, 8.8 per cent and 7.3 per cent, respectively for the period concerned. The total aircraft movements to, from and within the Middle East Region are estimated to increase from some 976400 in 2010 to slightly above 5204000 in 2030 at an average annual growth rate of 8.7 per cent over the same period.

CUSTOMIZED SETS OF FORECASTS TO BE PRODUCED FOR THE TFGS

4.4 The meeting noted that in accordance with the outcome of the First Meeting of the Aviation Data and Analysis Panel (ADAP/1), held in Montréal from 14 to 17 April 2014, regarding the development of an ICAO single-set of long-term forecasts, and the impact on the customized sets to be produced for the Planning and Implementation Regional Groups, it is proposed to have one meeting every three years gathering all the TFGs/Regions during one week at the ICAO Head Quarters (HQ). In this respect, it is planned that this meeting be organized in ICAO HQ during the second quarter of 2015, for the development of the customized and/or more detailed forecasts consistent with the single set of forecasts to be developed by the Multi-disciplinary Working Group on Long-term Traffic Forecasts (MDWG-LTF).

ICAO AVIATION DATA ANALYSES SEMINAR

- 4.5 The meeting was apprised of the outcome of the ICAO Aviation Data Analyses Seminar held in Cairo, Egypt, from 27 to 29 October 2014. The Summary of Discussions of the Seminar is at **Appendix 4A**.
- 4.6 The meeting supported the Conclusions of the above-mentioned Seminar and agreed to the following Draft Conclusion:

DRAFT CONCLUSION 4/1: AVIATION STATISTICS AND TRAFFIC FORECASTS

That.

- *a)* States be urged to:
 - i. nominate Focal Points for aviation statistics;
 - ii. provide the statistics required by ICAO in a timely manner and to the extent possible in an electronic format
- b) ICAO organise a Second Aviation Data Analyses Seminar in 2016 to keep the momentum and further enhance the technical knowledge of States.

MID REGION AIR NAVIGATION STRATEGY

- 4.7 The meeting recalled that MIDANPIRG/14 through Conclusion 14/6 endorsed the Draft MID Region Air Navigation Strategy and tasked the different MIDANPIRG subsidiary bodies to further review and complete the Strategy.
- 4.8 The meeting recalled that Performance-Based Navigation (PBN), Continuous Descent Operations (CDO), Continuous Climb Operations (CCO), Aeronautical Information Management (AIM), Air Traffic Flow Management (ATFM) and estimated environmental benefits accrued from operational improvements have been identified as the global air navigation priorities. In this respect, it was highlighted that ATFM (ASBU B0-NOPS) was not endorsed by MIDANPIRG/14 as a regional priority.
- 4.9 The meeting recognized that Air Traffic Flow Management (ATFM) is used to manage the flow of traffic in a way that minimizes delays and maximizes the use of the entire airspace. ATFM can regulate traffic flows involving departure slots, smooth flows and manage rates of entry into airspace along traffic axes, manage arrival time at waypoints or Flight Information Region (FIR)/sector boundaries and re-route traffic to avoid saturated areas. ATFM may also be used to address system disruptions including a crisis caused by human or natural phenomena.
- 4.10 It was highlighted that ATFM and its applications should not be restricted to one State or FIR because of their far-reaching effects on the flow of traffic elsewhere. The *Procedures for Air Navigation Services Air Traffic Management* (PANS-ATM, Doc 4444) recognizes this important fact, stating that ATFM should be implemented on the basis of a Regional Air Navigation Agreement or, when appropriate, a Multilateral Agreement.
- 4.11 The meeting noted that in accordance with the Questionnaire circulated to States on 7 March 2014, related to the application of ATFM in the MID Region, the majority of the MID States indicated willingness to participate in a regional ATFM service/system.

Based on the above, the meeting agreed that the ASBU Block 0 NOPS be added to the list of priority 1 ASBU Block 0 Modules in the MID Region Air Navigation Strategy. The meeting agreed also that the subject be further addressed by the ATM Sub Group with a view to reach a final decision with regard to the necessity, feasibility, cost benefit analysis and timelines related to the eventual implementation of a regional/sub-regional ATFM system, which might be considered by the MAEP Board. Accordingly, the meeting agreed to the following Draft Conclusion:

DRAFT DECISION 4/2: AIR TRAFFIC FLOW MANAGEMENT

That, the ATM Sub-Group develop a Draft Project Proposal addressing the necessity, feasibility, cost benefit analysis and timelines related to the eventual implementation of a regional/sub-regional ATFM system, to the MSC/2 meeting for consideration.

4.13 The meeting reviewed, updated and endorsed the MID Region Air Navigation Strategy at **Appendix 4B**, which was consolidated based on the outcome of the different MIDANPIRG subsidiary bodies and other inputs from States and concerned international organizations. Accordingly, the meeting agreed to the following MSG Conclusion:

MSG Conclusion 4/3: MID Region Air Navigation Strategy

That,

- a) the MID Air Navigation Strategy at **Appendix 4B** is endorsed as the framework identifying the regional air navigation priorities, performance indicators and targets; and
- b) MID States be urged to:
 - i. develop their National Air Navigation Performance Framework, ensuring the alignment with and support to the MID Region Air Navigation Strategy; and
 - ii. provide the ICAO MID Regional Office, on annual basis (by end of November), with relevant data necessary for regional air navigation planning and monitoring.
- 4.14 The meeting noted that detailed information on the monitoring of certain ASBU modules will be included in Volume III of the MID eANP, including necessary supporting enablers (i.e.: tables, databases, etc.), in order to be used as planning tools for the measurement of the air navigation systems performance.

DEVELOPMENT OF THE MID eANP

4.15 The meeting was apprised of the progress related to the development of the MID eANP. The meeting recalled that MIDANPIRG/14, through Decision 14/24, agreed that the development of the MID eANP based on the Council-approved ANP Template, be included in the work programme of the different MIDANPIRG subsidiary bodies.

- 4.16 The meeting reviewed the Draft version of the MID eANP VOL I, II and III, available on the ICAO MID website: http://www.icao.int/MID/Pages/meetings.aspx, which was consolidated by the Secretriat based on the Council approved Template and the outcomes of the different MIDANPIRG subsidiary bodies (AIM SG/1, ATM SG/1, CNS SG/6 and MET SG/5).
- It was highlighted that the population of 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) is a challenging process that requires the cooperation of all the concerned States. The two Tables will contain the same descriptions due to the coincidence of all the FIRs with their corresponding SSRs in the MID Region. In this regard, the meeting agreed that the inconsistencies, if any, be reflected in the Remarks Column (a TBD note could be used). The meeting reviewed the ATM I-1 and SAR I-1 Tables which were prepared by the Secretariat based on the following (in a prioritized manner):
 - a) approved Proposal for Amendments (PfAs) to the MID ANP by the ICAO Council;
 - b) MID RAN Meetings Reports;
 - c) agreements between States communicated to ICAO;
 - d) AIS publications when descriptions coincide with the current Charts ATS-1 and no differences between States;
 - e) (TBD will reflect the inconsistencies/disagreements, if any).
- 4.18 The meeting supported the work done by the Secretariat and different MIDANPIRG subsidiary bodies related to the development of the MID eANP and urged States to provide comments/updates to the MID eANP VOL I, II and III to the ANP WG/2 meeting scheduled to be held in Cairo, 16-18 December 2014, for the consolidation of the final version of the MID eANP for endorsement by MIDANPIRG/15. Accordingly, the meeting agreed to the following MSG Conclusion:

MSG CONCLUSION 4/4: DEVELOPMENT OF THE MID eANP

That,

- a) the ANP WG/2 finalize the MID eANP for endorsement by MIDANPIRG/15; and
- b) States be urged to review the MID eANP Volumes I, II and III available on the ICAO MID website, and provide updates/inputs to the ANP WG/2 meeting.

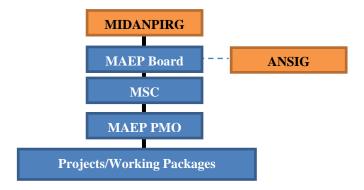
MID REGION ATM ENHANCEMENT PROGRAMME

4.19 The meeting recalled that the Second meeting of the Directors General of Civil Aviation for Middle East Region (DGCA-MID/2), held in Jeddah, Saudi Arabia, 20-22 May 2013, recognized that there is an increasing need for cooperation between the different ATM stakeholders for the enhancement of ATM capacity and efficiency in the MID Region. Accordingly, the DGCA MID/2 meeting, through DGCA Conclusion 2/4, agreed that a MAEP Board composed of high level representatives from concerned States and Organizations, be established to be responsible for overall supervision, direction, and management of the Programme.

- 4.20 The meeting was apprised of the outcome of the MAEP Board/1 meeting, Cairo, Egypt, 23-25 June 2014, which reviewed the outcome of the MAEP Special Coordination Meeting (MAEP-SCM), Cairo, Egypt, 18-20 February 2014.
- 4.21 The meeting noted that the MAEP Board/1 meeting agreed to the following Scope and Strategic Objective of the MAEP:

The MID Region ATM Enhancement Programme (MAEP) is a Regional platform that provides the basis for a collaborative approach towards planning and implementing projects in support of the MID Air Navigation Strategy, taking into consideration previous initiatives. This includes the following:

- 1) Maximize Air Traffic Management performance in the MID Region through project management and within the time frame (2014-2028).
- 2) Improve efficiency and increase capacity to safely accommodate air traffic growth.
- 3) Support the implementation of ATM projects in the MID Region in a harmonized and collaborative manner in line with the MID Air Navigation Strategy and Global Air navigation Plan (GANP), taking into consideration the users' requirements.
- 4) Addresses ATM community expectations in a cost-effective and environmentally sustainable manner.
- 4.22 Taking into consideration the agreed Scope and Strategic Objective of MAEP, as well as the successful experiences of the MIDRMA project and the RASG-MID, the MAEP Board/1 meeting agreed to the following MAEP Organizational Structure:
 - a) MAEP Board;
 - b) MAEP Steering Committee (MSC);
 - c) MAEP Project Management Office (PMO); and
 - d) Projects/Workings Packages



4.23 The meeting agreed that the MAEP be established as an ICAO TCB project with a PMO hosted by the ICAO MID Regional Office. Accordingly, the meeting agreed to the following MSG Conclusion:

MSG CONCLUSION 4/5: MAEP ESTABLISHMENT

That, MAEP be established as an ICAO TCB project with a Project Management Office (PMO) hosted by the ICAO MID Regional Office.

- The meeting noted that the MAEP Board/1 meeting agreed to a draft MAEP Memorandum of Agreement (MOA), which includes the agreed MAEP Board Terms of Reference (TOR). The ICAO MID Regional Office circulated the Draft MAEP MOA through the State Letter Ref AN 6/31-14/202 dated 22 July 2014, requesting States to provide their comments related to the MAEP MOA before 30 September 2014. The final version of the MAEP MOA will be presented to the States for signature during the DGCA-MID/3 meeting, Doha, Qatar, 27-29 April 2015.
- 4.25 It was highlighted that the ICAO MID Regional Office is coordinating with ICAO TCB and Legal Bureau the development of proper documentation related to the establishment of the MAEP as a TCB project.
- 4.26 The meeting noted that the MAEP Board/1 meeting agreed that a MAEP Steering Committee (MSC) be established to act as an advisory body to the MAEP Board, guide its work and ensure that MAEP objectives are accomplished in a timely, effective and efficient manner. In this regard, it was agreed that the MSC be co-chaired by two Chairpersons: one from the Member States and one from the Organizations. Accordingly, the meeting agreed to the following MSG Decision:

MSG DECISION 4/6: MAEP STEERING COMMITTEE (MSC)

That, the MAEP Steering Committee (MSC) is established with Terms of Reference as at **Appendix 4C**.

- 4.27 It was highlighted that the first milestone to get the programme running is the establishment of the MAEP PMO. Accordingly, the meeting agreed that the process of appointing a PMO Manager should start as soon as the MAEP MOA is signed by at least eight (8) Member States. In this regard, the meeting noted that the MAEP Board/Imeeting delegated the authority for signature of any document with the ICAO TCB necessary for the advancement of the Project, to the MAEP Chairperson on behalf of the MAEP member States.
- 4.28 The meeting agreed that in order to ensure the sustainability of the Programme, the running cost of the PMO should be covered through annual contribution from the Member States. It was also agreed that the funding of the projects/working packages should be addressed on a case-by-case basis, by the MAEP Board taking into considerations the MSC recommendations.
- 4.29 The meeting agreed that, for the funding of the PMO running cost, the contribution of States should be based on the volume of traffic and the Gross Domestic Product per capita (GDP). Accordingly, it was agreed that States be divided in three groups as follows:
 - Group 1: Bahrain, Iran, Oman, Qatar, Saudi Arabia and UAE;
 - Group 2: Egypt, Iraq, Kuwait and Libya; and
 - Group 3: Jordan, Lebanon, Sudan, Syria and Yemen.

4.30 Based on the above, the meeting agreed to the following MSG Conclusion:

MSG Conclusion 4/7: MAEP Funding Mechanism

That.

- a) the running cost of the MAEP PMO be ensured through contributions from all MAEP Member States;
- b) the annual amounts to be paid by the MAEP Member States are, as follows:
 - i. Bahrain, Iran, Oman, Qatar, Saudi Arabia and UAE annual contribution is US\$ 30,000 each;
 - ii. Egypt, Iraq, Kuwait and Libya annual contribution is US\$ 20,000 each; and
 - iii. Jordan, Lebanon, Sudan, Syria and Yemen annual contribution is US\$ 10,000 each.
- c) the funding of the projects/working packages:
 - i. be addressed by the Board, on case-by-case basis; and
 - ii. be ensured through contribution (cash or in-kind) by concerned States, stakeholders and sponsors/donors.
- d) the MAEP funding mechanism be revised by the MAEP Board, when necessary.
- 4.31 In connection with the above, the meeting agreed that, as soon as the MAEP MOA is signed by eight (8) member States, the ICAO TCB will issue the invoices for the 2015-2016 contributions to MAEP.
- 4.32 The meeting noted that the first meeting of the MAEP Steering Group (MSC/1) will be held in Dubai, UAE from 20 to 22 January 2015. The MSC/1 meeting will finalize and agree on the necessary documentation for the establishment of MAEP. In accordance with its Terms of Reference, the MSC/1 meeting is expected also to review the plans submitted by the Sates and Organizations, and recommend priorities, projects/working packages and associated funding arrangements to the MAEP Board. Accordingly, the meeting encouraged States and concerned Organizations to support MAEP, present proposals/inputs related to the MAEP projects/working packages and attend the MSC/1 meeting.
- 4.33 In connection with the above, the meeting noted that the MAEP Board/1 meeting supported the proposal of the PBN SG/1 meeting related to the inclusion of the MID Flight Procedure Programme (MID FPP) as one of the MAEP projects/working packages.
- 4.34 The meeting recognized the need for a MAEP Project Proposal Template to be used by States and Organizations when proposing projects/working packages to the MSC.

MID IP Network

- 4.35 The meeting recognized the necessity for a Regional Telecommunication Network for all Aeronautical Fixed Services (AFTN, AMHS, AIDC/OLDI, surveillance data sharing, etc.). Furthermore, the meeting recalled that MIDANPRG/14 meeting reiterated that the MID ATN implementation and MID IP Network should take place on the basis of regionally agreed requirements, taking into consideration, the System Wide Information Management (SWIM) concept and any other new developments. It was further recognized that the current Point-to-Point circuit arrangement between States to support the Aeronautical Fixed Service (AFS) enhancement will not cope with the advanced technologies and has many limitations.
- 4.36 The meeting noted that the European Region has implemented the Pan-European Network Service (PENS) and the North American Region has FAA Telecommunication Infrastructure (FTI) to support Canada and USA to distribute AFS data. Similarly, the ICAO South American Region has REDDIG and the Caribbean Region has MEVA. The APAC Region is planning for the implementation of a Common Regional Virtual Private Network (CRV).
- 4.37 The meeting recognized that the MID IP Network establishment should consider the following:
 - reduce telecommunication cost;
 - enhance information security;
 - support new enhancements;
 - provide a dynamic network;
 - minimize coordination for network management and enhancement; and
 - respond to Air Traffic requirements in a timely manner.
- 4.38 It is to be noted that the MID IP Network will be Private Network and not public internet. Any user of the Network can be connected to another user, as configured through the Network Administrator
- 4.39 The meeting agreed that a MID IP Network needs to be established to cope with the current and future requirements. In this respect, the meeting considered the following two options:
 - a) Private Network MENS i.e. similar to the European Network (PENS); or
 - b) join the APAC CRV Network.
- 4.40 The meeting reviewed the Draft MID IP Network Project Proposal available on the ICAO MID website: http://www.icao.int/MID/Pages/meetings.aspx, which was developed by the MID IP Network Action Group. The meeting supported the establishment of a MID IP Network as one of the MAEP projects/Working Packages and urged States to provide comments/inputs on the Draft Project Proposal before **15 December 2014** for presentation to and consideration by the MSC/1 meeting.

INTEGRATED FLIGHT PLAN PROCESSING SYSTEM (IFPS)

4.41 The meeting noted that Bahrain introduced an IFPS System for the Bahrain FIR/UIR in 2013, which is the entry system for all Bahrain FIR/UIR FPLs in order to:

- improve the quality of FPL before distributing them to ACC, TWR, and ARO;
- prevent double distribution to ACC, TWR and ARO;
- reject FPLs in case of major errors; and
- send Rejection Messages (RJE) or Acknowledge Messages (ACK) to the originator of the FPL according to the system configuration based on individual configurations for each FPL originator; and
- 4.42 It was highlighted that the implemented functions of the Bahrain FIR/UIR IFPS are of general nature and could support regional or sub-regional needs, as the system is expandable.
- 4.43 The meeting agreed that the IFPS initiative should be revived. However, it was highlighted that in order to reach a decision regarding the operational requirements, the inputs from the ATM experts in the Region are needed.
- 4.44 The meeting reviewed the initial draft project proposal for the MID-IFPS available on the ICAO MID website http://www.icao.int/MID/Pages/meetings.aspx, which could be a candidate for a working package under the MAEP framework. The meeting was of the view that the draft proposal needs further improvement; based on inputs from States and airspace users.
- 4.45 Based on the above, the meeting urged States to provide the Flight Plan data/difficulties to the ICAO MID Regional Office **before 31 December 2014**, for onward transmission to Bahrain and agreed to the following MSG Conclusion:

MSG CONCLUSION 4/8: REGIONAL IFPS STUDY

That, States be urged to provide the Flight Plan Data/Difficulties to the ICAO MID Regional Office **before 31 December 2014**, in order for Bahrain to carry out further analyses for the Region, necessary for the IFPS project.

MIDAMC

- 4.46 The meeting noted that the first meeting of the MIDATS Message Management Center Steering Group (MIDAMC STG/1) was held via teleconferencing on 18 June 2014. The meeting was attended by (5) States (Egypt, Iran, Jordan, Lebanon and UAE) and the MID-AMC Team.
- 4.47 The meeting shared the concern of the MID-AMC STG/1 on the low level of participants and the low level of assignment of members for the MIDAMC STG. The meeting reviewed and updated the list of MIDAMC STG members at **Appendix 4D**. Furthermore, the meeting urged States that have not yet done so to send their MIDAMC STG members names and contact details to the ICAO MID Regional Office before **30 December 2014**. The meeting also agreed that the MID-AMC STG/2 should be held as a face-to-face meeting.
- 4.48 The meeting appreciated the work done by the MIDAMC team and noted that the main reason for not announcing the official full operation/launch of the MIDAMC application was the lack of training for the key users.

- 4.49 The meeting noted with appreciation that the MIDAMC application training is confirmed to be conducted by the MIDAMC team at IATA premises in Jordan 5-7 January 2015. Accordingly, the meeting urged States to participate in the training.
- 4.50 Based on all the above, the meeting endorsed the following MSG Conclusion:

MSG CONCLUSION 4/9: LAUNCHING OF THE MID-AMC SERVICE

That,

- a) States, that have not yet done so, be urged to assign their MIDAMC STG members before 30 December 2014; and
- b) the first AIRAC date following the training of the MID States key users (5 February 2015) be officially declared as the date of operation of the MIDAMC application.

MID REGION HIGH LEVEL AIRSPACE CONCEPT

- 4.51 The meeting emphasized that an airspace concept provides the outline and intended framework of operations within an airspace. Airspace concepts are developed to satisfy explicit strategic objectives such as improved safety, increased air traffic capacity and mitigation of environmental impact, etc. Airspace concepts can include details of the practical organization of the airspace and its users based on particular CNS/ATM assumptions, e.g. ATS route structure, separation minima, route spacing and obstacle clearance.
- The meeting noted that the First meeting of the ATM Sub-Group (ATM SG/1), Cairo, Egypt, 9-12 June 2014, recognized that the objective of the High Level Airspace Concept is to consolidate the ATM operational requirements agreed upon by MIDANPIRG, which would support the harmonization of the ATM operations in the MID Region. Accordingly, the meeting agreed to the following MID Region High Level Airspace Concept fundamentals:
 - a) The use of Reduced Vertical Separation Minima (RVSM) between FLs 290 and 410.
 - b) To the most extent possible implementation of parallel ATS route network, based on RNAV 5 or RNAV 1, across the Region.
 - c) Implementation of RNAV 5 area in the level band FL160 FL460 (inclusive).
 - d) A system of linked routes based mainly on RNAV connected to RNAV or Conventional SIDs and STARs starting at the nominal TMA boundary.
 - e) Route spacing used for RNAV 5 routes should not be less than 16.5 NM for unidirectional and 18 NM for bi-direction tracks.
 - f) Route spacing used for RNAV 1 routes should not be less than 7 NM providing that required CNS infrastructure is available.
 - g) Implementation of 20 NM Reduced radar longitudinal separation, which could be further reduced to 10 NM where appropriate.
 - h) Implementation of the "Flexible Use of Airspace" concept.
 - i) Implementation of ASBU Modules in accordance with the Air Navigation Strategy.

- j) Implementation of AIDC/OLDI between all ACCs.
- k) Implementation of Continuous Climb Operations (CCO) and Continuous Descent Operations CDO, where appropriate.
- l) Consider the implementation of Bilateral, Sub-regional or regional ATFM services.
- 4.53 Based on the above, the meeting reviewed the Draft MID Region High Level Airspace Concept at **Appendix 4E**, commended the work done by the Secretariat and agreed to the following Draft Conclusion:

DRAFT CONCLUSION 4/3: DRAFT MID REGION HIGH LEVEL AIRSPACE CONCEPT

That, States be urged to provide the ICAO MID Regional Office with their comments related to the Draft MID Region High Level Airspace Concept, at Appendix 4E, by 1 March 2015, in order to present the final version to MIDANPIRG/15 for endorsement.

MID REGION PBN IMPLEMENTATION PLAN

- 4.54 The meeting recalled that the Regional PBN Implementation Plan is a document adopted by PIRGs offering appropriate guidance for air navigation service providers, airspace operators and users, regulators, and international organizations on the evolution of navigation capabilities as one of the key systems supporting air traffic management, and which describes the RNAV and RNP navigation applications that should be implemented in the short, medium and long term at the regional level.
- 4.55 The meeting recalled that MIDANPIRG/14 agreed that the PBN Sub-Group be responsible for PBN implementation for Terminal and Approach, while the responsibility for PBN implementation for en-route is assigned to the ATM Sub-Group.
- 4.56 The PBN SG/1 meeting, Cairo, Egypt, 1-3 April 2014 developed a Draft version of the MID Region PBN implementation Plan which consolidates and updates the previous PBN and GNSS Strategies/Plans, taking into consideration the global and regional developments.
- 4.57 The Draft MID Region PBN Implementation Plan was further reviewed and updated by the ATM SG/1 meeting (Cairo, Egypt, 9-12 June 2014), in particular the parts related to en-route.
- 4.58 Based on the above, the meeting reviewed and endorsed the MID Region PBN Implementation Plan available on the ICAO MID website: https://portal.icao.int/RO_MID/Pages/eDocs.aspx . Accordingly, the meeting agreed to the following MSG Conclusion:

MSG CONCLUSION 4/10: MID REGION PBN IMPLEMENTATION PLAN

That, the endorsed MID Region PBN Implementation Plan (Version 1, November 2014) be posted on the ICAO MID website.

In connection with the above, the meeting recalled that the PBN SG/1 meeting noted with concerns that Iran, Iraq, Lebanon and Libya have not yet submitted their National PBN Implementation Plan. In this regard, the PBN SG/1 meeting urged States to provide the ICAO MID Regional Office with their updated PBN Implementation Plan, on an annual basis (by end of

December). Moreover, the meeting underlined that the Users should be consulted during the process of development/update of the National PBN Implementation Plans. Accordingly, the meeting agreed to the following MSG Conclusion:

MSG CONCLUSION 4/11: STATES' PBN IMPLEMENTATION PLANS

That, States be urged to:

- a) develop/update their PBN implementation Plan taking into consideration the MID Region PBN Implementation Plan, the MID Air Navigation Strategy and the Users requirements; and
- b) provide the ICAO MID Regional Office with their updated PBN Implementation Plan on an annual basis (by end of December).
- 4.60 The meeting noted that the implementation of GLS has not been considered as a priority for the short term (2014-2017) in the MID Region. Accordingly, it was agreed that the implementation of GLS would be required at some identified runway ends starting 2018 and beyond.

AIDC/OLDI

- 4.61 The meeting was apprised of the outcome of the AIDC/OLDI Seminar, Cairo, Egypt 3-5 March 2014. The Summary of Discussions of the Seminar is at **Appendix 4F**.
- 4.62 The meeting reviewed and updated the list of AIDC/OLDI Focal Points and urged States that have not yet done so, to provide their Focal Points to the ICAO MID Regional Office, by **15 January 2015**, in order to coordinate with them the issues related to AIDC/OLDI implementation.
- 4.63 The meeting reviewed and endorsed the consolidated version of the MID Region Strategy for the implementation of AIDC/OLDI available on the ICAO MID website: http://www.icao.int/MID/Pages/meetings.aspx developed by the Secretariat based on the outcomes of the ATM SG/1 meeting (Cairo, Egypt, 9-12 June 2014) and the APAC Region AIDC Implementation Seminar (Bangkok, Thailand 28-31 October 2014). Accordingly, the meeting agreed to the following MSG Conclusion:

MSG CONCLUSION 4/12: STRATEGY FOR IMPLEMENTATION OF AIDC/OLDI

That, the endorsed MID Region Strategy for the implementation of AIDC/OLDI (Version 1, November 2014) be posted on the ICAO MID website.

The meeting noted that for harmonization purpose, an ICAO Inter-Regional AIDC Task Force (IRAIDC TF) was established between ICAO APAC and NAT Regions. The Task Force had several meetings and developed Version 1.0 of the PAN Regional ICD for AIDC which was endorsed by the NAT Region and will be endorsed by the APAC Region soon. Accordingly, the meeting agreed that the same ICD available on the **ICAO** MID website: https://portal.icao.int/RO MID/Pages/eDocs.aspx be used in the MID Region and agreed to the following Conclusion:

MSG CONCLUSION 4/13: REGIONAL ICD FOR AIDC

That, the PAN Regional ICD for AIDC version 1.0 endorsed as the official ICD for use in the MID Region be posted on the ICAO MID website.

4.65 The meeting recalled that MIDANPIRG/12 under Conclusion 12/63, adopted the Global Operational Data Link Document (GOLD) first edition and agreed that the current version of GOLD (Second Edition; dated 26 April 2013) be made available on the ICAO MID website.

MID REGION SURVEILLANCE

- 4.66 The meeting noted that MIDANPIRG/14 was apprised of a recent incident where an IC Code conflict was observed. Accordingly, the meeting emphasized that when programming Mode S Interrogators, Mode S Operators have to comply with the allocated IC provided in the latest issued IC allocation; and develop an IC coverage map and programming procedures, taking their own specificities into account.
- 4.67 The meeting further noted that MIDANPIRG/14 meeting encouraged Mode S Radar Operators States to include the necessary verification in their local programming procedures; and tasked the CNS SG to include the verification procedure in the MID Region process for Mode S IC codes allocation. Therefore, the Secretariat in coordination with EUROCONTROL updated the MID Region process for Mode S IC codes allocation that was reviewed by the meeting available on the ICAO MID website https://portal.icao.int/RO_MID/Pages/eDocs.aspx . Accordingly, the meeting agreed to the following Conclusion:

MSG CONCLUSION 4/14: MID REGION PROCESS FOR MODE S IC CODES ALLOCATION

That, the endorsed MID Region process for Mode S IC codes allocation be posted on the ICAO MID website.

4.68 The meeting noted that by using the MICA application it is possible to extract the allocation and request for mode S IC codes for their own radars, provided that they are registered and can access the MICA application at:

https://extranet.eurocontrol.int/http://webprisme.cfmu.eurocontrol.int/mica/Index.action.

- 4.69 The meeting reviewed and updated the surveillance focal points in the MID Region at **Appendix 4G** and encouraged States that have not yet done so, to provide their focal point for Surveillance and MICA application.
- 4.70 The meeting noted that MIDANPIRG/14 meeting agreed to Conclusion 14/27 adopting the MID Surveillance Strategy. Accordingly, the meeting reiterated that States share surveillance data and mainly the ADS-B when available to enhance safety, increase efficiency and achieve seamless surveillance.
- 4.71 In connection with the above, the meeting noted that the ADS-B is one of the technologies included in the GANP which supports many ASBU Modules in particular SURF, ASUR, SNET, ASEP, OPFL. Accordingly, the meeting agreed to the following MSG Conclusion:

MSG Conclusion 4/15: ADS-B Planning and Implementation

That, recognizing the importance of ADS-B technology, States be encouraged to plan/implement ADS-B and provide the ICAO MID Regional Office with their plans/progress reports by 15 January 2015.

4.72 The meeting reviewed the draft template for the monitoring of ADS-B implementation at **Appendix 4H** and urged States to provide comments/inputs for improvement of the template to the ANP WG/2 meeting, for inclusion in Vol. III of the MID eANP.

AIM

- 4.73 The meeting was apprised of the outcome of the AIM SG/1 meeting (Cairo, Egypt, 6-8 May 2014) related to the Methodology for reporting and assessing the progress on the transition from AIS to AIM and the Regional AIM implementation Roadmap.
- 4.74 The meeting recalled that for the First Edition of the Global Air Navigation Report and the Regional Performance Dashboards, an agreement was reached to monitor the implementation of 3 steps from Phase I of the ICAO Roadmap for transition from AIS to AIM (AIRAC, QMS and WGS-84). It was highlighted that for the future Global Air Navigation Reports and necessary updates/upgrades of the Regional Performance Dashboards, the reporting on the progress achieved in the transition from AIS to AIM should cover not only Phase I, but also Phase II and eventually Phase III.
- 4.75 The meeting reviewed the draft Methodology for reporting and assessing the progress related to the transition from AIS to AIM and finalization/compliance criteria at **Appendices 4I** and **4J**, which were developed in coordination with stakeholders in both the ICAO EUR and MID Region, including the AIM SG/1 meeting and the EUROCONTROL AIM/SWIM Team. It was also noted that the draft Methodology is being coordinated with ICAO HQ in order to be used as a framework for reporting the progress related to the transition from AIS to AIM at the global level.
- 4.76 Based on the above, the meeting agreed to the following MSG Conclusion:

MSG CONCLUSION 4/16: DRAFT METHODOLOGY FOR REPORTING AND ASSESSING THE PROGRESS RELATED TO THE TRANSITION FROM AIS TO AIM

That, States be urged to provide the ICAO MID Regional Office with their comments/inputs related to the "Methodology for reporting and assessing the progress related to the transition from AIS to AIM" and the Finalization/Compliance Criteria, at Appendices 4I and 4J, respectively.

- 4.77 The meeting recalled that, in order to keep pace with the AIM/SWIM developments, MIDANPIRG/14 through Conclusion 14/19 urged States to develop/update their National Plans for the transition from AIS to AIM with a view to support seamless ATM in a SWIM environment.
- 4.78 In connection with the above, the meeting noted that seven (7) States (Bahrain, Iran, Kuwait, Qatar, Saudi Arabia, Sudan and UAE) provided their National AIM Plan/Roadmap to the ICAO MID Regional Office.
- 4.79 The meeting noted that the AIM SG/1 meeting, as a follow-up to the MIDANPIRG Conclusion 14/19, discussed ways and means to assist States in developing/updating their AIM Implementation Roadmap/National Plan and how to foster the transition from AIS to AIM in the MID Region and accordingly developed the National AIM Implementation Roadmap Template at **Appendix 4K**. The meeting noted that seven (7) States (Iran, Iraq, Jordan, Lebanon, Oman, Qatar, Saudi Arabia and UAE) have provided their National AIM Implementation Roadmap using the Template.

- 4.80 The meeting agreed with the AIM SG/1 meeting that the focus should be on the implementation of phase II of the Roadmap for the transition from AIS to AIM and endorsed the "MID Region AIM implementation Roadmap" at Appendix 4L.
- 4.81 Based on the above, the meeting agreed to the following MSG Conclusion:

MSG CONCLUSION 4/17: NATIONAL AIM IMPLEMENTATION ROADMAP TEMPLATE

That, States:

- a) be invited to take into consideration the "MID Region AIM implementation Roadmap" at **Appendix 4L** in planning for the transition from AIS to AIM in a prioritized manner; and
- b) that have not yet done so, be urged to provide the ICAO MID Regional Office with their National AIM Implementation Roadmap using the Template at Appendix 4K, before 1 March 2015.
- 4.82 The meeting was apprised of the outcome of the MIDAD TF/1 meeting (Cairo, Egypt, Cairo, 16-18 June 2014) related to the MIDAD Project. The meeting was also provided with a progress report on the developments which took place further to the MIDAD TF/1 meeting.
- 4.83 The meeting recalled that, the DGCA-MID/2 meeting (Jeddah, Saudi Arabia, 20-22 May 2013) agreed that Bahrain, Qatar, Saudi Arabia and UAE take the lead in carrying out the MIDAD Project Phase 2 Detailed Study.
- 4.84 The meeting noted that, in line with the DGCA-MID/2 Conclusion 2/7, the Civil Aviation Affairs of Bahrain (BCAA) published a Call for Tender related to the MIDAD Project Phase 2 (first step). After evaluation of tenders, ITV has been selected as the Consultant and a contract was signed on 10 February 2014 for the development of the specifications for the MIDAD Detailed Study. It was also highlighted with appreciation that Bahrain, Qatar, Saudi Arabia and UAE covered the cost of the mentioned contract for the MIDAD Project Phase 2 (first step) on the basis of equal contribution.
- 4.85 With regard to the funding of the Detailed Study (second step), the meeting urged States to provide the ICAO MID Regional Office before **31 December 2014** with their preferred option for the funding of the MIDAD Detailed Study in order to be considered by the MIDAD TF/2 meeting in the selection of the best option(s) to be presented to the DGCA-MID/3 meeting for final decision. In this respect, it was highlighted that as a follow-up State Letter Ref.: AN 3/2.5.1-14/178 was also issued by the ICAO MID Regional Office on this subject on 29 June 2014.
- 4.86 The meeting agreed with the MIDAD TF/1 meeting that starting from phase 3 of the MIDAD Project (implementation/operation), it is necessary to establish a MIDAD legal Entity/Agency. This was reflected in the specifications for the detailed study. The meeting agreed that the institutional issues related to the MIDAD Entity/Agency be addressed by the MIDAD TF/2 meeting in order for the DGCA-MID/3 meeting to take the final decision related to the best mechanism for the establishment of this Entity/Agency in term of staffing, funding, duties and responsibilities, etc.

- 4.87 The meeting reviewed the Action Plan/Timelines related to the MIDAD Project Phase 2, at **Appendix 4M**, as updated by the MIDAD TF/1 meeting.
- 4.88 The meeting received an update on the status of the MIDAD Project. The meeting noted that the draft Specifications for the Detailed Study, after considering comments/inputs from the four leading States and the MIDAD Support Team, was distributed to all MID States on 4 November 2014. The preparation of the Final Specifications and Tender Documentation for the MIDAD Detailed Study by ITV, taking into consideration all comments/inputs received from the MID States is ongoing. In accordance with the MIDAD Project Action Plan, UAE will publish the Call for Tender for the MIDAD Detailed Study upon receipt of the Final version of the Specifications and Tender Documentation from ITV.
- 4.89 The meeting noted that, for an improved coordination between all Stakeholders related to the MIDAD Project, the MIDAD TF/1 meeting recognized the need for designation of MIDAD Focal Points. Accordingly, twelve (12) States and five (5) User Organizations have nominated their MIDAD Focal Points as at **Appendix 4N**. Accordingly, the meeting agreed to the following MSG Conclusion:

MSG CONCLUSION 4/18: MIDAD FOCAL POINTS

That, for an improved coordination between all Stakeholders related to the MIDAD Project, States that have not yet done so, be urged to designate MIDAD Focal Points (FPPs) before 31 December 2014.

4.90 Taking into account the new MIDANPIRG Organizational Structure, completion of the First Phase of the MIDAD Study and the status of the MIDAD Project, the meeting endorsed the revsied Terms of Reference (ToR) of the MIDAD Task Force. Accordingly, the meeting agreed to the following MSG Decision:

MSG DECISION 4/19: TERMS OF REFERENCE OF THE MIDAD TASK FORCE

That, the Terms of Reference of the MIDAD Task Force be updated as at Appendix 40.

4.91 The meeting agreed that it is necessary to explore all possibilities of cooperation and exchange of aeronautical information and services between MIDAD, EAD and eventually other Regional AIS/AIM Databases, in order to avoid duplication of efforts. In connection with the above, it was highlighted with appreciation that a Workshop is planned to be hosted by EUROCONTROL at the EAD operational Centre in Madrid, **3-4 February 2015** for the benefit of the MIDAD Focal Points. Accordingly, the meeting encouraged States to attend the EAD-MIDAD Workshop.

MET

4.92 Based on the outcome of the MET SG/5 meeting (Jeddah, Saudi Arabia, 2-4 September 2014), the meeting agreed that based on cost shares related to the payment for the SADIS service, the United Arab Emirates, who has the greatest cost share in the MID Region, should represent the MID Region on the SCRAG. The UAE nominated Mr. Ahmed Alobadli as member of the SCRAG for consideration by MIDANPIRG.

4.93 The meeting agreed that the nomination would be processed by the ICAO MID Regional Director (Secretary of MIDANPIRG). Based on the above, the meeting agreed to the following MSG Conclusion:

MSG CONCLUSION 4/20: MID SCRAG NOMINATION

That, Mr. Ahmed Alobadli from the United Arab Emirates is nominated as the MIDANPIRG member of the SADIS Cost Recovery Administrative Group.

- 4.94 The meeting noted that the participation of MID States in the SIGMET tests was far below expectations. Accordingly, the meeting encouraged MID States to participate in routine SIGMET tests organized by EUR (for other phenomonon and volcanic ash) and APAC Regions (for tropical cyclone).
- 4.95 The meeting noted that in order to update the SIGMET test contact list and improve participation in routine SIGMET tests, the ICAO MID Regional Office, as a follow-up action to MET SG/5 Draft Conclusion 5/2, issued State Letter Ref.: AN 10/12 14/263 dated 9 October 2014. The meeting was informed that five (5) States (Bahrain, Iraq, Jordan, Libya and United Arab Emirates) have replied to the State Letter. Accordingly the meeting urged those States that have not yet done so, to provide the contact details of their SIGMET focal point to the ICAO MID Regional Office before **1 December 2014**.
- The meeting was apprised of the outcomes of the ICAO Regional OPMET Centre (ROC) Workshop (Jeddah, Saudi Arabia, 31 August-1 September 2014) and the Inter-regional OPMET Data Exchange Workshop (Vienna, Austria, 23-24 October 2014). The Summaries of Discussion of these two (2) Workshops are available at: www.icao.int/MID/Pages/meetings.aspx. The meeting noted the developments related to OPMET exchange, in particular, the establishment of the Regional OPMET Centre (ROC) Jeddah and Bahrain (backup) (MIDANPIRG/15 Conclusion 14/30 refers) to support flight planning and tactical decision making by airlines.
- 4.97 Based on the above, the meeting reviewed and endorsed the implementation plan for the establishment of a ROC in the MID Region at **Appendix 4P**.
- 4.98 The meeting noted the need for establishing one or more Aeronautical Message Handling System (AMHS) paths between Jeddah (primary ROC) to Vienna and Bahrain (planned backup ROC) to Vienna in order to support OPMET data exchange in digital form, since the current communication paths are limited in bandwidth. The meeting further noted that the exchange of OPMET data in digital form for METAR/SPECI, TAF and SIGMET will be recommended in 2016 and required in 2019, as per Annex 3 provisions. As a follow-up action to the MET SG/5 Draft Conclusion 5/3, the CNS SG/6 meeting (Tehran, Iran, 9-11 September 2014) agreed that the MID-AMC develop a plan to implement AMHS communication paths between Jeddah-Vienna, and Bahrain-Vienna before 31 March 2015. Accordingly, the meeting agreed to the following MSG Conclusion:

MSG Conclusion 4/21: AMHS ROUTING FROM MID TO EUR REGIONS

That, the MID-AMC develop a plan to implement AMHS communication paths between Jeddah-Vienna, and Bahrain-Vienna before 31 March 2015, to enable the exchange of OPMET data in digital form between the MID and EUR Regions.

REPORT ON AGENDA ITEM 5: AIR NAVIGATION SAFETY MATTERS AND COORDINATION WITH RASG-MID

RASG-MID ACTIVITIES

- The meeting was apprised of the RASG-MID activities. It was highlighted that the second edition of the MID Annual Safety Report (MID-ASR), which was endorsed by the RASG-MID/3 meeting (Kuwait, 27 29 January 2014), demonstrated that the top three Focus Areas (FAs) in the MID Region are Runway Safety (RS) including Ground Safety, LOC-I and CFIT (in line with the global priorities). The meeting noted that third edition of the MID-ASR is in progress and will be endorsed by the RASG-MID/4 meeting (Saudi Arabia, 24-26 February 2015). According to the MID-ASR:
 - the MID Region witnesses a stable and continuous growth in traffic volume (1.09 million departures in 2013 comparing to 0.877 million departure in 2009);
 - the accident rate in the MID Region has been decreasing continuously since 2009 to 2012 from 14.8 accidents per million departures to 1.9, which is below the global rate 3.1;
 - in 2013, the accident rate in the MID Region increased to 3.7 (approximately twice the rate in 2012), which is above the global rate 2.9; and
 - the MID Region is the safest Region in terms of fatalities (no fatal accident in 2012 and 2013).
- 5.2 The meeting noted also that revised/final version of the MID Region Safety Strategy was endorsed by the DGCAs and CEOs during the High-Level Briefing/Meeting, which was held on the third day of the Second MID Region Safety Summit (MSS/2, Muscat, Oman, 27-29 April 2014). The final version of the strategy includes the following Regional Safety Themes:
 - 1. Accidents;
 - 2. Runway Safety (RS);
 - 3. Loss of Control In-Flight (LOC-I);
 - 4. Controlled Flight Into Terrain (CFIT);
 - 5. Safety oversight capabilities (USOAP-CMA, IOSA and ISAGO);
 - 6. Aerodrome Certification; and
 - 7. SSP/SMS Implementation.
- 5.3 The meeting recalled that the RASG-MID/3 meeting agreed with MIDANPIRG/14 on the transfer of aerodrome safety activities from MIDANPIRG to RASG-MID, and accordingly established the Runway and Ground Safety Working Group (RGS WG). The meeting also agreed to the establishment of a Runway Safety Go-Team to expedite the establishment of Runway Safety Teams in the MID Region.
- 5.4 The RASG-MID/3 reviewed a draft RASG-MID Engagement Strategy in order to enhance the RASG-MID's efficiency, including the active participation of its stakeholders. The Engagement Strategy will be finalized by RASG-MID Steering Committee for presentation and endorsement by the RASG-MID/4 meeting (Jeddah, Saudi Arabia, 24-26 February 2015).

- 5.5 The meeting recalled that the RASG-MID is working towards enhancing aviation safety in the MID Region and supporting the implementation of the GASP by ensuring effective coordination and cooperation between all stakeholders, sharing of resources, and monitoring progress of GASP implementation.
- 5.6 The meeting noted that RASG-MID and MIDANPIRG have been coordinating specific air navigation safety related issues such as mitigation measures for CFIT and call sign confusion. Other subjects of interest to both groups have been identified, in particular those related to ATM safety such as SMS implementation for ANS/ATM, Language Proficiency for Air Traffic Controllers, RVSM safety monitoring, etc.
- 5.7 The meeting emphasized that coordination between RASG-MID and MIDANPIRG is key for the improvement of safety in the MID Region and should be further promoted.

CALL SIGN CONFUSION

- 5.8 The meeting recalled that the ICAO PANS-ATM Doc 4444 stipulates that aircraft identification in Item 7 of the FPL should not exceed 7 alphanumeric characters, without hyphens or symbols.
- 5.9 The meeting recalled that call sign confusion and similarity has been identified as a safety issue by the RADG-MID/2 meeting (Abu Dhabi, UAE, 12 14 November 2012)
- 5.10 It was highlighted that, in order to reduce the level of operational call sign confusion events, and therefore improve levels of safety, several Airlines moved from the concept of using a numeric (commercial) call-sign (e.g. UAE503) to the use of an 'alpha-numeric' call-sign (e.g. UAE59CG). This is now common practice in the European Region.
- 5.11 The meeting noted that UAE has worked on various activities to address the call sign confusion issue, in particular the implementation of software designed to automatically assign alternative call sign to track label in case of identification of call sign similarity. The meeting appreciated UAE offer to share the experience on their solution with other States.
- 5.12 The meeting recognized that many mitigation measures could be investigated to eliminate the risks associated with the call sign confusions. Accordingly, the meeting agreed to the following Draft Conclusion:

MSG CONCLUSION 4/22: CALL SIGN CONFUSION

That.

- a) a survey based on the questionnaire at **Appendix 5A** related to the acceptance/processing of flight plans containing "alphanumeric" call signs ending with letter(s) be conducted;
- b) States that have not yet done so be invited to take necessary measures to comply with ICAO Annex 10 and Doc 4444 provisions related to the acceptance of the alphanumeric call signs; and
- c) States be invited to inform the ICAO MID Regional Office of the preferred option for the mitigation of the risks associated with the call sign confusion before 31 January 2015.

5.13 The meeting recognized the urgency of implementing mitigation measures for the call sign confusion and similarity. Accordingly, the meeting agreed to establish a Call Sign Confusion ad-hoc Working Group (CSC WG) and agreed to the following MSG Decision:

MSG DECISION 4/23: CALL SIGN CONFUSION AD-HOC WORKING GROUP

That, a Call Sign Confusion ad-hoc Working Group be established in order to:

- a) analyze the results of the survey on the acceptance/processing of flight plans containing "alphanumeric" call signs ending with letter(s); and
- b) develop solutions to mitigate the risk associated with call sign confusion and similarity.
- 5.14 The meeting appreciated UAE's offer to host the first meeting of the CSC WG in the first half of 2015.

REPORT ON AGENDA ITEM 6: AIR NAVIGATION DEFICIENCIES

REVIEW OF AIR NAVIGATION DEFICIENCIES

- 6.1 The meeting recalled that MIDANPIRG/14 through Conclusion 14/32 urged States and authorized Users to use the MANDD for the submission of requests for addition, update, and elimination of Air Navigation Deficiencies. In addition, MIDANPIRG/14 recognized the need for a formal procedure to be used for the elimination of deficiencies from the MANDD.
- 6.2 In connection with the above, ICAO MID Regional Office issued State Letter Ref. AN 2/2 14/109 dated 17 April 2014 requesting States to take all necessary measures to implement the provisions of the above-mentioned Conclusion and send their feedback on the actions taken to the ICAO MID Regional Office.
- 6.3 The meeting noted that MIDANPIRG/14 also recognized the need to review the methodology used for the prioritization of the air navigation deficiencies and that the priority for action to remedy a deficiency is currently based on the following safety assessments:
 - **'U' priority** = Urgent requirements having a direct impact on safety and requiring immediate corrective actions.

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

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

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

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

Based on the above, the different MIDANPIRG Subsidiary bodies have reviewed the list of air navigation deficiencies related to their Terms of Reference (TORs) and agreed to the following:

6.4.1 AIM SG/1 meeting:

- agreed that all the priority "U" deficiencies in the AIM field (i.e. QMS, WGS-84 and AIRAC adherence) should be changed to priority "A";
- noted that the overlap between the USOAP-CMA findings and the air navigation deficiencies concerns only the non-compliance with the AIRAC and QMS systems. The meeting further recalled that two (2) States in the MID Region have not yet been audited. Accordingly, the meeting agreed to maintain the current AIM deficiencies in the MANDD and to add in the Remarks column of the deficiencies related to AIRAC adherence and QMS a note referring to the USOAP-CMA finding; and
- agreed to add new deficiencies related to the lack of provision of eTOD data for Area 1 and Area 4.

6.4.2 *ATM SG/1 meeting*:

- agreed that all the priority "U" deficiencies in the ATM field related to RVSM to be changed to priority "A"; and
- agreed that the air navigation deficiencies related to the SAR Agreements and the lack of plans of operations for the conduct of SAR operations and SAR exercises, be removed from the MANDD since they are fully addressed under USOAP-CMA framework. In addition, the meeting recognized that the signature of SAR agreements is far beyond the scope of the ANSPs or Civil Aviation Authorities and is addressed as such within the framework of USOAP-CMA.

6.4.3 *CNS SG/6 meeting*:

- agreed that all the priority "U" deficiencies in the CNS field to be changed to priority "A"; and
- agreed that the deficiencies related to old AFTN connections be deleted from MANDD, pending the approval of the amendment to the MID ANP which will propose the removal of these connections.

6.4.4 *MET SG/5 meeting*:

- with reference to quality management system, 8 out of 15 States in the MID Region (Iran, Iraq, Jordan, Lebanon, Libya, Oman, Syrian Arab Republic, and Yemen) have not yet met the relevant requirements in Annex 3, paragraph 2.2.3. The meeting agreed that these States be included in the list of deficiencies; and
- noted that the remarks section in the MANDD would indicate a reference to USOAP audits (excluding Iraq and Yemen).
- 6.5 It was highlighted that all MIDANPIRG Subsidiary bodies emphasized that States should develop a Corrective Action Plan (CAP) for each air navigation deficiency. It was also agreed that the ICAO MID Regional Office delete the current CAP column information and urge States to use the MANDD to propose CAP for each deficiency.
- 6.6 The meeting supported the outcome of the MIDANPIRG subsidiary bodies with regard to the review and update of air navigation deficiencies and noted that the updated list of air navigation deficiencies is available on the MANDD, which can be accessed through the following link: http://www.cairo.icao.int/.

REPORT ON AGENDA ITEM 7: MIDANPIRG WORKING ARRANGEMENTS

- 7.1 The meeting recalled that MIDANPIRG/14, through Decision 14/2, endorsed the Seventh Edition of the MIDANPIRG Procedural Handbook, which included the new MIDANPIRG Organizational Structure and revised version of the Terms of Reference (TORs) of the subsidiary bodies.
- 7.2 The meeting supported the proposed amendments to the TORs of the MSG, CNS SG and PBN at **Appendices 7A**, **7B** and **7C**, respectively; and agreed to the following Draft Decision:

DRAFT DECISION 4/4: REVISED TORS OF THE MSG, CNS SG AND PBN SG

That, the MIDANPIRG Procedural Handbook be updated to include the revised version of the MSG, CNS SG and PBN SG Terms of Reference (TORs) at Appendices 7A, 7B and 7C, respectively.

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REPORT ON AGENDA ITEM 8: FUTURE WORK PROGRAMME

ICAO MID Office Tentative Schedule of Meetings, Seminars and Workshops

- 8.1 The meeting recalled that MIDANPIRG/14 noted that, for budgetary planning, some States requested that the Tentative Schedule of Meetings, Seminars and Workshops be posted on the web, even in a draft format, maximum by September of each year, in order to avoid lack of participation due to budget reasons. Accordingly, the ICAO MID Regional Office 2015 Tentative Schedule of Meetings, Seminars and Workshops was posted on the ICAO MID website on 15 July 2014.
- 8.2 The meeting reviewed the Tentative Schedule of Meetings, Seminars and Workshops for year 2015 dated 19 November 2014 at **Appendix 8A** and agreed that the MIDAD TF/3 and AIM SG/2 meetings be held back-to-back in September 2015.
- 8.3 In connection with the above, the meeting received with appreciation Iran's offer for the hosting of these two (2) meetings. The exact dates and venue will be coordinated between the ICAO MID Regional Office and Iran.

MIDANPIRG/15 Provisional Agenda

8.4 The meeting noted that MIDANPIRG/15 is planned to be held in Bahrain, 8-11 June 2015. The meeting reviewed and supported the provisional agenda at **Appendix 8B** which will be proposed to the MIDANPIRG/15 meeting.

Dates and Venue of the MSG/5 meeting

8.5 Taking into consideration the date of the MIDANPIRG/15 meeting, it was agreed that the MSG/5 be held in the second quarter of 2016. The meeting received with appreciation Iran's offer to host the MSG/5 meeting. It was agreed that the exact dates and venue will be coordinated between the ICAO MID Regional Office, Iran and the MIDANPIRG Chairperson.

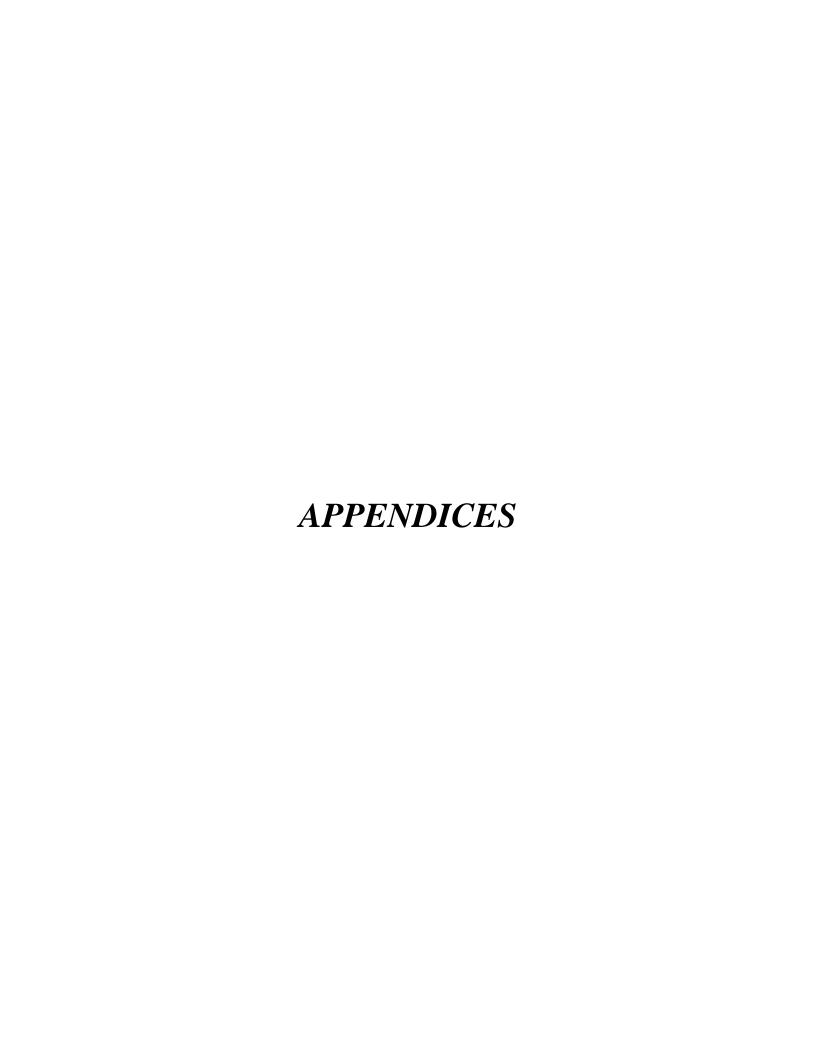
REPORT ON AGENDA ITEM 9: ANY OTHER BUSINESS

9.1 The meeting recalled paragraph 6.1 of Part III of the Second Edition of the MIDANPIRG Procedural Handbook (September 2003), which states that:

"In order to ensure the necessary continuity in the work of the Group and unless otherwise determined by special circumstances, the Chairperson, the First Vice-Chairperson and Second Vice-Chairman of the Group should assume their functions at the end of the meeting at which they are elected and serve for **at least three** calendar years".

9.2 It was highlighted that in accordance with the current version of the MIDANPIRG Procedural Handbook, the Chairperson, the First Vice-Chairperson and Second Vice-Chairperson could serve only for three cycles with a possible extension for one additional cycle. The meeting was of the view that this might represent a constrain for the normal proceedings and efficiency of certain MIDANPIRG subsidiary bodies and agreed that this should be reconsidered by MIDANPIRG.

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APPENDIX 2A

FOLLOW-UP ACTION PLAN ON MIDANPIRG/14 CONCLUSIONS AND DECISIONS

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION 14/1: CONTINUED SUPPORT FOR CAPSCA-MID					Actioned
That,	Implement the Conclusion	ICAO	State Letter	Apr. 2014	SL ME 6-14/133 dated 12 May 14
 a) the ICAO MID Regional Office and MID States promote the development and growth of CAPSCA in the MID Region at local, national and international levels; 					j
b) MID States,		States	Feedback	Sep. 2014	
i. that have not yet done so, join the CAPSCA-MID Project;					
ii. request a CAPSCA State and Airport Assistance Visit; and					
 be encouraged to provide voluntary contributions to the CAPSCA-MID project. 					
DECISION 14/2: UPDATED OF THE MIDANPIRG PROCEDURAL HANDBOOK					Completed
That, the Seventh Edition of the MIDANPIRG Procedural Handbook be endorsed as at Appendix 4.1B to the Report on Agenda Item 4.1.	Update the MIDANPIRG Procedural Handbook and post it on the web	ICAO	Seventh edition of the Procedural Handbook	Feb. 2014	
DECISION 14/3: TERMS OF REFERENCE OF THE ATM PERFORMANCE TASK FORCE (APM TF)					Completed
That, the Air Traffic Management Measurement Task Force (ATM-M TF) be renamed Air Traffic Management Performance Measurement Task Force (APM TF) with Terms of Reference as at Appendix 4.1C to the Report on Agenda Item 4.1.	Implement the work programme of the APM TF	MIDANPIRG/14	TOR of the APM TF endorsement	Dec. 2013	

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION 14/4: ASSISTANCE FOR THE DEVELOPMENT/UPDATE OF THE NATIONAL AIR NAVIGATION PERFORMANCE FRAMEWORK					Actioned
 That, ICAO, in coordination with concerned States and Stakeholders (IATA, CANSO, ACI, etc): a) develop a plan for joint missions to identified States to support the development/update of the National Air Navigation Performance Framework in an effective and timely manner; and b) agree on the priorities and plans of action to be reflected in the National Air Navigation Performance Framework to improve the efficiency of air navigation at national and regional level, in 	Implement the Conclusion	ICAO States	State Letter Missions to States/ development of National Performance Framework	Feb. 2014 Dec. 2014	SL AN 1/7- 14/124 dated 6 May 2014 One mission was conducted to assist Iran on 7-8 Sep. 2014
accordance with the MID Air Navigation Strategy. CONCLUSION 14/5: MID REGION AIR NAVIGATION PRIORITIES					Actioned
That,	Regular Review				rectioned
a) the ASBU Block 0 Modules prioritization Table at Appendices 4.1E to the Report on Agenda Item 4.1 be endorsed as the initial version of the MID ASBU Implementation Plan; and		MIDANPIRG/14	ASBU prioritization Table	Dec. 2013	Completed
b) the ASBU Block 0 Modules prioritization Table be reviewed on regular basis and be extended to cover Block 1 Modules, as appropriate.		MIDANPIRG Subsidiary bodies		Sep. 2014	Ongoing
CONCLUSION 14/6: DRAFT MID REGION AIR NAVIGATION STRATEGY					Completed
That,	Implement the Strategy				(Replaced and
a) the Draft MID Region Air Navigation Strategy at Appendix 4.1F to the Report on Agenda Item 4.1 be:					superseded by MSG Conclusion 4/3)
 endorsed as the initial version of the MID Region Air Navigation Strategy; and 		MIDANPIRG/14	Initial version of the Strategy	Dec. 2013	Strategy endorsed by MSG/4
ii. further reviewed and completed by the different MIDANPIRG subsidiary bodies		MIDANPIRG Subsidiary bodies	Review and Update Strategy	Sep. 2014	<i>by</i> 1150/ 1

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
b) MID States be urged to:		ICAO	State Letter	Feb. 2014	SL AN 1/7- 14/123 dated
 i. develop their National Air Navigation Performance Framework, ensuring the alignment with and support to the MID Region Air Navigation Strategy; 		States	National Performance Framework	May 2014	6 May 2014
ii. incorporate the agreed MID Region Performance Metrics into their National reporting and monitoring mechanisms; and		States	Feedback	Dec. 2014	
iii. provide the ICAO MID Regional Office, on annual basis, with relevant data necessary for regional air navigation planning and monitoring.					
CONCLUSION 14/7: SECOND REGIONAL RUNWAY SAFETY SEMINAR (MID-RRSS/2)					Completed
That,	Convene the Seminar	ICAO	Seminar	June 2014	
a) the Second MID REGIONAL RUNWAY SAFETY SEMINAR (RRSS) be organised by ICAO in partnership with IATA and other interested safety partners;					
b) the agenda of the RRSS take into account the RASG-MID work programme related to Runway Safety, in particular the SEIs and DIPs related to RSTs; and					
c) MID States, Service Providers and International/Regional Organizations be encouraged to support and actively participate in the Seminar.					

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION 14/8: SEMINAR ON HELIPORTS					Ongoing
That,	Convene the Seminar	ICAO	Seminar	2015	Planned for December 2015
a) ICAO consider organising a Seminar on Heliports; and					
 MID States and International/Regional Organizations be encouraged to host and support the Seminar and to invite Service Providers and Safety Partners for attendance and active participation. 					
Conclusion 14/9: Provisions for prior Approval to Aerodrome Development					Actioned
That, MID States, that have not yet done so, be urged to:	Implement the Conclusion	ICAO	State Letter	Feb. 2014	SL AN 5/3- 14/134 dated
 make a requirement for a prior approval of any development or change to the physical characteristics of an aerodrome; 					12 May 14
b) develop necessary procedures for the approval process supported by risk assessment and management as required; and					
c) inform the ICAO MID Regional Office of the actions taken before 1 May 2014.		States	Feedback	May 2014	
DECISION 14/10: TRANSFER OF AERODROMES ACTIVITIES TO RASG-MID					Completed
That,	Implement the Conclusion	MIDANPIRG/14	AOP SG and ADCI TF	Dec. 2013	
a) the activities of the AOP SG and ADCI TF be transferred to the RASG-MID framework; and			disbanded and their activities transferred to		
 Aerodrome Specialists from MID States and ICAO continue to support MIDANPIRG and its subsidiary bodies for aerodromes- related Air Navigation matters. 			RASG-MID		
CONCLUSION 14/11: IMPLEMENTATION OF THE TOP TEN ATS ROUTES					Actioned
That, concerned States be urged to take necessary measures to implement the identified routes at Appendix 4.3A to the Report on Agenda Item 4.3.	Implement the Conclusion	ICAO States	State Letter Feedback	Jan. 2014 May 2014	SL AN 6/5.8- 14/106 dated 16 April 2014

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION 14/12: CIVIL/MILITARY COOPERATION					Actioned
That, States be urged to	Implement the Conclusion	ICAO	State Letter	Feb. 2014	SL AN 6/13- 14/105 dated
a) develop necessary institutional arrangements to foster Civil/Military cooperation; and		States	Feedback	Sep. 2014	16 Apr. 2014
b) arrange as necessary for the Military Authorities to be:					
i. involved in the airspace planning and management process;					
ii. aware of the new developments in civil aviation; and					
iii. involved in national, regional and international aviation meetings, workshops, seminars, etc., related to Air Traffic Management and Search and Rescue.					
CONCLUSION 14/13: FLEXIBLE USE OF AIRSPACE					Actioned
That, States be urged to take necessary:	Implement the Conclusion	ICAO	State Letter	Feb. 2014	SL AN 6/13- 14/105 dated
a) follow-up actions to implement the provisions of Recommendation 4/5 of the AN-Conf/12; and		States	Feedback	May. 2014	16 Apr. 2014
b) measures to implement the Flexible Use of Airspace (FUA) Concept through strategic Civil/Military coordination and dynamic interaction, in order to open up segregated airspace when it is not being used for its originally-intended purpose and allow for better airspace management and access for all users.					
CONCLUSION 14/14: MID CIVIL/MILITARY GO-TEAM					Over taken by events
That, a) a MID Civil/Military Go-Team be established to expedite the implementation of the Flexible Use of Airspace (FUA) Concept in the MID Region; and	Implement the Conclusion	MIDANPIRG/14	Civil/Military Go-Team established	Dec. 2013	(To be replaced and superseded by ATM SG/1 Draft Conclusion 1/5)

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
b) the details related to the scope, Tasks, Pre-Go-Team Visit arrangements, on-site activities, and outcomes of the Civil/military Go-Teams be discussed during the next ATM Sub-Group meeting.		ATM SG	Go-Team scope, scope, tasks, activities, etc.	May 2014	
Conclusion 14/15: MID REGION ATM CONTINGENCY PLAN					Completed
That, the MID Region ATM Contingency Plan be endorsed as at Appendix 4.3B to the Report on Agenda Item 4.3.	Implement the Conclusion	MIDANPIRG/14	MID Region ATM Contingency Plan	Dec. 2013	
DECISION 14/16: SEARCH AND RESCUE COOPERATION					Actioned
That, the ATM Sub-Group develops a simplified MID Region Model of SAR Agreement/Bilateral Arrangements to foster the implementation of Annex 12 provisions related to SAR cooperation in a step-wise approach.	Implement the Conclusion	ATM SG	SAR Agreement/ Bilateral Arrangements Template	May 2014	(MID SAR AG established through ATM SG/1 Draft Decision 1/7)
CONCLUSION 14/17: MID REGION ATM ENHANCEMENT PROGRAMME (MAEP) – SPECIAL COORDINATION MEETING					Completed
That, States and Users be urged to provide the ICAO MID Regional Office with their proposals related to MAEP by 25 January 2014, for presentation to the MAEP-SCM scheduled for 18-20 February 2014.	Implement the Conclusion	ICAO States/Users	State Letter Proposals related to MAEP	Jan. 2014 Feb. 2014	Meeting held on 18-20 Feb. 2014
CONCLUSION 14/18: NATIONAL AIS/AIM REGULATIONS					Completed
That, States be urged to:	Implement the Conclusion	ICAO	State Letter	Feb. 2014	SL AN 8/4-
 a) include in the national plans for the transition from AIS to AIM actions related to the amendment of national AIS/AIM regulations as a consequence to the Amendment of Annex 4, Annex 15 and other AIM developments; 		States	Feedback	Mar. 2014	14/055 dated 20 Feb. 2014 Six (6) States replied
b) take necessary action for a timely amendment of the national AIS/AIM regulations as a consequence to Amendment 37 to Annex 15; and					
c) inform the ICAO MID Regional Office of the actions taken before 1 March 2014.					

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION 14/19: NATIONAL PLANS FOR THE TRANSITION FROM AIS TO AIM					Completed
That, in order to keep pace with the AIM/SWIM developments and support seamless ATM in a SWIM environment, States be urged to:	Implement the Conclusion	ICAO	State Letter	Feb. 2014	SL AN 8/4- 14/055 dated 20 Feb. 2014
a) develop/update their national plans for the transition from AIS to AIM; and		States	Feedback	Mar. 2014	Six (6) States replied.
 b) provide the ICAO MID Regional Office with an updated version of their national plans for the transition from AIS to AIM, before 1 March 2014. 					(Replaced and superseded by MSG Conc. 4/17)
DECISION 14/20: MIDAD SUPPORT TEAM					Completed
That, the MIDAD Support Team (MIDAD ST)	MIDAD ST to provide	MIDANPIRG/14	MIDAD ST composition	Dec.2013	
a) be composed of members from Jordan, Iran, Kuwait and the ICAO MID Regional Office; and	necessary support				
b) provide necessary support to Bahrain, Qatar, Saudi Arabia and UAE as well as to the MIDAD Study Group to successfully complete Phase 2 of the MIDAD Project.					
DECISION 14/21: ESTABLISHMENT OF MID-AMC STEERING GROUP					Completed
That,	Implement the work	MIDANPIRG/14	MID-AMC STG established	Dec. 2013	SL AN 7/5.1-
a) a MID-AMC Steering Group is established with TOR as at Appendix 4.5A to the Report on Agenda Item 4.5; and	programme of the MID-AMC STG		established		14/084 dated 16 April 2014
b) States appoint a Member and Alternate for the MID-AMC Steering Group.					

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION 14/22: MID-AMC OPERATION					Actioned
That,	Implement the Conclusion	ICAO	State Letter	Jan. 2014	SL AN 7/5.1- 14/084 dated
a) States be urged to:		States	Routing Tables	Mar. 2014	16 April 2014
 i. provide their AFTN/AMHS/CIDIN Routing tables to MID-AMC by 30 March 2014; 					Reference MSG Conclusion 4/9)
register users to MID-AMC according to the accreditation procedure defined at Appendix 4.5B to the report on Agenda Item 4.5;					
iii. complete testing of all MID-AMC functions by 30 June 2014; and		States	Testing/ feedback	Jun. 2014	Training for MIDAMC is planned in
b) the operation date of the MID-AMC be determined by the MID-AMC Steering Group.		MID-AMC STG	Operation date	Jun. 2014	Jan.2015
CONCLUSION 14/23: MID AIDC/OLDI IMPLEMENTATION SEMINAR					Completed
That States,	Convene the Seminar	ICAO	Seminar	Mar. 2014	
a) support ICAO in organising a Seminar on implementation of AIDC/OLDI;					
b) participate actively in the Seminar; and					
c) with the support of ICAO develop the MID AIDC/OLDI Implementation Plan.					
DECISION 14/24: DEVELOPMENT AND ENDORSEMENT OF THE MID eANP					Completed
That, in support to the ICAO efforts to align the regional Air Navigation Plans (ANP) with the Fourth Edition of the Global Air Navigation Plan (GANP) (Doc 9750):	Implement the Conclusion				(Replaced and superseded by MSG Conclusion 4/4)
a) the development of the MID eANP based on the Council-approved ANP Template, be included in the work programme of the different MIDANPIRG subsidiary bodies; and		MIDANPIRG subsidiary bodies	MID eANP Parts	TBD	T T/T)

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
b) the relevant Parts of the MID eANP be presented, as soon as available, to MSG/4 and/or MIDANPIRG/15 for endorsement.		MSG/4 and MIDANPIRG/15		Sep 2014 May 2015	
CONCLUSION 14/25: INFPL POST IMPLEMENTATION-SYSTEM UPGRADES					Actioned
That, concerned States be urged to upgrade their systems to ensure the full handling of the ICAO New Flight Plan format before 30 June 2015 .	Implement the Conclusion	ICAO States	State Letter Feedback	Jan. 2014 Jun. 2015	SL AN 6/2B- 14/122 dated 4 May 2014 (Refer also to CNS SG/6 Draft Conclusion 6/10)
CONCLUSION 14/26: MID REGION GNSS IMPLEMENTATION STRATEGY					Completed
That, the MID Region GNSS implementation Strategy be updated as at Appendix 4.6x to the Report on Agenda Item 4.6.	Implement the Strategy	MIDANPIRG/14	Updated Strategy	Dec. 2013	
CONCLUSION 14/27: MID SURVEILLANCE STRATEGY					Completed
That, the MID Surveillance Strategy be adopted as at Appendix 4.6B to the Report on Agenda Item 4.6.	Implement the Strategy	MIDANPIRG/14	Updated Strategy	Dec. 2013	
CONCLUSION 14/28: MID REGIONAL PBN IMPLEMENTATION STRATEGY AND PLAN					Completed
That, the MID Regional PBN Implementation Strategy and Plan be updated as at Appendix 4.6C to the Report on Agenda Item 4.6.	Implement the Strategy	MIDANPIRG/14	Updated Strategy	Dec. 2013	
CONCLUSION 14/29: ESTIMATING AND REPORTING ENVIRONMENTAL BENEFITS					Actioned
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:	Implement the Conclusion				
 a) States be encouraged 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; 		ICAO States	State Letter States' Action	Apr. 2014 Sep. 2014	SL AN 6/15- 14/247 dated 23 September 2014

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
 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 			Plan for CO ₂ emissions IFSET Reports	Jun. and Dec. 2014	APM TF/2 meeting held in Cairo, 10-12 November 2014)
 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. 		IATA	Inputs from users	Jun. and Dec. 2014	
CONCLUSION 14/30: ESTABLISHMENT OF MID REGIONAL OPMET CENTRE					Actioned
That, a) Saudi Arabia in coordination with ICAO establish a MID Regional OPMET Centre (ROC) by the first half of 2015 to improve the regional and inter-regional OPMET efficiency; b) Bahrain in coordination with ICAO establish a back-up Regional OPMET Centre (ROC); and c) MID States be encouraged to continue cooperation in the exchange of OPMET data in the MID Region.	Implement the Conclusion	Saudi Arabia in coordination with ICAO Bahrain in coordination with ICAO	Establishment of		Implementation plan for the establishment of ROC endorsed by MSG/4.

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
DECISION 14/31: UPDATE TO BULLETIN MANAGEMENT GROUP TERMS OF REFERENCE					Completed
That, the Terms of Reference and future work programme of the Bulletin Management Group of the MET Sub-Group be updated as at Appendix 4.7A to the Report on Agenda Item 4.7.	Implement the Work Programme of the BMG	MIDANPIRG/14	BMG TOR	Dec. 2013	
CONCLUSION 14/32: ELIMINATION OF AIR NAVIGATION DEFICIENCIES IN THE MID REGION					Actioned
That, States be urged to: a) use the MID Air Navigation Deficiency Database (MANDD) for the submission of requests for addition, update, and elimination of Air Navigation Deficiencies; and	Implement the Conclusion	ICAO	State Letter	Mar. 2014	SL 2/2-14/109 dated 17 Apr. 2014
b) submit a Formal Letter to the ICAO MID Regional Office containing the evidence(s) that mitigation measures have been implemented for the elimination of deficiency(ies) when requesting the elimination of deficiency(ies) from the MANDD.		States	CAP and necessary updates/ evidences	When necessary	
CONCLUSION 14/33: TRAINING ON RVSM SAFETY ASSESSMENT					Ongoing
That, with a view to raise the awareness related to the requirements for sustained RVSM safety assessment activity and improve the knowledge of the ATC, RVSM approval Authority and Air Operators personnel, the MIDRMA include in its work programme training activity/briefings on RVSM safety assessment requirements to be provided to concerned personnel either through missions to concerned States or through familiarization visits organized in the MIDRMA premises, when and where appropriate.	Implement the Conclusion	MIDRMA	Training on RVSM Safety Assessment	2014-2015	

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
DECISION 14/34: SCRUTINY GROUP WORK PROGRAMME					Completed
That, in order to improve the efficiency of the MID RVSM Scrutiny Group, its work programme be included in the agenda of the MIDRMA Board meetings.	Implement the Decision	MIDANPIRG/14	Scrutiny Group work programme included in the Agenda of MIDRMA Board meetings	Dec. 2013	
CONCLUSION 14/35: PROVISION OF REQUIRED DATA TO THE MIDRMA					Actioned
That, considering the on-going requirement for RVSM safety monitoring in the MID Region:	Implement the Conclusion	States	Provision of necessary data to	When necessary (as	AN 6/5.10.15A 14/007 dated
a) States provide the required data to the MIDRMA on a regular basis and in a timely manner. The data is to include, but is not necessarily limited to:			the MIDRMA	required)	9 January 2014
 approval of operators and aircraft for RVSM operations (on monthly basis or whenever there's a change); 					
ii) Large Height Deviations (LHD) (on monthly basis);					
iii) traffic data (as requested by the MIDRMA Board);					
iv) radar data as, when and where required; and					
v) airway structure (above FL 290) and waypoints.					
b) States not providing the required data to the MIDRMA on a regular basis and in a timely manner:					
 i) be included in the MIDANPIRG list of air navigation deficiencies; and 					
ii) might not be covered by the MID RVSM Safety Monitoring Report (SMR).					

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION 14/36: RVSM MINIMUM MONITORING REQUIREMENTS					Completed
That, States that have not yet done so, be urged to:	Implement the Conclusion	ICAO Concerned States	State Letter Action and	Jan. 2014 Mar. 2014	AN 6/5.10.15A 14/005 and
 take necessary measures to ensure that their aircraft operators fully comply with Annex 6 provisions related to long term height monitoring requirements, based on the MIDRMA MMR Tables; and 			Feedback		14/006 dated 9 January 2014
b) provide feedback to the ICAO MID Regional Office before 1 March 2014.					
CONCLUSION 14/37: ARRANGEMENTS FOR THE CONDUCT OF GMU MONITORING MISSIONS					Actioned
That, prior to the conduct of any GMU monitoring mission:	Implement the Conclusion				AN 6/5.10.15A- 13/240 dated 13
a) the MIDRMA notify the concerned MIDRMA Board Member; and		MIDRMA	Notification	When planning a	September 2013
b) the MIDRMA Board member is to undertake necessary arrangements at the national level with concerned authorities (CAA, Customs, Security, etc.) to facilitate the MIDRMA Team mission.		States	Necessary arrangements/ support	GMU mission	
CONCLUSION 14/38: MID RVSM SMR 2014					Actioned
That,	Implement the Conclusion	ICAO	State Letter	Jan. 2015	AN 6/5.10.15A
a) the FPL/traffic data for the period 15 January – 15 February 2014 be used for the development of the MID RVSM Safety Monitoring Report (SMR 2014);		States	FPL/traffic data	Mar. 2014	14/007 dated 9 January 2014
b) only the appropriate Flight Data form available on the MIDRMA website (www.midrma.com) should be used for the provision of FPL/traffic data to the MIDRMA;					
c) the initial results of the MID RVSM SMR 2014 be ready before 15/05/2014; and					
d) the final version of the MID RVSM SMR 2014 be ready for presentation to and endorsement by MIDANPIRG/15.		MIDRMA	MID RVSM SMR 2014	May 2015	

APPENDIX 3A

QUESTIONNAIRE ON THE USE OF THE GLOBAL AIR NAVIGATION PLAN (Doc 9750, 4^{th} ed.)

Use additional pages if necessary

1. How was the GANP used by States and PIRGs for national/regional planning purposes?
The GANP was used as the reference document for developing the MID Region air navigation priorities and targets. The MID Region Air Navigation Strategy was developed in line with the GANP.
2. Which additions to this document, if any, are recommended?
The ASBU Document is an important and integral part of the GANP. This Document still needs review and improvements.
3. Which modifications to this document, if any, are recommended?
In addition to the comment in 2 above, additional inputs are required from States and all stakehoders
4. Is the process described on page 33 of the current 4th edition of the GANP applicable?
Yes, this exercise was done in the MID Region and areas of applicability were defined for certain
modules and other modules were considered as being applicable to all MID States
5. What is your regional office's view of this global planning strategy and mechanism?
It's a good mechanism
6. Are intra- and interregional issues regarding the tiered approach to air navigation planning, as described on page 17 of the current 4th edition of the GANP, being addressed?
Yes, however it will be better if this approach is further elaborated. The interrelation with the GASP mentioned in the first line needs also more elaboration.

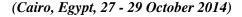
7. Are the performance metrics and dashboards satisfactorily linked to the GANP?
The current version of the dashboard monitors the global priorities which are part of the GANP. However the expansion of the dashboard to the regions is necessary in order to monitor the regional priorities.
8. Any other comments

Thank you for taking the time to complete this questionnaire. Your feedback is valuable and will improve the next edition of the Global Air Navigation Plan.



International Civil Aviation Organization

ICAO Aviation Data Analyses Seminar





SUMMARY OF DISCUSSIONS

1. Introduction

- 1.1 The ICAO Aviation Data Analyses Seminar has been successfully held in Cairo, Egypt, from 27 to 29 October 2014. 38 participants from 5 States (Bahrain, Egypt, Oman, Qatar and Saudi Arabia) were in attendance. The list of participants is at attached. The event was gratefully hosted by the Egyptian Ministry of Civil Aviation. It was moderated by Mr. Jerome Simon, Infrastructure Manager and Mr. Cyrille Martin, Air Transport Economist, from ATB/EAP, ICAO HQ and supported by Mr. Mohamed Smaoui, Deputy Regional Director, ICAO MID Regional Office.
- 1.2 The agenda was developed around the main following topics:
 - 1. ICAO Statistics Programme
 - 2. ICAO activities in the field of forecasting
 - 3. Economic incentives for ASBUs including Cost-Benefit Analyses.
- 1.3 A copy of the detailed Agenda/Work Programme is at **Appendix A.** The Summary of Discussions with all its attachments is available at: http://www.icao.int/mid/Pages/default.aspx.
- 1.4 The main objectives of the Seminar were to focus on ways to improve the quality and quantity of data sent to ICAO and the Civil Aviation Authorities. In this regard, detailed training were provided on the revised ICAO Statistics Programme, which is based on the Recommendations of the Tenth Session of the Statistics Division (STA/10) as well as the results of the First Meeting of the Aviation Data and Analyses Panel (ADAP/1).

2. SUMMARY

- 2.1 The Seminar provided a training for States on the ICAO Statistics Programme based on the *Reference Manual on the ICAO Statistics Programme* (Doc 9060). All Statistical forms collected by ICAO were presented and detailed explanations were provided.
- 2.2 The ADAP/1 Recommendations and 38th Assembly Resolutions related to Aviation Data/Statistics and to forecasting, planning and economic analyses were reviewed and re-iterated.
- 2.3 Practical hand-on exercises on Air Traffic Reporting Forms have been conducted.

- 2.4 The work of the Multi-disciplinary Working Group on Long-term Traffic Forecasts (MDWG-LTF) for the development of a single set of long-term traffic forecasts has been presented.
- 2.5 The work of the Multi-Disciplinary Working Group on economic challenges linked to the Aviation System Block Upgrade implementations (MDWG-ASBUs) has been presented.

3. CONCLUSIONS

- 3.1 States and ICAO should continue to cooperate closely to overcome the difficulties related to the low level of reporting statistic data to ICAO in order to improve the coverage and quality of reporting on ICAO Air Transport Reporting Forms.
- 3.2 States have been requested to adhere strictly to ICAO reporting instructions and to make use of the appropriate Air Transport Reporting Forms as well as associated electronic tools when reporting data to ICAO.
- 3.3 States have been urged to nominate focal points for aviation statistics, and to make every effort to provide the statistics required by ICAO in a timely manner and electronically, whenever possible.
- 3.4 States have been encouraged to support the ICAO Statistics Programme by providing feedback and sharing relevant knowledge and experience.
- 3.5 There was broad support for the added-value of the Seminar. However, due to the importance of the ICAO Statistics Programme and the complexity of the technical aspects, there was a consensus that the Programme of the Seminar is too busy to be finished in three days. Accordingly, it has been suggested that another Seminar be organized by ICAO within a two year time-frame to keep the momentum, further enhance the technical knowledge of States and address other subjects of relevance, which due to time constrains, have not been addressed in detail during this Seminar.
- 3.6 ICAO should continue to organize on a regular basis, ICAO Statistics Programme training for Member States in support to the ICAO Strategic Objectives.

4. CLOSING

4.1 During the closing ceremony, the participants expressed their gratitude and appreciation to the Egyptian Ministry of Civil Aviation for the warm welcome, the excellent arrangements made towards successful conduct of the Seminar and outstanding hospitality. Thanks were also conveyed to the ICAOMID Regional Office for the organization of the Seminar, good preparation and coordination; and to the Moderators for their support and professionalism.

ICAO Aviation Data Analysis Seminar Middle East (MID) Regional Office



27 - 29 October 2014

Economic Analysis and Policy Section (EAP)
Air Transport Bureau (ATB)

Proposed Agenda

Day 1 - Monday 27 October

- 08:30 08:45 **Opening session**
- 08:45 09:15 Main goals of the ICAO Statistics Programme (what for?)
 - A Programme aimed at benefiting the civil aviation community by working together.
 - An essential tool for managing civil aviation activities
 - Principles governing international statistical activities and useful resources
- 09:15-09:45 The ICAO Statistics Programme, a useful tool
 - ICAO Statistics Programme Introduction
 - Manual on the ICAO Statistics Programme
- 09:45 10:15 The ICAO Statistical Data Base (ISDB) and ICAODATA+ presentation

10:15 - 10:45 Coffee break

- 10:45 11:30 Introduction to air transport statistics
- 11:30 12:00 Statistics related to air carriers (Forms A, B, C, D, EF, M)
- 12:00 12:30 Air Transport Reporting forms for air carrier traffic (relationships between forms)
- 12:30 13:00 Air carrier traffic, fleet and fuel consumption (Forms A, B, C, D, M): exercises
- 13:00 13:30 Coffee break
- 13:30 15:00 Air carrier traffic, fleet and fuel consumption (Forms A, B, C, D, M): exercises

Day 2 - Tuesday 28 October

8:30 – 10:15 Air carrier traffic, fleet and fuel consumption (Forms A, B, C, D, M): exercises

10:15 - 10:45 Coffee break

- 10:45 11:00 Air carrier financial data (Form EF): presentation
- 11:00 11:30 Air carrier financial data (Form EF): exercises
- 11:30 11:45 Quarterly survey on financial parameters of air carriers
- 11:45 12:00 Airport traffic (Form I): presentation
- 12:00 12:45 Airport traffic (Form I): exercises part I

12:45 - 13:15 Coffee break

- 13:15 13:45 Airport traffic (Form I): exercises part II
- 13:45 14:30 Intelligent forms presentation
- 14:30 15:00 Air navigation services financial data Form K
 - Content, instructions, data-entry, data verification and validation, e-mailing, storing, further use.
 - Manual on Air Navigation Services Economics (Doc 9161).

Day 3 - Wednesday 29 October

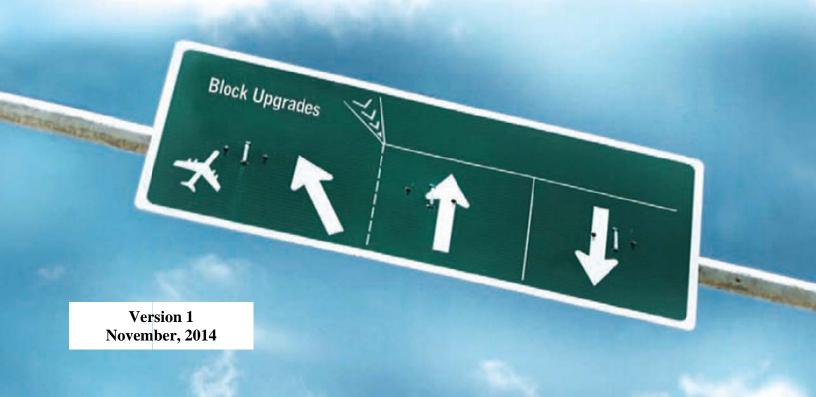
- 08:30 09:00 Commercial air carrier and airport traffic by State Form A-S and I-S
 - Content, instructions, data-entry, data verification and validation, e-mailing, storing, further use.
- 09:00 09:15 Role of contacts in States and reporting procedures
- 09:15 10:15 ICAODATA+, data extraction and analysis
- 10:15 10:45 Coffee break
- 10:45 11:15 ICAO activities in the field of forecasting
- 11:15 12:30 Methodology for forecasting air traffic
- 12:30 12:45 Presentation of e-learning courses (statistics, forecasting, ...)
- 12:45 13:15 Coffee break
- 13:15 14:15 Economic incentives for ASBUs including Cost-Benefit Analyses
- 14:15 14:30 Feedback form
- 14:30 14:45 Final questions/discussions
- 14:45 15:00 **Closing session**



INTERNATIONAL CIVIL AVIATION ORGANIZATION

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

MID REGION AIR NAVIGATION STRATEGY



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

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MID REGION AIR NAVIGATION STRATEGY

1. Introduction

- 1.1 As traffic volume increases throughout the world, the demands on air navigation service providers in a given airspace increase, and air traffic management becomes more complex.
- 1.2 It is foreseen that the implementation of the components of the ATM operational concept will provide sufficient capacity to meet the growing demand, generating additional benefits in terms of more efficient flights and higher levels of safety. Nevertheless, the potential of new technologies to significantly reduce the cost of services will require the establishment of clear operational requirements.
- 1.3 Taking into account the benefits of the ATM operational concept, it is necessary to make many timely decisions for its implementation. An unprecedented cooperation and harmonization will be required at both global and regional level.
- 1.4 ICAO introduced the Aviation System Block Upgrades (ASBU) methodology as a systemic manner to achieve a harmonized implementation of the air navigation services. An ASBU designates a set of improvements that can be implemented globally from a defined point in time to enhance the performance of the ATM system.
- 1.5 Through Recommendation 6/1 *Regional performance framework planning methodologies and tools*, AN-Conf/12 urged States and PIRGs to harmonize the regional and national air navigation plans with the ASBU methodology in response to this, the MID region is developing MID Region Air Navigation Strategy that is aligned with the ASBU methodology.
- 1.6 Stakeholders including service providers, regulators, airspace users and manufacturers are facing increased levels of interaction as new, modernized ATM operations are implemented. The highly integrated nature of capabilities covered by the block upgrades requires a significant level of coordination and cooperation among all stakeholders. Working together is essential for achieving global harmonization and interoperability.

2. Strategic Air Navigation Capacity and Efficiency Objective

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

3. MID Air Navigation Objectives

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

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

- 3.2 Block '0' features Modules characterized by operational improvements which have already been developed and implemented in many parts of the world today. It therefore has a near-term implementation period of 2013–2018. The MID Region near-term priorities are based on the implementation of an agreed set of Block 0 Modules as reflected in **Table 1** below.
- 3.3 The MID Region Air Navigation Strategy is aimed to maintain regional harmonisation. The States should develop their national performance framework, including action plans for the implementation of relevant priority 1 ASBU Modules and other modules according to the State operational requirements.

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

3.4 Blocks 1 through 3 are characterized by both existing and projected performance area solutions, with availability milestones beginning in 2018, 2023 and 2028, respectively. Associated timescales are intended to depict the initial deployment targets along with the readiness of all components needed for deployment.

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

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

4. MID Region ASBU Block 0 Modules Prioritization and Monitoring

4.1 On the basis of operational requirements and taking into consideration the associated benefits, **Table 1** below shows the priority for implementation of the 18 Block "0" Modules, as well as the MIDANPIRG subsidiary bodies that will be monitoring and supporting the implementation of the Modules:

Table 1. MID REGION ASBU BLOCK 0 MODULES PRIORITIZATION AND MONITORING

Module Code	Module Code Module Title Priority Monitoring		Ionitoring	Remarks	
Module Code	Module Title	Priority	Main	Supporting	
Performance Imp	provement Areas (PIA) 1: Airport	t Operation:	S		
B0-APTA	Optimization of Approach Procedures including vertical guidance	1	PBN SG	ATM SG, AIM SG, CNS SG	
B0-WAKE	Increased Runway Throughput through Optimized Wake Turbulence Separation	2			
B0-RSEQ	Improve Traffic flow through Runway Sequencing (AMAN/DMAN)	2			
B0-SURF	Safety and Efficiency of Surface Operations (A- SMGCS Level 1-2)	1	ANSIG	CNS SG	Coordination with RGS WG
B0-ACDM	Improved Airport Operations through Airport-CDM	1	ANSIG	CNS SG, AIM SG, ATM SG	Coordination with RGS WG
	provement Areas (PIA) 2 Globally formation Management	y Interopera	able Systems a	and Data Through G	lobally Interoperable
B0-FICE	Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration	1	CNS SG	ATM SG	
B0-DATM	Service Improvement through Digital Aeronautical Information Management	1	AIM SG	-	
B0-AMET	Meteorological information supporting enhanced operational efficiency and safety	1	MET SG	-	

Performance In ATM	nprovement Areas (PIA) 3 Optimum	n Capacity	and Flexible F	lights – Through G	lobal Collaborative
B0-FRTO	Improved Operations through Enhanced En-Route Trajectories	1	ATM SG		
B0-NOPS	Improved Flow Performance through Planning based on a Network-Wide view	1			
B0-ASUR	Initial capability for ground surveillance	2			
B0-ASEP	Air Traffic Situational Awareness (ATSA)	2			
B0-OPFL	Improved access to optimum flight levels through climb/descent procedures using ADS-B	2			
B0-ACAS	ACAS Improvements	1	CNS SG		
B0-SNET	Increased Effectiveness of Ground-Based Safety Nets	2			
Performance I	mprovement Areas (PIA) 4 Efficien	t Flight Pa	th – Through T	Frajectory-based O	perations
B0-CDO	Improved Flexibility and Efficiency in Descent Profiles (CDO)	1	PBN SG		
В0-ТВО	Improved Safety and Efficiency through the initial application of Data Link En- Route	1	ATM SG	CNS SG	
В0-ССО	Improved Flexibility and Efficiency Departure Profiles - Continuous Climb Operations (CCO)	1	PBN SG		

Priority 1: Modules that have the highest contribution to the improvement of air navigation safety and/or efficiency in the MID Region. These modules should be implemented where applicable and will be used for the purpose of regional air navigation monitoring and reporting for the period 2013-2014.

Priority 2: Modules recommended for implementation based on identified operational needs and benefits.

5. Measuring and monitoring air navigation performance

- 5.1 The monitoring of air navigation performance and its enhancement is achieved through identification of relevant air navigation Metrics and Indicators as well as the adoption and attainment of air navigation system Targets.
- 5.2 MIDANPIRG through its activities under the various subsidary bodies will continue to update and monitor the implementation of the ASBU Modules to achieve the air navigation targets.
- 5.3 The priority 1 Modules along with the associated elements, applicability, performance Indicators, supporting Metrics, and performance Targets are shown in the **Table 2** below.

Note: The different elements supporting the implementation are explained in detail in the ASBU Document which is attached to the Global Plan (Doc 9750).

6. Governance

- 6.1 Progress report on the status of implementation of the different priority 1 Modules should be developed by the Air Navigation System Implementation Group (ANSIG) and presented to the MIDANPIRG Steering Group (MSG) and/or MIDANPIRG on regular basis.
- 6.2 The MIDANPIRG and its Steering Group (MSG) will be the governing body responsible for the review and update of the MID Region Air Navigation Strategy.
- 6.3 The MID Region Air Navigation Strategy will guide the work of MIDANPIRG and its subsidary bodies and all its member States and partners.
- Progress on the implementation of the MID Region Air Navigation Strategy and the achievement of the agreed air navigation targets will be reported to the ICAO Air Navigation Commission (ANC), through the review of the MIDANPIRG reports; and to the stakeholders in the Region within the framework of MIDANPIRG.

Table 2. MONITORING THE IMPLEMENTATION OF THE ASBU BLOCK 0 MODULES IN THE MID REGION

B0 – APTA: Optimization of Approach Procedures including vertical guidance

Description and purpose

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

Main performance impact:

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

Applicability consideration:

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

Elements	Applicability	Performance Indicators/Supporting Metrics	Targets	
States' PBN Implementation Plans	All	Indicator: % of States that provided updated PBN implementation Plan	80 % by Dec. 2014	
Tails		Supporting metric: Number of States that provided updated PBN implementation Plan	100% by Dec. 2015	
LNAV	All RWYs Ends at International Aerodromes	Indicator: % of runway ends at international aerodromes with RNAV(GNSS) Approach Procedures (LNAV) Supporting metric: Number of runway ends at international aerodromes with RNAV (GNSS) Approach Procedures (LNAV)	All runway ends at Int'l Aerodromes, either as the primary approach or as a back- up for precision approaches by Dec. 2016	
LNAV/VNAV	All RWYs ENDs at International Aerodromes	Indicator: % of runways ends at international aerodromes provided with Baro-VNAV approach procedures (LNAV/VNAV) Supporting metric: Number of runways ends at international aerodromes provided with Baro-VNAV approach procedures (LNAV/VNAV)	All runway ends at Int'l Aerodromes, either as the primary approach or as a back- up for precision approaches by Dec. 2017	

Description and purpose

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

Main performance impact:

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

Applicability consideration:

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

B0-SURF: Safety and Efficiency of Surface Operations (A-SMGCS Level 1-2)					
Elements	Applicability	Performance Indicators/Supporting Metrics	Targets		
A-SMGCS Level 1*	OBBI, HECA, OIII, OKBK, OOMS, OTBD, OTHH, OEDF, OEJN, OERK, OMDB, OMAA, OMDW	Indicator: % of applicable international aerodromes having implemented A-SMGCS Level 1 Supporting Metric: Number of applicable international aerodromes having implemented A-SMGCS Level 1	70% by Dec. 2017		
A-SMGCS Level 2*	OBBI, HECA, OIII, OKBK, OOMS, OTBD, OTHH, OEJN, OERK, OMDB, OMAA, OMDW	Indicator: % of applicable international aerodromes having implemented A-SMGCS Level 2 Supporting Metric: Number of applicable international aerodromes having implemented A-SMGCS Level 2	50% by Dec. 2017		

^{*}Reference: Eurocontrol Document – "Definition of A-SMGCS Implementation Levels, Edition 1.2, 2010".

B0 - ACDM: Improved Airport Operations through Airport-CDM

Description and purpose

To implement collaborative applications that will allow the sharing of surface operations data among the different stakeholders on the airport. This will improve surface traffic management reducing delays on movement and manoeuvring areas and enhance safety, efficiency and situational awareness.

Main performance impact:

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

Applicability consideration:

Local for equipped/capable fleets and already established airport surface infrastructure.

B0 – ACDM: Improved Airport Operations through Airport-CDM						
Elements	Applicability	Performance Indicators/Supporting Metrics	Targets			
A-CDM	OBBI, HECA, OIII, OKBK, OOMS, OTBD, OTHH, OEJN, OERK, OMDB, OMAA, OMDW	Indicator: % of applicable international aerodromes having implemented improved airport operations through airport-CDM Supporting metric: Number of applicable international aerodromes having implemented improved airport operations through airport-CDM	40% by Dec. 2017			

Description and purpose

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

Main performance impact:

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

Applicability consideration:

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

B0 - FICE: Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration				
Elements	Applicability	Performance Indicators/Supporting Metrics	Targets	
AMHS capability	All States	Indicator: % of States with AMHS capability Supporting metric: Number of States with AMHS capability	70% of States with AMHS capability by Dec. 2017	
AMHS implementation /interconnection	All States	Indicator: % of States with AMHS implemented (interconnected with other States AMHS) Supporting metric: Number of States with AMHS implemented (interconnections with other States AMHS)	60% of States with AMHS interconnected by Dec. 2017	
Implementation of AIDC/OLDI between adjacent ACCs	All ACCs	Indicator: % of FIRs within which all applicable ACCs have implemented at least one interface to use AIDC/OLDI with neighboring ACCs Supporting metric: Number of AIDC/OLDI interconnections implemented between adjacent ACCs	70% by Dec. 2017	

Description and purpose

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

Main performance impact:

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

Applicability consideration:

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

Elements	Applicability	Performance Indicators/Supporting Metrics	Targets
1- National AIM Implementation Plan/Roadmap	All States	Indicator: % of States that have National AIM Implementation Plan/Roadmap	80% by Dec. 2016
		Supporting Metric: Number of States that have National AIM Implementation Plan/Roadmap	90% by Dec. 2018
2-AIXM	All States	Indicator: % of States that have implemented an AIXM-based AIS database	60% by Dec. 2015
		Supporting Metric: Number of States that have	80% by Dec. 2017
		implemented an AIXM-based AIS database	100% by Dec. 2019
3-eAIP	All States	Indicator: % of States that have implemented an IAID driven AIP Production (eAIP)	60% by Dec. 2016
		, , ,	80% by Dec. 2018
		Supporting Metric: Number of States that have implemented an IAID driven AIP Production (eAIP)	100% by Dec. 2020
4-QMS	All States	Indicator: % of States that have implemented QMS for AIS/AIM	70% by Dec. 2016
		Supporting Metric: Number of States that have implemented QMS for AIS/AIM	90% by Dec. 2018
5-WGS-84	All States	Indicator: % of States that have implemented WGS-84 for horizontal plan (ENR, Terminal, AD)	Horizontal: 100% by Dec. 2017
		Supporting Metric: Number of States that have implemented WGS-84 for horizontal plan (ENR, Terminal, AD)	Vertical: 90% by Dec. 2018
		Indicator: % of States that have implemented WGS-84 Geoid Undulation	
		Supporting Metric: Number of States that have implemented WGS-84 Geoid Undulation	

	T		
6-eTOD	All States	Indicator: % of States that have	Area 1:
		implemented required Terrain datasets	Terrain:
			50% by Dec. 2015,
		Supporting Metric: Number of States that	70% by Dec. 2018
		have implemented required Terrain datasets	
		nave implemented required retrain datasets	Obstacles:
		Indicator: % of States that have	o obtained.
		indicated. 70 of States that have	40% by Dec. 2015,
		implemented required Obstacle datasets	60% by Dec. 2018
		Supporting Metric: Number of States that have	Area 4:
		implemented required Obstacle datasets	Terrain:
			50% by Dec. 2015,
			100% by Dec. 2018
			J
			Obstacles:
			50% by Dec. 2015,
T. D. C. I. MOTIAN C.	4.77.6		100% by Dec. 2018
7-Digital NOTAM*	All States	Indicator: % of States that have included the	80% by Dec. 2016
		implementation of Digital NOTAM into their National	
		Plan for the transition from AIS to AIM	
		Supporting Metric: Number of States that have	90% by Dec. 2018
		included the implementation of Digital NOTAM into	•
		their National Plan for the transition from AIS to AIM	
	l .	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

Description and purpose

Global, regional and local meteorological information:

- a) forecasts provided by world area forecast centres (WAFC), volcanic ash advisory centres (VAAC) and tropical cyclone advisory centres (TCAC);
- b) aerodrome warnings to give concise information of meteorological conditions that could adversely affect all aircraft at an aerodrome including wind shear; and
- c) SIGMETs to provide information on occurrence or expected occurrence of specific en-route weather phenomena which may affect the safety of aircraft operations and other operational meteorological (OPMET) information, including METAR/SPECI and TAF, to provide routine and special observations and forecasts of meteorological conditions occurring or expected to occur at the aerodrome.

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

Main performance impact:

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

Applicability consideration:

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

B0 – AMET: Meteorological information supporting enhanced operational efficiency and safety						
Elements	Applicability	Performance Indicators/Supporting Metrics	Targets			
SADIS 2G and Secure SADIS FTP	All States	Indicator: % of States having implemented SADIS 2G satellite broadcast or Secure SADIS FTP service	90% by Dec. 2015			
		Supporting metric: number of States having implemented SADIS 2G satellite broadcast or Secure SADIS FTP service	100% by Dec. 2017			
QMS	All States	Indicator: % of States having implemented QMS for MET Supporting metric: number of States having implemented QMS for MET	60% by Dec. 2015 80% by Dec. 2017			

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

Description and purpose

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

Main performance impact:

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

Applicability consideration:

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

B0 – FRTO: Impi	B0 – FRTO: Improved Operations through Enhanced En-Route Trajectories					
Elements	Applicability	Performance Indicators/Supporting Metrics	Targets			
Flexible use of airspace (FUA)	All States	Indicator: % of States that have implemented FUA Supporting metric*: number of States that have implemented FUA	40% by Dec. 2017			
Flexible routing	All States	Indicator: % of required Routes that are not implemented due military restrictions (segregated areas) Supporting metric 1: total number of ATS Routes in the Mid Region Supporting metric 2*: number of required Routes that are not implemented due military restrictions (segregated areas)	60% by Dec. 2017			

^{*} Implementation should be based on the published aeronautical information

Description and purpose

Air Traffic Flow Management (ATFM) is used to manage the flow of traffic in a way that minimizes delay and maximizes the use of the entire airspace. ATFM can regulate traffic flows involving departure slots, smooth flows and manage rates of entry into airspace along traffic axes, manage arrival time at waypoints or Flight Information Region (FIR)/sector boundaries and re-route traffic to avoid saturated areas. ATFM may also be used to address system disruptions including crisis caused by human or natural phenomena.

Experience clearly shows the benefits related to managing flows consistently and collaboratively over an area of a sufficient geographical size to take into account sufficiently well the network effects. The concept for ATFM and demand and capacity balancing (DCB) should be further exploited wherever possible. System improvements are also about better procedures in these domains, and creating instruments to allow collaboration among the different actors.

Guidance on the implementation of ATFM service are provided in the ICAO Doc 9971– Manual on Collaborative Air Traffic Flow Management

Main performance impact:

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

Applicability consideration:

Applicable to en-route and terminal airspace. Benefits can start locally. The larger the size of the concerned airspace the greater the benefits. Application will naturally span over a long period as traffic develops.

B0 – NOPS: Improved Flow Performance through Planning based on a Network-Wide view					
Elements	Applicability	Performance Indicators/Supporting Metrics	Targets		
ATFM Measures implemented in collaborative	All States	Indicator: % of States that have established a mechanism for the implementation of ATFM Measures based on collaborative decision	100% by Dec. 2017		
manner		Supporting metric: number of States that have established a mechanism for the implementation of ATFM Measures based on collaborative decision			

B0 – ACAS: ACAS Improvements

Description and purpose

To provide short-term improvements to existing airborne collision avoidance systems (ACAS) to reduce nuisance alerts while maintaining existing levels of safety. This will reduce trajectory deviations and increase safety in cases where there is a breakdown of separation

Main performance impact:

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

Applicability consideration:

Safety and operational benefits increase with the proportion of equipped aircraft.

B0 - ACAS: AC	B0 – ACAS: ACAS Improvements						
Elements Applicability Performance Indic		Performance Indicators/Supporting Metrics	Targets				
Avionics	All States	Indicator: % of States requiring carriage of ACAS (TCAS v 7.1) for aircraft with a max certificated take-off mass greater than 5.7 tons Supporting metric: Number of States requiring carriage of ACAS (TCAS v 7.1) for aircraft with a max certificated take-off mass greater than 5.7 tons	80% by Dec. 2015 100% by Dec. 2016				

Description and purpose

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

Main performance impact:

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

Applicability consideration:

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

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

B0 - CDO: Improved Flexibility and Efficiency in Descent Profiles (CDO)					
Elements	Applicability	Performance Indicators/Supporting	Targets		
		Metrics			
PBN STARs	In accordance with	Indicator: % of International	100% by Dec. 2016 for the		
	States' implementation	Aerodromes/TMA with PBN STAR	identified Aerodromes/TMAs		
	Plans	implemented as required.			
		Supporting Metric: Number of International Aerodromes/TMAs with PBN STAR implemented as required.	100% by Dec. 2018 for all the International Aerodromes/TMAs		
International	In accordance with	Indicator: % of International	100% by Dec. 2018 for the		
aerodromes/TMAs with CDO	States' implementation Plans	Aerodromes/TMA with CDO implemented as required.	identified Aerodromes/TMAs		
		Supporting Metric: Number of International			
		Aerodromes/TMAs with CDO implemented			
		as required.			

B0 -TBO: Improved Safety and Efficiency through the initial application of Data Link En-Route

Description and purpose

To implement an initial set of data link applications for surveillance and communications in ATC, supporting flexible routing, reduced separation and improved safety.

Main performance impact:

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

Applicability consideration:

Requires good synchronization of airborne and ground deployment to generate significant benefits, in particular to those equipped. Benefits increase with the proportion of equipped aircraft.

B0 -TBO: Improved Safety and Efficiency through the initial application of Data Link En-Route					
Elements	Applicability	Performance Indicators/Supporting Metrics	Targets		
ADS-C and CPDLC	Muscat and Sanaa FIRs	Indicator: % of FIRs having implemented data link enroute, as and where required Supporting Metric: Number of FIRs having implemented data link enroute, as and where required	50% by Dec. 2017		

Description and purpose

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

Main performance impact:

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

Applicability consideration:

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

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

B0 – CCO: Improved Flexibility and Efficiency Departure Profiles - Continuous Climb Operations (CCO)										
Elements	Applicability	Performance Indicators/Supporting	Targets							
		Metrics								
PBN SIDs	in accordance with	Indicator: % of International	100% by Dec. 2016 for the							
	States' implementation	Aerodromes/TMA with PBN SID	identified Aerodromes/TMAs							
	Plans	implemented as required.								
		Supporting Metric: Number of	100% by Dec. 2018 for all							
		International Aerodromes/ TMAs with	the International							
		PBN SID implemented as required.	Aerodromes/TMAs							
International	in accordance with	Indicator: % of International	100% by Dec. 2018 for the							
aerodromes/TMAs	States' implementation	Aerodromes/TMA with CCO	identified Aerodromes/TMAs							
with CCO	Plans	implemented as required.								
		Supporting Metric: Number of								
		International Aerodromes/TMAs with								
		CCO implemented as required.								

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APPENDIX 4C

MAEP STEERING COMMITTEE (MSC)

TERMS OF REFERENCE

A) Purpose of the MSC:

The MSC is established to act as an advisory body to the MAEP Board, guide its work and ensure that MAEP objectives are accomplished in a timely, effective and efficient manner.

In order to meet its Terms of Reference, the MSC shall:

- 1. Review regional objectives, plans and users' requirements, and recommend priorities to the MAEP Board.
- 2. Review plans submitted by the PMO, and recommend priorities, projects/working packages and associated funding arrangements to the MAEP Board.
- 3. Ensure that the business plans are in line with the MID Air Navigation Strategy.
- 4. Oversee the activities of the PMO in line with the plans and budgets approved by the MAEP Board.
- 5. Monitor the financial performance at project level in line with the Board approved budget for each project/working package.
- 6. Monitor and follow-up the implementation of the MAEP Board Conclusions and Decisions related to the projects/working packages management.
- 7. Follow up with the PMO the implementation of the agreed projects/working packages and provide regular progress report to the Board.
- 8. Coordinate technical issues with the appropriate MIDANPIRG subsidiary bodies;
- 9. Establish Task Forces and implementation bodies, as deemed necessary, provided that:
 - i. the MSC ensure harmonization and avoidance of duplication of efforts;
 - ii. the MSC assumes the role of maintaining accountability for the established task forces and implementation bodies ensuring that they meet their deliverables; and
 - iii. all ATM stakeholders, including Industry and International Organizations, have an active participation in the established task forces and implementation bodies.
- 10. Monitor the progress of work and provide guidance to the established Task Forces and implementation bodies.

B) Composition:

- a) The MSC Co-Chairpersons
- b) MAEP Board Chairperson
- c) Members/Alternates from the MAEP member States
- d) MAEP Representatives/Alternates from the following Partners:
 - AACO, ACAC, ACI, AIRBUS, BOEING, CANSO, EUROCONTROL/SESAR JU, FAA-USA, IATA, IFALPA.

Other representatives from States and industry may be invited on ad-hoc basis, as required.

- **Note 1:** The MSC meetings are organised by the PMO. The PMO Manager will act as the Secretary of the MSC meetings.
- Note 2: ICAO will attend the MSC meetings as Observer and would provide support as appropriate.
- **Note 3:** The composition of the MSC might be updated over time to include only Member States and Partners that could participate actively in the MSC and contribute to its work.

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APPENDIX 4E

INTERNATIONAL CIVIL AVIATION ORGANIZATION



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

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

AMENDMENTS

The MID Region High Level Airspace Concept should be reviewed and updated by the ATM Sub-Group and presented to MIDANPIRG for endorsement.

The table below provides a means to record all amendments.

An up to date electronic version of the Plan will be available on the ICAO MID Regional Office website.

Amendment Number	Effective Date	Initiated by	Impacted pages	Remarks
		7		
	7			

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CHAPTER 1

INTRODUCTION

- 1.1 An airspace concept provides the outline and intended framework of operations within an airspace. Airspace concepts are developed to satisfy explicit strategic objectives such as improved safety, increased air traffic capacity and mitigation of environmental impact, etc. Airspace concepts can include details of the practical organization of the airspace and its users based on particular CNS/ATM assumptions, e.g. ATS route structure, separation minima, route spacing and obstacle clearance.
- 1.2 The objective of the High level Airspace Concept is to consolidate the ATM operational requirements agreed on by MIDANPIRG, in order to provide a generic set of characteristics to be applied by States, which would support the harmonization of the ATM operations in the MID Region.
- 1.3 The fundamentals of the MID Region High Level Airspace Concept are as follows:
 - a) The use of Reduced Vertical Separation Minima (RVSM) between FLs 290 and 410.
 - b) To the most extent possible implementation of parallel ATS route network, based on RNAV 5 or RNAV 1, across the Region.
 - c) Implementation of RNAV 5 area in the level band FL160 FL460 (inclusive).
 - d) A system of linked routes based mainly on RNAV connected to RNAV or Conventional SIDs and STARs starting at the nominal TMA boundary.
 - e) Route spacing used for RNAV 5 routes should not be less than 16.5 NM for unidirectional and 18 NM for bi-direction tracks.
 - f) Route spacing used for RNAV 1 routes should not be less than 7 NM providing that required CNS infrastructure is available.
 - g) Implementation of 20 NM Reduced radar longitudinal separation, which could be further reduced to 10 NM where appropriate.
 - h) Implementation of ASBU Modules in accordance with the Air Navigation Strategy.
 - i) Implementation of the "Flexible Use of Airspace" concept.
 - j) Implementation of AIDC/OLDI between all ACCs.
 - k) Implementation of Continuous Climb Operations (CCO) and Continuous Descent Operations CDO, where appropriate.
- 1.4 The MID Region High Level Airspace Concept will be evolving in accordance with the global and regional developments/requirements, such as, to include the use of Advanced RNP in enroute and terminal operations, and RNP APCH on the Approach.

CHAPTER 2

FUNDAMENTALS OF THE MID REGION HIGH LEVEL AIRSPACE CONCEPT

- I. The Use of Reduced Vertical Separation Minima (RVSM) between Flight Levels 290 and 410, inclusive
- 2.1 The provisions for RVSM approval and the monitoring of the height keeping performance are contained in Annex 6. The general requirements for RVSM implementation are contained in the *Manual on a 300 m (1 000 ft) Vertical Separation Minimum Between FL 290 and FL 410 Inclusive* (ICAO, Doc 9754). However, the Operating Procedures and Practices for Regional Monitoring Agencies in relation to the use of a 300 m (1 000 ft) Vertical Separation Minimum between FL 290 and FL 410 inclusive, are provided in ICAO, Doc 9937.
- 2.2 Monitoring of aircraft height-keeping performance was one of the underlying assumptions of the safety studies on which RVSM was based. In all regions where RVSM has been implemented, Regional Monitoring Agencies (RMAs) have been established by the appropriate Planning and Implementation Regional Groups (PIRGs) to carry out this function. The RVSM safety objectives for the implementation of RVSM in the MID Region are set out by MIDANPIRG through MIDANPIRG/12 Conclusion, as follows:

CONCLUSION 12/16: MID RVSM SAFETY OBJECTIVES

That, the safety assessment of RVSM operations in the MID Region be based on the following safety objectives:

- a) Safety Objective 1: The risk of collision in the MID RVSM airspace due solely to technical height-keeping performance meets the ICAO Target Level of Safety (TLS) of 2.5 x 10° fatal accidents per flight hour;
- b) Safety Objective 2: The overall risk of collision due to all causes which includes the technical risk and all risk due to operational errors and in-flight contingencies in MID RVSM airspace meets the ICAO overall TLS of 5 x 10°9 fatal accidents per flight hour; and
- Safety Objective 3: address any safety-related issues raised in the SMR by recommending improved procedures and practices; and propose safety level improvements to ensure that any identified serious or risk-bearing situations do not increase and, where possible, that they decrease. This should set the basis for a continuous assurance that the operation of RVSM will not adversely affect the risk of en-route mid-air collision over the years.
- 2.3 The implementation of RVSM in the MID Region started on 27 November 2003. Currently RVSM is successfully implemented in all the MID Region Flight Information Regions (FIRs).
- 2.4 The MIDRMA and the ICAO Secretariat developed the MIDRMA Manual to provide, for easy reference of interested parties, a consolidation of material related to the administrative management, membership, funding mechanism of the MIDRMA, as well as its activities related to the sustained RVSM safety assessment and associated requirements for the provision of data. It contains the Terms of Reference (TOR) of the MIDRMA Board and a number of other provisions approved by the MIDRMA Board and MIDANPIRG.

- 2.5 The MIDRMA Manual, in addition to the reports and information related to RVSM implementation in the MID Region are available on the MIDRMA website (http://midrma.com).
- 2.6 In order to standardize and improve the reporting of required data to the MIDRMA, the MIDANPIRG/14 meeting agreed to the following Conclusion which replaces and supersedes the MIDANPIRG/13 Conclusion 13/65:

CONCLUSION 14/35: PROVISION OF REQUIRED DATA TO THE MIDRMA

That, considering the on-going requirement for RVSM safety monitoring in the MID Region:

- a) States provide the required data to the MIDRMA on a regular basis and in a timely manner. The data is to include, but is not necessarily limited to:
 - i) approval of operators and aircraft for RVSM operations (on monthly basis or whenever there's a change);
 - ii) Large Height Deviations (LHD) (on monthly basis);
 - iii) traffic data (as requested by the MIDRMA Board);
 - iv) radar data as, when and where required; and
 - v) airway structure (above FL 290) and waypoints.
- b) States not providing the required data to the MIDRMA on a regular basis and in a timely manner:
 - i) be included in the MIDANPIRG list of air navigation deficiencies; and
 - ii) might not be covered by the MID RVSM Safety Monitoring Report (SMR).
- 2.7 The MIDRMA developed the LHD Online Reporting Tool to be used by the States, as the only mean, for the submission of their LHD reports to the MIDRMA.
- 2.8 Sates are requested to comply with the above provisions.
- 2.9 States are requested to consult the MIDRMA when carrying safety assessment for the implementation of ATS Routes in the MID RVSM Airspace.

II. To the most extent possible implementation of parallel ATS route network, based on RNAV 5 or RNAV 1, across the Region

- 2.10 Based on operational requirements, States may choose to implement RNAV 1 routes to enhance efficiency of airspace usages and support closer route spacing, providing that appropriate communication and surveillance coverages are available. Details of these requirements are provided in the PBN manual (Doc 9613) and PANS-ATM (Doc 4444).
- 2.11 The MID Region PBN Implementation Plan offers appropriate guidance for air navigation service providers, airspace operators and users, regulating agencies, and international organizations, on the evolution of navigation, as one of the key systems supporting air traffic management, and which describes the RNAV and RNP navigation applications that should be implemented in the short, medium and long term in the MID Region. The Plan is endorsed by MIDANPIRG and available on the ICAO MID Regional Office Website (http://icao.int/mid) under eDocuments.

III. Implementation of RNAV 5 area in the level band FL160 - FL460 (inclusive)

2.12 MIDANPIRG/12 meeting, Amman, Jordan 17-21 October 2010, noted that a number of States have not yet updated their AIPs to change RNP 5 to RNAV 5and that the RNAV 5 area is implemented in MID FIR's/States with a different base Flight Level (FL150, FL195, FL245, FL280). Accordingly, the meeting agreed to the following Conclusion:

CONCLUSION 12/9: RNAV 5 IMPLEMENTATION IN THE MID REGION

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

- a) update their AIP to change RNP 5 to RNAV 5; and
- b) take necessary measures to implement RNAV 5 area in the level band FL 160 FL460 (inclusive).

IV. A system of linked routes based mainly on RNAV connected to RNAV or Conventional SIDs and STARs starting at the nominal TMA boundary

- 2.13 Sates in consultation with the Airspace users should establish an efficient route structure at the upper airspace connected in an efficient manner to the lower airspace structure, starting at the nominal Terminal Control Area (TMA) boundary.
- 2.14 The ICAO Manual, Doc 9992, provides step-by-step guidance on the Use of Performance-based Navigation (PBN) in Airspace Design.

V. Route spacing used for RNAV 5 ATS routes should not be less than 16.5 NM for unidirectional and 18 NM for bi-direction tracks

- 2.15 In the MID Region RNAV 5 ATS Routes should be spaced at least by a lateral distance of 16.5NM for unidirectional and 18NM for bi-directional tracks.
- 2.16 The provisions for ATS Routes spacing are provided mainly in PANS-ATM Doc 4444, and the PBN Manual 9613.

Note: route spacing needs to be increased at turning points because of the variability of aircraft turn performance. The extent of the increase depends on the turn angle.

VI. Route spacing used for RNAV 1 ATS routes should not be less than 7 NM providing that required CNS infrastructure is available

- 2.17 In the MID Region RNAV 1 ATS Routes should be spaced at least by a lateral distance of 7NM, providing that required CNS infrastructure is available.
- 2.18 Route spacing of 7 NM for straight and turning tracks (with turns not exceeding 90 degrees) in a high density continental enroute system, using ATS radar surveillance, has been derived by independent collision risk analyses undertaken by Eurocontrol.

VII. Implementation of 20 NM Reduced Radar Longitudinal Separation, which could be further reduced to 10 NM where appropriate

2.19 MIDANPIRG/13 meeting, through Conclusion 13/5 below, encouraged MID States to implement 20 NM longitudinal separation and develop plans for further reduction of longitudinal separation from 20 NM to 10 NM:

CONCLUSION 13/5: IMPLEMENTATION OF REDUCED RADAR LONGITUDINAL SEPARATION IN THE MID REGION

That,

- a) States, that have not yet done so;
 - *i)* be urged to implement the 20 NM radar longitudinal separation;
 - ii) be encouraged to further reduce the radar longitudinal separation within the MID Region to 10 NM, where appropriate; and
 - iii) be invited to agree with their neighbouring FIRs/States on the date of implementation and updating of the LoAs;

VIII. Implementation of ASBU Modules in accordance with the Air Navigation Strategy

- 2.20 The MID Region air navigation objectives are set in line with the global air navigation objectives as described in the Global Air Navigation Plan (GANP) and address specific air navigation operational improvements identified within the framework of the MIDANPIRG.
- 2.21 The MID Air Navigation Strategy, endorsed by MIDANPIRG, includes the ASBU Modules, with their associated Elements, Area of Applicability, Performance Indicators and Targets, considered as priority for implementation in the MID Region.
- 2.22 States are urged to take into consideration the guidelines/requirements of the GANP, the MID Region Air Navigation Strategy and the MID ANP while planning for the improvement of their ATM system.
- 2.23 The monitoring of the implementation of the agreed ASBU Modules will be performed through the MID ANP, Volume III.

IX. Implementation of the "Flexible Use of Airspace" concept

- 2.24 The airspace is a resource common to both civil and military aviation. The growing civil air traffic and mission-oriented military air traffic would benefit greatly from a more flexible use of airspace used for military purposes and that satisfactory solutions to the problem of cooperative access to airspace have not evolved in all areas.
- 2.25 The ICAO Global ATM Operational Concept emphasized that all airspace should be a usable resource, any restriction on the use of any particular volume of airspace should be considered transitory, and all airspace should be managed flexibly.
- 2.26 The flexible use of airspace by both civil and military air traffic may be regarded as the ultimate goal, improvement in civil/military coordination and cooperation offers an immediate approach towards more effective airspace management.
- 2.27 MIDANPIRG/14 through Conclusions 14/12 and 14/13 urged States to take necessary measures to foster the implementation of Civil/Military Cooperation and to implement the Flexible Use of Airspace (FUA) concept through strategic Civil/Military Coordination and dynamic interaction, in order to open up segregated airspace when it is not being used for its originally-intended purpose and allow for better airspace management and access for all users.

X. Implementation of AIDC/OLDI between all ACCs

- 2.28 The use of ATS Interfacility Data Communication (AIDC), as defined in the ICAO, Doc 9694, *Manual of Air Traffic Services Data Link Applications* improves the coordination between air traffic service units (ATSUs). The transfer of communication in a data link environment improves the efficiency of this process.
- 2.29 In accordance with the MID Air Navigation Strategy AIDC/OLDI should be implemented between all adjacent ACCs.

XI. Implementation of Continuous Climb Operations (CCO) and Continuous Descent Operations CDO, where appropriate

- 2.30 Continuous climb operation (CCO) is an operation, enabled by airspace design, procedure design and ATC, in which a departing aircraft climbs continuously, to the greatest possible extent, by employing optimum climb engine thrust and climb speeds until reaching the cruise flight level.
- 2.31 Continuous descent operation (CDO) is an operation, enabled by airspace design, procedure design and ATC, in which an arriving aircraft descends continuously, to the greatest possible extent, by employing minimum engine thrust, ideally in a low drag configuration, prior to the final approach fix/final approach point.
- 2.32 ASBU B0 Modules CCO and CDO are considered as priority for implementation in the MID Region and are included in the MID Air Navigation Strategy.
- 2.33 States are encouraged to implement CCO and CDO, where applicable.

XII. Consider the implementation of Bilateral, Sub-regional or regional ATFM services

- 2.34 Air Traffic Flow Management (ATFM) is used to manage the flow of traffic in a way that minimizes delays and maximizes the use of the entire airspace. ATFM can regulate traffic flows involving departure slots, smooth flows and manage rates of entry into airspace along traffic axes, manage arrival time at waypoints or Flight Information Region (FIR)/sector boundaries and re-route traffic to avoid saturated areas. ATFM may also be used to address system disruptions including a crisis caused by human or natural phenomena
- 2.35 ATFM and its applications should not be restricted to one State or FIR because of their far-reaching effects on the flow of traffic elsewhere. Doc 4444 *Procedures for Air Navigation Services Air Traffic Management* (PANS-ATM) recognizes this important fact, stating that ATFM should be implemented on the basis of a Regional Air Navigation Agreement or, when appropriate, a Multilateral Agreement.
- 2.36 A MID Region ATFM service/system should be implemented to manage efficiently the traffic flows within and across the Region. Nevertheless, all initiatives to improve traffic flows should be exhausted before implementation of any ATFM measures in the MID Region.



INTERNATIONAL CIVIL AVIATION ORGANIZATION

ATS INTERFACILITY DATA COMMUNICATION AND ON-LINE DATA INTERCHANGE (AIDC/OLDI) SEMINAR

(Cairo, Egypt, 3-5 March 2014)

SUMMARY OF DISCUSSIONS

1. Introduction

- 1.1 The Seminar on the Implementation of ATS Interfacility Data Communication and On-Line Data Interchange (AIDC/OLDI Seminar) was successfully held at the ICAO Middle East (MID) Regional Office (Cairo, Egypt, 3-5 March 2014). The objective of the Seminar was to assist the MID States in implementing ASBU B0-FICE to Increase Interoperability, Efficiency and Capacity through Ground-Ground Integration.
- 1.2 The Seminar was attended by a total of thirty one (31) participants from nine (9) States (Bahrain, Egypt, Jordan, Kuwait, Oman, Qatar, Saudi Arabia, Sudan, and UAE), and two industry supplier (Indra and Thales).
- On behalf of Mr. Mohamed R. M. Khonji, ICAO Regional Director, Middle East Office, Mr. Raza Gulam, Regional Officer CNS welcomed the participants to Cairo and highlighted that the Seminar will provide the participants with up-to-date implementation status of AIDC and OLDI in the different ICAO Regions, the status of PAN Regional AIDC Interface Control Document (ICD) which is under development by the Inter-regional Taskforce (IRAIDCTF) and the requirements identified between adjacent Regions for implementing ground-ground integration. The Seminar will focus on MID States ATM systems capabilities, compatibilities and interoperability, which will assist to develop harmonized coordinated AIDC/OLDI implementation plan for the MID Region. The event will be an opportunity to share experience gained and lessons learnt by those States that have implemented AIDC and/or OLDI. Finally he thanked all the participants for attending the Seminar and wished them successful deliberations and outcome.
- 1.4 The Seminar was moderated by Mr. Raza Gulam Regional Officer CNS, ICAO MiddleEast Office, who was supported by Mr. Li Peng Regional Officer CNS, ICAO APAC Office inBangkok and Mr. Celso Figueiredo Regional Officer ANS/Imp. ATM, ICAO EUR/NAT Office in Paris.
- 1.5 The Seminar followed the below agenda:

Agenda Item 1: Introductions

Agenda Item 2: Global progress and requirements for AIDC/OLDI implementation

Agenda Item 3: Technical and operational training requirements

Agenda Item 4: Template for bilateral letter of agreement on AIDC/OLDI

Agenda Item 5: Discussions and development MID AIDC/OLDI implementation

plan

Agenda Item 6: Closing

2. DISCUSSIONS

- 2.1 The B0-FICE Module "Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration" as described in ASBU document was presented, this showed clearly that the communication in a data link environment improves coordination between air traffic service units (ATSUs) by using AIDC/OLDI, compared to the voice coordination and the transfer of flight control.
- 2.2 The Presentations covered the AIDC and OLDI implementation in different Regions. States also presented their experience and plan for implementing either AIDC and/or OLDI. The ATM systems (hardware and software) requirements along with the type of connection protocols were discussed in depth.
- 2.3 Basic set of messages in AIDC and OLDI were discussed in details and Basic set for implementation in the MID Region was agreed for both AIDC and OLDI. The requirement for the amendment of the Letter of Agreement (LOA) was discussed and templates were presented and the Seminar highlighted what is to be considered during the LOA amendment process.
- 2.4 The Seminar agreed that assignment of focal point for AIDC/OLDI Implementation will support the implementation. Accordingly, some of the States provided their focal points and it was agreed to send State Letter to all other MID States requesting them to provide focal point details. High level check list for the AIDC/OLDI implementation was also developed. The Seminar discussed the implementation plan and developed a comprehensive list of connections and systems capabilities along with detailed implementation plan as at **Appendix A** to the Summary of Discussions.
- 2.5 The Seminar developed the following Outcomes and Recommendations:

Outcomes:

- Identified six (6) MID States that should support both (AIDC/OLDI);
- developed an updated AIDC/OLDI Implementation Plan and system capabilities;
- agreed on a minimum AIDC/OLDI set of Messages for implementation in the MID Region;
- agreed on necessary consideration for the amendment of LoA Template;
- developed High level Implementation Check list;
- agreed that State should have AIDC/OLDI Focal points;
- agreed that APAC and EUR Regional Offices support interregional implementation ; and
- agreed on the following list of Recommendations.

Recommendations:

- States to share experience on AIDC/OLDI implementation including sharing of training and implementation packages and visits to other states;
- in order to expedite implementation States are encouraged to engage in test and trials even before signing the Official LoA;
- encourage bilateral AIDC/OLDI Workshops;
- States to identify operational requirements/Scope and improvements (know what are the messages which are needed/supported by other ATSU) and develop LoA accordingly;
- engage both technical and operational experts (CNS/ATM) in the update/amendment of the LoA;
- States (ATSU) having OLDI/AIDC capability to start implementation activities and plan implementation in Q2 2015;
- CNS and ATM Sub Groups to compile the MID AIDC/OLDI Implementation Strategy document to include all references, details of messages; test activities etc.;

- States to provide updates (progress reports) on AIDC/OLDI implementation by 15 August 2014:
- August 2014;

 ICAO MID Regional Office to create a web page depositary for posting AIDC/OLDI Information etc.; and
- conduct of a follow-up Seminar in Q4 2015.

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Appendix A

ATS INTER-FACILITY DATA COMMUNICATION (AIDC)/ ON-LINE DATA INTERCHANGE (OLDI) IMPLEMENTATION PLAN

Introduction:

The implementation of the AIDC/OLDI in the ICAO MID region has to be in line with the Global Plan and corresponding Module N° B0-FICE: Increased Interoperability, Efficiency and Capacity through Ground-Ground, and the Implementation target dates set in the MID Air Navigation Strategy.

Implementation high level activities are divided as follows:

2014 - 2015

- AIDC/OLDI capable ATSUs start implementation activities with a planned implementation date of Q3 2015. The activity should cover the following: Test activities, Safety assessment, Operator training, Revision of LoA, transition activities, Implementation and Post-implementation reviews.
- The ATSUs not capable of AIDC/OLDI should avail the facility of Standalone AIDC/OLDI terminals with a planned implementation date of Q1 2016 , and budget full AIDC/OLDI Integration for 2015 with a planned implementation date of Q2 2017

2015-2016

The ATSUs using AIDC/OLDI in an Operational environment should assist other ATSUs to implement AIDC/OLDI. The OLDI/AIDC software is readily available therefore the ATSUs waiting for software upgrade should expect a software package by Q4 2015, On receipt of it they should start implementation activities with a planned implementation date of Q2 2016.

2017

All ATSUs are connected by Integrated OLDI/AIDC or Standalone OLDI terminals

Specific requirement:

The following States have been identified; that they need to support both AIDC/OLDI:

Egypt, Iran, Saudi Arabia, Oman, Libya, and Sudan.

EXPLANATION OF THE TABLE

Column

- 1 <u>State/Administration</u> the name of the State/Administration;
- 2 <u>Location of AIDC/OLDI end system</u> the location of the AIDC/OLDI end system under the supervision of State/Administration identified in column 1;
- 3 AIDC/OLDI Pair the correspondent AIDC/OLDI end system;

Location – location of the correspondent AIDC/OLDI end system

 $\underline{State/Administration} - the \ name \ of \ the \ State/Administration \ responsible \ for \ management \ of \ the \ correspondent \ AIDC \ end \ system$

- 4 <u>AIDC/OLDI standard used</u> Wither AIDC/OLDI and the adopted Standard for the connection between the corresponding pairs, AFTN, AFTN/AMHS or ATN;
- 5 <u>Target Date of Implementation</u> date of implementation of the AIDC/OLDI end system; and
- 6 <u>Remarks</u> any additional information.

<u>Attachment A</u> - the details on the AIDC/OLDI system and the focal point this will facilitate the implementation and contacting hat will accelerate the implementation.

State/Administration	Location of AIDC/OLDI	AIDC	//OLDI Pair	AIDC/OLDI standard	Target date of	Remarks	
	end system	Correspondent Location	Correspondent State/Administration	used	Implementation		
1	2		3	4	5	6	
Bahrain	Bahrain ACC	Jeddah ACC	Saudi Arabia	OLDI	Q2 2015		
	Bahrain ACC	Riyadh ACC	Saudi Arabia	OLDI	Q2 2015		
	Bahrain ACC	Dammam ACC	Saudi Arabia	OLDI	Q2 2015		
	Bahrain ACC	Doha ACC	Qatar	OLDI	Q2 2015		
	Bahrain ACC	Kuwait ACC	Kuwait	OLDI	Q2 2015		
	Bahrain ACC	Abu Dhabi ACC	UAE	OLDI	Q4 2014		
	Bahrain ACC	Tehran ACC	Iran	OLDI	TBD		
Egypt	Cairo ACC Cairo Air Navigation Center (CANC)	Athens ACC	Greece	OLDI	Implemented		
	Cairo ACC	Jeddah ACC	Saudi Arabia	OLDI	Q2 2015	Implemented then suspended	
	Cairo ACC	Khartoum ACC	Sudan	OLDI	Q4 2014		
	CAIRO ACC	Tripoli ACC	Libya	OLDI	Q2 2015		
	CAIRO ACC	Nicosia ACC	Cyprus	OLDI	TBD		
	CAIRO ACC	Amman ACC	Jordan	OLDI	TBD		

State/Administration	Location of AIDC/OLDI	AIDC	/OLDI Pair	AIDC/OLDI standard	_Target date of	Remarks
	end system	Correspondent Location	Correspondent State/Administration	used	Implementation	Remarks
1	2		3	4	5	6
Iran	Tehran ACC	Bahrain ACC	Bahrain	OLDI	TBD	
	Tehran ACC	Abu Dhabi ACC	UAE	OLDI	TBD	
	Tehran ACC	Ankara ACC	Turkey	OLDI		
	Tehran ACC	Kabul ACC	Afghanistan			
	Tehran ACC	Kuwait ACC	Kuwait			
	Tehran ACC	Baghdad ACC	Iraq			
	Tehran ACC					
Iraq	Baghdad ACC	Kuwait ACC	Kuwait	OLDI	TBD	
	Baghdad ACC	Tehran ACC	Iran	OLDI	TBD	
	Baghdad ACC	Amman ACC	Jordan	OLDI	TBD	
	Baghdad ACC	Ankara ACC	Turkey	OLDI	TBD	
	Baghdad ACC			OLDI	TBD	
Jordan	Amman ACC	Jeddah ACC	Saudi Arabia	OLDI	Q2 2015	
	Amman ACC	Baghdad ACC	Iraq	OLDI	TBD	
	Amman ACC	Damascus ACC	Syria	OLDI	TBD	
	Amman ACC	Kuwait ACC	Kuwait	OLDI	Q2 2015	
	Amman ACC	Cairo ACC (CANC)	Egypt	OLDI	Q2 2015	
Kuwait	Kuwait ACC	Amman ACC	Jordan	OLDI	Q2 2015	
	Kuwait ACC	Bahrain ACC	Bahrain	OLDI	Q2 2015	
	Kuwait ACC	Riyadh ACC	Saudi Arabia	OLDI	Q2 2015	

State/Administration	Location of AIDC/OLDI	AIDC	/OLDI Pair	AIDC/OLDI standard	Target date of	Remarks
	end system	Correspondent Location	Correspondent State/Administration	used	Implementation	Kemarks
1	2		3	4	5	6
Lebanon	Beirut ACC Rafic Hariri Intl Airport	Cyprus ACC	Cyprus	OLDI	Implemented	
	Beirut ACC Rafic Hariri Intl Airport	Damascus ACC	Syria	OLDI	TBD	
Libya	Tripoli ACC	Tunis ACC	Tunis	OLDI/AIDC	TBD	
	Tripoli ACC	Malta ACC	Malta	OLDI/AIDC	TBD	
	Tripoli ACC	Cairo ACC	Egypt	OLDI/AIDC	TBD	
	Tripoli ACC	Khartoum ACC	Sudan	OLDI/AIDC	TBD	
	Tripoli ACC	Chad ACC	Chad	OLDI/AIDC	TBD	
	Benghazi ACC	Malta ACC	Malta	OLDI/AIDC	TBD	
	Benghazi ACC	Tripoli ACC	Libya	OLDI/AIDC	TBD	
Oman	Muscat ACC Muscat Intl AP	Abu Dhabi Sheihk Zayed AN center	UAE	OLDI	Q1 2015	
	Muscat ACC Muscat Intl AP	Jeddah ACC	Saudi Arabia	OLDI	Q2 2015	
	Muscat ACC Muscat Intl AP	Mumbai ACC	India	AIDC	Q2 2015	
	Muscat ACC Muscat Intl AP	Bahrain ACC	Bahrain	OLDI	Q2 2015	
Muscat ACC Sanaa ACC Yemen Muscat Intl AP						

State/Administration	Location of AIDC/OLDI	AIDC	//OLDI Pair	AIDC/OLDI standard	Target date of	Remarks
	end system	Correspondent Location	Correspondent State/Administration	used	Implementation	Remarks
1	2		3	4	5	6
Qatar	Doha ACC	Abu Dhabi Sheihk Zayed AN center	UAE	OLDI	Implemented 2010	
	Doha ACC					
	Doha ACC					
Saudi Arabia	Riyadh ACC	Jeddah ACC	Saudi Arabia	AIDC (AFTN)	Implemented 2012	
	Riyadh ACC	Dammam ACC	Saudi Arabia	AIDC (AFTN)	Implemented 2012	
	Jeddah ACC	Cairo ACC	Egypt	OLDI	Q2 2015	
	Jeddah ACC	Amman ACC	Jordan	OLDI	Q2 2015	
	Jeddah ACC	Abu Dhabi Sheihk Zayed AN center	UAE	OLDI	Q2 2015	
	Jeddah ACC	Muscat	Oman	OLDI	Q2 2015	
	Jeddah ACC	Khartoum ACC	Sudan	OLDI	Q2 2015	
	Jeddah ACC	Sanaa ACC	Yemen	OLDI	TBD	
	Jeddah ACC					
	Jeddah ACC					
	Jeddah ACC					
Sudan	Khartoum ACC	Cairo ACC (CANC)	Egypt	AIDC/OLDI	Q3 2015	
	Khartoum ACC	Jeddah ACC	Saudi Arabia	AIDC/OLDI	Q2 2015	
	Khartoum ACC	N'Djamena ACC	Chad	AIDC (AFTN)	Implemented 2012	No Daily operations
	Khartoum ACC	Kigali ACC	Congo	AIDC (AFTN)	Implemented 2012	No Daily operations
	Khartoum ACC	Tripoli ACC	Libya	AIDC/OLDI	Q3 2015	

State/Administration	Location of AIDC/OLDI	AIDC	/OLDI Pair	AIDC/OLDI standard	_Target date of	Remarks
	end system	Correspondent Location	Correspondent State/Administration	used	Implementation	Remarks
1	2		3	4	5	6
Syria	Damascus ACC	Beirut ACC	Lebanon			
	Damascus ACC	Amman ACC	Jordan			
	Damascus ACC	Baghdad ACC	Iraq			
	Damascus ACC					
	Damascus ACC					
UAE	SZC Abu Dhabi	Abu Dhabi Int'l Airport	ADAC	OLDI V4.2	Implemented Apr2009	FMTP 2.0
	SZC Abu Dhabi	Dubai Int'l Airport	DANS	OLDI V4.2	Implemented Jun 2012	FMTP 2.0
	SZC Abu Dhabi	Sharjah Int'l Airport	Sharjah DCA	OLDI V4.2	Implemented Feb 2011	FMTP 2.0
	SZC Abu Dhabi	Ras al Khaimah Int'l Airport	Ras al Khaimah DCA	OLDI V4.2	Implemented Mar 2011	FMTP 2.0
	SZC Abu Dhabi	Al Ain Int'l Airport	ADAC	OLDI V4.2	Implemented Oct 2010	FMTP 2.0
	SZC Abu Dhabi	Doha ATC	Qatar CAA	OLDI V4.2	Implemented Jan 2010	FMTP 2.0
	SZC Abu Dhabi	Jeddah ACC	Saudi Arabia	OLDI		
	SZC Abu Dhabi	Tehran ACC	Iran	OLDI		
	SZC Abu Dhabi	Muscat ACC	Oman	OLDI		
	SZC Abu Dhabi					
Yemen	Sanaa ACC	Jeddah ACC	Saudi Arabia			
	Sanaa ACC	Muscat ACC	Oman			
	Sanaa ACC	Djibouti ACC	Djibouti ACC			
	Sanaa ACC Mogadishu Somalia ACC					

State	Focal point contact for	ATM System	Protocol and	Number of	Number of adjacent		System ability	Curre	ent use	Plann	ed Use	Intention of using	Remarks
State	AIDC/ OLDI	System	Version used	adjacent ATSUs	ATSUs connected by AIDC/OLDI and type of connection	AIDC	OLDI	AIDC	OLDI	AIDC	OLDI	AIDC only	
Bahrain	Mr. Mohamed Ali Saleh masaleh@caa. gov.bh	Thales TopSky-C	OLDI 2.3 FMTP 2.0	7	None							No	OLDI to connect to neighboring ATSUs
Egypt	Ahmed Abdel rasoul raad mourad @yahoo.com	TopSky Thales	OLDI V2.3 AIDC V2.0	7	- 1 OLDI with Athens							No	OLDI in use to connect to EUR (Athens) With Jeddah and Riyadh Q2 2015
Iran	Mr. Seyed Mahmood & Mr. Arash Khodaei mirsaeed@air port.ir a- khodaei@cao. ir	Thales	OLDI	11	None								
Iraq				5	none								
Jordan	Mr.Mohamma dAl Rousan m.rousan@car c.gov.jo	Aircon 2100 Indra	OLDI 4.1 AIDC 2.0	5	none							No	Planned with Jeddah Q2 2015
Kuwait	Mr. Naser J. Al-Hubail nj.alhubail@d gca.gov.kw			3	none							No	OLDI to connect to Bahrain and Riyadh

Lebanon				3	- 1 OLDI with Cyprus				No	OLDI in use to connect to Cyprus
Libya		Aircon 2000 Indra	OLDI 2.3 AIDC 2.0	7	None				No	Can connect with Sudan Chad and Egypt AIDC and for OLDI Tunis Malta and Egypt
Oman	Mr. Ali Al Ajmi alihassan@caa .gov.om	Indra Itec	OLDI 4.1 AIDC 2.3	5	none				No	UAE Q1 2015 Jeddah Q2 2015 Mumbai Q1 2015
Qatar	Mr. Ahmed Al Eshaq ahmed@caa.g ov.qa	Selex	OLDI V4.2 FMTP 2.0 AIDC 2.0	3	1					OLDI in use with UAE and planned for use with Bahrain
Saudi Arabia	Khaled khodari kkhodari@gac a.gov.sa	PRISMA from COMSOF T	OLDI V4.2 FMTP 2.0 AIDC xx	11	- None - AIDC Connected between Riyadh and Jeddah				No	AIDC for internal and OLDI for neighboring units requests
Sudan	Mr. Abdulmonem Alshkaieh	TopSky	OLDI 4.3 AIDC 2.0	5	2				No	Both AIDC and OLDI to cater to neighboring units requests
Syria				5	none					
UAE	Mr. Hamad Al Belushi hbelushi@szc. gcaa.ae	PRISMA from COMSOF T	OLDI V4.2 FMTP 2.0	10	-3 two-way integrated OLDI connections -2 two-way standalone OLDI -1 one-way Standalone OLDI connection				No	OLDI already in use with 6 partners and all neighboring ATSUs are OLDI capable

			Total 6 OLDI connections					
Yemen		3	none					

APPENDIX 4G

MODE S INTERROGATOR CODE (IC) ALLOCATIONS & SURVEILLANCE FOCAL POINTS

State	Name	Tel./Fax	Mobile	Email	
Bahrain	Eng. Ahmed Ali El Sayed Senior Engineer of Standard and Development	+973 17321034 +973 17329977	+973 36663693	Ahmed.alsayed@caa.gov.bh	
Egypt	Eng. Abdel Maboud Mohamed Ahmed Avionics Engineering Dept. Manager	+20-100 6571904	+20100 6571904	Ang_aca_abd@yahoo.com	
Iran	Mr. Seyed Mahmood Qazi Mirsaeed Mr. Arash Khodaei	+982144544031 +982166073534	+989122443706 +989121483840	mirsaeed@airport.ir a-khodaei@cao.ir	
Iraq					
Jordan	Mr. Ibrahim Mahmoud Faraj			diana.sabbagh@carc.gov.jo	
Kuwait	Mr. Anas Alkhulaifi			aa.Alkhulaifi@dgca.gov.kw	
Lebanon					
Libya					
Oman	Mr. Mohammed Al-Abri	+968 24519202		m.alabri@paca.gov.om	
Qatar	Mr. Mohammed Al Nuaimmi Senior Electronic Engineer	+974 44656515	+974 44656515	Moh.alnuaimi@caa.gov.qa	
Saudi Arabia	Mr. Jamal Faghih		+996 540006013	jfageh@yahoo.com	
Sudan	Mr. Ahmed Alamin Omer	+249 123288078	+249 123288078	ahmedomer262@gmail	
Syria					
UAE	Mr. Stanley James Facey Air Navigation Inspector	+971 2 4054356 +971 2 4054406	+971 50 8189407	sfacy@gcaa.gov.ae	
Yemen		1711 2 4034400			

APPENDIX 4H

ADS-B OUT implementation

State	Mandate	Ground Station Capabilities	Flight Level	ATC Procedure	Data sharing Protocol	Data sharing States
Bahrain	12 Dec 2014	ADS-B GS accept DO260, DO260A, DO260B by June 2015,	At or above FL 290 (ADS-B air Space) Below FL 290 (none ADS-B airspace)	Published Will publish 12 NOV 2014	ASTERIX Cat. 21 Version 0.23 UAE Oman	UAE Dec 2014 Oman
Egypt			A			
Iran						
Iraq						
Jordan						
Kuwait	April 2016	ADS-B GS Accept DO260,DO260A,DO260B	Will Be Implemented by April 2016	Will be Published by April 2016	ASTERIX (Cat 21 Ver 0.26)	N/A
Lebanon						
Libya				·		
Oman						
Qatar						
Saudi Arabia						
Sudan						
Syria						
UAE						
Yemen						

APPENDIX 4I

METHODOLOGY FOR REPORTING AND ASSESSING THE PROGRESS RELATED TO THE TRANSITION FROM AIS TO AIM

1. Introduction

Transition from Aeronautical Information Services (AIS) to Aeronautical Information Management (AIM) is a high-priority area for air navigation progress. This is a strategic positioning initiative to drive the delivery of improved aeronautical information in terms of quality, timeliness and the identification of new services and products to better serve aeronautical users (ICAO Global Air Navigation Report-2014). This methodology aims to develop a method and plan for the reporting by the States on the progress achieved for transition from AIS to AIM, based on the ICAO Roadmap for Transition from AIS to AIM.

2. Need for reporting and assessing the progress related to the transition from AIS to AIM

The ICAO air navigation planning and implementation performance framework requires that reporting, monitoring, analysis and review activities be conducted on a cyclical, annual basis (ICAO DOC 9750). Data gathered would have a number of uses, inter alia:

- ICAO monitoring functions: a purpose of this Methodology is to meet the ICAO monitoring requirements related to air navigation planning and implementation. Reporting and monitoring results will be analyzed by ICAO and aviation stakeholders and then utilized in developing the annual Global Air Navigation Report, as well (ICAO DOC 9750).
- Global Air Navigation Report (GANR): all or part(s) of data would be reflected in the Global Air Navigation Report (GANR). The report results will provide an opportunity for the world civil aviation community to compare progress across different ICAO Regions in the establishment of air navigation infrastructure and performance-based procedures (ICAO DOC 9750).
- Regional Performance Dashboards: all or part(s) of data would be reflected in the Regional Performance Dashboards.

3. Methodology approach

Main approach of this Methodology in data collection and reporting is quantitative, based on the SMART rule. All Elements and Metrics/Indicators used for reporting should be Specific, Measurable, Achievable, Relevant and Time-bounded. Moreover, the Methodology has to reflect 4Ws (Why, What, Who and When) related to each Element. Accordingly, some steps of the ICAO Roadmap for the transition from AIS to AIM (i.e. P-02 Data integrity monitoring, P-07 Unique identifiers, P-10 Communication networks, P-16 Training and P-19 Interoperability with meteorological products) are not considered for reporting purposes, whereas they are already part of other steps and/or measurement of which could not be carried out in a quantitative manner.

APPENDIX 4I

4. Data collection strategy

In order to avoid confusion using numerous reporting forms for data collection from States, the data collection intended by this Methodology would be carried out through current data collection tools (i.e. eANP Tables, etc.). Special excel sheets in support of the collection of data may be used, if needed

5. Structure of the Methodology Plan

The structure of the Methodology Plan consists of the following elements:

- 1- Element (Phase/Step/Step No.): refers to the Phase number (1-3), Step and Step number (1-21) of the ICAO Roadmap for transition from AIS to AIM. Some steps of the ICAO Roadmap for the transition from AIS to AIM (i.e. P-02, P-07, P-10, P-16 and P-19) are not considered for reporting purposes, whereas they are already part of other steps and/or measurement of which could not be carried out in a quantitative manner.
- 2- Metric/Indicator: refers to the status of compliance/implementation of step and could be e.g. Non-Compliance (NC), Partially Compliance (PC) or Fully Compliance (FC).
- 3- Source of data (How to collect data): the main tool for the collection of data would be eANP Tables. Special excel sheets in support of the collection of data may be used, if needed.
- 4- Who will collect data: data should be collected by ICAO HQ/ICAO Regional Office.
- 5- When to collect data: data for each report would be collected in December.
- 6- Year of reporting: the year, on which the Reports (Global Air Navigation Report & Regional Performance Dashboard) would be published.
- 7- Remarks: any additional information, e.g. in case of status of implementation is PC; list of sub-elements that have been implemented.

6. Methodology plan for annual reporting

						2000		
Element (Phase/Step	p/Step No.)		Metric/ Indicator	Source of data (How to collect data)	Who will collect data*	When to collect data	Year of publishing Report	Remarks
1			2	3	4	5	6	7
Phase 1								
AIRAC adh	nerence	P-03	FC/NC	eANP	ICAO HQ/RO	Dec, 2013	2014	Completed-2014
WGS-84 im	nplementation	P-05	FC/PC/NC	eANP	ICAO HQ/RO	Dec, 2013	2014	Completed-2014
QMS		P-17	FC/NC	eANP	ICAO HQ/RO	Dec, 2013	2014	Completed-2014
Phase 2								
Data quality	y monitoring	P-01	FI/NI	TBD	TBD	TBD	TBD	
Data integri	ity monitoring	P-02	N/A	N/A	N/A	N/A	N/A	N/A (Merged in P-01)
Integrated aeronautica information database		P-06	FI/NI	eANP	ICAO HQ/RO	Dec, 2014	2015	Structured Aeronautical Information Database with digital exchange capabilities (e.g. AIXM) Ongoing
Gutuouse	Implementation of IAID		FI/PI/NI	TBD	TBD	TBD	TBD	In case of PC, list name of AI Products of IAID
Unique ider	ntifiers	P-07	N/A	N/A	N/A	N/A	N/A	Linked to P-06
Aeronautica conceptual	al information model	P-08	N/A	N/A	N/A	N/A	N/A	Linked to P-06
Electronic A	AIP	P-11	FI/NI	eANP	ICAO HQ/RO	Dec, 2014	2015	Ongoing-2015
	Area 1	P-13	FC/NC	eANP	ICAO HQ/RO	Dec, 2014	2015	Ongoing-2015
Terrain	Area 4	P-13	FC/PC/NC	eANP	ICAO HQ/RO	Dec, 2014	2015	In case of PC, list name of ADs Ongoing-2015
	Area 2a	P-13	FC/PC/NC	eANP	ICAO HQ/RO	Dec, 2015	2016	In case of PC, list name of ADs

Element (Phase/Step	p/Step No.)		Metric/ Indicator	Source of data (How to collect data)	Who will collect data*	When to collect data	Year of publishing Report	Remarks
1			2	3	4	5	6	7
	Take-off flight path area	P-13	FC/PC/NC	- eANP	ICAO HQ/RO	Dec, 2015	2016	In case of PC, list name of ADs
	An area bounded by the lateral extent of the aerodrome obstacle limitation surfaces	P-13	FC/PC/NC	- eANP	ICAO HQ/RO	Dec, 2015	2016	In case of PC, list name of ADs
	Area 1	P-14	FC/NC	- eANP	ICAO HQ/RO	Dec, 2014	2015	Ongoing-2015
	Area 4	P-14	FC/PC/NC	- eANP	ICAO HQ/RO	Dec, 2014	2015	In case of PC, list name of ADs Ongoing-2015
	Area 2a	P-14	FC/PC/NC	- eANP	ICAO HQ/RO	Dec, 2015	2016	In case of PC, list name of ADs
Obstacles	objects in the take-off flight path area which project above a plane surface having a 1.2 per cent slope and having a common origin with the take- off flight path area	P-14	FC/PC/NC	- eANP	ICAO HQ/RO	Dec, 2015	2016	In case of PC, list name of ADs
	penetrations of the aerodrome obstacle limitation surfaces	P-14	FC/PC/NC	- eANP	ICAO HQ/RO	Dec, 2015	2016	In case of PC, list name of ADs
Aerodrome	erodrome mapping P-15		FI/PI/NI	TBD	TBD	TBD	TBD	In case of PC, list name of ADs
Phase 3								
Aeronautica	Aeronautical data exchange P-09		FI/PI/NI	TBD	TBD	TBD	TBD	In case of PC, list name of Units (Data Originators/Users)

Element (Phase/Step/Step No.)		Metric/ Indicator	Source of data (How to collect data)	Who will collect data*	When to collect data	Year of publishing Report	Remarks
1		2	3	4	5	6	7
Communication networks	P-10	N/A	N/A	N/A	N/A	N/A	N/A
Aeronautical information briefing	P-12	FI/PI/NI	TBD	TBD	TBD	TBD	In case of PC, list name of ADs
Training	P-16	N/A	N/A	N/A	N/A	N/A	N/A
Agreement with data originators	P-18	FI/PI/NI	- eANP	ICAO HQ/RO	Dec, 2015	2016	In case of PC, list name of Data Originator(s)
Interoperability with meteorological products	P-19	N/A	N/A	N/A	N/A	N/A	N/A
Electronic aeronautical charts	P-20	FI/NI	TBD	TBD	TBD	TBD	
Digital NOTAM	P-21	FI/NI	TBD	TBD	TBD	TBD	

FC: Fully Compliant; PC: Partially Compliant; NC: Not Implemented; FI: Fully Implemented; PI: Partially Implemented; NI: Not Compliant; N/A: Not Applicable * Data collection will be carried out by ICAO Headquarters and Regional Offices.

7. **Data collection timeframe**

Year of reporting	Element	Step No.	Remarks
2014	AIRAC adherence WGS-84 implementation QMS	P-03 P-05 P-17	Completed
2015	AIXM-based AIS Database Electronic AIP Terrain (Area 1 and Area 4) Obstacles (Area 1 and Area 4)	P-06 P-11 P-13 P-14	Ongoing
2016	Terrain (Area 2a) Obstacles (Area 1 and Area 4) Agreement with data originators	P-13 P-14 P-18	
2017 +	TBD	TBD	

APPENDIX 4J

FINALIZATION/COMPLIANCE CRITERIA

For the 2015-2016 Metrics of the Methodology for reporting and assessing the progress related to the transition from AIS to AIM

Element (Step)	Finalization criteria or Implementation/Compliance Criteria
AIXM-based AIS Database	National aeronautical data and information is stored and maintained in AIXM-based AIS database.
Electronic AIP	National AIP GEN 3.1.3 'Aeronautical publications' provides information about the availability of the National AIP in electronic format (eAIP)
Terrain Dataset Area 1	National AIP GEN 3.1.6 'Electronic terrain and obstacle' provides information on how the dataset can be obtained
Terrain Dataset Area 4	National AIP GEN 3.1.6 'Electronic terrain and obstacle' provides information on how the dataset for specific CAT II/III RWY can be obtained. States should indicate in remarks the number of existing CAT II/III RWY. N/A for States with no CAT II/III RWY.
Terrain Dataset Area 2 ¹	National AIP GEN 3.1.6 'Electronic terrain and obstacle' provides information on how the dataset can be obtained. States should indicate in remarks the number of AD eligible for provision of Area 2 data. This number should come from the Regional eANP Table AOP II-1 – for aerodromes with one of the following designation:
	— RS: international scheduled air transport, regular use
	 RNS: international non-scheduled air transport, regular use RG: international general aviation, regular use.
Obstacle Dataset Area 1	National AIP GEN 3.1.6 'Electronic terrain and obstacle provides information on how the dataset can be obtained
Obstacle Dataset Area 4	National AIP GEN 3.1.6 'Electronic terrain and obstacle data' provides information on how the dataset for specific CAT II/III RWY can be obtained. States should indicate in remarks the number of existing CAT II/III RWY. N/A for States with no CAT II/III RWY.
Obstacle Dataset Area 2 ²	National AIP GEN 3.1.6 'Electronic terrain and obstacle provides information on how the dataset can be obtained. States should indicate in remarks the number of AD eligible for provision of Area 2 data. This number should come from the Regional eANP Table AOP II-1 – for aerodromes with one of the following designation: — RS: international scheduled air transport, regular use — RNS: international non-scheduled air transport, regular use
	— RG: international general aviation, regular use.
Agreement with data originators	TBD

 $^{^{\}rm 1}$ Data set requirements in accordance with Annex 15 (10.1.5) $^{\rm 2}$ Data set requirements in accordance with Annex 15 10.1.6

APPENDIX 4K

NATIONAL AIM IMPLEMENTATION ROADMAP TEMPLATE

Phase/Step	Step			Timeline	Start	End	Remarks		
	No.	2014	2015	2016	2017	2018			
Phase I									
AIRAC adherence	P-03								
WGS-84 implementation	P-05								
QMS	P-17		=						
Phase II	•							•	
Data Quality Monitoring	P-01								
Data Integrity Monitoring	P-02								
AIXM	P-06								
Unique identifiers	P-07								
Aeronautical information conceptual model	P-08								
eAIP	P-11								
Terrain A-1	P-13								
Obstacle A-1	P-14			-					
Terrain A-4	P-13			=					
Obstacle A-4	P-14								
Terrain A-2	P-13								Please specify implementation of Area 2a, 2b, 2c and/or 2d
Obstacle A-2	P-14								Please specify implementation of Area 2a, 2b, 2c and/or 2d

Phase/Step	Step			Timeline			Start	End	Remarks
	No.	2014	2015	2016	2017	2018			
Terrain A-3	P-13								
Obstacle A-3	P-14				=				
AD Mapping	P-15								
Phase III									
Aeronautical data exchange	P-09	***************************************							
Communication networks	P-10								
Aeronautical information briefing	P-12	## 1 ## 1 ## 1 1 1 ## 1 1 1 1 1 ## 1 1 1 1 1 ## 1			-				
Training	P-16								
Agreement with data originators	P-18								
Interoperability with meteorological products	P-19								
Electronic aeronautical charts	P-20								
Digital NOTAM	P-21								

APPENDIX 4L MID REGION AIM IMPLEMENTATION ROADMAP FOR THE TRANSITION FROM AIS TO AIM

			2014			20)15			20)16			20	17			20	018		Priority	Remarks
	1	2	2 3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
AIXM																					1	The target is to have 60% by 2015, 80% by 2017 and 100% by 2019
eAIP																					1	The target is to have 60% by 2016, 70% by 2018 and 100% by 2020
Terrain A-1																					2	The target is to have 50% by 2015, 70% by 2018
Obstacle A-1																					2	The target is to have 40% by 2015, 60% by 2018
Terrain A-4																					2	The target is to have 50% by 2015, 100% by 2018
Obstacle A-4																					2	The target is to have 50% by 2015, 100% by 2018
Terrain A-2a																					3	The target is to have 30% by 2017, 50% by 2018
Obstacle A-2a																					3	The target is to have 30% by 2017, 50% by 2018
Data Quality Monitoring																					3	Target for 2018: To be implemented by 50% of the States that have implemented QMS at
Data Integrity Monitoring																					3	least for the segment originator-AIS (excluding the segment AIS-End user)
Agreement with data originators																					3	Target for 2018: 50% of the States that have implemented QMS
Terrain and Obstacle for Areas 2b, 2c, 2d and 3												1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1									4	Optional based on the States' decision to be reflected in the States' national Regulations and AIM National Plans, in accordance with operational needs
Aerodrome Mapping (AMDB)																					4	Optional based on the States' decision to be reflected in the States' national Regulations and AIM National Plans, in accordance with operational needs

White: Not started Yellow: Initial Target Orange: Intermediate Target Green: Target for full implementation

APPENDIX 4M

Action Plan/Timelines related to the MIDAD Project Phase 2

	Action	Deliverable	Responsible	Timeline	Status
1	Call for Tender preparation to select the Consultant, which will develop the Technical Specifications and Call for Tender related to the MIDAD detailed Study	Call for Tender	Bahrain	15/08/13	Completed
2	Tender phase	Closing of the Tender	Bahrain	15/09/13	Completed
3	Receipt of the Offers	Offers	Industry	23/10/13	Completed
4	Evaluation of the offers and selection of the Consultant	Consultant selected	Four Leading States with the support of the MIDAD ST	31/01/14	Completed
5	Progress report to MIDANPIRG/14	Outcome of MIDANPIRG/14	Four Leading States with the support of the MIDAD ST	19/12/13	Completed
6	Contract negotiation with the selected Consultant	Contract with the selected Consultant	Four Leading States with the support of the MIDAD ST	07/02/14	Completed
7	Contact (Workshops) with potential Companies interested to bid for the development of the MIDAD detailed study	First Draft of technical specifications for the MIDAD detailed study	Four Leading States with the support of the chosen Consultant	15/03/14	Completed
8	Preparation of the Draft Specifications for the MIDAD Detailed Study, for review by the MIDAD TF/1	Draft Specifications for the Detailed Study	ITV, Four Leading States and MIDAD ST	15/06/14	Completed
9	Preparation of the revised Draft-1 Specifications for the MIDAD Detailed Study, taking into	Revised Draft-1 Specifications for the Detailed Study	ITV	31/07/14	Completed

	Action	Deliverable	Responsible	Timeline	Status
	consideration comments/inputs of MIDAD TF/1				
10	Review and comments by Four Leading States and the MIDAD ST on the Revised Draft-1 Specifications for the Detailed Study	Comments/Inputs	Four Leading States with the support of the MIDAD ST	15/09/14	Completed
11	Preparation of the revised Draft-2 Specifications for the MIDAD Detailed Study, taking into consideration comments/inputs of Four Leading States and MIDAD ST	Revised Draft-2 Specifications for the Detailed Study	ITV	30/09/14	Completed
12	Review and comments by All States of the Revised Draft-2 Specifications for the Detailed Study	Comments/Inputs	All States	15/10/14	Completed
13	Preparation of Final Specifications and Tender Documentation for the MIDAD Detailed Study	Final Specifications and Tender Documentation	ITV	30/10/14	Ongoing
14	Tender Phase (opening)	Call for Tender	UAE	01/11/14	Ongoing
15	Tender Phase (closing)	Call for Tender	UAE	30/11/14	
16	Receipt of the Offers	Offers	Industry	15/02/15	
17	First Financial Evaluation	First Financial Evaluation	Four Leading States with the support of the MIDAD ST	01/03/15	
18	Agree on proposal(s) for the funding mechanism of the Detailed Study (to be presented to DGCA-MID/3)	Proposal(s) for the funding mechanism	MIDAD TF/2	15/03/15	
19	Initial Evaluation of the	Evaluation/Analysis	ITV	01/04/15	

	Action	Deliverable	Responsible	Timeline	Status
	offers	report			
20	Progress report to the DGCA-MID/3 meeting	DGCA-MID/3 Go- ahead decision and agreement on funding mechanism for the Detailed Study and MIDAD legal Entity/Agency	MIDAD TF Chairman/ ICAO	DGCA- MID/3 (April 2015)	
21	Coordination meeting between ITV and Four Leading States concurrently with the DGCA-MID/3 meeting for the validation of shortlisted companies	Shortlisted companies	ITV and Four Leading States	DGCA- MID/3 (April 2015)	
22	Interviews with the shortlisted companies	Clarifications	ITV and Four Leading States	15/06/15	
23	Initial Evaluation of the offers by Four Leading States and MIDAD ST and proposal for the selection of the company	Evaluation/Analysis report and proposal of the awarded company	Four Leading States with the support of the MIDAD ST	31/07/15	
24	Final Evaluation and Decision regarding the awarded company	Final Evaluation and Decision regarding the awarded company	MIDAD TF/3	15/09/15	
25	Signature of the Contract with the selected Company	Contract signed	MIDAD TF Chairperson	15/10/15	
26	Development of the Detailed Study documents/deliverables	Detailed Study documents/deliverables	Company	15/10/16 (TBC)	

APPENDIX 4N

MID Region AIM Database (MIDAD) Focal Points

	States		Main	Focal Point	Alt	ernate Foca	al Point (Optional)
	States	Name	Title	Email/Tel/Mobile	Name	Title	Email/Tel/Mobile
1	Bahrain	Salah Mohammed Homood	Head, Aeronautical information & Airspace planning	shumood@caa.gov.bh T: + 973 17321180	Khalid Hashim Alsada	SR Airspace planning specialist	kalsada@caa.gov.bh T: + 973 17321180, 92
2	Egypt	Abdelsattar Abo Elhassan Adawy	Head of AIS sector	Abdelsatar.aboelhass@nansceg.net T: (02) 22678885 M: 0100 5484984 - 01142686199			
3	Iran	Ali Azami	Expert of AIS	aliazamy@yahoo.com T: 00982166025108 M :+98-9122655694	Mohammad Esmaeil Movahedifar	Expert of AIS	movahedifar48@yahoo.com T: 00982166025108 M: :+98-9126953881
4	Iraq	Ali Waleed Abdulameer	AIS Manager	ais_hq@iraqcaa.com T: 00964 813 (1) 2122 M: 00964 780 748 8484			
5	Jordan	Hanan A. Qabartai	Chief AIS HQ	ais.hq@carc.gov.jo T: +962648972681 M: +962796768012			
6	Kuwait	Khaled Gh. Al-ghanim	Chief of AIM	kg.alghanim@dgca.gov.kw Tel: +965 247 377 92 Mobil: +965 971 727 17			
7	Lebanon	Ali Jammoul	Chief of AIS	jammoul@beirutairport.gov.lb T: + 961 1 629067 M: + 961 76 434154			
8	Libya						
9	Oman	Jaffer A.amir Salman		Jaffer.caa.gov.om +96899316040			
10	Qatar	Faisal Alqahtani	Head of AIS	Faisal.alqahtani@caa.gov.qa T: + 974 44656221			

11	Saudi Arabia	Ghorman Al-Shehri	Director of AIS	galshehri@gaca.gov.sa T: +96626290564			
12	Sudan	Hayder Mohammed Abdalla	AIM Director	aishyder@gmail.com T: +249 123499246 M: +249912268269			
13	Syria						
14	UAE	Abdalla Al Rashidi	Director AIM	akaabi@szc.gcaa.ae T: +97125996891 M: +971506119865			
15	Yemen						
	Organizations		Main Focal Point		Alternate Focal Point		
	Organizations	Name	Title	Email/Tel/Mobile	Name	Title	Email/Tel/Mobile
1	AACO	Rashad KARAKY	Senior Manager - Economics & Technical Management	ETM@aaco.org Tel: +961 1 861 297/8/9			
2	Eurocontrol	Gaston LIEGEOIS	Deputy Head of European AIM (EAIM)	gaston.liegeois@eurocontrol.int T: +32 2 729 3083 M: +32 478 241419			
3	IATA	Rose AL OSTA	Manager, Safety & Flight Operations	alostar@iata.org T: + 96 265804200 Ext 1405 M: +96 2796668978			
4	Jeppesen	Volker MEYER	Manager International Relations	volker.meyer@jeppesen.com T: +49 6102 50 7240 M: +49 173 88 15 820			

APPENDIX 40

MID REGION AIM DATABASE TASK FORCE (MIDAD TF)

1. TERMS OF REFERENCE

The terms of Reference of the MIDAD TF are to:

- a) take responsibility for overall leadership, supervision, direction, and management of the MIDAD project;
- b) carry out necessary coordination with States for the establishment of the MID Region AIM Database (MIDAD);
- c) address all technical, operational, financial, legal and institutional issues related to MIDAD;
- d) agree on the mechanism(s) for the oversight of MIDAD;
- e) monitor the developments of the MIDAD Project; and
- f) provide regular progress reports to the AIM SG, ANSIG and MIDANPIRG, as appropriate, concerning its work programme.

2. COMPOSITION

The MIDAD TF is composed of:

- a) all MIDAD member States;
- b) other MID States which are not member of MIDAD and concerned International/Regional Organizations, as observers; and
- c) representatives from industry and user Organizations having a vested interest in Aeronautical Information Management and experience in the development of Regional AIS/AIM Databases could participate as observers, as necessary.

APPENDIX 4P

ROC Implementation Plan

Following is a list of tasks to be fulfilled to progress on the transition
The focal point to take care of below action list and keep track of actions is **Dr. Saad Al Majnooni**

No.	Task	Dognonoible	Droroguioito	Start Date	Estim.	Finish at
NO.	Task	Responsible	Prerequisite	Start Date	Time	Finish at
1	Implement Collective Addresses	ROC Jeddah & BROC Bahrain	-	24.10.2014	1week	
2	Transition Bahrain	ROC Jeddah & BROC Bahrain	-	27.10.2014	1 month	
3	Transition Process with Kuwait	ROC Jeddah	-	02.11.2014	1 month	
4	Transition Process with Qatar	ROC Jeddah	-	02.11.2014	1 month	
5	Transition Process with Oman	ROC Jeddah	-	02.11.2014	1 month	
6	Transition Process with UAE	ROC Jeddah	-	02.11.2014	1 month	
7	Send Saudi Arabian Compilations to BROC Bahrain (OBZZMMID)	Meteorological Communications Centre (MCC) Jeddah	Task No. 1 has to be finished	02.11.2014	1 day	
8	Continue and Finish Transition Sudan	ROC Jeddah	-	01.09.2014	4 months	
9	Prepare State Letter to MID- states to facilitate transition	ICAO Regional Officer	After finishing Tasks 2-7	01.12.2014	4 days	
10	Contact COM Centre Nicosia to coordinate AMHS implementation	ROC Jeddah & BROC Bahrain		27.10.2014	1 month	
11	Develop Backup Procedure	ROC Jeddah & BROC Bahrain (inform MID- BMG)		23.10.2014	4 months	
12	Develop Regional HB on OPMET Data Exchange	ROC Jeddah & BROC Bahrain (inform MID- BMG)		24.03.2015	3 months	
13	Develop first ideas for Training for	ROC Vienna		27.10.2014	2 weeks	

	operators				
14	Finalize	ROC Jeddah &	Finish Task	10.11.2014	April
	Training for	BROC Bahrain &	13		2015
	operators	ROC Vienna			
15	Route Gulf	ROC Jeddah &		27.10.2014	1 month
	States reports	BROC Bahrain			
	to ROC Jeddah				
16	Transition	ROC Jeddah &		16.02.2015	2
	Process for	BROC Bahrain			months
	Iran, Jordan,				
	Egypt				
17	Transition	ROC Jeddah &		16.04.2015	2
	Process Iraq,	BROC Bahrain			months
	Syria, Lebanon,				
	Libya, Yemen				

APPENDIX 5A

Questionnaire on Call Signs Confusion

State:

Conta	Contact Name:						
Conta	Contact email:						
1)	In accordance with ICAO provisions, does your State Regulations allow the use of alphanumeric call sign ending with a LETTER(s) for civil aircraft e.g. ABC123A, ETD012B, UAE231C, ABC12DE						
2)	Does your ATM system accept the following call sign format in the FPL: - alphanumeric: e.g. ETD020 - alphanumeric ending with a LETTER(s): e.g. ETD020A, ETD21BC						
3)	Is the use of alphanumeric call sign ending with a LETTER(s) already implemented?						
4)	Do you have any restriction (technical, regulatory, procedure, etc.) on the use of alpha numeric call sign ending with a LETTER(s) ?						
	a- Yes b- NO						
	Please provide more details and reference to related documents						
5)	Please advise what are your preferred options, plans and/or implemented measures to mitigate the risk associated with call sign confusion and similarity?						
6)	Is your ATM system capable to manage the call sign similarity?						
7)	Additional comments, if any						

Please return the completed survey to icaomid@icao.int before 31 January 2015.

APPENDIX 7A

MIDANPIRG STEERING GROUP (MSG)

TERMS OF REFERENCE

1. The Terms of Reference of the MIDANPIRG Steering Group (MSG) are:

- a) execute its pivotal function as a coordinating and steering organ with highest possible efficiency in accordance with the goals set by MIDANPIRG;
- b) define and keep under review the MID Region Air Navigation Strategy, including the air navigation priorities, targets and associated action plans;
- c) ensure that the planning and implementation of air navigation systems in the Region, is coherent and compatible with systems in adjacent Regions, and that it is carried out within the framework of the ATM Operational Concept (Doc 9854) and the Global Air Navigation Plan (GANP, Doc 9750);
- d) manage the MID Air Navigation Plan (Doc 9708) and ensure its alignment with the GANP (Doc 9750);
- e) direct the work of the MIDANPIRG subsidiary bodies in the best manner, commensurate with the overall MIDANPIRG work programme, with clearly defined tasks, deliverables and target dates;
- f) approve, on behalf of MIDANPIRG, those Draft Conclusions/Decisions emanating from MIDANPIRG subsidiary bodies, which necessitate urgent follow-up action(s);

2. In order to meet the Terms of Reference, the MSG shall:

- a) support regional air navigation planning and implementation processes taking into consideration forecasts for major traffic flows from, to and within the MID Region;
- develop and continuously update the MID Region performance objectives in the light of new developments, taking into consideration the region priorities and MID States national plans;
- c) provide necessary high level assistance and guidance to the MIDANPIRG subsidiary bodies to ensure harmonization and interoperability in line with the GANP, the MID ANP and Aviation System Block Upgrade (ASBU) methodology;
- d) ensure that the work programmes of the different MIDANPIRG subsidiary bodies are in line with the agreed air navigation priorities;
- e) follow-up the on-going work undertaken within the MIDANPIRG framework and make recommendations for further evolution of the framework:
- f) manage the MID Air Navigation Plan (Doc 9708) and related documentation and facilitate the implementation of the international operational requirements contained therein;

- g) identify the issues related to funding, training and resource requirements necessary to support a safety framework that would lay the foundation for successful implementation of the ASBUs;
- h) develop action plans to address the identified impediments to air traffic management modernization as part of ASBU planning and implementation activities;
- i) develop a mechanism for sharing of best practices for the ASBU implementation;
- j) carry out specific tasks assigned to it by MIDANPIRG to advance its work at the required speed; and
- k) address special issues of strategic and/or financial nature for which no agreement has been reached by the appropriate MIDANPIRG subsidiary body, with a view to facilitate their presentation to MIDANPIRG.

3. Composition

The MSG is composed of:

- a) the Chairperson and in his/her absence the First Vice-Chairperson of MIDANPIRG;
- b) MIDANPIRG Member States;
- c) concerned International and Regional Organizations as observers; and
- d) other representatives from provider States and Industry may be invited on ad-hoc basis, as observers, when required.

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APPENDIX 7B

COMMUNICATION, NAVIGATION AND SURVEILLANCE SUB-GROUP

(CNS SG)

1. TERMS OF REFERENCE

1.1 The Terms of Reference of the CNS Sub-Group are:

- a) ensure that the implementation of CNS in the MID Region is coherent and compatible with developments in adjacent Regions, and is in line with the Global Air Navigation Plan (GANP), the Aviation System Block Upgrades (ASBU) methodology and the MID Region Air Navigation Strategy;
- b) monitor the status of implementation of the MID Region CNS-related ASBU Modules included in the MID Region Air Navigation Strategy as well as other required CNS supporting infrastructure, identify the associated difficulties and deficiencies and provide progress reports, as required;
- keep under review the MID Region CNS performance objectives/priorities, develop action plans to achieve the agreed performance targets and propose changes to the MID Region CNS plans/priorities, modernization programmes through the ANSIG, as appropriate;
- d) seek to achieve common understanding and support from all stakeholders and involved in or affected by the CNS including GNSS developments/activities in the MID Region;
- e) provide a platform for harmonization of developments and deployments of CNS facilities and procedures within Region and inter regional;
- f) monitor and review the latest developments in the area of CNS, provide expert inputs for CNS-related issues; and propose solutions for meeting ATM operational requirements;

g) monitor and review the latest GNSS developments and activities:

- h) follow-up the developments of ICAO position for future ITU World Radio Communication (WRC) Conferences and provide expert advises to States;
- i) follow-up the establishment of the MID ATS Message Management Center (MIDAMC);
- j) provide regular progress reports to the ANSIG and MIDANPIRG concerning its work programme; and
- k) review periodically its Terms of Reference and propose amendments, as necessary.

1.2 In order to meet the Terms of Reference, the CNS Sub-Group shall:

- a) provide necessary assistance and guidance to States to ensure harmonization and interoperability in line with the GANP, the MID ANP and ASBU methodology;
- b) provide necessary inputs to the MID Air Navigation Strategy through the monitoring of the agreed Key Performance Indicators related to CNS facilities and procedures;
- c) identify and review those specific deficiencies and problems that constitute major obstacles to the provision of efficient CNS implementation, and recommend necessary remedial actions;
- d) lead the work programme of the MID-AMC including the conduct of trainings and upgrades;
- e) assist, coordinate, harmonize and support in the implementation of CNS facilities and procedures;
- f) seek States support to ICAO Position at WRCs, and encourage States for the proper utilization of the Frequency Spectrum and Interrogation Code Allocations;
- g) monitor the progress of studies, projects, trials and demonstrations by the MID Region States, and other ICAO Regions in CNS and GNSS;
- h) study requirements for GNSS Augmentation Systems in the MID Region, and develop implementation plans as necessary;
- i) update ATN Plan as necessary MID Region and assist in its implementation conduct; and
- j) follow-up surveillance technologies implementation to be in line with the surveillance strategy and MID operational improvements in coordination with other Sub-Groups and coordinate Interrogation Code Allocations.

2. COMPOSITION

- 2.1 The Sub-Group is composed of:
 - a) MIDANPIRG Member States;
 - b) concerned International and Regional Organizations as observers; and
 - c) other representatives from provider States and Industry may be invited on ad-hoc basis, as observers, when required.

APPENDIX 7C

PERFORMANCE BASED NAVIGATION SUB-GROUP (PBN SG)

1. Terms of Reference

1.1 The terms of reference of the PBN Sub-Group are:

- a) ensure that the implementation of PBN in the MID Region is coherent and compatible with developments in adjacent regions, and is in line with the Global Air Navigation Plan (GANP), the Aviation System Block Upgrades (ASBU) methodology and the MID Region Air Navigation Strategy;
- b) monitor the status of implementation of the MID Region PBN-related ASBU Modules included in the MID Region Air Navigation Strategy as well as other required PBN supporting infrastructure, identify the associated difficulties and deficiencies and provide progress reports, as required;
- keep under review the MID Region PBN performance objectives/priorities, develop action plans to achieve the agreed performance targets and propose changes to the MID Region PBN plans/priorities, through the ANSIG, as appropriate;
- d) seek to achieve common understanding and support from all stakeholders involved in or affected by the PBN and GNSS developments/activities in the MID Region;
- e) provide a platform for harmonization of developments and deployments of PBN concentrating on PBN for approach and terminal areas;
- f) monitor and review the latest developments in the area of PBN and procedure design, provide expert inputs for PBN-related issues; and propose solutions for meeting ATM operational requirements;
- g) monitor and review the latest GNSS developments and activities;
- h) carry out necessary studies for the establishment of a MID Flight Procedure Programme Office;
- i) provide regular progress reports to the ANSIG and MIDANPIRG concerning its work programme; and
- j) review periodically its Terms of Reference and propose amendments, as necessary.

1.2 In order to meet the Terms of Reference, the PBN Sub-Group shall:

 a) provide necessary assistance and guidance to States to ensure harmonization and interoperability in line with the GANP, the MID ANP and ASBU methodology;

- b) provide necessary inputs to the MID Air Navigation Strategy through the monitoring of the agreed Key Performance Indicators related to PBN;
- c) identify and review those specific deficiencies and problems that constitute major obstacles to the provision of efficient PBN implementation, and recommend necessary remedial actions;
- d) develop and lead the work programme of the MID PBN Support Team (MPST) including the conduct of MPST visits;
- e) assist States that may require support in the implementation of PBN, through MPST support teams;
- f) conduct study related to the establishment of the MID Flight Procedure Programme office;
- g) monitor the progress of studies, projects, trials and demonstrations by the MID Region States, and other ICAO Regions in PBN; and GNSS;
- h) study requirements for GNSS Augmentation Systems in the MID Region, and develop implementation plans; and
- foster the implementation of PBN through proper training and qualification of the procedure design personnel and all other personnel involved in PBN implementation.

2. COMPOSITION

- 2.1 The Sub-Group is composed of:
 - a) MIDANPIRG Member States;
 - b) concerned International and Regional Organizations as observers; and
 - c) other representatives from provider States and Industry may be invited on ad hoc basis, as observers, when required.

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APPENDIX 8A

ICAO Middle East (MID) Regional Office

Tentative Schedule of Meetings, Seminars and Workshops "January – December 2015"

dated: 19/11/2014

DATE	MEETING/SEMINAR/WORKSHOP	VENUE	REMARKS	STATUS
JANUARY				
5-7	MID AMC Training	Amman	Hosted by IATA	Confirmed
20-22	MAEP Steering Committee (MSC/1)	Dubai	Hosted by UAE	Confirmed
26-28	USAP-CMA Seminar	Cairo		Confirmed
FEBRUARY				
10-12	ANSIG/1	Cairo		Confirmed
16-17	Aeronautical Frequency Spectrum Workshop - WRC-15 preparation	Cairo		Confirmed
18-24	ACP WG-F/32	Cairo		Confirmed
24 – 26	RASG-MID/4	Jeddah	Hosted by Saudi Arabia	Confirmed
MARCH				
3-5	MIDAD TF/2	Cairo		Confirmed
10-12	MID-AMC STG/2	Cairo		Confirmed
22-24	Seminar on International Aviation & Environment and States' Action Plans	Dubai	Hosted by UAE	Confirmed

DATE	MEETING/SEMINAR/WORKSHOP	VENUE	REMARKS	STATUS
APRIL				
6-8	GNSS Seminar	TBD	Jointly with ACAC	
21-23	RGS WG/2	Cairo		Confirmed
27-29	DGCA-MID/3	Doha	Hosted by Qatar	Confirmed
MAY				
12-14	SST/2	Cairo		
26-28	Safety Management Course	Kuwait	Joint event with COSCAP-GS, hosted by Kuwait	
JUNE				
2-4	SAR Workshop	Rabat	Jointly with ACAC	
8-11	MIDANPIRG/15	Bahrain	Hosted by Bahrain	Confirmed
JULY		<u></u>		
AUGUST		<u></u>		
SEPTEMBER				
1-3	MIDAD TF/3	Cairo		
15-17	RSC/4	Cairo		
OCTOBER				
11-13	AIM SG/2	Cairo		
20-22	MAEP Board/2	Cairo		

DATE	MEETING/SEMINAR/WORKSHOP	VENUE	REMARKS	STATUS		
November	November					
1-5	PBN Workshop	TBD				
8-10	PBN SG/2	Cairo				
24-26	Seminar on Technology Roadmap to support ASBU Implementation in the MID Region	Cairo				
DECEMBER						
1-3	Heliport Seminar	TBD				
8-10	Dangerous Goods Training Course	TBD				
14-17	ATM SG/2	Cairo				

Notes:

- 1. Above activities are subject to confirmation by ICAO MID Regional Office invitation letters.
- 2. States interested in hosting any of the activities are requested to coordinate with the ICAO MID Regional Office, at least three (03) months in advance of the indicated dates.
- 3. The above table will be subject to update when required

Legend:

SG = Sub-Group, STG = Study Group, TF = Task Force, WG = Working Group. TBD = To Be Determined.

For more information please contact: icao.icao.int

APPENDIX 8B

FIFTEENTH MEETING OF THE MIDDLE EAST AIR NAVIGATION PLANNING AND IMPLEMENTATION REGIONAL GROUP (MIDANPIRG/15)

(Bahrain, 8-11 June 2015)

PROVISIONAL AGENDA

	Agenda Item 1:	Adoption of the Provisional Agenda
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- **Agenda Item 2:** Follow-up on the outcome of MIDANPIRG/14 Meeting
 - 2.1 Review of action taken by the ANC on MIDANPIRG/14 Report
 - 2.2 Review status of MIDANPIRG/14 Conclusions and Decisions
- **Agenda Item 3:** Global and Regional Developments
- **Agenda Item 4:** Aviation Safety
 - 4.1 Update from and coordination with the RASG-MID
 - 4.2 Air Navigation Safety related issues
- **Agenda Item 5:** Performance Framework for Regional Air Navigation Planning and Implementation
 - 5.1 Air Navigation Strategy and Planning
 - MID Region statistics and forecasts
 - MID Region Air Navigation Strategy
 - MID eANP
 - 5.2 Air Navigation Systems Implementation
 - 5.2.1 ASBU Implementation
 - airport operations
 - globally interoperable systems and data through globally interoperable system-wide information management
 - optimum capacity and flexible flights through global collaborative ATM
 - efficient flight paths through trajectory-based operations
 - 5.2.2 Specific air navigation issues

Agenda Item 6: Air Navigation Deficiencies

Agenda Item 7: Future Work Programme

Agenda Item 8: Any other business

MSG/4 Attachment A to the Report

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