



INTERNATIONAL CIVIL AVIATION ORGANIZATION

**REPORT OF THE THIRD MEETING OF THE
COMMUNICATION, NAVIGATION,
SURVEILLANCE/AIR TRAFFIC MANAGEMENT/
IMPLEMENTATION COORDINATION SUB-GROUP**

(CNS/ATM/IC SG/3)

(Cairo, 26-28 February 2007)

The views expressed in this Report should be taken as those of the CNS/ATM/IC SG Third Meeting 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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CNS/ATM/IC SG/3
History of the Meeting

PART I - HISTORY OF THE MEETING

1. PLACE AND DURATION

1.1 The Third Meeting of the MIDANPIRG CNS/ATM/IC SG was held at the ICAO MID Regional Office in Cairo, Egypt from 26 to 28 February 2007.

2. OPENING

2.1 Mr. M.R.M. Khonji, ICAO Regional Director Cairo welcomed delegates to this meeting. He drew the attention of the meeting to the acceptance of the second amendment to the Global Plan, and highlighted that most significantly, the Global Plan now contains a set of twenty-three Global Plan Initiatives (GPIs) which stem from the industry roadmap, Mr. Khonji requested the meeting to review these GPIs and agree on Strategy for their implementation in the MID Region. Mr. Khonji also reminded the meeting that evolution continues from a system based to performance based approach to planning and implementation of the air navigation infrastructure for achieving a safe harmonized and seamless Global ATM. Mr. Khonji concluded by wishing the meeting fruitful deliberations and outcome.

2.2 Mr. M. O. Al-Alawi, Director General ATS, General Authority of Civil Aviation, Saudi Arabia, the Chairman of the meeting also welcomed all the participants to the meeting and expressed his hope for a fruitful dialogue among the experts of the Sub-Group.

3. ATTENDANCE

3.1 The meeting was attended by a total of 34 participants, which included delegates from 6 States and three International Organizations. The list of participants is at Attachment A.

4. OFFICERS AND SECRETARIAT

4.1 Mr. R.Gulam, RO/CNS, Mr. S.Machobane, RO/ATM and Mr. M. Smaoui, RO/AIS/MET of ICAO MID Office acted as Secretaries of the meeting.

5. LANGUAGE

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

6. AGENDA

6.1 The following Agenda was adopted:

- | | |
|----------------|--|
| Agenda Item 1: | Adoption of the provisional agenda |
| Agenda Item 2: | Follow-up on the MIDANPIRG Conclusions and Decisions relevant to CNS/ATM planning and implementation |
| Agenda Item 3: | Review of the ALLPIRG/5 meeting outcome |

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Agenda Item 4:	Review of the report of the GNSS TF/5 meeting
Agenda Item 5:	Review of the outcome of the ATM/SAR/AIS SG/8 and CNS/MET SG/7 meetings
Agenda Item 6:	Global Air Navigation Plan
Agenda Item 7:	ADS/CPDLC activities in the MID Region
Agenda Item 8:	Other CNS/ATM activities
Agenda Item 9:	Future Work Programme
Agenda Item 10:	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 which, in accordance with the Group's terms of reference, merit directly the attention of States on which further action will be initiated by ICAO in accordance with established procedures; and
- b) **Decisions** deal with matters of concern only to the MIDANPIRG and its contributory bodies

8. LIST OF CONCLUSIONS AND DECISIONS

DRAFT CONCLUSION 3/1:	REVISED STRATEGY FOR THE IMPLEMENTATION OF GNSS IN THE MID REGION
DRAFT CONCLUSION 3/2:	COORDINATION OF GNSS ACTIVITIES
DRAFT DECISION 3/3:	REVISED TERMS OF REFERENCE AND WORK PROGRAMME FOR THE GNSS TASK FORCE
DRAFT CONCLUSION 3/4:	MID REGION STRATEGY FOR THE IMPLEMENTATION OF THE GLOBAL PLAN INITIATIVES (GPIS)
DRAFT CONCLUSION 3/5:	IMPLEMENTATION OF WORK PROGRAMME IN SUPPORT OF STRATEGIC PERFORMANCE OBJECTIVES
DRAFT CONCLUSION 3/6:	MID REGION STRATEGY FOR THE IMPLEMENTATION OF ADS-B
DRAFT CONCLUSION 3/7:	FANS 1/A ACTIVITY IN THE MID REGION

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- DRAFT CONCLUSION 3/8: ESTABLISHMENT OF AN INTEGRATED INITIAL FPL
PROCESSING SYSTEM (IFPS) IN THE MID REGION
- DRAFT DECISION 3/9: REVISED TOR OF THE CNS/ATM/IC SUB-GROUP

CNS/ATM/IC SG/3
Report on Agenda Item 1

PART II: REPORT ON AGENDA ITEMS

REPORT ON AGENDA ITEM 1: ADOPTION OF THE AGENDA

Adoption of Provisional Agenda

1.1 The meeting was presented with a Provisional Agenda for the Third Meeting of the CNS/ATM/IC Sub-Group. After review the meeting adopted the Agenda as shown in paragraph 6 of the History of the Meeting.

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Report on Agenda Item 2

REPORT ON AGENDA ITEM 2: REVIEW STATUS OF CONCLUSIONS AND DECISIONS FROM MIDANPIRG/9 RELEVANT TO CNS/ATM PLANNING AND IMPLEMENTATION

2.1 Under this Agenda Item, the meeting recalled that the MMS/3 meeting held in Jeddah, 4-6 September 2006, raised concern about the number of important current MIDANPIRG Conclusions and Decisions, and was of view that the review of these Conclusions/Decisions consumed a lot of time. Accordingly, the meeting was of view that each MIDANPIRG subsidiary body should review the MIDANPIRG Conclusions/Decisions related to its Terms of Reference (TOR) and decide whether to maintain, remove or replace the Conclusions/Decisions with more up-to-date ones.

2.2 Concern was raised about the number of Conclusions/Decisions on which no action had been taken, and that follow-up action was required. The meeting noted with appreciation that, as a new working methodology, which already started with the 8th meeting of the ATM/SAR/AIS Sub-Group held in Muscat, Oman, 20-23 November 2006, follow-up action plan had become part of each meeting of MIDANPIRG and its subsidiary bodies.

2.3 Based on the above, the meeting agreed to review the list of all the MIDANPIRG/9 Conclusions/Decisions related to the TOR of the CNS/ATM/IC Sub-Group and identify those Conclusion/Decisions that may require action by the meeting, before reviewing them in detail under the appropriate agenda items.

2.4 With particular regard to Conclusion 9/49 “*Establishment of an Ad-hoc Action Group for the Support of Aeronautical Frequency Bands*”, the meeting noted that a State letter dated 8 December 2006 had been sent to States urging the nomination of participants to the Ad-hoc Action Group.

2.5 The meeting noted the follow-up actions taken by the MIDANPIRG subsidiary bodies, the Secretariat and States on MIDANPIRG/9 Conclusions and Decisions relevant to the TOR of the CNS/ATM/IC Sub-Group, and updated the list as at **Appendix 2A** to the report on Agenda Item 2.

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 Appendix 2A to the Report on Agenda Item 2

FOLLOW-UP ACTION ON MIDANPIRG/9 CONCLUSIONS/DECISIONS

CONCLUSIONS AND DECISIONS	FOLLOW-UP	REMARKS
<p>CONCLUSION 9/6: RNAV/RNP IMPLEMENTATION STRATEGY FOR THE MID REGION</p> <p>That, the Phase 2 implementation strategy for the RNAV/RNP implementation in the MID Region be as follows:</p> <ul style="list-style-type: none"> a) where feasible, the MID Region will consider the establishment of RNAV/RNP areas instead of RNP/RNAV routes with a view to make maximum flexible use of airspace; b) the lower limit of the RNAV/RNP areas will be progressively reduced from FL285 to FL195, where feasible, taking into account VHF coverage capability and its incidence on the agreed target level of safety; c) unidirectional routes will be established, if practicable, in lieu of the present bi-directional routing network with a view to introduce parallel/flexible routes in an B-RNAV environment; d) plan for a smooth transition towards satellite-based air navigation taking into consideration the requirements of the Global CNS/ATM Implementation Plan; and e) the military authorities be involved in the planning process. 	<p>Ongoing</p>	

CONCLUSIONS AND DECISIONS	FOLLOW-UP	REMARKS
<p>CONCLUSION 9/7: IMPLEMENTATION OF T-RNAV</p> <p>That, taking into account the fact that regulatory criteria, along with guidance on procedure and airspace design, ATC training material and information material for various categories of operational staff has been issued in the European Region:</p> <ul style="list-style-type: none"> a) MID States are encouraged to introduce airworthiness and operational approval criteria equivalent to JAA TGL-10 in order that MID-based operators can benefit from T-RNAV procedures currently being implemented in Europe; b) MID Regional Supplementary Procedures be updated to encompass provisions for introduction of T-RNAV. This provision be framed in such a manner that States may proceed with implementation at a time and manner suited to their prevailing requirements; c) MID States intending to implement T-RNAV provide prior notice through an Aeronautical Information Circular setting out the aircraft and operational approval criteria, RNAV procedure design principles and ATC operational procedures; and d) operators be consulted and given the longest possible lead time when T-RNAV is to be implemented. 	<p>Ongoing</p>	<p>New developments related to RNP/RNAV and PBN</p> <p>To be reviewed by RVSM/PBN TF/1 Meeting</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	REMARKS
<p>CONCLUSION 9/8: IMPLEMENTATION OF THE ATS SAFETY MANAGEMENT PROGRAMMES IN THE MID-REGION</p> <p>That,</p> <ul style="list-style-type: none"> a) in accordance with the provisions of Annex 11(Chapter 2 paragraph 2.26), States shall implement systematic and appropriate ATS safety management programme (SMS) with a view to ensure that: <ul style="list-style-type: none"> i) the established level of safety applicable to the provision of ATS within an airspace or at an aerodrome is met; and ii) safety related enhancements be implemented whenever necessary; b) with a view to ensure that the activities necessary for the implementation of safety management programmes be carried out in a timely manner, adequate budgetary provisions be made; e) sustained cooperation and co-ordination with adjacent States/service providers be made in the process; and d) States explore ways and means of establishing a mechanism for setting up the standards, monitoring requirements and criteria for the regional implementation of ATS safety management programmes. 	<p>Ongoing</p>	<p>To be superseded by ATM/SAR/AIS SG/8 Draft Conclusion 8/11</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	REMARKS
<p>CONCLUSION 9/9: — MONITORING REQUIREMENTS IN RESPECT OF B-RNAV</p> <p>That,</p> <ul style="list-style-type: none"> a) — taking into account, conclusive reports indicating that the region has gained enough confidence on the reliability/maturity of the system established for the safe implementation and post-implementation of B-RNAV in the MID region, the monitoring mechanism as established by MECMA be discontinued; and b) — the discontinuation of the monitoring mechanism for RNP5/B-RNAV does not absolve States of their responsibilities in ensuring that, within the framework of safety management programmes, appropriate measures are taken for ensuring that: <ul style="list-style-type: none"> i) — the agreed level of safety is met and continues to be met; and ii) — prompt remedial actions be taken in case any adverse trend is noted. 	<p>Actioned</p>	
<p>CONCLUSION 9/10: ESTABLISHMENT OF RNAV SIDS AND STARS IN THE MID REGION</p> <p>That, in accordance with the requirements of the MID CNS/ATM implementation plan, States develop RNAV SIDs and STARS.</p>	<p>Ongoing</p>	

CONCLUSIONS AND DECISIONS	FOLLOW-UP	REMARKS
<p>CONCLUSION 9/11: REQUIREMENTS FOR MONITORING</p> <p>That,</p> <ul style="list-style-type: none"> a) operators having met the monitoring requirements as tabulated in Appendix 5F to the report on Agenda Item 5 for a given fleet/type of aircraft will be accepted as having satisfied the requirements for the Middle East Region. In case of Middle East operators, documentation for monitoring shall be provided to the MID Regional Monitoring Agency; b) for non-MID operators, about whose approval status doubt exist, documentation for monitoring shall be provided to the Regional Monitoring Agency; and e) the Regional Monitoring Agency will update the table in the light of data and experience gained in other Regions. 	<p>Actioned</p>	
<p>CONCLUSION 9/12: MONITORING OF SAFETY IN THE MID REGION</p> <p>That,</p> <ul style="list-style-type: none"> a) having considered the requirements set out in Annex 11, Doc 9574, Doc 9613, the draft SMS manual for ATS and the draft RMA Handbook, concerning various forms of monitoring, namely: <ul style="list-style-type: none"> i) system performance monitoring is necessary to ensure that the implementation and continued operation of RVSM meet the safety objectives; ii) navigation performance monitoring is required to ensure safety objectives are met in the implementation and continued operation of RNP/RNAV; and 	<p>Actioned</p>	

CONCLUSIONS AND DECISIONS	FOLLOW-UP	REMARKS
<p>iii) States are required to carry out continuous monitoring and regular assessment of the safety level achieved in conjunction with implementation of ATS safety management (SMS).</p> <p>b) noting ICAO policy that States be assisted in meeting their responsibilities based, on or related to, monitoring and assessment by a regional monitoring agency (RMA), whose tasking, inter alia, shall include collection and analysis and compilation of data necessary for identification of hazards and trends in safety; and</p> <p>e) safety related requirements be addressed through establishment of an RMA with personnel possessing the technical skills and experience required to carry out the main functions summarized under items i) through iii) above.</p>		
<p>CONCLUSION 9/13: MID REGIONAL MONITORING AGENCY (MID RMA) RE-ESTABLISHMENT</p> <p>That, taking into account the urgency of the matter and with the firm commitment of all MID Region States:</p> <p>a) the MID Regional Monitoring Agency (MID RMA) be re-established for carrying out RVSM and eventually, RNP and RNAV related duties and responsibilities in the MID Region;</p> <p>b) the MID RMA is to be operational as soon as possible; and</p> <p>e) the Action Plan for the setting up of the MID RMA, the revised duties and responsibilities and guiding principles are at Appendices 5C, 5D, and 5E, to the Report on Agenda Item 5.</p> <p>Note: Appendices in item c) above are not yet finalized. They are subject to further changes, pending the agreement on funding mechanism, modalities and organizational structure.</p>	<p>Actioned</p>	

CONCLUSIONS AND DECISIONS	FOLLOW-UP	REMARKS
<p>CONCLUSION 9/14: PROVISION OF UP-TO-DATE INFORMATION TO THE MID RVSM APPROVALS REGISTRY</p> <p>That,</p> <ul style="list-style-type: none"> a) considering the requirement for a correct and up-to-date registry of RVSM approvals of operators and aircraft in the on-going safety efforts related to RVSM operations within the Middle East Region; States are reminded to provide to the MID RMA* regular updates to the regional database of operator and aircraft approvals; and b) Until the MID RMA* is established and becomes functional, States forward to the ICAO Regional Office any relevant information likely to have a negative impact on the safety of air navigation in the Region. <p>* MID RMA to be established</p>	<p>Ongoing</p>	<p>To be superseded by ATM/SAR/AIS SG/8 Draft Conclusion 8/5</p>
<p>CONCLUSION 9/15: EXCLUSION FROM MID RVSM AIRSPACE OF AIRCRAFT AND OPERATORS NOT REGISTERED AS BEING RVSM APPROVED</p> <p>That, considering the on-going requirement for safety assurance related to RVSM operations within the Middle East Region:</p> <ul style="list-style-type: none"> a) operators for whom positive approval data has not been received, be excluded from MID RVSM airspace with immediate effect until approval status, supported by data from an approved monitoring service provider, has been received; b) MID RVSM provider States, States of Registry and adjacent RMAs be informed about the exclusion; and e) Taking into account the economic impact on RVSM approved flights from adjacent FIRs which are being systematically excluded from the RVSM airspace as a result of non receipt or improper filing of flight plans, concerned FIRs/Centres be invited to consider the matter on a bilateral basis. 	<p>Actioned</p> <p>Ongoing</p>	<p>To be superseded by ATM/SAR/AIS SG/8 Draft Conclusion 8/8</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	REMARKS
<p>CONCLUSION 9/16: REGION-WIDE TRAFFIC SAMPLE AS BASIS FOR FOLLOW-UP AGAINST INCORRECT FLIGHT PLAN FILING</p> <p>That, considering the need to identify operators who are filing flight plans incorrectly indicating RVSM approval status, traffic samples from all MID RVSM States will be required as the basis for a survey and regulatory action against fraudulent filing of flight plans.</p>	Ongoing	To be superseded by ATM/SAR/AIS SG/8 Draft Conclusion 8/7
<p>CONCLUSION 9/17: METHODOLOGY TO ERADICATE MULTIPLE REPETITIONS AND NON-RECEIPT OF ATS MESSAGES</p> <p>That, the MID Region adopts the working methodology as described in Appendix 5G to the report on Agenda Item 5 in order to identify and remedy the inconsistencies related to the multiple repetitions and non-receipt of ATS messages.</p>	Actioned	To be superseded by ATM/SAR/AIS SG/8 Draft Conclusion 8/7
<p>CONCLUSION 9/18: ESTABLISHMENT OF AN INTEGRATED INITIAL FPL PROCESSING SYSTEM (IFPS) IN THE MID REGION</p> <p>That,</p> <ul style="list-style-type: none"> a) the concept of establishment of an Integrated Initial Flight Plan Processing System (IFPS) in the MID Region is supported by MID States; and b) a feasibility study for the Implementation of an IFPS in the MID Region be carried out. <p>Note: this study will be led by Bahrain with the cooperation of all concerned parties, in coordination with ICAO.</p>	Ongoing	To be superseded by CNS/ATM/IC SG/3 Draft Conclusion 3/8

CONCLUSIONS AND DECISIONS	FOLLOW-UP	REMARKS
<p>CONCLUSION 9/19: — REPORTING OF ATS INCIDENTS</p> <p>That,</p> <ul style="list-style-type: none"> a) reporting of incidents/accidents will be in accordance with provisions of Annex 13 Aircraft Accident and Incident Investigation and Procedures for Air Navigation Services Air Traffic Management (PANS-ATM, Doc 4444); and b) States share information on ATM accidents and incidents. 	<p>Ongoing</p>	<p>To be superseded by ATM/SAR/AIS SG/8 Draft Conclusion 8/10</p>
<p>DECISION 9/20: DISCONTINUATION OF THE ATS INCIDENT ANALYSIS TASK FORCE</p> <p>That, in view of the lack of support and enthusiasm from States to provide relevant and comprehensive data on ATS Incidents in the region:</p> <ul style="list-style-type: none"> a) MIDANPIRG dissolves the ATS Incident Analysis Task Force; b) the ATM/SAR/AIS Sub-Group be requested to follow up on the ATS incident trends in the region and its impact on safety of air navigation; and c) IATA continues to update the ATM/SAR/AIS Sub-Group on ATS incident trends noted within the framework of its safety enhancement mechanisms. 	<p>Actioned</p>	

CONCLUSIONS AND DECISIONS	FOLLOW-UP	REMARKS
<p>DECISION 9/21: ASSIGNMENT OF SSR CODES IN THE MID REGION</p> <p>That,</p> <ul style="list-style-type: none"> a) the updated list of SSR codes assignment system for domestic and transit purposes for the MID Region indicated at Appendix 5H to the report on Agenda Item 5 replaces the existing requirements indicated in the MID FASID Document; and b) taking into account acute shortage of SSR codes being experienced in adjacent Participating Areas (PAs) and the sustained traffic growth in the MID Region, the ATM/SAR/AIS Sub-Group reviews, as appropriate, the allocation of SSR codes in the region in order to ensure that the requirements of all FIRs/ACCs continue to be met. 	<p>Actioned</p>	<p>To be superseded by ATM/SAR/AIS SG/8 Draft Conclusion 8/10</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	REMARKS
<p>CONCLUSION 9/22: AIRWORTHINESS AND OPERATIONAL APPROVAL FOR B-RNAV, RNP 10 AND RVSM OPERATIONS IN THE MID REGION</p> <p>That, with a view to facilitate and harmonize the airworthiness and operational approvals procedures for BRNAV, RNP 10 and RVSM operations in the MID Region: —</p> <ul style="list-style-type: none"> a) — the European Joint Airworthiness Authority (JAA) Temporary guidance Leaflet No.2, guidance material on airworthiness approval and operational criteria for the use of navigation systems in the European airspace designated for Basic RNAV operations be endorsed as the official guidance material for airworthiness and operational approvals for B-RNAV operations in the MID Region; b) — the guidance material developed by the United States, Federal Aviation Administration (FAA) Order No.8400.12 be used by States for the development of RNP 10 operational approval process; and c) — the guidance material contained in both FAA Interim Guidance 91 RVSM and JAA Temporary Guidance Leaflet TGL No. 6 as amended for issuing Airworthiness and Operational Approval for aircraft and operators intending to operate within a designed RVSM airspace be adopted. 	<p>Actioned</p>	
<p>CONCLUSION 9/23: DATA FOR SUSTAINED SAFETY ASSURANCE OF RNP AND RVSM WITHIN THE MID REGION</p> <p>That, considering the on-going requirement for safety assurance related to RVSM and RNP operations within the Middle East Region,</p> <ul style="list-style-type: none"> a) all States report data and incidents necessary for performing collision risk calculations required for sustained safe RVSM operations to the MID RMA*. The data will include, but not necessarily be limited to: <ul style="list-style-type: none"> i) assigned altitude deviations of 300 ft or more (monthly); ii) total number of IFR movements (monthly); iii) average time per movement spent in the level band FL290 - FL410; 	<p>Ongoing</p>	

CONCLUSIONS AND DECISIONS	FOLLOW-UP	REMARKS
<p>iv) ATC/ATC coordination failures (monthly); and v) traffic data (as requested by the MID RMA)*;</p> <p>b) monitoring States report navigational errors and traffic data in accordance with the Letter of Agreement concerning monitoring associated with RNP;</p> <p>c) air operators maintain procedures for reporting of turbulence;</p> <p>d) States report data on approval of operators and aircraft for RVSM operations (monthly); and</p> <p>e) the MID RMA* ensures that further processing and evaluation of this data within its Terms of Reference and identifies or develops methodologies for assessing risk associated with operational procedures prevailing within the MID Region.</p> <p>* MID RMA to be established</p> <p>Note: Until the MID RMA is established, States forward to the ICAO MID Regional Office any relevant information likely to have a negative impact on the safe operations of RNP and RVSM in the region.</p>		
<p>DECISION 9/24: — STATUS OF IMPLEMENTATION OF ICAO REQUIREMENTS IN THE — SEARCH AND RESCUE FIELDS</p> <p>That,</p> <p>a) the Secretariat, in consultation with concerned States, regularly updates the status of implementation of Search and Rescue provisions as indicated in the MID Basic Air Navigation Plan; and</p> <p>b) the updated list indicating the status of implementation of SAR provisions be indicated in the MID FASID Document.</p>	<p>Actioned</p>	

CONCLUSIONS AND DECISIONS	FOLLOW-UP	REMARKS
<p>CONCLUSION 9/33: FURTHER TEST ACTIVITIES AND STUDIES OF EGNOS IN THE MID REGION</p> <p>That,</p> <ul style="list-style-type: none"> a) EGNOS test bed based on the ENAV experience during the MIDAN activities be continued until adequate data representative of the region be available; b) the feasibility of using additional Ranging Integrity Monitoring Systems (RIMS) for achieving APV1 and APV2 requirements and a proposal for time scale be evaluated by Galileo Joint Undertaking; c) European Space Agency (ESA), defines the EGNOS architecture scenarios on the number/location of RIMS required for achieving APV 1 and APV 2 requirements throughout the MID Region in order to support the regional cost-benefit analysis (CBA). 	Ongoing	
<p>CONCLUSION 9/34: WAAS DEMONSTRATION TEST BEDS</p> <p>That, the States of the MID Region willing to participate in the study of the WAAS demonstration test beds provide facilities for the reference stations when required.</p>	Ongoing	To be replaced by the CNS/ATM/IC SG/3 Draft Conclusion 3/2
<p>CONCLUSION 9/35: COST-BENEFIT CONSIDERATION FOR AUGMENTATION SYSTEMS</p> <p>That,</p> <ul style="list-style-type: none"> a) no commitment is to be made on the augmentation systems until all other options and implementation trends with associated cost benefit analyses are fully considered; and b) implementation strategy to be considered with user requirements, implementation trends/options endorsed in adjacent regions in accordance with the operational concept and planning principles of the global air navigation plan for CNS/ATM systems. 	Ongoing	

CONCLUSIONS AND DECISIONS	FOLLOW-UP	REMARKS
<p>CONCLUSION 9/36: REVISED STRATEGY OF THE GNSS IMPLEMENTATION IN THE MID REGION</p> <p>That, the revised strategy for the implementation of GNSS in the Middle East Region be adopted as indicated in Appendix 5N to the report on Agenda Item 5.</p>	Ongoing	To be replaced by the CNS/ATM/IC SG/3 Draft Conclusion 3/1
<p>DECISION 9/37: IMPROVEMENT OF THE WORK OF THE ATN PLANNING GROUP</p> <p>That, the ATN Planning Group be invited to establish a working methodology and to appoint a Reportuer in order to have the work on the development of the MID Regional ATN Planning Document fully coordinated and followed up.</p>	Ongoing	
<p>CONCLUSION 9/38: USE OF DIGITAL HIGH-SPEED CIRCUITS BETWEEN MAIN CENTRES</p> <p>That, the main Centres of the MID AFTN be requested to use digital high-speed links in their circuits with other main Centres in order to eliminate deficiencies related to the low speed circuits and to facilitate the migration to the ATN in the MID Region.</p>	Ongoing	
<p>CONCLUSION 9/39: HARMONIZATION BETWEEN VSAT NETWORKS</p> <p>That, the interconnectivity of the MID VSAT be done on the basis of hub-less network using a sole satellite in order to constitute an integrated and seamless network, taking into account the harmonization in the Region and between MID Region and other Regions.</p>	Ongoing	

CONCLUSIONS AND DECISIONS	FOLLOW-UP	REMARKS
<p>CONCLUSION 9/40: ORGANIZATION OF THE ATN SEMINAR IN THE MID REGION</p> <p>That,</p> <ul style="list-style-type: none"> a) ICAO MID Regional Office makes the required arrangements to organize an ATN Seminar/ Workshop in year 2006 to assist States for the initial implementation of AMHS in the Region; b) MID States cooperate in assisting ICAO MID Regional Office in hosting this important event; and e) MID States take this opportunity to send sufficient participants to this seminar/workshop in order to constitute the nucleus of the core team charged of the ATN implementation in the Region. 	<p>Ongoing</p>	<p>To be superseded by CNS/MET SG/7 Draft Conclusion 7/5</p>
<p>DECISION 9/41: MID REGIONAL CONTINGENCY PLAN FOR ATM/CNS</p> <p>That,</p> <ul style="list-style-type: none"> a) the relevant subsidiary bodies of MIDANPIRG revise their Terms of Reference (TOR) to include the development of regional guidance material leading to a MID Regional Contingency Plan for ATM including supporting CNS elements; b) the MID Regional Contingency Plan be updated by the relevant MIDANPIRG subsidiary bodies on a regular basis. 	<p>Ongoing</p>	<p>To be superseded by ATM/SAR/AIS SG/8 Draft Conclusion 8/12</p>
<p>CONCLUSION 9/42: IMPLEMENTATION OF D-ATIS AND PDC IN THE MID REGION</p> <p>That, MID States not having done so, and where needs justify, are urged to implement in their international airports the dissemination of the ATIS and Pre-Departure Clearance via data link (D-ATIS and PDC).</p>	<p>Ongoing</p>	<p>Action by States</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	REMARKS
<p>CONCLUSION 9/43: — ICAO STRATEGY WITH REGARD TO FUTURE ITU WORLD RADIO COMMUNICATION CONFERENCES</p> <p>That,</p> <ul style="list-style-type: none"> a) the CNS/MET SG be tasked to follow up the developments of ICAO position regarding future WRC conferences and their preparatory meetings, and highlighting that position to the MID States; b) MID States Civil Aviation Authorities use the ICAO coordinated aeronautical position regarding the future WRC conferences in their national discussions with the radio regulatory authorities when developing proposals for submission by their respective Administrations to ITU conferences; e) MID States Civil Aviation Authorities, request their appropriate Ministries to assign aviation experts to participate in their national delegations to the future ITU conferences in order to brief the delegations at those conferences with ICAO position and to support that position; and d) MID States Civil Aviation Authorities be urged, as a matter of a priority to explain the ICAO concerns to their respective Ministerial Authorities including the League of Arab States and the Arab Civil Aviation Commission, in order to support the ICAO and IATA concerns with regard to protection of aeronautical frequencies at WRC 2007. 	<p>Ongoing</p>	<p>To be superseded by CNS/MET SG/7 Draft Conclusions 7/1 & 7/2</p>
<p>CONCLUSION 9/44: — CONVENING OF THE CNS/ATM HR P&T TASK FORCE</p> <p>That,</p> <ul style="list-style-type: none"> a) MID States are urged to attend the CNS/ATM Human Resources Planning and Training Task Force meetings; b) the CNS/ATM HR P&T TF takes into consideration the outcome of the SIP carried in the MID Region during the period November/December 2004; and — e) Terms of Reference and Work Programme of the Task Force are revised as at Appendix 5Q to the report on Agenda Item 5. 	<p>Actioned</p>	

CONCLUSIONS AND DECISIONS	FOLLOW-UP	REMARKS
<p>CONCLUSION 9/45: — UPGRADE OF THE KUWAIT-KARACHI CIRCUIT</p> <p>That, based on the upgrade of the Kuwait-Karachi circuit to 2.4K, MID COM centres are requested to route via Kuwait centre all traffic to Karachi (OP), Kabul (OA) and other destinations in ASIA-PAC Region as appropriate.</p>	Actioned	
<p>CONCLUSION 9/46: — ADDITION OF THE BAGHDAD-KUWAIT CIRCUIT TO THE MID-RATIONALIZED AFTN PLAN</p> <p>That, the MID Rationalized AFTN Plan be amended to include the new circuit between Baghdad and Kuwait as a tributary circuit.</p>	Actioned	
<p>CONCLUSION 9/47: — ADDITION OF THE CAIRO-TRIPOLI CIRCUIT TO THE MID-RATIONALIZED AFTN PLAN</p> <p>That, the MID Rationalized AFTN Plan be amended to include the existing circuit between Cairo and Tripoli as a tributary circuit.</p>	Actioned	
<p>CONCLUSION 9/48: PARTICIPATION OF THE MID COM CENTRES IN THE CIDIN MANAGEMENT CENTRE (CMC) OF THE EUR REGION</p> <p>That, all MID COM Centres participate as external COM centers in the operation of CIDIN Management Centre (CMC) in the EUR Region and designate a Cooperating CIDIN Centre (CCC) operator for coordination process with EUROCONTROL.</p>	Ongoing	
<p>DECISION 9/49: ESTABLISHMENT OF AN AD-HOC ACTION GROUP FOR THE SUPPORT OF AERONAUTICAL FREQUENCY BANDS</p> <p>That, an Ad-Hoc Group be established and aimed at raising the awareness of the National Telecommunication Regulatory Authorities, Airlines and Civil Aviation Authorities on the aviation spectrum use and requirements to ensure Air navigation Safety in the MID Region.</p>	Ongoing	Reply from MID States Awaited

CONCLUSIONS AND DECISIONS	FOLLOW-UP	REMARKS
<p>DECISION 9/50: REVISED TERMS OF REFERENCE AND WORK PROGRAMME FOR THE AFS/ATN TASK FORCE</p> <p>That, the MIDANPIRG meeting approves the revised Terms of Reference and Work programme of the AFS/ATN Task Force as presented at Appendix 5R to the Report on Agenda Item 5.</p>	Actioned	To be superseded by CNS/MET SG/7 Draft Conclusion 7/13 (TF dissolved)
<p>DECISION 9/51: MID REGIONAL AFTN CONTINGENCY PLAN</p> <p>That, the MID Regional AFTN Contingency Plan be renamed MID Regional AFS Contingency Plan taking into account the need to address the continuity of the services of the ATS Direct Speech circuits to ensure the safety of Air Navigation.</p>	Ongoing	
<p>CONCLUSION 9/52: PROJECT FOR MID VSAT IMPLEMENTATION</p> <p>That, in order to implement the MID VSAT Project in the MID Region, concerned States:</p> <ul style="list-style-type: none"> a) be encouraged to seek assistance through ICAO Technical Cooperation Bureau (TCB); and b) carry out the implementation of the MID VSAT Equipment in an orderly and coordinated manner. 	Ongoing	
<p>CONCLUSION 9/53: SADIS INTERNET BASED FTP SERVICE</p> <p>That, in parallel with the satellite broadcast, the SADIS Provider State be invited, as of 1 July 2005, to make WAFS forecasts and OPMET data available, as a primary component of the SADIS service, in accordance with the SADIS User Guide, through the Internet based FTP service.</p>	Actioned	
<p>CONCLUSION 9/59: MID BASIC ANP AND FASID (DOC 9708)</p> <p>That, ICAO gives priority to the publication of the MID BASIC ANP and FASID in English and Arabic versions.</p>	Ongoing	Document in final phase of publication

CONCLUSIONS AND DECISIONS	FOLLOW-UP	REMARKS
<p>CONCLUSION 9/60: AMENDMENT PROPOSAL TO THE MID BASIC ANP AND FASID</p> <p>That, the ICAO MID Regional Office, on behalf of MIDANPIRG, initiates an amendment proposal to the MID Basic ANP and FASID in order to update the AIS, AOP, ATM, CNS and MET regional requirements and reflect the changes made to the FASID Tables.</p>	Ongoing	Pending publication of the official version of Doc 9708
<p>CONCLUSION 9/61: AMENDMENT TO THE FORM USED FOR THE IDENTIFICATION, ASSESSMENT AND REPORTING OF AIR NAVIGATION DEFICIENCIES</p>		
<p>That, with a view to analysing the rationale for non-elimination of air navigation deficiencies, ICAO considers the amendment of the uniform methodology for the identification, assessment and reporting of air navigation deficiencies to incorporate the revised form as in Appendix 6A to the report on Agenda Item 6.</p>	Ongoing	Noted by the Council (need more experience from MID Region before global use).
<p>CONCLUSION 9/62: REVIEW OF THE REQUIREMENTS PERTAINING TO ATS ROUTES</p> <p>That, taking into consideration the unlikelihood to implement certain ATS routes in the MID Region:</p> <ul style="list-style-type: none"> a) IATA reconsiders its requirements for implementation of some ATS routes in the MID Region; and b) the ATM/SAR/AIS Sub Group takes into account the concerns of States regarding some ATS route requirements which can not be implemented. 	Actioned	To be superseded by ATM/SAR/AIS SG/8 Draft Conclusion 8/27

CONCLUSIONS AND DECISIONS	FOLLOW-UP	REMARKS
<p>CONCLUSION 9/63: DEVELOPMENT OF A MID REGION’S AIR NAVIGATION DEFICIENCIES DATABASE</p> <p>That, ICAO MID Regional Office:</p> <ul style="list-style-type: none"> a) develops an air navigation deficiencies database for the MID Region; b) develops a secure process for managing this database on the Internet; c) gives the possibility of controlled on-line introduction of updated information by States for their respective deficiencies; and d) allows other authorized users on-line access to view the information contained in the database. 	<p>Actioned</p> <p>Ongoing</p>	
<p>CONCLUSION 9/64: ELIMINATION OF AIR NAVIGATION DEFICIENCIES IN THE MID REGION</p> <p>That,</p> <ul style="list-style-type: none"> a) States review their respective lists of identified deficiencies and formulate and forward an action plan for rectification of outstanding deficiencies to the ICAO MID Regional Office for review; b) States increase their efforts to overcome the delay in mitigating air navigation deficiencies identified by MIDANPIRG and explore ways and means to eliminate deficiencies by reliable ways of funding; c) States are encouraged to set up an internal group of experts to examine the list of deficiencies and take appropriate actions with a view to recommend to their higher Civil Aviation Authorities solutions for elimination of deficiencies; d) States experiencing difficulties in financing the elimination of safety-related deficiencies may wish to take advantage of the funding opportunity offered by the International Financial Facility for Aviation Safety (IFFAS); e) States be encouraged to foster the creation of regional and sub-regional cooperation and, wherever feasible, partnership initiatives with other States, users, air navigation service providers, industry and financial institutions to improve the safety of international civil aviation; 	<p>Ongoing</p>	

CONCLUSIONS AND DECISIONS	FOLLOW-UP	REMARKS
<ul style="list-style-type: none"> f) Users of air navigation facilities and services in the MID Region report to the ICAO MID Regional Office when the remedial action on a deficiency has been taken; g) ICAO continues to provide assistance to States for the purpose of rectifying deficiencies; and h) when required, States request ICAO assistance through Technical Co-operation Programme and/or Special Implementation Projects (SIP). 		

CNS/ATM/IC SG/3
Report on Agenda Item 3

REPORT ON AGENDA ITEM 3: REVIEW OF THE ALLPIRG/5 MEETING OUTCOME

3.1 The meeting was presented with the list of Conclusions and Decisions developed by the Fifth Meeting of the All Planning and Implementation Regional Group/Advisory Group (ALLPIRG/5) held in Montreal, 23-24 March 2006 and noted the follow up actions to be taken by the concerned parties as at **Appendix 3A** to the report on Agenda Item 3. The meeting was informed also that the report of the ALLPIRG/5 meeting is available at the ICAO website: http://www.icao.int/cgi/goto_rao.pl?icao/en/ro/allpirg/allpirg5/index.html.

3.2 The meeting noted that one of the main roles of ALLPIRG is to provide advice to the ICAO Council on CNS/ATM systems implementation matters leading to achieving a global air traffic management (ATM) system.

3.3 The meeting recognized that number of the ALLPIRG/5 Conclusions call for action not only by ICAO but also by other CNS/ATM partners from the ALLPIRG membership, and, as such, early follow-up action will be required through coordinated efforts of all concerned parties. The meeting noted also that whenever follow-up is required by the ICAO Secretariat, the tasks are included in the ICAO Business Plan and the responsibilities are allocated to the concerned Bureau/Office within the ICAO Secretariat for their attainment.

CNS/ATM/IC SG/3
Appendix 3A to the Report on Agenda Item 3

FOLLOW-UP ACTIONS ON THE CONCLUSIONS DEVELOPED BY THE ALLPIRG/5 MEETING

ALLPIRG/5 CONCLUSIONS	FOLLOW-UP TASKS	TO BE INITIATED BY	TARGET DATE/ REMARKS
<p>CONCLUSION 5/1 WORKSHOPS ON THE GLOBAL PLAN FOR REGIONAL OFFICES</p> <p>That, in support of the Global Plan, ICAO conduct workshops in the Regional Offices to provide training on planning tools and methodologies as well as strengthening the interaction between technical officers at Headquarters and Regional Offices.</p>	<p>Conduct workshops in the Regional Offices to provide training on planning tools and methodologies through the SIP mechanism.</p>	<p>ICAO Headquarters</p>	<p>2007</p>
<p>CONCLUSION 5/2 IMPLEMENTATION OF GLOBAL PLAN INITIATIVES (GPIS)</p> <p>That, recognizing that the evolution continues from a systems-based to a performance-based approach to planning and implementation of the air navigation infrastructure, the regional planning groups:</p> <ul style="list-style-type: none"> a) note that the Global Plan is a significant component in the development of regional and national plans and that, together with the global ATM operational concept, provide an effective architecture for achieving a harmonized and seamless Global ATM system; b) identify GPIS that most closely align with the well established implementation plans of their respective regions; c) select GPIS that would be most effective in achieving the objectives of the region while ensuring continuation of the work already accomplished; 	<p>Note that the Global Plan is a significant component in the development of regional and national plans.</p> <p>Identify GPIS that most closely align with the implementation plans of their respective regions.</p> <p>Select GPIS that would be most effective in achieving the objectives of the region.</p>	<p>ICAO Regional Offices, PIRGs, States, service providers, and international organizations.</p> <p>ICAO Regional Offices, PIRGs, States, service providers, and international organizations.</p> <p>ICAO Regional Offices, PIRGs, States, service providers, and international organizations.</p>	<p>2006/2007</p> <p>2006/2007</p> <p>2006/2007</p>

ALLPIRG/5 CONCLUSIONS	FOLLOW-UP TASKS	TO BE INITIATED BY	TARGET DATE/ REMARKS
<p>d) implement GPIs that take into account the Initiatives across regions, to align work programmes and to develop national and regional plans that facilitate achieving a Global ATM system;</p> <p>e) utilize the planning tools as the common planning and implementation mechanism, thereby ensuring proper coordination and global integration; and</p> <p>f) review, at each PIRG meeting as a part of its regular agenda, the progress achieved and challenges identified in the implementation of GPIs using a common template.</p>	<p>Implement GPIs in the development of national and regional plans.</p> <p>Utilize the planning tools as the common planning and implementation mechanism.</p> <p>Review, at each PIRG meeting as a part of its regular agenda, the progress achieved and challenges identified in the implementation of GPIs.</p>	<p>ICAO Regional Offices, PIRGs, States, service providers, and international organizations.</p> <p>ICAO Regional Offices, PIRGs, States, service providers, and international organizations.</p> <p>ICAO Regional Offices and PIRGs.</p>	<p>Ongoing</p> <p>Ongoing</p>
<p>CONCLUSION 5/3 WORKSHOP ON THE BUSINESS CASE MODEL FOR COMMUNICATIONS, NAVIGATION, AND SURVEILLANCE/ AIR TRAFFIC MANAGEMENT (CNS/ATM) SYSTEMS</p> <p>That, in support of the development of business cases for the implementation of CNS/ATM Systems, ICAO convene a training workshop for States at the Regional Offices through an appropriate mechanism, such as Special Implementation Projects (SIPs).</p>	<p>ICAO to convene a training workshop for States at the Regional Offices through the SIP mechanism.</p>	<p>ICAO Headquarters</p>	<p>2007</p>

ALLPIRG/5 CONCLUSIONS	FOLLOW-UP TASKS	TO BE INITIATED BY	TARGET DATE/ REMARKS
<p>CONCLUSION 5/4 APPLICATION OF THE BUSINESS CASE MODEL FOR CNS/ATM SYSTEMS IMPLEMENTATION</p> <p>That PIRGs, States and airspace users:</p> <ul style="list-style-type: none"> a) note that business cases for the implementation of CNS/ATM Systems leading to a global ATM system is a key element in the development of regional, subregional and national plans; b) consider the application of the model for the development of business cases in the formulation of national and subregional plans with a view to facilitating the achievement of a global ATM system; and c) establish, with ICAO’s assistance and within the limits of the programme budget, a network of experts on cost-effectiveness, cost-benefit analyses and business cases for the implementation of CNS/ATM Systems in order to share expertise and to provide assistance to the Regional Offices. 	<p>Note that business cases for the implementation of CNS/ATM systems is a key element in the development of regional, subregional and national plans.</p> <p>Apply the model for the development of business cases in the formulation of national and subregional plans.</p> <p>Establish a network of experts on cost-effectiveness, cost-benefit analyses and business cases for the implementation of CNS/ATM systems.</p>	<p>ICAO Regional Offices, PIRGs, States, service providers, and international organizations.</p> <p>ICAO Regional Offices, PIRGs, States, and international organizations.</p> <p>ICAO Headquarters</p>	<p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p>
<p>CONCLUSION 5/5 ICAO GLOBAL AIR NAVIGATION PLAN (ANP) DATABASE AND GEOGRAPHIC INFORMATION SYSTEM (GIS) PORTAL</p> <p>Recognizing that access to an ICAO Global ANP database and associated planning services through an web-based ICAO GIS portal would constitute an invaluable tool in supporting, integrating and monitoring the planning and implementation of harmonized regional, interregional and global air navigation</p>			

ALLPIRG/5 CONCLUSIONS	FOLLOW-UP TASKS	TO BE INITIATED BY	TARGET DATE/ REMARKS
<p>infrastructures, the regional planning groups: That, on the basis of work being done in the European Region, ICAO:</p> <p>a) note the progress made by the Secretariat in accordance with Recommendation 1/14 of AN-Conf/11 and the ICAO Global ANP database;</p> <p>b) note the ongoing efforts by the Secretariat in harmonizing formats of all the ANP tables together with the inclusion of temporal information in the tables that would assist the regional planning groups in monitoring and analysing the implementation progress;</p> <p>c) note the intent to expand the ANP tables to include Global Plan Initiatives (GPIs), as appropriate; and</p> <p>d) utilize, through the ICAO GIS portal, the ICAO Global ANP database and associated planning services so as to ensure the currency, coordination and implementation of regional air navigation planning and to contribute to the further development of air navigation plans as the framework for the efficient implementation of new air navigation systems and services at the national, regional, interregional and global levels.</p>	<p>Note the progress made in the development of ICAO Global ANP database.</p> <p>Harmonize formats of all the ANP tables.</p> <p>Include GPIs in the ANP tables.</p> <p>Utilize the ICAO Global ANP database and associated planning service.</p>	<p>ICAO Regional Offices, PIRGs, States, and international organizations.</p> <p>ICAO Headquarters</p> <p>ICAO Headquarters</p> <p>ICAO Regional Offices, PIRGs, States, and international organizations.</p>	<p>Ongoing</p> <p>2007</p> <p>2007</p> <p>Ongoing</p>
<p>CONCLUSION 5/6 DEVELOPMENT OF PLANNING TOOLS</p> <p>That ICAO, in the development of planning tools and services, should accommodate requirements established by the Regional Offices, as well as to take into account similar tools developed by other organizations such as EUROCONTROL.</p>	<p>Develop planning tools by taking into account regional requirements and experience gained by other organizations.</p>	<p>ICAO Headquarters</p>	<p>2007</p>

ALLPIRG/5 CONCLUSIONS	FOLLOW-UP TASKS	TO BE INITIATED BY	TARGET DATE/ REMARKS
<p>CONCLUSION 5/7 ENVIRONMENTAL BENEFITS OF CNS/ATM SYSTEMS</p> <p>That, PIRGs and States:</p> <ul style="list-style-type: none"> a) use the Committee on Aviation Environmental Protection (CAEP) provided CO₂ conversion factor in the analysis of environmental benefits of implementing CNS/ATM Systems; b) prioritise the implementation of voluntary, operationally-based improvements in their air traffic management systems, with emphasis on fuel savings, emissions reductions and noise benefits, and also to mitigate costs to the industry; c) provide feedback to ICAO on studies conducted on the environmental benefits of implementing CNS/ATM Systems; and d) share air traffic data to improve future CAEP assessments, in line with State letter AN 1/17-03/86. 	<p>Use the CAEP provided CO₂ conversion factor in the analysis of environmental benefits of implementing CNS/ATM systems.</p> <p>Prioritize the implementation of voluntary, operationally-based improvements in their air traffic management systems.</p> <p>Provide feedback to ICAO on studies conducted on the environmental benefits of implementing CNS/ATM systems.</p> <p>Share traffic data with CAEP.</p>	<p>ICAO Regional Offices, PIRGs, States.</p> <p>ICAO Regional Offices, PIRGs, States.</p> <p>ICAO Regional Offices, PIRGs, States.</p> <p>ICAO Regional Offices, PIRGs, States, service and international organizations.</p>	<p>2007/2008</p> <p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p>
<p>CONCLUSION 5/8 GLOBALLY COORDINATED AIR TRAFFIC SERVICES (ATS) ROUTES</p> <p>That, PIRGs:</p> <ul style="list-style-type: none"> a) establish a global consolidated, prioritized list of routes and terminal area (TMA) improvements in close coordination with airspace users; and 	<p>Establish a global consolidated, prioritized list of routes and terminal area (TMA) improvements.</p>	<p>ICAO Headquarters, ICAO Regional Offices and PIRGs.</p>	<p>Ongoing</p>

ALLPIRG/5 CONCLUSIONS	FOLLOW-UP TASKS	TO BE INITIATED BY	TARGET DATE/ REMARKS
<ul style="list-style-type: none"> b) work with neighbouring PIRGs/States/air navigation service providers (ANSPs) to accelerate international route improvements. 	Work with neighbouring PIRGs/States/ANSPs to accelerate international route improvements.	ICAO Regional Offices, PIRGS and States.	Ongoing
<p>CONCLUSION 5/9 TERMINAL AREA (TMA) STRUCTURE AND AREA NAVIGATION</p> <ul style="list-style-type: none"> a) employ area navigation in all TMAs, including appropriate arrival and departure procedures, to improve efficiency and reduce emissions in the vicinity of airports; and that, in special cases where there are particularly challenging obstacles and where air traffic density is very high and additional approach paths are possible, the more precise and contained required navigation performance (RNP) procedures be employed; and b) review operations, procedures and training of controllers to ensure the optimum management of air traffic services. 	<p>Employ area navigation in all TMAs, including appropriate arrival and departure procedures.</p> <p>Review operations, procedures and training of controllers to ensure the optimum management of air traffic services.</p>	<p>ICAO Regional Offices PIRGs and States.</p> <p>ICAO Regional Offices PIRGs and States.</p>	<p>Ongoing</p> <p>Ongoing</p>
<p>CONCLUSION 5/10 ENVIRONMENTAL BENEFITS OF RVSM INTRODUCTION AND REGIONAL EXPERTISE</p> <p>That, ICAO:</p> <ul style="list-style-type: none"> a) undertake a study on the environmental benefits of the introduction of RVSM and to ensure that this information is transmitted to policy makers; and b) seek appropriate support from recognized expert organizations in its work on quantifying the environmental benefits of RVSM, noting the support offered by EUROCONTROL in this regard. 	<p>Study the environmental benefits of the introduction of RVSM.</p> <p>Seek support from recognized expert organizations in its work on quantifying the environmental benefits of RVSM.</p>	<p>ICAO Headquarters</p> <p>ICAO Headquarters</p>	<p>2008/2010</p> <p>Ongoing</p>

ALLPIRG/5 CONCLUSIONS	FOLLOW-UP TASKS	TO BE INITIATED BY	TARGET DATE/ REMARKS
<p>CONCLUSION 5/11: AIR TRAFFIC MANAGEMENT (ATM) SAFETY MANAGEMENT</p> <p>That, ICAO:</p> <ul style="list-style-type: none"> a) urge States to give priority to the establishment and effective operation of their ATM safety management and safety regulatory functions; b) formal training in ATM safety issues and, by cooperation through regional bodies, promote collective means to optimize the effectiveness of training provision; and c) develop further measures to enable the implementation of a “just-culture” reporting environment to facilitate the reporting of ATM occurrences. 	<p>Give priority to the establishment and effective operation of their ATM safety management and safety regulatory functions.</p> <p>Develop formal training in ATM safety issues.</p> <p>Implement a “just-culture” reporting environment to facilitate the reporting of ATM occurrences.</p>	<p>States</p> <p>ICAO Regional Offices PIRGs and States.</p> <p>ICAO Regional Offices PIRGs and States.</p>	<p>Ongoing</p> <p>2008</p> <p>2008</p>
<p>CONCLUSION 5/12 COORDINATION BETWEEN REGIONAL MONITORING AGENCIES (RMAS)</p> <p>That, the ICAO EUR/NAT Office act as the initial focal point for the required coordination between RMAs in order to:</p> <ul style="list-style-type: none"> a) facilitate the exchange of monitoring and operational data between RMAs; b) facilitate the exchange information about best practices between RMAs; c) ensure that incident reports are correctly disseminated to the appropriate RMA; d) provide a forum to manage changes to monitoring requirements; and 	<p>Facilitate the exchange of monitoring and operational data between RMAs.</p> <p>Facilitate the exchange information about best practices between RMAs.</p> <p>Ensure that incident reports are correctly disseminated to the appropriate RMA.</p> <p>Provide a forum to manage changes to monitoring requirements.</p>	<p>ICAO EUR/NAT Office</p> <p>ICAO EUR/NAT Office</p> <p>ICAO EUR/NAT Office</p> <p>ICAO EUR/NAT Office</p>	<p>TBD by EUR/NAT</p>

ALLPIRG/5 CONCLUSIONS	FOLLOW-UP TASKS	TO BE INITIATED BY	TARGET DATE/ REMARKS
e) ensure the maintenance of the RMA Handbook.	Ensure the maintenance of the RMA Handbook.	ICAO EUR/NAT Office	
<p>CONCLUSION 5/13 IMPLEMENTATION OF PERFORMANCE-BASED NAVIGATION CONCEPT</p> <p>That, to increase awareness and understanding of the performance-based navigation concept and its elements:</p> <p>a) ICAO organize workshops and training activities; and</p> <p>b) where area navigation (RNAV) or required navigation performance (RNP) implementations are required, these will be implemented by PIRGs and States according to the performance-based navigation concept..</p>	<p>Organize workshops and training activities through the SIP mechanism.</p> <p>Implement performance-based navigation concept.</p>	<p>ICAO Headquarters</p> <p>ICAO Regional Offices, PIRGs, States, service providers, and international organizations.</p>	<p>2007</p> <p>2007</p>
<p>CONCLUSION 5/14: A REGIONAL ONLINE DATABASE OF AIR NAVIGATION DEFICIENCIES</p> <p>That, PIRGs consider establishing and maintaining a regional online database of air navigation deficiencies that ensures transparency and provides a secure access to authorized users.</p>	Establish and maintain a regional online database of air navigation deficiencies.	ICAO Regional Offices and PIRGs.	2007
<p>CONCLUSION 5/15: LAST RESORT ACTION TO RESOLVE REGIONAL AIR NAVIGATION DEFICIENCIES</p> <p>That, when efforts to eliminate deficiencies prove unsuccessful after exhausting all alternatives, PIRGs adopt the following last resort action, which consists of the two parts:</p> <p>a) propose the inclusion of an alternate facility/procedure in the air navigation plan (ANP); or</p>	Implement last resort action when efforts to eliminate deficiencies prove unsuccessful after exhausting all alternatives.	ICAO Regional Offices and PIRGs.	2009

ALLPIRG/5 CONCLUSIONS	FOLLOW-UP TASKS	TO BE INITIATED BY	TARGET DATE/ REMARKS
<p>b) when a corrective action as a) above cannot be recommended, provide the State(s)/Territory(ies)/users and ICAO with an analysis concerning risk associated with such a deficiency.</p>			
<p>CONCLUSION 5/16 IMPLEMENTATION OF VERY SMALL APERTURE TERMINALS (VSATS) That, PIRGs:</p> <p>a) discourage the proliferation of VSAT networks where one/some of the existing ones can be expanded to serve the new areas of interest;</p> <p>b) work towards integrated regional/interregional digital communication networks with a single (centralized) operational control and preferably based on the Internet Protocol (IP); and</p> <p>c) give due consideration to managed network services (e.g. a virtual private network (VPN)), subject to availability and cost-effectiveness.</p>	<p>Discourage the proliferation of VSAT networks.</p> <p>Work towards integrated regional/interregional digital communication networks.</p> <p>Give due consideration to managed network services.</p>	<p>ICAO Regional Offices, PIRGs, States, and service providers.</p> <p>ICAO Regional Offices, PIRGs, States, service providers, and international organizations.</p> <p>ICAO Regional Offices, PIRGs, States, service providers, and international organizations.</p>	<p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p>
<p>CONCLUSION 5/17: PROVISIONS FOR DIGITAL COMMUNICATION NETWORKS That, ICAO:</p> <p>a) expedite the development of provisions relating to the use of the Internet Protocol Suite (IPS) in the aeronautical telecommunication infrastructure; and</p>	<p>Expedite the development of provisions relating to the IPS in the aeronautical telecommunication infrastructure.</p>	<p>ICAO Headquarters</p>	<p>2007</p>

ALLPIRG/5 CONCLUSIONS	FOLLOW-UP TASKS	TO BE INITIATED BY	TARGET DATE/ REMARKS
b) initiate the development of provisions governing the end-to-end performance of digital communication networks, irrespective of the technologies and protocols utilized therein.	Develop provisions governing the end-to-end performance of digital communication networks.	ICAO Headquarters	2007
<p>CONCLUSION 5/18: CHANGES TO THE REGIONAL SUPPLEMENTARY PROCEDURES (SUPPs) (Doc 7030)</p> <p>That, ICAO:</p> <p>a) restructure the SUPPs (Doc 7030) by the complete reordering and reorganization of the material;</p> <p>b) align the area of application of the SUPPs with the area of application of the regional air navigation plans (ANPs); and</p> <p>c) make SUPPs available on a CD as well as on the ICAO website.</p>	<p>Restructure the SUPPs by the complete reordering and reorganization of the material.</p> <p>Align the area of application of the SUPPs with the area of application of the ANPs.</p> <p>Make SUPPs available on ICAO website.</p>	<p>ICAO Headquarters</p> <p>ICAO Headquarters</p> <p>ICAO Headquarters</p>	<p>2007</p> <p>2007</p> <p>2007</p>

CNS/ATM/IC SG/3
Report on Agenda Item 4

REPORT ON AGENDA ITEM 4: REVIEW OF THE REPORT OF THE GNSS TF/5

4.1 Under this Agenda Item, the meeting was informed about the outcome of the GNSS TF/5 meeting held in Cairo, 12 -14 September 2005 which had developed three draft conclusions and two draft decisions.

4.2 The meeting was informed that Galileo Joint Undertaking (GJU) provided contribution to the strategy for the GNSS implementation in the MID Region along with Innovative Solutions International (ISI) who had provided overview of the Middle East Augmentation System Test Bed (MIDAS TB), based on the technology and expertise already in operation in CANADA, US and Japan stressing on the importance of the MIDAS-TB for States to be able to have technology and operational choice of systems.

4.3 The meeting was apprised of the proposal from US Trade and Development Agency (USTDA) for feasibility studies of the possibility of implementing a GNSS in the MID Region. The meeting renewed its support for trials of all kinds of options for GNSS augmentation scenario however had concerns on these test beds and trials since Oman had signed MOU for those trials but no progress had been observed.

4.4 The meeting noted that the European Space Agency (ESA) and Galileo Joint Undertaking (GJU) were invited to provide a cost estimate related to the EGNOS extension to the MID Region and to proceed with the preparation of the detailed infrastructure implementation plan for which the meeting noted with great concern that no progress had been made on any of these activities therefore urged for follow-up with these organizations.

4.5 The meeting was updated on the ICAO Universal Safety Oversight Audit Program USOAP, which is based on the comprehensive system approach and hence decided to cancel the Draft Conclusion 5/2 emanating from GNSS TF/5 meeting.

4.6 With regard to the document Improvement of Navigation Systems in the MID Region the meeting decided to ask the task force to update it with more comprehensive information in order to turn it into more utilizable document. The meeting reviewed and updated the Strategy and Synopsis for the Implementation of GNSS in the MID Region, which are at **Appendix 4A** to the report on Agenda Item 4.

4.7 Based on the above, the meeting endorsed the following Draft Conclusion which is proposed to replace and supersede MIDANPIRG/9 Conclusion 9/36:

DRAFT CONCLUSION 3/1: REVISED STRATEGY FOR THE IMPLEMENTATION OF GNSS IN THE MID REGION

*That, the Revised Strategy for the Implementation of GNSS in the MID Region be amended as shown at **Appendix 4A** to the report on Agenda Item 4.*

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4.8 The meeting was informed that European GNSS Advisory Authority (GSA) and European Space Agency (ESA) started providing contributions for the GNSS implementation, and that ESA will be financing the EGNOS extension to some of the MID Region States which fall under the MEDiTerranean Introduction of GNSS Services (METIS) project.

4.9 The meeting noted that many GNSS activities are taking place in the MID Region. In this context, Saudi Arabia updated the meeting on the current activities and advised that implementation approach in their State will be based on steps in the following order:

1. Preparation of GNSS (GPS) Implementation in the Saudi Arabia

The implementation of GNSS in the Saudi Arabia requires some preparatory measures. This covers mainly strategic planning respectively the development of a GNSS strategy, conduct of Safety Plan and Safety/Risk Assessment, the availability of all coordinates in WGS- 84 and other preconditions for the safe and efficient use of GNSS as a means of navigation.

2. Implementation of GNSS (GPS) for Non-Precision Approaches

This allows the achievement of early benefits, especially when they are designed as stand-alone approaches. Instrument Departure (SID) and Arrival (STAR) to be implemented where ever needed. Overlay procedures will not be introduced since they do not bring any benefits in comparison to the already existing conventional approaches.

3. Implementation of GNSS (GPS) for En-route Navigation

Implementation of GNSS en-route navigation is closely linked to the implementation in terminal airspace. However, start with en-route first since it will require a significant airspace redesign. If implementing the procedures for terminal areas first which are in fact the linkage between approach/departure and en-route, this could mean that they most likely have to be redesigned after en-route implementation.

4. Implementation of GNSS (GPS) for Terminal Areas

As stated in STEP 3, GNSS (GPS) procedures for the terminal area are the connection between approach/departure and en-route. Therefore, the respective procedures will be implemented after en-route airspace redesign. Since GNSS (GPS) implementation for en-route and terminal areas partially requires very similar measures, a significant amount of the work for steps 3 and 4 should be done in parallel for efficiency reasons.

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5. Implementation of GNSS (GPS) for Precision Approaches and Galileo

Saudi Arabia has to make strategic decisions on further steps of GNSS implementation. This may be the introduction of GNSS-based precision approach using GBAS or the use of Galileo as an additional means of satellite navigation. Whilst the operational availability of GBAS as a means of navigation is just round the corner, the operational use of Galileo depends on the progress of the overall program which is planned to be in operation in 2010.

6. Analyze and review the structure of Saudi Arabia Airspace based on GNSS

In order to optimize the airspace capacity and flexibility in Saudi Arabia, the airspace structure need to be analyzed and restructured based on GNSS services and other elements of CNS/ATM systems.

4.10 The meeting was further advised by Saudi Arabia that the above steps are to be modified to take into account local conditions and where necessary ICAO global plan and regional plan.

4.11 After reviewing the various GNSS activities in the Region, and in order to improve coordination, avoid duplication of efforts, share experiences gained and get the maximum benefits of these activities, the meeting agreed on the following Draft Conclusion:

DRAFT CONCLUSION 3/2: COORDINATION OF GNSS ACTIVITIES

That,

- a) *all GNSS activities be coordinated inline with the MID Region GNSS Strategy;*
- b) *MID States;*
 - i) *share experience gained during demos, test bed trials and implementation;*
 - ii) *provide input to the GNSS Task Force;*
 - iii) *are encouraged to participate in the GNSS Research and Development in a coordinated manner; and*
 - iv) *designate GNSS focal points and send their contact details to the ICAO MID Regional Office prior to 31 May 2007.*

4.12 The meeting reviewed and updated the Terms of Reference and Work program of the GNSS Task Force as at **Appendix 4B** to the report on Agenda Item 4. Accordingly, the meeting developed the following Draft Decision:

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DRAFT DECISION 3/3: **REVISED TERMS OF REFERENCE AND WORK PROGRAMME FOR
THE GNSS TASK FORCE**

*That, the revised Terms of Reference and Work Programme of the GNSS Task Force be adopted as presented at **Appendix 4B** to the report on Agenda Item 4.*

4.13 The meeting recalled MIDANPIRG/9 Conclusion 9/33 – Further Test Activities and Studies of EGNOS in the MID Region, Conclusion 9/35 – Cost-Benefit Consideration for Augmentation Systems, and agreed that different parties involved are to speed up their tasks in order for the Task Force to consider the suitable augmentation system to be implemented in the MID Region.

4.14 The meeting noted with concern the low attendance to the GNSS TF, consequently urged States to send their experts to participate in the GNSS TF meeting specially that there are many activities for GNSS in the region which needs to be coordinated for the benefit of the whole region, and was of the view to cancel GNSS TF/5 Draft Decision 5/5 since it was already addressed by MIDANPIRG Member States third meeting (MMS/3), Jeddah 4-6 September 2006.

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Appendix 4A to the Report on Agenda Item 4

**REVISED STRATEGY FOR THE IMPLEMENTATION OF GNSS
IN THE MID REGION**

Considering:

- a) That safety is the highest priority.
- b) That elements of Global Air Navigation Plan for CNS/ATM System on GNSS and requirements for the GNSS implementation will be incorporated into the CNS part of FASID.
- c) That GNSS Standards and Recommended Practices (SARPs), PANS and guidance material for GNSS implementation are available.
- d) That regional augmentation systems include both satellite-based and ground-based systems.
- e) That human, environmental and economic factors will affect the implementation.
- f) The availability of avionics including limitations of some receiver designs; the ability of aircraft to achieve RNP requirements and the level of user equipage.
- g) The development of GNSS systems including satellite constellations and improvement in system performance.
- h) The airworthiness and operational approvals allowing the current GNSS applied for en-route and non-precision approach phases of flight without the need for augmentation services external to the aircraft.
- i) The development status of aircraft-based augmentation systems.

The general strategy for the implementation of GNSS in the MID Region is detailed below.

- 1) There should be an examination of the extent to which the GNSS system accessible in the Region can meet the navigational requirements of ATM service providers and aircraft operators in the Region.
- 2) Evolutionary introduction of GNSS Navigation Capability should be consistent with the Global Air Navigation Plan.
- 3) Implementation should be in full compliance with ICAO Standards and Recommended Practices and PANS.
- 4) Introduce the use of GNSS for navigation in remote/oceanic areas.
- 5) Introduce the use of GNSS with appropriate augmentation systems, as required, for en-route navigation, non-precision approach, APV BaroVNAV, APV I and APV II. States and airspace users take note of the available and upcoming SBAS navigation services

providing for APV operations and take necessary steps towards installation and certification of SBAS capable avionics.

- 6) Any external augmentation system deemed necessary for the implementation of GNSS for a particular flight phase in an area under consideration (SBAS/GBAS including ground-based regional augmentation system) should be implemented in full compliance with ICAO SARPs.

States, in their planning and introduction of GNSS services, take full advantage of future benefits accrued from using independent core satellite constellations, other GNSS elements and their combinations, and avoid limitations on the use of specific system elements.

- 7) To the extent possible, States should work co-operatively on multinational basis to implement GNSS augmentation system in order to facilitate seamless and inter-operable systems.
- 8) States consider segregating traffic according to navigation capability and granting preferred routes to aircraft with better navigation performance with the exception to State aircraft.
- 9) States undertake a coordinated R & D program on GNSS implementation and operation.
- 10) ICAO and States should undertake education and training programs to provide necessary knowledge in GNSS theory and operational application.
- 11) States establish multidisciplinary GNSS implementation teams, using section 5.2.2 and Appendix C of ICAO Document 9849, GNSS Manual.
- 12) States, in their planning for implementation of GNSS services, provide effective spectrum management and protection of GNSS frequencies to reduce the possibility of unintentional interference.
- 13) A synopsis of the MID Strategy is in **Attachment 1**.

Synopsis of the MID GNSS Strategy

📌 Phase One (up to 2010)

- a- GNSS with appropriate augmentation system for en-route navigation, terminal and NPA
- b- GNSS for approaches with vertical guidance(APV BaroVNAV + ABAS)
- c- Decommissioning of NDBs

📌 Phase Two (2011 to 2015)

- a - GNSS with appropriate augmentation system for en-route navigation terminal and NPA
- b - Complete decommissioning of NDBs
- c - GNSS for approaches with vertical guidance(APV BaroVNAV + ABAS,APV I and APV II)
- d - Decommissioning of VORs
- e - ILS maintained at airports

📌 Phase Three (2016 onwards)

- a - GNSS with appropriate augmentation system for en-route navigation terminal, NPA , APV, and CAT I precision approach
- b - Complete decommissioning of VORs
- c - Rationalization of DMEs
- d - Decommissioning of ILS CAT I
- e - CAT II/III requirements implemented by GBAS where operationally required and economically beneficial

**GLOBAL NAVIGATION SATELLITE SYSTEMS TASK FORCE
(GNSS TF)**

TERMS OF REFERENCE AND WORK PROGRAMME

1. TERMS OF REFERENCE

In accordance with the operational concept and general planning principles of the global air navigation plan for CNS/ATM, the GNSS Task Force shall:

- 1) Monitor necessary studies, demonstrations, trials, test beds and cost benefit analyses related to the use of GNSS for all phases of flight in the MID region.
- 2) Monitor the progress of updated studies, projects, trials and demonstrations by the MID Region States, and information available from other Regions.
- 3) Develop a coordinated strategy/plan for the implementation of GNSS in the MID region in an evolutionary manner, taking into consideration the new CNS technologies and the requirements and expectations of the airspace users and ATM partners.
- 4) Provide a forum for active exchange of information between States related to the implementation of GNSS.
- 5) Identify deficiencies and constraints that would impede implementation of GNSS, and propose solutions that would facilitate the rectification of such problems.
- 6) Identify and address as appropriate, possible sources of funding to facilitate GNSS implementation in the MID Region.
- 7) Identify and address, to the extent possible, institutional financial and legal matters related to the GNSS implementation in the MID Region.
- 8) Develop a system of post-implementation reviews to ensure the effective and safe introduction of GNSS operation.
- 9) Develop guidance material and processes covering the operational approval of GNSS.

2. WORK PROGRAMME

Ref	Tasks	Priority	Target Completion Date
1	Monitor the progress achieved by the MIDAN Demo related to the feasibility study pertaining to the possible use of EGNOS as GNSS augmentation system in the MID Region.	A	2007
2	Monitor the study related to the possible use of WAAS as GNSS augmentation system in the MID Region.	B	2007
3	Monitor the progress of the NAVISAT study.	A	2007
4	Follow up the progress achieved in GNSS activities in adjacent regions.	B	2008
5	Review and identify intra and inter regional co-ordination issues related to the implementation of GNSS and where appropriate recommend actions to address those issues.	B	2008
6	Examine to what extent the GNSS system accessible in the Region can meet the navigational requirements of ATM service providers and aircraft operators in the Region.	B	Ongoing
7	Identify and co-ordinate GNSS implementation priorities in the MID Region.	B	2007
8	Provide assistance to States in planning and implementation of GNSS in the MID Region including the development of GNSS procedures.	B	2008
9	Suggest ways and means for rectifying the problems as they arise related to the implementation of GNSS.	B	2008
10	Provide necessary knowledge in GNSS theory and operational application.	B	2008
11	Assist States to establish proper training and education programmes related to the implementation of GNSS.	B	2008

3. PRIORITIES

- A High priority tasks, on which work should be speeded up.
- B Medium priority tasks, on which work should begin as soon as possible, but without detriment to priority A tasks.
- C Tasks of lesser priority, on which work should begin as time and resources allow, but without detriment to priority A and B tasks.

4. COMPOSITION

The GNSS Task Force is composed of the 15 MID Region Provider States and IATA.

CNS/ATM/IC SG/3
Report on Agenda Item 5

**REPORT ON AGENDA ITEM 5: REVIEW OF THE OUTCOME OF THE ATM/SAR/AIS SG/8
AND CNS/MET SG/7 MEETINGS**

5.1 Review of the outcome of the ATM/SAR/AIS SG/8

5.1.1 Under this Agenda Item, the meeting was apprised of the outcome of the eighth meeting of the ATM/SAR/AIS Sub-Group (ATM/SAR/AIS SG/8), which was held in Muscat, Oman from 20 to 23 November 2006. The meeting recalled that the ATM/SAR/AIS Sub-Group reports directly to MIDANPIRG and that the outcome of the ATM/SAR/AIS SG/8 would be presented to MIDANPIRG/10.

5.1.2 The meeting noted that the main subjects addressed by the ATM/SAR/AIS SG/8 meeting are as follows:

- ATS Route Network and Civil/Military Coordination;
- RVSM operations and Monitoring activities in the MID Region;
- SSR Code Allocation Plan (CAP) for the MID Region;
- ATS Safety Management Systems and Incident Analysis;
- Contingency Plans;
- Latest developments in the ATM field;
- AIS/MAP issues; and
- Air Navigation deficiencies in the ATM/SAR and AIS/MAP fields

5.1.3 The meeting noted that the ATM/SAR/AIS SG/8 meeting developed 24 Draft Conclusions and 8 Draft Decisions covering the ATM, SAR and AIS/MAP fields as at **Appendix 5A** to the report on Agenda Item 5.

5.1.4 The meeting noted that the ATM/SAR/AIS SG/8 meeting reviewed the requirements of the MID ATS route network and double checked the revised version of the Table ATS1 of the MID Basic ANP at **Appendix 5B** to the report on Agenda Item 5. The meeting supported the proposal to delete the ATS routes, which have not been implemented since long time and which are listed in the list of air navigation deficiencies, from the MID Basic ANP and to transfer them to a separate file called “Future ATS Route requirements” as at **Appendix 5C** to the report on Agenda Item 5.

5.1.5 With regard to RVSM operations and Monitoring activities in the MID Region, the meeting noted with appreciation that the MID RMA Project Action Plan is progressing well and that a draft of the RVSM Post-Implementation Safety Analysis (PISA) is already available and will be presented to the MID RMA Board/4 meeting, which will be held in Cairo from 21 to 22 March 2007. Furthermore, the meeting was informed that PISA demonstrated that RVSM operations in the MID Region met three safety objectives out of four.

5.1.6 The meeting supported the Draft Conclusions emanating from the ATM/SAR/AIS SG/8 meeting related to the ATS Safety Management Systems and Incident Analyses, and it was emphasized that States need to put strong efforts to initiate legislative changes to foster a “Just Culture” environment and implement effective non-punitive reporting mechanisms.

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5.1.7 With regard to the issue of development and promulgation of contingency plans, the meeting shared the concerns raised by the ATM/SAR/AIS SG/8 meeting and noted that the implementation of contingency plans in the MID Region remains far below expectation. The meeting reiterated MIDANPIRG/9 Conclusion 9/41, requesting that the MIDANPIRG subsidiary bodies revise their Terms of Reference (TOR) to include the development of regional guidance material leading to a MID Regional Contingency Plan for ATM including supporting CNS elements. The meeting noted with appreciation that the ICAO MID Office will carry out a survey on the status of development and promulgation of contingency plans in the Region.

5.1.8 Under the agenda item related to the latest development in the ATM field, the meeting noted that the ATM/SAR/AIS SG/8 meeting addressed the issue of Performance Based Navigation (PBN) and agreed that the RVSM/PBN Task Force follow-up the developments related to PBN and develop a MID Region strategy to implement the PBN concept.

5.1.9 The meeting noted also that the ATM/SAR/AIS SG/8 meeting reviewed the report of the AIS/MAP TF/3 meeting and developed several conclusions and decisions with a view to improve the quality of the aeronautical information services provided by MID States. With respect to the new provisions of Annex 15 related to electronic Terrain and Obstacle Data (eTOD), it was noted that the ATM/SAR/AIS SG/8 meeting recommended that a Collaborative approach be followed by MID States for the implementation of eTOD Requirements and for the harmonization and coordination of eTOD implementation activities on a regional basis.

5.1.10 In support of the evolution from a system-based to a performance-based approach to planning and implementation of air navigation, the meeting noted that the ATM/SAR/AIS SG/8 meeting proposed 7 projects in the ATM/SAR and AIS/MAP fields for review by the CNS/ATM/IC Sub-Group before submission to MIDANPIRG.

5.2 Review of the outcome of the CNS/MET SG/7 meeting

5.2.1 Under this Agenda Item, the meeting was apprised of the outcome of the seventh meeting of the CNS/MET Sub Group (CNS/MET SG/7), which was held in Cairo, Egypt from 31 October-02 November 2006 and had developed 11 Draft Conclusions and 4 Draft Decisions covering the CNS and MET fields as at **Appendix 5D** to the report on Agenda Item 5.

5.2.2 The meeting noted that CNS/MET SG/7 meeting as per its TOR updated the AFTN/CIDIN directory and took actions for the various proposals on circuits issues also updated the list of CNS deficiencies. It was also noted that Egypt had presented to CNS/MET SG/7 meeting updates on the NAFISAT project indicating that many States already signed the MOUs and that NAFISAT will solve most of the communication infrastructure deficiencies with AFI Region.

5.2.3 The meeting noted the establishment of the Ad-Hoc Action Group for the support of the Aeronautical Frequency bands in accordance with MIDANPIRG Conclusion 9/49. The meeting further noted with appreciation that ICAO MID Regional Office had sent a State Letter on 08 December 2006 requesting the names of the nominees. In this regard Bahrain and Egypt provided the names of their participants to the group while reply is still awaited from the rest of States.

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5.2.4 The meeting noted that States are to consider ICAO position when developing their States position for World Radio Conference 2007 (WRC-07) and to support the ICAO position during the coming WRC-07. Furthermore it was highlighted that active support from States is deemed the only means to ensure that the results of the WRC-07 reflect civil aviation's need for spectrum (Assembly Resolution A32-13 refers). The meeting therefore agreed that, to the fullest extent possible, representatives from civil aviation administrations are included in the national delegations to the conference.

5.2.5 The meeting noted that the CNS/MET SG/7 meeting reviewed at the latest development of ICAO material and feasibility of using TCP/IP protocols or the Internet Protocol Suite (IPS) and agreed that MID region ATN plan will have phased implementation taking into consideration the current systems or implementations AFTN, IPv4 implementations, ATN/OSI, VDL Mode 2 to continue to operate and/or phased out at a locally required pace with a goal of a global network using TCP/IPv6.

5.2.6 The meeting also noted that ATN Working Group for the development of the MID Regional ATN planning document will continue its work with experts from (Bahrain, Egypt, Iran, Kuwait, Oman and Saudi Arabia) and that experts in the Group will be defined by names.

5.2.7 Syria updated the meeting on the installation of new AFTN system and expressed the need for additional circuits. The meeting was of the view that this subject has to be brought up by Syria in the next CNS/MET Subgroup meeting.

5.2.8 The meeting noted that MID VSAT project was extensively discussed during CNS/MET SG/7 meeting and it was agreed that concerned States commit themselves to the project by signing MOU.

CNS/ATM/IC SG/3
Appendix 5A to the Report on Agenda Item 5

ATM/SAR/AIS SG/8
LIST OF DRAFT CONCLUSIONS AND DECISIONS

DRAFT CONCLUSION 8/1: MID ATS ROUTE NETWORK

That, pending MIDANPIRG/10 approval:

- a) the MID Basic ANP Table ATS 1 be amended in accordance with approved procedures to reflect the changes agreed by the ATM/SAR/AIS Sub Group as at **Appendix 3A** to the report on Agenda Item 3; and
- b) the list of Future ATS Route requirements at **Appendix 3B** to the report on Agenda Item 3, be used within the framework of the ATM/SAR/AIS Sub Group for future improvements of the MID ATS route network.

DRAFT CONCLUSION 8/2: CIVIL/MILITARY COORDINATION

That, with a view to ensure effective/optimum civil/military co-ordination and joint use of airspace with a maximum degree of safety, regularity and efficiency of international civil air traffic, States which have not yet done so, are urged to:

- a) implement Assembly Resolution A35-14 Appendix P and the provision of Annexes 2, 11 and 15 as well as LIM MID (COM/MET/RAC) RAN Meeting 1996, Recommendations 2/9, 2/10 and 2/13;
- b) give due consideration to the urgent establishment of civil/military coordination bodies for airspace management and air traffic control;
- c) arrange for letters of agreement (LOAs) to be signed between ATS authorities and Military authorities in order to establish coordination procedures for the exchange of information; and
- d) ensure that the Military authorities are:
 - i. fully 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 and training sessions, as appropriate.

DRAFT CONCLUSION 8/3: COORDINATION OF FLIGHTS OPERATING OVER HIGH SEAS

That, taking into consideration that the Convention on International Civil Aviation shall be applicable only to civil aircraft:

- a) all parties involved are urged to ensure that proper coordination between the ATS authorities and foreign military units operating over the high seas be carried out to the extent practicable;

- b) State aircraft operating in airspace over high seas, should:
 - i) adhere, to the extent practicable, to ICAO provisions; or
 - ii) operate with “Due Regard” for the safety of navigation of civil aircraft where there are operational situations that do not lend themselves to ICAO flight procedures.
- c) States report any incident relating to uncoordinated flights operating over high seas, in a timely manner (within 15 days) and in accordance with the suggested mechanism illustrated in the flow chart at **Appendix 3C** to the report on Agenda Item 3.

DRAFT CONCLUSION 8/4: UNCOORDINATED FLIGHTS OVER THE RED SEA AREA

That,

- a) the procedures at **Appendix 3D** to the report on Agenda Item 3, be followed by all civil uncoordinated flights and, to the extent practicable, to military aircraft operating over the Red Sea area;
- b) States, which have not yet done so, publish an AIP Supplement, as soon as possible, for the promulgation of these procedures;
- c) IATA continue its effort in ensuring that concerned operators are fully conversant with these procedures;
- d) all parties involved, through their proper channels, take appropriate action to ensure that the airspace users be informed of and comply with the agreed procedures; and
- e) States:
 - i) report without delay all incidents relating to civil uncoordinated flights over the Red Sea Area; and
 - ii) report any incident relating to State aircraft operating over the Red Sea Area, in a timely manner (within 15 days) and in accordance with the suggested mechanism illustrated in the flow chart at **Appendix 3C** to the report on Agenda Item 3.

DRAFT CONCLUSION 8/5: PROVISION OF DATA FOR THE DEVELOPMENT OF THE RVSM POST-IMPLEMENTATION SAFETY ANALYSIS

That, in accordance with MIDANPIRG/9 Conclusion 9/23 and with a view to have the RVSM post-implementation safety analysis ready before MIDANPIRG/10 meeting:

- a) States, who have not yet done so, provide the required data to the MID RMA as soon as possible;
- b) States not providing the required data to the MID RMA, in accordance with the requirements of safety monitoring agencies, be included in the MIDANPIRG List of air navigation deficiencies;
- c) the MID RMA ensure that the requests for provision of data are extended to MID States’ RVSM Programme Managers and their Alternates in order to carry out the necessary internal coordination and speed up the process of collection of data; and

-
- d) States ensure that good communication and cooperation between the RVSM Programme Managers and the MID RMA Board Members is established and observed.

DRAFT CONCLUSION 8/6: SPECIAL BAGHDAD FIR COORDINATION MEETING

That, with a view to address coordination issues between Iraq and its adjacent States, a Special Baghdad FIR Coordination Meeting be organized under the aegis of ICAO with the attendance of Iraq, Iran, Jordan, Kuwait, Saudi Arabia, Syria, Turkey, IATA, IFALPA, FAA, the Combined Forces Air Component Commander (CFACC) and the MID RMA.

DRAFT CONCLUSION 8/7: SURVEY RELATIVE TO THE IMPROPER HANDLING OF FPLS AND ASSOCIATED ATS MESSAGES

That,

- a) the methodology for the identification of causes of improper handling of FPLs and associated ATS messages at **Appendix 4A** to the report on Agenda Item 5 is endorsed; and
- b) States carry out a survey relative to the improper handling of FPLs and associated ATS messages based on this methodology for a period of at least one month.

DRAFT CONCLUSION 8/8: FLEXIBLE HANDLING OF TRAFFIC INTENDING TO USE THE RVSM AIRSPACE

That, in accordance with the provisions of the ATC MANUAL FOR A REDUCED VERTICAL SEPARATION MINIMUM (RVSM) IN THE MID REGION, and with a view to enhance the safety and efficiency of air navigation in the MID Region:

- a) States are urged to refrain from taking actions unilaterally to systematically penalize the flights intending to use the RVSM airspace when:
- i) there's a doubt about the aircraft's RVSM approval status (missing of letter "W" from the FPL); or
 - ii) the FPL was not received; and
- b) States are invited to show more flexibility in dealing with this issue.

DRAFT DECISION 8/9: ESTABLISHMENT OF A MID REGION SSR CODE STUDY GROUP

That, the MID Region SSR Code Study Group be established with the terms of reference as at Appendix 5A to the report on Agenda Item 5.

DRAFT CONCLUSION 8/10: REPORTING MECHANISM AND SHARING OF SAFETY-RELATED INFORMATION

That, States:

- a) update their legislation to support a "just culture" reporting environment as part of their safety programme;

- b) develop and implement non-punitive reporting mechanisms as part of their safety programme for the identification of hazards and assessment of risks in order to implement appropriate mitigating measures;
- c) designate focal points to whom operators can send incident reports for investigation and resolution and from whom they could request information for clarification purpose; and
- d) share information on ATS incidents and accidents.

DRAFT CONCLUSION 8/11: SURVEY ON ATS SAFETY MANAGEMENT

That,

- a) States, that have not yet done so, are urged to establish a safety programme in order to achieve an acceptable level of safety in the provision of ATS;
- b) with a view to obtain information from MID States regarding the status of implementation of SMS within their Air Traffic Services and/or the difficulties they face to implement the required system, ICAO MID Regional Office carry out a survey on the implementation of SMS; and
- c) States take advantage of the SMS guidance material available and training courses offered by ICAO.

DRAFT CONCLUSION 8/12: DEVELOPMENT AND PROMULGATION OF CONTINGENCY PLANS

That,

- a) States are urged to develop and promulgate contingency plans in accordance with Annex 11 and Annex 15 provisions;
- b) ICAO MID Office carry out a survey on the status of development and promulgation of contingency plans in the Region;
- c) States use the template at **Appendix 7A** to the report on Agenda Item 7 for the development and promulgation of contingency plans; and
- d) the relevant subsidiary bodies of MIDANPIRG revise their Terms of Reference (TOR) to include the development of regional guidance material leading to a MID Regional Contingency Plan for ATM including supporting CNS elements.

DRAFT CONCLUSION 8/13: SAR AGREEMENT

That, with a view to strengthen search and rescue cooperation and coordination:

- a) States are urged to sign SAR agreements with their neighboring States; and
- b) The model of SAR agreement available in the International Aeronautical and Maritime Search and Rescue Manual (IAMSAR Manual) attached as **Appendix 8A** to the report on agenda item 8, be used to guide States in the development of their own SAR agreements.

DRAFT CONCLUSION 8/14: 406 MHz BEACON REGISTRATION DATABASE (IBRD)

Taking into consideration that:

- i) the International 406 MHz Beacon Registration Database (IBRD) became operational on 16 January 2006;
- ii) the service that Cospas-Sarsat System can provide to users of 406 MHz ELTs is much enhanced over that available to 121.5 ELT users; and
- iii) Cospas-Sarsat will cease processing of 121.5/243 MHz ELTs from 1 February 2009.

That, accordingly:

- a) all ELT owners and users of 121.5/243 MHz ELTs are invited to upgrade to 406 MHz ELT as soon as possible and in any case before 1 February 2009;
- b) all ELT owners register their 406 MHz ELTs in the IBRD database; and
- c) States are invited to designate an IBRD focal point and request that Cospas-Sarsat allocate for him a user identification and password with a view to access the IBRD database and take full advantage of the service available.

DRAFT DECISION 8/15: MID REGION PBN STRATEGY

That, the RVSM /PBN Task Force:

- a) follow up the developments related to Performance Based Navigation (PBN); and
- b) develop a MID Region strategy to implement the PBN concept.

DRAFT CONCLUSION 8/16: ICAO LANGUAGE PROFICIENCY

That, with a view to expedite the process of implementation of the ICAO Language proficiency requirements, States are urged to:

- a) ensure that all stakeholders (pilots, controllers, language teachers, regulators etc.) are familiar with the ICAO language proficiency requirements;
- b) adopt/incorporate the ICAO language proficiency requirements (Amendment 164 to Annex 1) into national legislation;
- c) establish a plan to coordinate administrative and training matters (testing, number of personnel to be trained, training centres, duration of training, etc.);-
- d) develop/select test(s) to meet ICAO language proficiency requirements;
- e) assess current language proficiency level of controllers and pilots, according to the ICAO rating scale;

-
- f) develop language training packages designed to reduce the gap between current language proficiency level and ICAO Level 4;
 - g) develop language training package to maintain language proficiency and a schedule of language refresher training;
 - h) review recruitment and selection procedures and consider a minimum of at least ICAO level 3 in language proficiency before entry to professional training programmes; and
 - i) present reports to ICAO on progress achieved in preparing for implementation of ICAO language proficiency requirements, on regular basis.

DRAFT CONCLUSION 8/17: USE OF THE ENGLISH LANGUAGE AND STANDARD ICAO PHRASEOLOGY

That,

- a) States are urged to ensure that their air traffic controllers and pilots use the standard ICAO phraseology in aeronautical communication; and
- b) with a view to improve situational awareness and prevent the occurrence of ATS incidents and accidents, States are invited to implement measures that require or encourage air traffic controllers and pilots to:
 - i) use as much as possible the English language in aeronautical communication; and
 - ii) use only the English language in aeronautical communication, in all situations where at least one of the pilots in the environment (sector) does not speak the national language.

DRAFT CONCLUSION 8/18: USE OF EMAIL TO ENHANCE COMMUNICATION BETWEEN THE AIS COMMUNITY IN THE MID REGION

That, with a view to enhance the communication between the AIS Community in the MID Region:

- a) States, who have not yet done so, publish in their AIP (para. GEN 3.1.1) their AIS email address, as soon as possible; and
- b) ICAO consider the amendment of Annex 15 Appendix 1, para. GEN 3.1.1 to add such requirement.

DRAFT CONCLUSION 8/19: ADVANCE POSTING OF THE AIRAC INFORMATION ON THE WEB

That, with a view to improve the timeliness of aeronautical information, MID States are invited to arrange for the advance posting of AIRAC information on the web, before dissemination of the official hardcopies of the AIP Amendment/ Supplement.

DRAFT CONCLUSION 8/20: ELECTRONIC AIP (eAIP)

That,

- a) pending the development of Global eAIP provisions, MID States, who have not yet done so, publish their Integrated Aeronautical Information Package in PDF/HTML format on a CD-ROM, without discontinuing the provision of the information in hardcopy; and
- b) in order to prevent proliferation of eAIP formats, ICAO consider developing necessary specifications and clear provisions related to the eAIP content, structure, presentation and format.

DRAFT CONCLUSION 8/21: METHODOLOGY FOR THE IMPLEMENTATION OF QMS WITHIN MID STATES' AISs

That, States who have not yet implemented a QMS within their AIS, are urged to apply the methodology at **Appendix 10A** to the report on Agenda Item 10.

DRAFT DECISION 8/22: ESTABLISHMENT OF A QMS IMPLEMENTATION ACTION GROUP

That, the QMS implementation Action Group is established with Terms of Reference as at **Appendix 10B** to the report on Agenda Item 10.

DRAFT CONCLUSION 8/23: LICENSING OF THE AIS/MAP PERSONNEL

That, recognizing the importance of AIS and the safety implication of the non-provision of timely and high quality aeronautical information, and taking into consideration Annex 15 requirements for the evaluation and maintenance of the competence/skill of the AIS staff, ICAO consider the introduction of the licensing of the AIS/MAP personnel as a Recommended Practice in Annex 1.

DRAFT CONCLUSION 8/24: ROADMAP FOR THE IMPLEMENTATION OF eTOD Requirements

That,

- a) States develop their plans related to the implementation of eTOD requirements; and
- b) communicate their implementation roadmap to the ICAO MID Regional Office, prior to **31 December 2006**, specifying clearly if they would encounter any difficulty to comply with the dates of applicability.

DRAFT CONCLUSION 8/25: COLLABORATIVE APPROACH FOR THE IMPLEMENTATION OF eTOD REQUIREMENTS

That, with a view to expedite the implementation of eTOD requirements, MID States:

- a) develop a high level policy for the management of a national eTOD programme;
- b) define clearly the responsibilities and roles of the different Administrations within and outside the Civil Aviation Authority in the implementation process (AIS, Aerodromes, Military, National Geographic and Topographic Administrations/Agencies, etc); and
- c) secure the necessary resources for the eTOD programme.

DRAFT DECISION 8/26: ESTABLISHMENT OF AN eTOD WORKING GROUP

That, for harmonization and coordination of eTOD implementation activities on a regional basis, the electronic Terrain and Obstacle Data Working Group is established with Terms of Reference as at **Appendix 10C** to the report on Agenda Item 10.

DRAFT CONCLUSION 8/27: AIS/MAP TIMELINES FOR THE MID REGION

That, the AIS/MAP Timelines for the MID Region be updated as at **Appendix 10D** to the report on Agenda Item 10.

DRAFT DECISION 8/28: REVISED TERMS OF REFERENCE AND WORK PROGRAMME OF THE AIS/MAP TASK FORCE

That, the AIS/MAP Task Force's Terms of Reference and Work Programme be updated as at **Appendix 10E** to the report on Agenda Item 10.

DRAFT CONCLUSION 8/29: FOLLOW-UP ON THE OUTCOME OF THE GLOBAL AIS CONGRESS

That, ICAO, with the support of States and international organizations, take necessary follow-up action, as soon as possible, to implement the Recommendations of the Global AIS Congress.

DRAFT DECISION 8/30: REVISED TOR OF THE ATM/SAR/AIS SUB-GROUP

That, the Terms of Reference and Work Programme of the ATM/SAR/AIS Sub-Group be updated as at Appendix 12A to the report on Agenda Item 12.

DRAFT DECISION 8/31: ESTABLISHMENT OF THE RVSM/PBN TASK FORCE

That,

- a) the RVSM and RNP/RNAV Task Forces are merged; and
- b) the TOR of the new established RVSM/PBN Task Force are at **Appendix 12B** to the report on Agenda Item 12.

DRAFT DECISION 8/32: IMPLEMENTATION OF WORK PROGRAMME IN SUPPORT OF STRATEGIC PERFORMANCE OBJECTIVES

That, in support of the evolution from a system-based to a performance-based approach to planning and implementation of air navigation, the following projects in the ATM/SAR and AIS/MAP fields be proposed for review by the CNS/ATM/IC Sub-Group before submission to MIDANPIRG:

- a) Improvement of the MID ATS route structure (FUA, dynamic and flexible ATS route management, improved Civil/Military coordination, etc);
- b) Enhancement of MID States' TMA management;
- c) MID RMA operations continuity;
- d) Support of the introduction and implementation of SMS in the MID States;

- e) Development of MID States' contingency plans;
- f) Improvement of the quality and efficiency of aeronautical information services provided by MID States; and
- g) Provision of eTOD by MID States.

CNS/ATM/IC SG/3
Appendix 5B to the Report on Agenda Item 5

TABLE ATS 1 – ATS ROUTES
TABLEAU ATS 1 – ROUTES ATS
TABLA ATS 1 – RUTAS ATS

EXPLANATION OF THE TABLE

Column

- 1 Designator of ATS route.
- 2 Significant points defining the ATS routes. Only prominent locations have been listed. Additional points where facilities are provided to complete navigational guidance along a route, but not otherwise marking significant characteristics of the route (change of heading of centre line, intersection with other routes, etc.) have normally not been included. Locations shown in parentheses indicate significant points outside the Region.
- Note 1. Not representing the operator's requirements. Operator's required route and/or nav aids are shown in square brackets ([]).*
- Note 2. Subject to further study. Including the associated navigation aid coverage.*
- Note 3. Subject to military agreement.*
- Note 4. Not acceptable at present.*
- Note 5. At present, implementation possible only during specific periods (e.g. weekends, nights, etc., as published).*
- Note 6. At present, implementation of the RNAV route only possible above FL 300, or as published.*
- Note 7. Unidirectional use.*

Whenever reference to name States is made in Table ATS 1 in connection with the above notes, the following abbreviations, based on those indicated in Location Indicators (Doc 7910), are used:

HE	Egypt
HL	Libyan Arab Jamahiriya
HS	Sudan
LC	Cyprus
LL	Israel
OA	Afghanistan
OB	Kingdom of Bahrain
OE	Saudi Arabia
OI	Iran, Islamic Republic of
OJ	Jordan
OK	Kuwait
OL	Lebanon
OM	United Arab Emirates
OO	Oman
OP	Pakistan
OR	Iraq
OS	Syrian Arab Republic
OT	Qatar
OY	Yemen

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

A145	(LUXOR) WEJH GASSIM KING FAHD	UA145	(LUXOR) WEJH GASSIM KING FAHD
A219	(NAWABSHAH) SERKA 2951.0N 06615.0E KANDAHAR (TERMEZ)	UA219	(NAWABSHAH) SERKA 2951.0N 06615.0E KANDAHAR (TERMEZ)
A408	(ADDIS ABABA) SALEH 14000N 042000E HODEIDAH	UA408	(ADDIS ABABA) SALEH 14000N 042000E HODEIDAH
A411	(CAIRO) SHARM EL SHEIKH PASAM 2730.8N 03455.7E *Note 7(OE) WEJH KING ABDULAZIZ JAZAN SANA'A	UA411	(CAIRO) SHARM EL SHEIKH PASAM 2730.8N 03455.7E *Note 7(OE) WEJH KING ABDULAZIZ JAZAN SANA'A
A412	JERUSALEM * Note 4(OJ) AMMAN ZELAF 3257.0N 03800.0E TANF	UA412	JERUSALEM* Note 4(OJ) AMMAN ZELAF 3257.0N 03800.0E TANF
A413	TESSO 2828.9N 04927.4E VUXAL 2835.5N 04946.1E ALNIN 2840.9N 05001.6E BUSHEHR	UA413	TESSO 2828.9N 04927.4E VUXAL 2835.5N 04946.1E ALNIN 2840.9N 05001.6E BUSHEHR
A414	GITLA 3219.1N 03402.8E (SITIA)	UA414	GITLA 3219.1N 03402.8E (SITIA)
A415	KING KHALID DOHA * Note 5(OE,OB) SHARJAH	UA415	KING KHALID DOHA * Note 5(OE,OB) SHARJAH
A416	ARDABIL RASHT NOSHAHR DASHTE NAZ SABZEVAR	UA416	ARDABIL RASHT NOSHAHR DASHTE NAZ SABZEVAR

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

A417 **PUTRA 165432N 0525631E**
LOTEL 180926N0514103E
 IMPOS 183136N 0511848E
 SILPA 184953N 0510158E
 ASTIN 200410N 0495320E
 NONGA 205048N 0492014E
 ALRIK 220631N 0482535E
 AMBAG 230529N 0474611E
 RESAL 240649N 0470427E
 KIA 245310N 0464534E

UA417 **PUTRA 165432N 0525631E**
LOTEL 180926N0514103E
 IMPOS 183136N 0511848E
 SILPA 184953N 0510158E
 ASTIN 200410N 0495320E
 NONGA 205048N 0492014E
 ALRIK 220631N 0482535E
 AMBAG 230529N 0474611E
 RESAL 240649N 0470427E
 KIA 245310N 0464534E

A418 KUMUN 254000N 0551515E
 PAPAR 2640N 05427E* Note 7
 Segment KUMUN-PAPAR(OI and
 OM)
 SHIRAZ

A419 (ASHGABAT)
 RIKOP 3740.0N 05814.8E
 SABZEVAR
 TABAS
 DARBAND
 KERMAN
 BANDAR ABBAS
 DARAX 260942N 0555300E
 SHARJAH
 MIADA 245112N 0545736E
 MEMBI 243705N 0542631E *See
 Note 4 for segment KITAP-MEMBI
 KITAP 224928N 0522923E
 PURDA 210805N 0510329E
 ASTIN 200410N 0495320E
 DIXEL **KUTMA** 182927N 0481202E
 SHARURAH (SHA)
 SANA'A
 HODEIDA

UA419 (ASHGABAT)
 RIKOP 3740.0N 05814.8E
 SABZEVAR
 TABAS
 DARBAND
 KERMAN
 BANDAR ABBAS
 DARAX 260942N 0555300E
 SHARJAH
 MIADA 245112N 0545736E
 MEMBI 243705N 0542631E*See
 Note 4 for segment KITAP-MEMBI
 KITAP 224928N 0522923E
 PURDA 210805N 0510329E
 ASTIN 200410N 0495320E
 DIXEL **KUTMA** 182927N 0481202E
 SHARURAH (SHA)
 SANA'A
 HODEIDA

A422 UROMIYEH
 TABRIZ
 PARSABAD
 (BAKU)

UA422 UROMIYEH
 TABRIZ
 PARSABAD
 (BAKU)

A424 BAGHDAD
 RAFHA * Note 3
 HAIL

UA424 BAGHDAD
 RAFHA * Note 3
 HAIL

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

	MADINAH KING ABDULAZIZ		MADINAH KING ABDULAZIZ
A451	LUXOR ALEBA PORT SUDAN [ASMARA] * Note 1 ASSAB 1304.0 N 04238.8E PARIM 1231.7N 04327.2E ADEN ANGAL 1614.0N 06000.0E (MUMBAI)	UA451	LUXOR ALEBA PORT SUDAN [ASMARA] * Note 1 ASSAB 1304.0N 04238.8E PARIM 1231.7N 04327.2E ADEN ANGAL 1614.0N 06000.0E (MUMBAI)
A453	KABUL HAZNI KANDAHAR ZAHEDAN BANDAR ABBAS GHESHM (KHM) BANDAR LENGEH KISH MIDSI 2641.7N05152.5E PIMAL 2626.5N05122.1E BAHRAIN * Note 7 (OB, OI)	UA453	KABUL HAZNI KANDAHAR ZAHEDAN BANDAR ABBAS GHESHM (KHM) BANDAR LENGEH KISH MIDSI 2641.7N05152.5E PIMAL 2626.5N05122.1E BAHRAIN * Note 7 (OB, OI)
A466	(TERMEZ) AMDAR 3712.5N 06720.6E KABUL3431.1N 06909.1E SANAM 3305.0N 07003.0E (DERA ISMAIL KHAN) (JHANG 3116.0N 07218.0E) (SAMAR 3120.8N 07434.0E) (ASARI 3048.3N 07509.6E)	UA466	(TERMEZ) AMDAR 3712.5N 06720.6E KABUL 3431.1N 06909.1E SANAM 3305.0N 07003.0E (DERA ISMAIL KHAN) (JHANG 3116.0N 07218.0E) (SAMAR 3120.8N 07434.0E) (ASARI 3048.3N 07509.6E)
A777	TONVO 250500N 0563200E BUBAS 245938N 05700 03E NADSO 244957N 0574926E MIXOL 240618N 0592739E VAXIM 231900N 0611100E	UA775	REXOD 211230N 0613830E TUMET 222307N 0595702E KUSRA 231726N 0585102E
A788	SHIRAZ BUSHEHR KAPIP 290217N 0500054E	UA788	SHIRAZ BUSHEHR KAPIP 290217N 0500054E

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

	PATIR 285606N 0492923E WAFRA 2837.3N 04757.5E HAFR AL BATIN HAIL HALAIFAH		PATIR 285606N 0492923E WAFRA 2837.3N 04757.5E HAFR AL BATIN HAIL HALAIFAH
A791	SISIK 2936.0N 03241.E NUWEIBAA KITOT 2902.1N 03450.8E *Note 7 (OE) SOBAS 2756.0N 03904.9E HAIL KING FAHD BAHRAIN *Note 7 Bahrain- Sharjah RATUN 2646.2N 05108.0E SHARJAH IMLOT 2517.1N 05708.1E (JIWANI)	UA791	SISIK 2936.0N 03241.1E NUWEIBAA KITOT 2902.1N 03450.8E *Note 7 (OE) SOBAS 2756.0N 03904.9E HAIL KING FAHD BAHRAIN*Note 7 Bahrain- Sharjah RATUN 2646.2N 05108.0E SHARJAH IMLOT 2517.1N 05708.1E (JIWANI)
B121	RUDESHUR(RUS) RASHT(RST) MEGRI(MGR)	UB121	RUDESHUR(RUS) RASHT(RST) MEGRI(MGR)
B400	SEEB (MCT) ITURA 232351N 0580720E IZKI (IZK) HAIMA (HAI) DAXAM 171612N 0544715E MUTVA 165325N 0543201E IMKAD 155245N 0535147E NODMA 152603N 0533358E RIGAM 143932N 0530414E RAPDO 132317N 0521532E VEDET 120134N 0512410E (MOGADISHU)	UB400	SEEB(MCT) ITURA 232351N 0580720E IZKI (IZK) HAIMA (HAI) DAXAM 171612N 0544715E) MUTVA 165325N 0543201E IMKAD 155245N 0535147E NODMA 152603N 0533358E RIGAM 143932N 0530414E RAPDO 132317N 0521532E VEDET 120134N 0512410E (MOGADISHU)
B401	ARAR BASRAH * Note 3	UB401	ARAR BASRAH * Note 3
B402	ELEXI 3441.5N 04109.0E DIER-ZZOR ALEPPO NISAP 364724N 0363830E	UB402 UM861	ELEXI 3441.5N 04109.0E DIER-ZZOR ALEPPO NISAP 364724N 0363830E

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

		UB403	MANDERA BOMIX 121002N 050275E ODBEN 123747N 0505648E KAVAN 133250N 0515431E RIGAM 143932N 0530414E
B404	HARGEISA DEMGO 120258N 0483040E PURKA 131208N 0503042E GESIX 134440N 0512823E RIGAM 143932N 0530414E	UB404	HARGEISA DEMGO 120258N 0483040E PURKA 131208N 0503042E GESIX 134440N 0512823E RIGAM 143932N 0530414E
B406	BEN GURION (LARNACA)	UB406	BEN GURION (LARNACA)
B407	KING ABDULAZIZ MAHDI 2026.0N 03739.3E (PORT SUDAN)	UB407	KING ABDULAZIZ MAHDI 2026.0N 03739.3E (PORT SUDAN)
B410	(MUT) CHEKKA *Note 3 (OS) DAMASCUS	UB410	(MUT) CHEKKA *Note 3 (OS) DAMASCUS
B411	METSA 2930.0N 03500.0E AL SHIGAR* Notes2 and 3 ARAR LOVEK 3222.1N 04440.0E NOLDO 3249.5N 04521.5E PAXAT 332056N 0460519E ILAM MALAYER SAVEH [TEHRAN] * Note 1 DEHNAMAK MASHHAD	UB411	METSA 2930.0N 03500.0E AL SHIGAR* Notes2 and 3 ARAR LOVEK 3222.1N 04440.0E NOLDO 3249.5N 04521.5E PAXAT332056N 0460519E ILAM MALAYER SAVEH [TEHRAN] * Note 1 DEHNAMAK MASHHAD
B412	DAMASCUS [AMMAN] * Note 2(OS, OJ) AL SHIGAR HALAIFA [KING ABDULAZIZ]	UB412	DAMASCUS [AMMAN] * Note 2(OS, OJ) AL SHIGAR HALAIFA [KING ABDULAZIZ]
B413	(PORT SUDAN) DANAK 1608.0N 04129.0E HODEIDAH TAIZ ADEN ZIZAN 1151.6N 04539.2E	UB413	(PORT SUDAN) DANAK 1608.0N 04129.0E HODEIDAH TAIZ ADEN ZIZAN 1151.6N 04539.2E

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

(GAGDO 0725.0N 04827.0E)
(PRASLIN)

B415 DOHA
BUNDU 2500.4N 05229.4E
ABU DHABI AUH

B416 KUWAIT
KUPER 2809.4N 05006.0E
IMDAT 2741.0N 05111.0E
ORSAR 2604.5N 05357.5E
SHARJAH

B417 MAHSHAHR
TULAX 2938 53N 04903 01E
DESLU 2928.0N 04901.8E
ALVIX 2919.3N04824.2E
KUWAIT *See Note 3
HAFR AL BATIN
GASSIM
KING ABDULAZIZ

B418 SEMRU 2802.0N 03203.0E
HURGHADA
WEJH
MADINAH
BIR DARB (BDB)
KING KHALID
KING FAHD
PIMAL 2626.5N 05122.1E

B419 ~~[DOHA]
[KING FAHD] * Note3 (OB, OT)
ALVON 2700.2N 05007.2E
SELEG 2801.5N 04922.2E
KUWAIT~~

B424 **ITOLI 152825N 0450927E**
SABEL 185200N 05203.7E
OTISA 201000N 0554556E
GISKA 213503N 0574014E

B441 MASHHAD
OTRUZ 363108N 0610956E
ASHGABAT

(GAGDO 0725.0N 04827.0E)
(PRASLIN)

UB415 DOHA
BUNDU 2500.4N 05229.4E
ABU DHABI AUH

UB416 KUWAIT
KUPER 2809.4N 05006.0E
IMDAT 2741.0N 05111.0E
ORSAR 2604.5N 05357.5E
SHARJAH

UB417 MAHSHAHR
TULAX 2938 53N 04903 01E
DESLU 2928.0N 04901.8E
ALVIX 2919.3N04824.2E
KUWAIT*See Note 3
HAFR AL BATIN
GASSIM
KING ABDULAZIZ

UB418 SEMRU 2802.0N 03203.0E
HURGHADA
WEJH
MADINAH
BIR DARB (BDB)
KING KHALID
KING FAHD
PIMAL 2626.5N 05122.1E

UB419 ~~[DOHA]
[KING FAHD] * Note3 (OB, OT)
ALVON 2700.2N 05007.2E
SELEG 2801.5N 04922.2E
KUWAIT~~

UB424 **ITOLI 152825N 0450927E**
SABEL 185200N 05203.7E
OTISA 201000N 0554556E
GISKA 213503N 0574014E

UB441 MASHHAD
OTRUZ 363108N 0610956E
ASHGABAT

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

**B451 DEHNAMAK
BOJNORD (BRD)
DOLOS 375006N 0580200E
(ASHGABAT)**

**UB451 DEHNAMAK
BOJNORD (BRD)
DOLOS 375006N 0580200E
(ASHGABAT)**

**B457 BAHRAIN
ELOSA 2548.8N 05142.6E
* Note7 (segment ELOSA-REXOD)
ABU DHABI
LABRI 240344N 0553842E
EGROK 235253N 0560126E
LAKLU 232235N 0570401E
TOLDA 223720N 0583503E
REXOD211230N 0613830E**

**UB457 BAHRAIN
ELOSA 2548.8N 05142.6E
* Note7 (segment ELOSA-REXOD)
ABU DHABI
LABRI 240344N 0553842E
EGROK 235253N 0560126E
LAKLU 232235N 0570401E
TOLDA 223720N 0583503E
REXOD 211230N 0613830E**

**B466 NAWABSHAH 2613.1N 06823.1E
KANDAHAR 312900N 0655400E
CHARN 351000N 0610800E**

**B505 LALDO 251806N 0563600E
NADSO 244957N 0574926E
EGTAL 2434 58N 06037 24E**

*Note designator changed from
B525 to B505 as B525 already
assigned in AFI Region)*

**B524 NADSO 244957N 0574926E
ALPOR 2404 42N 06120E**

**B526 (ASMARA)
HODEIDAH
RIYAN
RIGAM 143932N 0530414E**

**UB526 (ASMARA)
HODEIDAH
RIYAN
RIGAM 143932N 0530414E**

**B535 (DJIBOUTI)
ADEN
RIYAN
KAPET 1633 22N 0530614E
SALALAH
MARMUL(MRL)**

**UB535 (DJIBOUTI)
ADEN
RIYAN
KAPET 1633 22N 0530614E
SALALAH
MARMUL(MRL)**

**B538 (GAZIANTEP)
ALEPPO
KARIATAIN
DAMASCUS * Note 2(OS)**

**UB538 (GAZIANTEP)
ALEPPO
KARIATAIN
DAMASCUS * Note 2(OS)**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

B540 TOTOX 215030N 0622230E
ITUDO 2347N 0580113E
PASOV 243841N 0565037E
KUPMA 245148N 0562648E
BUBIN 245742N 0560642E

B544 (GAZIANTEP)
ALEPPO
TANF
TURAIF
AL SHIGAR
HALAIFA
MADINAH
RABIGH
KING ABDULAZIZ
ABHA
NOBSU
SANA'A
KRA

B545 (MUT)
~~BALMA 3428.9N 035 3.0E~~
KHALDEH
AMMAN * Note 3&4 (OJ)

B549 TAMUD 171700N 0495500E
ITELI 171310N 0502605E
GOGRI 170752N 0510857E
TONRO 165850N 0522235E
PUTRA 165432N 0525631E
LADAR 165324N 0534655E
MUTVA 165325N 0543201E
KIVEL 165306N 0553633E

G183 (KAROL 3252.0N 03229.0E)
PASOS
EL ARISH
TABA
NUWEIBAA

G202 (VELOX 3349.0N 03405.0E)
SILKO 3347.9N 03435.0E
KHALDEH* Note 4 (OS)
DAKWE 3338.9N 03555.0E

UB544 (GAZIANTEP)
ALEPPO
TANF
TURAIF
AL SHIGAR
HALAIFA
MADINAH
RABIGH
KING ABDULAZIZ
ABHA
NOBSU
SANA'A
KRA

UB545 (MUT)
~~BALMA 3428.9N 035 3.0E~~
KHALDEH
AMMAN * Note 3&4(OJ)

UB549 TAMUD 171700N 0495500E
ITELI 171310N 0502605E
GOGRI 170752N 0510857E
TONRO 165850N 0522235E
PUTRA 165432N 0525631E
LADAR 165324N 0534655E
MUTVA 165325N 0543201E
KIVEL 165306N 0553633E

UG202 (VELOX 3349.0N 03405.0E)
SILKO 3347.9N 03435.0E
KHALDEH * Note 4(OS)
DAKWE 3338.9N 03555.0E

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

**DAMASCUS
TANF
MODIK 3328.1N 03901.0E
RAPLU 3323.0N 04145.5E
PUSTO 3321.0N 04245.0E
BGD
PARUN 3324.2N 04502.0E
RAGET 3330.8N 04553.8E
ILAM
KHORAM ABAD
ESFAHAN
NODLA
BIRJAND
KAMAR 3239.0N 06044.0E
DILARAM
KANDAHAR
(ZHOB)
(RAHIM YAR KHAN)**

**G206 DILARAM
KABUL
SABAR 3537.0N 07131.0E
(PURPA 3656.5N 07524.5E)
* Note 3**

**G208 (PANJGUR)
ZAHEDAN
DARBAND
NODLA 325330N 0545850E
ANARAK
TEHRAN
ZANJAN
UROMIYEH
ALRAM 3743.0N 04437.0E
(SIIRT)**

**G452 SHIRAZ
KERMAN
ZAHEDAN
(RAHIMYAR KHAN)**

**G462 BAHRAIN
PIMAL2626.5N 05122.1E
* Note 7 between AUH and URITO
URITO 2616.1N 05148.8 E
BALUS 2545.9N 05304.4E
ABU DHABI**

**DAMASCUS
TANF
MODIK 3328.1N 03901.0E
RAPLU 3323.0N 04145.5E
PUSTO 3321.0N 04245.0E
BGD
PARUN 3324.2N 04502.0E
RAGET 3330.8N 04553.8E
ILAM
KHORAM ABAD
ESFAHAN
NODLA
BIRJAND
KAMAR 3239.0N 06044.0E
DILARAM
KANDAHAR
(ZHOB)
(RAHIM YAR KHAN)**

**UG206 DILARAM
KABUL
SABAR 3537.0N 07131.0E
(PURPA 3656.5N 07524.5E)
* Note 3**

**UG208 (PANJGUR)
ZAHEDAN
DARBAND
NODLA 325330N 0545850E
ANARAK
TEHRAN
ZANJAN
UROMIYEH
ALRAM 3743.0N 04437.0E
(SIIRT)**

**UG452 SHIRAZ
KERMAN
ZAHEDAN
(RAHIMYAR KHAN)**

**UG462 BAHRAIN
PIMAL2626.5N 05122.1E
* Note 7 between AUH and URITO
URITO 2616.1N 05148.8 E
BALUS 2545.9N 05304.4E
ABU DHABI**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

**G650 KING ABDULAZIZ
RASKA 1908.0N 03903.0E
(ASMARA)**

**G652 ADEN
IMPOS 183136N 0511848E
DUDRI 190000N 0520000E
TOKRA 220925N 0553350E
TAPDO 2424N 06120 E**

**G660 (PORT SUDAN)
BOGUM 2006.6N 03803.0E
KING ABDULAZIZ
ABU DHABI * Note3 (OE, OM)**

**G662 [DAMASCUS]
[GURIAT] * Notes 1 and 3 (OS,
OJ)
AL SHIGAR
HAIL
GASSIM
KING KHALID**

**G663 KING KHALID
KING FAHD
SHIRAZ
YAZD
TABAS
MASHAD**

**G664 APLON 3352.0N 03204.0E
BEN GURION
AMMAN**

**G665 ABADAN
SHIRAZ * Note 5 (OI)
NABOD 2816.1N 05825.8E
EGSAL 2716.8N 06249.0E
(PANJGUR)**

**G666 SHIRAZ * Note 7 (OI)
LAMERD
LAVAN
ORSAR 2604 .5N 05357.5E**

**UG650 KING ABDULAZIZ
RASKA 1908.0N 03903.0E
(ASMARA)**

**UG652 ADEN
IMPOS 183136N 0511848E
DUDRI 190000N 0520000E
TOKRA 220925N 0553350E
TAPDO 2424N 06120 E**

**UG660 (PORT SUDAN)
BOGUM 2006.6N 03803.0E
KING ABDULAZIZ
ABU DHABI * Note3 (OE, OM)**

**UG662 [DAMASCUS]
[GURIAT] * Notes 1 and 3 (OS,
OJ)
AL SHIGAR
HAIL
GASSIM
KING KHALID**

**UG663 KING KHALID
KING FAHD
SHIRAZ
YAZD
TABAS
MASHAD**

**UG664 APLON 3352.0N 03204.0E
BEN GURION
AMMAN**

**UG665 ABADAN
SHIRAZ * Note 5 (OI)
NABOD 2816.1N 05825.8E
EGSAL 2716.8N 06249.0E
(PANJGUR)**

**UG666 SHIRAZ * Note 7 (OI)
LAMERD
LAVAN
ORSAR 2604.5N 05357.5E**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

	DESDI 2536.1N 05442.5E MIADA 245112N 0545736E ABU DHABI (AUH)		DESDI 2536.1N 05442.5E MIADA 245112N 0545736E
G667	PUTMA 3748.0N 05157.6E NOSHAHR TEHRAN SAVEH AHWAZ ABADAN ALSAN 2957.1N 04814.9E FALKA KUWAIT WAFRA MAGALA KING KHALID WADI AL DAWASIR NEJРАН SANA'A PARIM 123142.7N 0432712E (DJIBOUTI)	UG667	PUTMA 3748.0N 05157.6E NOSHAHR TEHRAN SAVEH AHWAZ ABADAN ALSAN 2957.1N 04814.9E FALKA KUWAIT WAFRA MAGALA KING KHALID WADI AL DAWASIR NEJРАН SANA'A PARIM 123142.7N 0432712E (DJIBOUTI)
G668	ZHOB GHAZNI RAPTA 3727.0N 06538.0E	UG668	ZHOB GHAZNI RAPTA 3727.0N 06538.0E
G669	KARIATAIN *Note 1,2&3 (OJ) TONTU 3148.1N 03811.2E AL SHIGAR AL JOUF RAFHA SOLAT 2909.7N 04638.2E KUWAIT SESRA 2908.1N 04854.9E NANPI 2905.0N 04932.0E BUSHEHR VATOB 285126N 0511636E) [SHIRAZ]	UG669	KARIATAIN *Note 1,2&3 (OJ) TONTU 3148.1N 03811.2E AL SHIGAR AL JOUF RAFHA SOLAT 2909.7N 04638.2E KUWAIT SESRA 2908.1N 04854.9E NANPI 2905.0N 57N 04932.0E BUSHEHR VATOB 285126N 0511636E [SHIRAZ]
G670	RASHT LALDA 3817.1N 04943.0E (BAKU)	UG670	RASHT LALDA 3817.1N 04943.0E (BAKU)
G671	TANF HAWIJA MOSUL UROMIYEH * Notes 2 and 3	UG671	TANF HAWIJA MOSUL UROMIYEH * Notes 2 and 3

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

G674 MADINAH
GASSIM 2617.9N 04346.8E

UG674 MADINAH
GASSIM 2617.9N 04346.8E

G775 (ASHGHABAT)
ORPAB 3742N 05834.5E
MASHHAD
[BIRJAND] * Note 1
ZAHEDAN

UG775 (ASHGHABAT)
ORPAB 3742N 05834.5E
MASHHAD
[BIRJAND] * Note 1
ZAHEDAN

G781 (VAN)
BONAM 3802.9N 04418.0E
UROMIYEH
ROVON 3716 01N 0455322E
ZANJAN

UG781 (VAN)
BONAM 3802.9N 04418.0E
UROMIYEH
ROVON 3716 01N 0455322E
ZANJAN

G782 KING ABDULAZIZ
RAGABA
KING KHALID
MAGALA
WAFRA 2837.3N 04757.5E
KUWAIT

UG782 KING ABDULAZIZ
RAGABA
KING KHALID
MAGALA
WAFRA 2837.3N 04757.5E
KUWAIT

UG783 PURDA 210805N 0510329E
TANSU 224136N 0542828E
NIGEL230146N 0551430E
ELUDA 235107N 0552905E
ALN 241535N 0553623E
GIDIS 243600N 055600E
BUBIN 245742N 0560642E

~~**G787E**~~ **LAKLU 232235N 0570401E**
G216 SEEB(MCT)
DORAB 235033N 0594746E
ALPOR 240441N 0612000E
LATEM
(KC)

~~**UG787E**~~ **LAKLU 232235N 05704 01E**
UG216 SEEB(MCT)
DORAB 235033N 0594746E
ALPOR 240441N 0612000E
LATEM
(KC)

~~**G787W**~~ **(KC)**
A454 PARET
TAPDO 242400N 0612000E
VUSET 235540N 0590812E
PASOV 243841N 0565037E

~~**UG787W**~~ **(KC)**
UA454 PARET
TAPDO 242400N 0612000E
VUSET 235540N 0590812E
PASOV 243841N 0565037E

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

**G792 (TURKMENBASHI)
MASHAD
CHARN 3510.0N 06108.0E
HERAT
KANDAHAR
ASLUM 3101N 06637E
(RAHIM YAR KHAN)**

**UG792 (TURKMENBASHI)
MASHAD
CHARN 3510.0N 06108.0E
HERAT
KANDAHAR
ASLUM 3101N 06637E
(RAHIM YAR KHAN)**

**G795 FALKA 2926.2N 04818.3E
TASMI 300120N 0475505E
BSR 303132.4N 0472112E
RAFHA**

**UG795 FALKA 2926.2N 04818.3E
TASMI 300120N 0475505E
BSR 303132.4N 0472112E
RAFHA**

**G796 KABUL
JALALABAD
LAJAK 335600N 0703000E
HANGU 332906N 0710018E**

**UG796 KABUL
JALALABAD
LAJAK 335600N 0703000E
HANGU 332906N 0710018E**

**G799 PMA
DAFFINAH**

**UG799 PMA
DAFINAH**

**UL124 (VAN)
BONAM
URUMIYEH (UMH)
ZANJAN(ZAJ)
SAVEH (SAV)
YAZD(YZD)
KERMAN(KER)
KEBUD 273558N 0625028E
(PANJGUR)**

**UL125 DULAV 3857N 04537.9E
TABRIZ (TBZ)
ZANJAN
PAROT 360940N 0495756E
TEHRAN
ANARAK
DARBAND
ZAHEDAN
DANIB 2909.5N 06120.1E
(PANJGUR)**

**L126 PUSTO 3321.0N 04245.0E
SOGUM 3412.2N 04354.9E
MIGMI 3345.9N 04527.4E
ILAM**

**UL126 PUSTO 3321.0N 04245.0E
SOGUM 3412.2N 04354.9E
MIGMI 3345.9N 04527.4E
ILAM**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

L200 AMMAN *Notes 2 and 3 (OJ)
PASIP 3300.0N 03855.2E
RAPLU 3323.0N 04145.5E

L223 SIRRI
NALTA 250242N 0553955E
TARDI 243418N 0560915E
LAKLU 232235N 05704 01E

L301 RASKI 230330N 0635200E
VAXIM 231900N 0611100E
RAGMA 232301N 0603846E
MIBSI 234139N 0575523E

L305 DOHA
ITITA 2544.2N 05418.7E

L306 TOKRA 220925N 0553350E* *
Note- (OO)
DEMKI 224941N 0562308E
LAKLU 232235N 0570401E

L315 CAIRO * Note 3 (HE)
HURGHADA
GIBAL 2437.2N 03634.7E

L317 LOPAS 343003N 0433834E
ALVIS 343004N 0435518E
DASUR 343006N 0442417E
DENKI 322228N 0455122E

UL200 AMMAN *Notes 2 and 3 (OJ)
PASIP 3306.0N 03856.0E
RAPLU 3323.0N 04145.5E

UL223 UROMIYEH
SANANDAJ
KHORAM ABAD
MESVI 312920N 0495701E
LAMERD
SIRRI * Note 7 (OI, OM)
NALTA 250242N 0553955E
TARDI 243418N 0560915E
LAKLU 232235N 05704 01E

UL300 LUXOR
GIBAL2437.2N03634.7E
YENBO 2408.8N 03803.9E
DAFINAH 2317.0N 04143.2E

UL301 AAU 5153N 07523 38.6E
NOBAT 210902.5N 0880000.1E
RASKI 230330N 0635200E
VAXIM 231900N 0611100E
RAGMA 232301N 0603846E
MIBSI 234139N 0575523E

UL306 TOKRA 220925N 0553350E
* Note- (OO)
DEMKI 224941N 0562308E
LAKLU 232235N 0570401E

UL315 CAIRO * Note 3 (HE)
HURGHADA
GIBAL 2437.2N 03634.7E
LABID 2408.8N 03803.9E

UL317 LOPAS 343003N 0433834E
ALVIS 343004N 0435518E
DASUR 343006N 0442417E
DENKI 322228N 0455122E

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

MUTLO 321019N 0445703E
GETID 351551N 0425559E
NADID 352611N E0460145E

MUTLO 321019N 0445703E
GETID 351551N 0425559E
NADID 352611N E0460145E

L321 KATAB 292501N 0290506E
KUNKI 290726N 0291949E
LUGAN 224205N 0313722E
SML 222118N 0313719E

UL321 KATAB 292501N 0290506E
KUNKI 290726N 0291949E
LUGAN 224205N 0313722E
SML 222118N 0313719E

UL322 MUMBAI * Note 7&1
SUGID 1933.1N 06921.0E
BOLIS 2033.5N 065 00.0E
REXOD 2112.5N 06138.5E

UL333 DASIS
TABRIZ
RASHT
ORSOK 362236N 0523020E
AMBEG 351737N 0553059E
TASLU 342632N 0574234E
SOKAM 331316N 0603754E

L417 RAMPI 3516.7N 04356.3E
SOGUM 3412.2N 04354.9E
BGD
LOVEK 3222.1N 04440.0E

UL417 RAMPI 3516.7N 04356.3E
SOGUM 3412.2N 04354.9E
BGD
LOVEK 3222.1N 04440.0E

UL425 KING ABDULAZIZ
MALIK 2053.4N 03949.6E
AL BAHA
BISHA
WADI AL DAWASIR
EGREN 202236N 0464422E
ASTIN 200410N 0495320E
DIRAS 195235N 0513704E
GOBRO 193622N 0534741E
BOVOS 182230N 0575844E
ASPUX 174406N 0600006E
(TRIVANDRUM)

L513 KHALDEH
CHEKKA
LEBOR 3415.9N 03635.0E
DAMASCUS * Note 3 (OS)
BUSRA 3220.0 N 03637.0 E
HAZEM 3214.0 N 03638.0 E
QUEEN ALIA

UL513 KHALDEH
CHEKKA
LEBOR 3415.9N 03635.0E
DAMASCUS * Note 3 (OS)
BUSRA 3220.0 N 03637.0E
HAZEM 3214.0 N 03638.0E
QUEEN ALIA

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

QATRANEH (QTR)

**L519 MIADA 245112N 0545736E
*Note 7
KUMUN 254000N 0551512E**

**L555 TOTOX 215030N 0622230E
TUMET 222307N 0595702E
TOLDA 224008N 0583624E
TULBU 230005N 0571827E**

QATRANEH (QTR)

**UL519 ABU DHBI (AUH) * Note 7
MIADA 245112N 0545736E**

**UL550 WAFRA *Note7 (OE)
BOSID 2842.4N 04652.6E
VATIM 2851.6N 04444.7E
RASMO 2857.2N 04331.3E
ORSAL2902.8N 04210.8E
NIMAR 2906.6N 03954.4E
KITOT 2902.1N 03450.8E*Note 7
NUWEIBAA
TABA
EL ARISH
PASOS
(KAROL 3252.0N 03229.0E)**

**UL555 TOTOX 215030N 0622230E
TUMET 222307N 0595702E
TOLDA 224008N 0583624E
TULBU 230005N 0571827E**

**UL556 EGREN 202236N 0464422E
NONGA 205048N 0492014E
PURDA 210805N 0510329E
Note:- 7 (OO, OB)
IMDAM 202416N 0550801E
HAIMA 195813N 0561651E
KUTVI 184306N 0582642E**

**UL560 ARDABIL 3819.9N 04824.9E
* Note 3&4 (OI)
SEVAN 4032.0N 04456.9E**

**UL566 ~~PAKER 115500N 0463500E~~
~~KAPET 163322N 0530614E~~
ASMAK 162327N 0524634E
UKNEN 160542N 0522012E
PURUG 151204N 0510142E
KUSOL 144009N 0501534E
NOTBO 142609N 0495530E
EMABI 141627N 0494139E
SOKEM 134235N 0485329E
DATEG 123549N 0471627E**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

- UL572** **KAMISHLY (KML)
LESRI 3704.3N 04113.8E**

- UL573** **DAFINAH 231658N 0414310E
WEJH 261045N 0362917E**

- UL601** **(BAGLUM –BAG 04004.2 03248.6)
* Note 7
ADANA 3656.4N 03512.6E
TUNLA 3553.0N 0360200E)
KARIATAIN 3412.8N 03715.9E**

- UL602** **BAHRAIN
ALVON 270009N 0500711E*Note 7
SELEG 280130N 0492212E
RAPSI 282326N 0490551E
DARVA 284814N 0484734E
ALVIX 2919.3N04824.2E
FALKA 292611N 0481819E
TASMI 300120N 0475505E
BASRAH
LOVEK322206N 0444000E
DELM331911N 0431731E
ELEXI 344237N 0411054E
DRZ 351724N 0401124E
KUKSI 364508N 0374910E
GAZ 365701N 0372824E**

- UL607** **SITIA (SIT)* Note 7
PAXIS 3357.1N02720.0E
OTIKO 3134.4N 02936.6E
ALEXANDRIA (AXD)**

- UL613** **EL DABA (DBA)*Note 7
SOKAL 3236.0N 02737.1E
TANSA 3400.0N 02649.0E**

- UL617** **AXD
ASNIR 323848N 0282142E
TANSA 340000N 0264900E**

- UL631** **TOTOX 215030N0622230E
SEVLA 233321N 0591122E**

- UL750** **ZHOB 3121.3N 06927.6E
ROSIE 3140.0N 06900.0E
MAXIM 3246.2N 06727.4E**

- L617** **AXD
ASNIR 323848N 0282142E
TANSA 340000N 0264900E**

- L631** **TOTOX 215030N0622230E
SEVLA 233321N 0591122E**

- L750** **ZHOB 3121.3N 06927.6E
ROSIE 3140.0N 06900.0E
MAXIM 3246.2N 06727.4E**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

HORST 3327.6N 06627.5E
VELDT 3430.0N 06454.1E
RANAH 3535.0N 06312.0E
(AFGAN-3824.0N 05817.0E)

HORST 3327.6N 06627.5E
VELDT 3430.0N 06454.1E
RANAH 3535.0N 06312.0E
(AFGAN-3824.0N 05817.0E)

L764 SEEB (MCT)
ALMOG 233524N 0574940E
IVETO 233520N 0570704E
PAXIM 240245N 0561631E

UL764 SEEB (MCT)
ALMOG 233524N 0574940E
IVETO 233520N 0570704E
PAXIM 240245N 0561631E

UL768 PIMAL 2626.5N 05122.1E
ALVON2700.2N 05007.2E
COPPI 2750.6N 04744.0E
HFR
VATIM 2851.6N 04444.7E
RAFHA (RAF)
ARAR (AAR)
OVANO3148.0N 03909.9E
OTILA 3201.5N 03901.9E

UL883 REXOD 211230N 0613830E
UMILA 211555N 0584738E
SITOL 211604N 0552514E
PURDA 210805N 0510329E
ALRIK 220631N 0482535E
PMA N243251N 0394219E

M203 PUSTO 3321.0N 04245.0E
LOVEK 3222.1N 04440.0E
DISAR 3131.3N 04613.4E

UM203 PUSTO 3321.0N 04245.0E
LOVEK 3222.1N 04440.0E
DISAR 3131.3N 04613.4E

M300 LOTAV 2037N 0605700E
EMURU 221535N 0584950E

UM300 (CALICUT)
LOTAV 2037N 0605700E
EMURU 221535N 0584950E

M301 PURAD 145500N 0415354E
SANA'A SAA
~~KAPET 163322N 0530614E~~
ASMAK162327N 0524634E

UM301 PURAD 145500N 0415354E
SANA'A SAA
~~KAPET 163322N 0530614E~~
ASMAK162327N 0524634E

UM309 KIND KHALED
NASIR **EGMAN** 221444N 0400315E

M320 KING FAHD
JUBAIL
KUWAIT

UM320 KING FAHD
JUBAIL
KUWAIT

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

M508 KING KHALED
N638 OVEKU 250955N 0445701E
MADINAH

M551 ~~AVAVO 1646.3N 05526.1E~~
KIVEL 165306N 0553633E
DAXAM 171612N 0544715E

M552 (RAHIM YAR KHAN)
BIRJAND (BJD)
DEHNAMAK(DHN)
TEHERAN (TRN)
ZANJAN
TABRIZ (TBZ)

M561 KISH * Note 3&4 (OI)
MOBET 2645.3N 05609.8E
EGSAL 2716.8N06249.0E
PANJGUR

UM321 ~~RAGHBA~~
~~HAIL~~
HALAIFA 262602N 0391609E
KING KHALED

UM508 KING KHALED
UN638 OVEKU 250955N 0445701E
MADINAH

UM551 DONSA1435.3N06344.0E
ANGAL1614.1N 06000.1E
~~AVAVO 1646.3N 05526.1E~~
OTOTO 164004N 0570435E
KIVEL 165306N 0553633E
DAXAM 171612N 0544715E

UM552 (RAHIM YAR KHAN)
BIRJAND (BJD)
DEHNAMAK(DHN)
TEHERAN (TRN)
ZANJAN
TABRIZ (TBZ)

UM561 RATUN 2646.2N05108.0E *See
Note 7
MIDSI 2641.7N05154.7E
KISH * Note 3&4 (OI)
GHESHM
MOBET 2645.3N 05609.8E
EGSAL 2716.8N06249.0E
PANJGUR

UM573 TEHERAN (TRN)
TABRIZ 3808.3N 04613.9E

UM574 (MALE)
(POPET) 0713.7N06813.6E
NABIL 1222.0E0600.0E
RIGAM 143932N 0530414E
~~ODAKA 1440.6N05234.0E~~
~~SYN 1557.7N04847.2E~~
~~HELAL 1716.0N04422.0E~~
NOBSU 171554N 0431318E
ABHA 1814.4N04239.5E
JEDDAH

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

M628 EGVAN 230127N 0561907E
TULBU 230005N 0571827E
GEVED 230105N 0575111E
GIDAN 230104N 0582232E
KAXEM 225103N 0595243E
PARAR 222630N 0630700E

UM628 DAFINAH 231700N 0414312E
KIPOM 225316N 0501518E
MIGMA 225035N 0512749E
KITAP 224928N 0522923E
ALPEK 224648N 0535942E
EGVAN 230127N 0561907E
TULBU 230005N 0571827E
GEVED 230105N 0575111E
GIDAN 230104N 0582232E
KAXEM 225103N 0595243E
PARAR 222630N 0630700E

M634 ANGAL 161406N 0600006E
~~UBTEN 120814N 0495611E~~

UM634 ANGAL 161406N 0600006E
~~UBTEN 120814N 0495611E~~

M651 VEDET 120134N 0512410E
ATBOT 171418N 0464706E

UM651 VEDET 120134N 0512410E
ATBOT 171418N 0464706E

ADEN
(HARGEISA)

ADEN
(HARGEISA)

M762 REXOD 211230N 0613830E
SUR 223159N 0592829E
ALMOG 233524N 0574940E
TAPRA 242607N 0563803E
VAXAS 244308N 0561807E
* Note 7 (OM, OO)
BUBIN 245742N 0560642E

UM877 VUSET 235540N 0590812E
KUSRA 232426N 0582611E

M881 (BANNU -BN)
LAJAK 3356.0N 07030.0E
JALAL 3430.0N 07045.0E
MATAL 3600.0N 07100.0E
ANWAR 3652.0N 07034.0E
(GARRI- 3825.0N 07034.0E)

UM881 (BANNU -BN)
LAJAK 3356.0N 07030.0E
JALAL 3430.0N 07045.0E
MATAL 3600.0N 07100.0E
ANWAR 3652.0N 07034.0E
(GARRI- 3825.0N 07034.0E)

N303 (HARGEISA)

UM999 (LUXOR)
DEDLI 2242 32N 03737 19E
OSAMA 2215 54N 03817 34E
KING ABDULAZIZ (JDW)

UN303 (HARGEISA)

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

PARIM 1231.7N 04327.2E
RIBOK 1547N 04152.5E
LABNI 1656.3N 04109.4E

PARIM 1231.7N 04327.2E
RIBOK1547N 04152.5E
LABNI 1656.3N 04109.4E

UN315 ASPUX 174406N 0600006E
KUTVI 184306N 0582642E
Note:- 7 (OO/OB)
SITOL 211604N 0552514E
LOTOS 220000N 0503912E
RAPMA 232256N 0482028E
RESAL 240649N 0470427E
KING KHALED

UN316 HALAIFA 262603N 0391609E
PASAM 273045N 0345542E

UN318 TONTU 314804N 0381110E
RAGOM 313227N 0381656E
GURIAT (GRY)
ORKAS 3047.4N 03846.3 E
NEVOL 3024.7N 03938.6E
VELAL2946.0N 04038.4E
TAMRO 2838.6N 04240.8E
MOGON 2738.8N 04445.9E
TAGSO 2727.7N 04545.2E
KUSAR 2647.7N 04902.3E
KFA

UN319 ZAHEDAN
TABAS (TBS)
DASHT-E-NAZ (DNZ)
ULDUS- 3800.0N 05101.0E

N324 NALTI 221858N 0500751E
OBNAM 211843N 0503532E
PURDA 210805N 0510329E
GOBRO 193622N 0534741E
MRL 180832N 0551040E

UN324 NALTI 221858N 0500751E
OBNAM 211843N 0503532E
PURDA 210805N 0510329E
GOBRO 193622N 0534741E
MRL 180832N 0551040E

N519 KHI -245436N 0671036E
SAPNA 233000N 0675000E
PRN 213824N 0693948E
TAXUN 211906N 0701520E
EXOLU 201248N 0713412E
(BBB- 190506N 0725230E

UN555 BELGAUM

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

N563	<p>REXOD 211230N 0613830E*Note 7 (OO.OM) EMURU 221357N 0585338E TULBU 230005N 0571827E MEKNA 223309N 0560815E SODEX 234954N 0553202E NOBTO 235525N 0551840E AUH 242612N 0543900E</p>	UN563	<p>BISET 1823.4N 06918.1E KATBI 1931.6N 06500.0E LOTAV 2037.0N 06057.0E (BANGALORE) REXOD 211230N 0613830E*Note 7 (OO.OM) EMURU 221357N 0585338E TULBU 230005N 0571827E MEKNA 223309N 0560815E SODEX 234954N 0553202E NOBTO 235525N 0551840E AUH 242612N 0543900E</p>
N571	<p>PARAR 2226.5 N 06307E* Note 7 (OO) RAGMA 230600N 0610539E * Note 7 (OO, OM) VUSET 235540N 0590812E MENSA 245750N 0563249E ATBOR 251007N 0551947E RANBI 251908N 0544500E BALUS 254554N 0530424E</p>	UN569	<p>JDW 214045N 0390958E NASIR EGMAN 221642N 0400318E LOTOS Note:- 7 (OB/OO) TOKRA 220925N 0553350E UMILA 211555N 0584738E LOTAV 203700N 0605700E</p>
N629	<p>TARDI 243418N 0560915E *Note 7 (OO) NOSMI 241757N 0563002E RAGUD 234701N 0571644E SEEB (MCT) GEPOT 231446N 0580053E GIDAN 230104N 0582232E TOTOX 215030N 0622230E</p>	UN571	<p>(SUGID- 1933.1 N 06921.0E) PARAR 2226.5 N 06307E* Note 7 (OO OM) RAGMA 230600N 0610539E * Note 7 (OO) VUSET 235540N 0590812E MENSA 245750N 0563249E ATBOR 251007N 0551947E RANBI 251908N 0544500E BALUS 254554N 0530424E</p>
N638	<p>KING-KHALED (M508) PMA 243251N0394219E</p>	UN629	<p>TARDI 243418N 0560915E*Note 7 (OO) NOSMI 241757N 0563002E RAGUD 234701N 0571644E SEEB (MCT) GEPOT 231446N 0580053E GIDAN 230104N 0582232E TOTOX 215030N 0622230E</p>
		UN638	<p>KING-KHALED (UM508) PMA 243251N0394219E</p>
		UN644	<p>(DERA ISMAIL KHAN)</p>

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

			GHAZNI (GN) LEMOD 3610.0N 06417.5E (MEKOL -3730.0N 06200.0E) (TABIP-3900.0N 05820.0E)
N764	NOBSU 171554N 0431318E RIN 144015N 0492329E SOCOTRA 123749N 0535429E SUHIL 120000N 0550000E	UN764	NOBSU 171554N 0431318E RIN 144015N 0492329E SOCOTRA 123749N 0535429E SUHIL 120000N 0550000E
N767	PARAR 222630N 0630700E SEVLA 233321N 0591122E SEEB (MCT) * Note 7	UN767	PARAR 222630N 0630700E SEVLA 233321N 0591122E SEEB (MCT) * Note 7
		UN881	RASKI 230330N 0635200E SETSI 230412N 0614410E MUSRU 230256N 0592223E *Note 7 GIDAN 230104N 0582232E
		UP146	RASHT AGINA 3919.4N 04405.2E (AGRI)
P302	HALAIFA*Note 3(OE,OJ) GURIAT HAZEM	UP302	HALAIFA *Note 3(OE,OJ) GURIAT HAZEM
		UP307	SHJ VOR Note 7 (OM,OO) PARAR 222630N 0630700E
P312	RIYAN PAKER 1155.0N0463500E (HARGEISA)	UP312	RIYAN PAKER 1155.0N0463500E (HARGEISA)
P316	SALALLAH * Note 7 (OO) DAXAM GAGLA 180505N 0552410E RADAX 220809N 0580230E SEEB (MCT)	UP316	SALALLAH * Note 7 (OO) DAXAM 171612N 0544715E GAGLA 180505N 0552410E GIVNO 195011N 0563059E MOBAB 201032N 0564415E GISKA 213503N 0574014E RADAX 220809N 0580230E SEEB (MCT)
		UP318N UP518	NOBAT 2109 02N 0680000E KABIM 2330 00N 06628 00E PAXUR-2400N 0660000E

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

P319 PANJGUR * Note 7 (OI)
DOSTI 255800N 0650300E
KHI -255436N 0671036E
SAPNA 2330N 06750E
PAXUR 2400N 06600E
BILAT 205824N 06800E

UP319 PANJGUR * Note 7 (OI)
DOSTI 255800N 0650300E
KHI -255436N 0671036E
SAPNA 2330N 06750E
PAXUR 2400N 06600E
BILAT 205824N 06800E

UP323 ANODA 0958.1N 07224.0E
GOLEM 1157.7N 0672202E
DONSA 1435.3N06511.6E
GIDAS 142004N0600000E
KADER451300N-05500E
~~NIDOD 151115N 0552354E~~
PATAP 152744N0532929E
AL-GHAIDAH
NODMA 1526.0N05334.0E
THAMUD 1717.0N 04955.0E
BISHA 1958.7N 04237.5E
WDR
JEDDAH

P500 (DERA ISMAIL KHAN - DI)
(BANNU -BN)
(HANGU- 3329.1N 07100.4E)
(PESHAWAR-PS)
(CHITRAL -3553.2N 07148.0E)
(GERRY-3612.0N 07135.0E)
PADDY- 3628.0N 07138.0E
FIRUZ 3640.0N 07138.0E

UP500 (DERA ISMAIL KHAN - DI)
(BANNU -BN)
(HANGU- 3329.1N 07100.4E)
(PESHAWAR-PS)
(CHITRAL -3553.2N 07148.0E)
(GERRY-3612.0N 07135.0E)
PADDY- 3628.0N 07138.0E
FIRUZ- 3640.0N 07138.0E

P513 BUBAS 245938N 0570003E
GERAR 240600N 0573616E
MIBSI 234139N 0575523E
SEEB (MCT) * Note 7

UP517 WAFRA
GOVAL
KMC

UP555 NUWEIBAA*See Note 3
RASDA 3306.0N 03057.0E

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

(KAVOS)

P557 NUBAR 22000N
0313806E*SeeNote 6&7
MISUK 290507N 0290621E
KATAB 292501N0290506E

UP557 NUBAR 22000N
0313806E*SeeNote 6&7
MISUK 290507N 0290621E
KATAB 292501N0290506E

P559 (LARNACA)
KUKLA 3414.6N 3444.8E
KHALDEH (KAD)
DAKWE 3338.9N 03555.0E
* Note 4 (OS)
DAMASCUS
TONTU 3148.1N 03811.2E
* Note 3(OS,OJ)

UP559 (LARNACA)
KUKLA 3414.6N 3444.8E
KHALDEH (KAD)
DAKWE 3338.9N 03555.0E
DAMASCUS
TONTU 3148.1N 03811.2E
* Note 3 (OS,OJ)
TURAIF (TRF)
KAVID 3035.9N 04011.8E
TOKLU 2942.1N 04202.4E
RASMO 2857.2N 04331.3E
KMC
MUSKO 2726.7N 04737.1E
KEDAT 2721.8N 04759.0E
JUBAIL (JBL)
ALVON 2700.2N 05007.2E
RATUN 2646.2N 05108.0E

P570 KITAL 2003N 06018E
MIBSI 234139N 0575523E

UP567 BIRJAND
ODKAT 3540.6N 05457.2E
DASHT-E-NAZ -3638.7N 05311.4E
(ULDUS -3800.0N 05101.0E)

UP570 ~~TRIVENDRUM~~
~~VISET1831.12N 06229.64E~~
KITAL 2003N 06018E
MIBSI 234139N 0575523E

P571 LABNI 16 620N 0410921E
NISMI 162415N 0421838E
~~SANA'A (SAA)~~
RIN
VEDET 120134N 0512410E

UP571 LABNI 165620N 0410921E
NISMI 162415N 0421838E
~~SANA'A (SAA)~~
RIN
VEDET 120134N 0512410E

UP574 (BELGAUM)
(BISET- 1823.4N 06918.1E)
TOTOX 215030N 0622230E
* Note 7 (OO)
KUSRA 231726N 0585102E
MIBSI 234138N 0575525E

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

LUDAL 235023N 0574305E
 SOLUD 243223N 0564421E
 GISMO 244743N 0562236E
 BUBIN 245742N 0560642E
 KUMUN 254000N 0551512E
 * Note 7 (KUMUN-PAPAR)
 PAPAR 264000N 0542700E
 SHIRAZ
 ESFAHAN
 TEHRAN
 ULDUS

UP634 LALDO 251806N 0563600E
 ATBOR 251007N 0551947E

UP891 MAGALA
 EGNOV
 EMILU
 ASVIR
 KUWAIT

P899 PARAR 222630N 0630700E *Note
 7 (OO,OM)
 MIBSI 234139N 0575523E
 PAXIM 240245N 05617631E
 ITRAX 241248N 0554749E
 AL AIN (ALN)
 ABU DHABI

UP899 PARAR 222630N 0630700E*Note
 7 (OO,OM)
 MIBSI 234139N 0575523E
 PAXIM 240245N 05617631E
 ITRAX 241248N 0554749E
 AL AIN (ALN)
 ABU DHABI

UP975 (ELAZIG)*Note7
 (DYB) 384225N 0391328E
 LESRI 370420N 0411348E
 KANOK 3634.0N 04141.0E
 SOGUM 341212N 0435454E
 ETBOM 332143N 0444813E
 NOLDO 324930N 0452130E
 PUSMO 304444N 0473547E
 SIDAD 295231N 0482944E
 LONOS 283414N 0492344E
 TESSO 282852N 0492723E
 MIXAR 270800N 0503300E
 RATUN 264613N 0510759E

R205 ANARAK

UR205 ANARAK

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

BIRJAND

R219 SHARJAH * Note 7 (OB, OM)
RATUN 2646.2N 05108.0E
KING FAHD * Note 7 (OB)
BOROP 2653 17 N 04852 03E
KEDAT 2721 49N 04759 01E

R401 AMPEX 0810.0N 05500.0E
SUHIL 1200.0N 05500.0E
~~KADER 1506.0N 05500.0E~~
NIDOD 151115N 0552354E
KIVEL 165306N 0553633E
~~AVAVO 1647.1N 05526.1E~~
HAIMA
DEMKI 224941N 0562308E
MUSAP241754N 0555245E
GIDIS 243600N 0555600E
RAS AL
DARAX
GHESHM

R402 LAKLU 232235N 0570401E
HAIMA (HAI)

R456 KITAL200300N 0601800E
(MALE)

R462 (JIWANI)
DENDA 2442.5N 06054.8E
VUSET 235540N 0590812E
MIBSI 234139N 0575523)
*Note 7 (OO)

R650 LUXOR
HURGHADA
SHARM EL SHEIKH
NUWEIBAA
NALSO 2932.0N 03453.0E

R651 TANF
SHATRA

R652 TURAIF
*Note 7(OE)
GURIAT

BIRJAND

UR219 OTILA 3201.5N 03901.9E*Note 7
MODAD
SOKAN
RAFIF
SULAF
FIRAS

UR401 AMPEX 08 10.0N 055 00.0E
SUHIL 1200.0N 05500.0E
~~KADER 1506.0N 05500.0E~~
NIDOD 151115N 0552354E
KIVEL 165306N 0553633E
~~AVAVO 1647.1N 05526.1E~~
HAIMA
DEMKI 224941N 0562308E
MUSAP 241754N 0555245E
GIDIS 243600N 0555600E
RAS AL KHAIMAH
DARAX
GHESHM

UR402 LAKLU 232235N 0570401E
HAIMA (HAI)

UR456 KITAL200300N 0601800E
(MALE)

UR462 (JIWANI)
DENDA 2442.5N 06054.8E
VUSET 235540N 0590812E
MIBSI 234139N 0575523E
*Note 7 (OO)

UR650 LUXOR
HURGHADA
SHARM EL SHEIKH
NUWEIBAA
NALSO 2932.0N 03453.0E

UR651 TANF
SHATRA

UR652 TURAIF
*Note 7(OE)
GURIAT

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

	QATRANEH		QATRANEH
	AQABA		AQABA
	METSA 2930.0N 03500.0E		METSA 2930.0N 03500.0E
R653	JERUSALEM * Note 4(OJ, OS)	UR653	JERUSALEM * Note 4(OJ, OS)
	RAMTHA		RAMTHA
	DAMASCUS		DAMASCUS
R654	ZANJAN	UR654	MEGRI
	SAVEH		ZANJAN
	ESFAHAN		SAVEH
	YAZD		ESFAHAN
	KERMAN		YAZD
	NABOD 2816.1N 05825.3E		KERMAN
	CHAH BAHAR (CBH)		NABOD 2816.1N 05825.3E
	EGTAL 243458N 0603724E		CHAH BAHAR (CBH)
	VAXIM 231900N 0611100E		EGTAL 243458N 0603724E
			VAXIM 231900N 0611100E
R655	(LARNACA)	UR655	(LARNACA)
	CHEKKA		CHEKKA
	KARIATAIN		KARIATAIN
R658	SEEB	UR658	SEEB
	MELMI 2647.0N 05723.0E		MELMI 2647.0N 05723.0E
	BANDAR ABBAS		BANDAR ABBAS
R659	SHIRAZ	UR659	SHIRAZ
	DOHA		DOHA
	MARMI 241400N 0511330E		MARMI 241400N 0511330E
	MIGMA 225035N 0512749E		MIGMA 225035N 0512749E
	PURDA 210805N 0510329E		PURDA 210805N 0510329E
	ASTIN 200410N 0495320E		ASTIN 200410N 0495320E
	TULIS 173033N 0462616E		TULIS 173033N 0462616E
	ALHAZM 161230N 0444742E		ALHAZM 161230N 0444742E
	SANA'A		SANA'A
	TATNA 171429N 0461418E		TATNA 171429N 0461418E
	RAGNI 163454N 0454815E		RAGNI 163454N 0454815E
	LOPAD 161651N 0453738E		LOPAD 161651N 0453738E
	ITOLI 152825N 0450927E		ITOLI 152825N 0450927E
	OBNAM 144541N 0444448E		OBNAM 144541N 0444448E
	GEVEL 141229N 0442547E		GEVEL 141229N 0442547E
	NOPVO 135436N 0441536E		NOPVO 135436N 0441536E
	TAZ 134149.53N 0440818.98E		TAZ 134149.53N 0440818.98E
	PARIM 123142N 0432712EE		PARIM 123142N 0432712EE

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

R660 (ERZERUM)
DASIS 38 54.5N 044 12.5E
TABRIZ
RASHT
TEHRAN

UR660 RASHT
TEHRAN

R661 DULAV 3857.0N 04537.9E
TABRIZ
ZANJAN
RUDESHUR
VARAMIN
DEHNAMAK

UR661 DULAV 3857.0N 04537.9E
TABRIZ
ZANJAN
RUDESHUR
VARAMIN
DEHNAMAK

UR674 SABLE 185158N 0520339E
LOTEL 180926N 0514103E
PASUL 180341N 0513803E
GOGRI 170752N 0510857E
OBTAS 164633N 0505756E
RARBA 161021N 0503920E
UKORA 152407N 0501547E
NAKAD 150056N 0500402E
DANAN 144010N 0495334E
XABIL 142924N 0494809E
EMABI 141627N 0494139E
PAXED 135027N 0492759E
DEMGO 120258N 0483040E

R775 LUXOR (LXR) 254458N 0324607E
DEDLI 2242 32N 03737 19E
KING ABDULAZIZ
DANAK 1608.0N 04129.0E
(ASSAB)

UR775 KING ABDULAZIZ
DANAK 1608.0N 04129.0E
(ASSAB)

R777 DANAK 1608.0N 04129.0E
SANA'A
TAIZ
ARABO 1238.8N 04404.0E
TORBA 1210.6N 04402.1E

UR777 DANAK 1608.0N 04129.0E
SANA'A
TAIZ
ARABO 1238.8N 04404.0E
TORBA 1210.6N 04402.1E

R784 SHARJAH
ORSAR2604.5N 05357.5E
DURSI 2712.3N 05201.7E
IMDAT 2740.0N 05113.0E
ALNIN 2840.9N 05001.6E
NANPI 2905.0N 04932.0E
SIDAD 2952.5N 04829.7E
PUSMO 304444N 0473547E
ALVET 313500N 0471500E

UR784 SHARJAH
ORSAR 2604.5N 05357.5E
DURSI 2712.3N 05201.7 E
IMDAT 2740.0N 05113.0E
ALNIN 2840.9N 05001.6E
NANPI 2905.0N 04932.0E
SIDAD 2952.5N 04829.7E
PUSMO 304444N 0473547E
ALVET 313500N 0471500E

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	

ITSOP 330422N 0454208E
 GONSI 332622N 0451837E
 SIGNI 340006N 0444200E
 RAMPI 351642N 0435618E
 KATOT 360000N 0432700E
 KABAN 3715.0N 04239.0E
 (SIIRT)

ITSOP 330422N 0454208E
 GONSI 332622N 0451837E
 SIGNI 340006N 0444200E
 RAMPI 351642N 0435618E
 KATOT 360000N 0432700E
 KABAN 3715.0N 04239.0E
 (SIIRT)

R785 TURAIF
 ZELAF 3257.0N 03800.0E
 KARIATAIN
 BANIAS
 NIKAS 3511.6N 03543.0E

UR785 TURAIF
 ZELAF 3257.0N 03800.0E
 KARIATAIN
 BANIAS
 NIKAS 3511.6N 03543.0E

R794 ULDUZ 3810.0N 05020.0E
 NOSHAHR
 DEHNAMAK
 TABAS
 BIRJAND * Note 5 (OI)

UR794 ULDUZ 3810.0N 05020.0E
 NOSHAHR
 DEHNAMAK
 TABAS
 BIRJAND * Note 5 (OI)

R799 ~~SILPA 184953N0510158E~~
~~PATAP 152744N 0532929.5E~~
IMPOS 183136N 0511848 E
PASUL 180341N 0513803^E
TONRO 165850N 0522235^E
ASMAK 162327N 0524634^E
ENADO 153333N 0532015E

UR799 ~~SILPA 184953N0510158E~~
~~PATAP 152744N 0532929.5E~~
IMPOS 183136N 0511848 E
PASUL 180341N 0513803^E
TONRO 165850N 0522235^E
ASMAK 162327N 0524634^E
ENADO 153333N 0532015E

CNS/ATM/IC SG/3
Appendix 5C to the Report on Agenda Item 5

FUTURE ATS ROUTE REQUIREMENTS

Ident	Start Point	End Point	Description	FIRs concerned	Flight Level band	Priority	Requested by (date)	Remarks
A412	JERUSALEM	TANF	JERUSALEM AMMAN ZELAF 3257.0N 03800.0E TANF	Amman Damascus Tel-Aviv			IATA	
B419	DOHA	KUWAIT	[DOHA] [KING FAHD] * Note3 (OB, OT) ALVON 2700.2N 05007.2E SELEG 2801.5N 04922.2E KUWAIT	Bahrain Jeddah Kuwait			IATA	Military restrictions. Saudi Arabia is ready to implement.
B538	GAZIANTEP	DAMASCUS	(GAZIANTEP) ALEPPO KARIATAIN DAMASCUS	Damascus			IATA	Segment GAZIANTEP-ALEPPO implemented (B544)
B545	BALMA	AMMAN	(MUT) BALMA 3428.9N 035 3.0E KHALDEH AMMAN	Amman Beirut Ankara			IATA	
G660	KING ABDULAZIZ	ABU DHABI	KING ABDULAZIZ ABU DHABI * Note3 (OE, OM)				IATA	Military restrictions
G662	DAMASCUS	KING KHALID	[DAMASCUS] [GURIAT] AL SHIGAR HAIL	Amman Damascus			IATA	

Ident	Start Point	End Point	Description	FIRs concerned	Flight Level band	Priority	Requested by (date)	Remarks
			GASSIM KING KHALID					
G664	APLON	AMMAN	APLON 3352.0N 03204.0E BEN GURION AMMAN	Amman Tel-Aviv			IATA	
R653	JERUSALEM	DAMASCUS	JERUSALEM RAMTHA DAMASCUS	Damascus Tel-Aviv			IATA	
XXXX	ARI (Agri)	NT (Nakhchivan)	ARI (Agri) AAAAA (TUR/IRN BDRY) BBBBB (IRN/AZE BDRY) NT (Nakhchivan)	Ankara (TUR) Tehran Yerevan (AZE)			Turkey (2002)	

CNS/ATM/IC SG/3
Appendix 5D to the Report on Agenda Item 5

CNS/MET SG/7
LIST OF DRAFT CONCLUSIONS AND DECISIONS

DRAFT CONCLUSION 7/1: SUPPORT ICAO POSITION FOR WRC 07

That MID States,

- a) support ICAO position communicated to States, by State Letter E 3/5-05/85 dated 12 August 2005 during the ITU WRC 07 meeting; and
- b) Civil Aviation Authorities, aviation experts participate with their national delegations to the WRC 07 ITU conferences.

DRAFT CONCLUSION 7/2: SUPPORT FOR ICAO POSITION WITH REGARD TO WRC

That,

- a) the Ad-Hoc Action Group for the support of Aeronautical Frequency Bands be tasked to follow-up the developments of ICAO position regarding future ITU WORLD RADIO COMMUNICATION CONFERENCE works, and highlighting that position to the MID States; and
- b) MID States Civil Aviation Authorities, experts participate with their appropriate ministries delegations in the drafting of the national radio plans in the support of ICAO position.

DRAFT CONCLUSION 7/3: MID VSAT PROJECT FINALIZATION

That, in order to expedite the implementation of the MID VSAT Project, concerned MID States commit themselves to the project, by signing an MOU.

DRAFT CONCLUSION 7/4: IMPLEMENTATION OF IPS BASED ATN

That, MID States,

- a) consider the developments towards an IPS based ATN internet and to take these into account when considering developing plans for upgrading the aeronautical communications infrastructure; and
- b) update the ICAO MID Regional Office with their ATN and AMHS Plans.

DRAFT CONCLUSION 7/5: ORGANIZATION OF COMMUNICATION INFRASTRUCTURE SEMINAR

That, MID States:

- a) should support ICAO MID Regional Office in organizing Communication Infrastructure Seminar/Workshop during year 2007 by hosting this even; and
- b) participate in the event by sending sufficient members of their appropriate experts.

DRAFT CONCLUSION 7/6: INTERNATIONAL SADIS SEMINAR

That, the SADIS Provider State be invited to arrange, in coordination with ICAO, MID Regional Office an international SADIS seminar in the MID Region to support the transition to the SADIS Second Generation (2G) service.

DRAFT CONCLUSION 7/7: SADIS STRATEGIC ASSESSMENT TABLES

That, the SADIS Strategic Assessment Tables, presented at Appendix 4A to this report, representing the estimated requirement for OPMET information in alphanumeric form, BUFR and AIS data volumes, issued in the MID Region for the period 2006-2010, be forwarded to the SADISOPSG.

DRAFT CONCLUSION 7/8: MID REGION VOLCANIC ASH TEST

That,

- a) the MID Regional Office issue a State letter to review the MET and ATS procedures to raise the awareness of the volcanic ash problem;
- b) the volcanic ash Advisory Centre (VAAC) Toulouse is invited to carry out a test once a year on volcanic ash SIGMETs; and
- c) the CNS/MET SG monitor the results of the test and take the appropriate action.

DRAFT CONCLUSION 7/9: FUTURE OF THE FASID MET 2A AND MET 2B

That, the MID Regional Office invites the MID States to agree:

- a) the FASID Table MET 2A not be repeated in ANP/FASID and that a simple link (i.e. a URL address) to the global data base “OPMET information (METAR/SPECI and TAF) required to be available on the ISCS and SADIS” be provided under the heading of FASID Table MET 2A in all the ANP/FASID;
- b) the approach ensuring the currency of information in the data base “OPMET information (METAR/SPECI and TAF) required to be available on the ISCS and SADIS” as outlined under paragraph 2.2.5 be implemented as of March 2007; and
- c) the FASID Table MET 2 B be deleted from all the ANP/FASID.

Note. — It is important to retain the provisions related to SIGMET in the BORPC and MET provisions of the ANP

DRAFT CONCLUSION 7/10: UPDATE AND MAINTENANCE OF THE FASID TABLE MET 1A

That, the MID Regional Office invites the MID States to agree:

- a) the content of FASID Table MET 1A be simplified by eliminating Column 6 (“area of coverage of charts”) and Column 7 (“AFTN routing areas of destination”);

-
- b) the FASID Table MET 1A not be repeated in the ANP/FASID and that a simple link (i.e. a URL address) to the global database “Forecasts (TAF and TREND) to be issued at international aerodromes” be provided under the heading of FASID Table MET 1A in all the ANP/FASID; and
 - c) the approach ensuring the currency of information as outlined under paragraph 4.6.4 be implemented as of 2007.

DRAFT CONCLUSION 7/11: COLLECTING AND MAINTAINING MET DEFICIENCIES DATABASES

That, the MID Regional Office:

- a) establish regional databases related to deficiencies in the MET field; and
- b) enhance efforts in collecting data related to deficiencies using, inter alia, indirect sources listed under 5.7 above and information obtained from users.

DRAFT DECISION 7/12: SPLIT CNS/MET SG INTO TWO SUB-GROUPS

That, CNS/MET SG be split in two separate Sub-Groups, each Sub-Group to have its own Terms of Reference and Work Programme.

DRAFT DECISION 7/13: DISSOLUTION AFS/ATN TASK FORCE

That, as a result of CNS/MET Sub-group split into two separate sub-groups, the AFS/ATN Task Force to be dissolved and its Work Programme carried out by the CNS Sub-Group.

DRAFT DECISION 7/14: UPDATED TERMS OF REFERENCE AND WORK PROGRAMME OF THE CNS SUB-GROUP

That, the meeting agreed on the updated terms of reference of the CNS Sub-Group presented in Appendix 6B.

DRAFT DECISION 7/15: UPDATED TERMS OF REFERENCE AND WORK PROGRAMME OF THE MET SUB-GROUP

That, the meeting agreed on the updated terms of reference of the MET Sub-Group presented in Appendix 6C.

CNS/ATM/IC SG/3
Report on Agenda Item 6

REPORT ON AGENDA ITEM 6: GLOBAL AIR NAVIGATION PLAN (GLOBAL PLAN)

6.1 Under this Agenda Item, the meeting was given the history of the Global Plan with a highlight that, the second amendment to the Global Plan was prepared in January 2006 and approved by the Council in November 2006. Accordingly, the meeting received a presentation on the second amendment of the Global Air Navigation Plan. The presentation addressed past and future work associated with achieving a global ATM system; the Global Plan Initiatives (GPIs); the performance-based approach to measuring success with implementation; and the process of carrying out regional integration and transition.

6.2 The meeting noted that the three chapters of the revised Global Plan contain a roadmap and guidance for the continued evolution towards a global ATM system and the changes to the planning process that this entails. Most significantly, the Global Plan now contains a set of twenty-three Global Plan Initiatives (GPIs) which stem from the industry roadmap.

6.3 The meeting was informed that the revised planning process would be facilitated through project and programme management techniques and new reporting methodologies. The revised Global Plan would not cause major changes to the work already accomplished by the Planning and Implementation Regional Groups (PIRGs) and will integrate into the present planning framework since the objective was to harmonize work programmes, improve reporting processes and help to ensure interoperability and seamlessness between regions.

6.4 The meeting noted that the Global Plan is a significant component in the development of regional and national plans and that, together with the global ATM operational concept, it provides an effective architecture for achieving a harmonized and seamless Global ATM system.

6.5 The meeting noted that the system expectations as indicated in the second amendment to the Global Air Navigation Plan identify databases and data exchange as key elements for harmonization of global ATM interoperability. The Global Plan also specify the need for the implementation of data link applications and the functional integration of ground systems with airborne systems.

6.6 The transition strategy incorporates three phases; Near, Medium and Long Term. At this point there are no specific timelines associated with these terms. However, it is desirable that target dates eventually be agreed to be able to take advantage of the application of existing and emerging procedures, processes and capabilities.

6.7 The Phase 1 or near term activities are focused on what we have today. These activities involve the application of available procedures, processes and capabilities. The Global Plan Initiatives (GPIs) were derived from the joint industry project ATM Implementation Roadmap and are based on capabilities that have been implemented in today's existing global aviation environment. GPIs will be used as tools to support implementation and performance objectives.

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6.8 The focus of the Phase 2 or Medium term activities is based upon what we know today. It involves the application of emerging procedures, processes and capabilities. The caution here is that the application of emerging elements needs to be aligned with the ICAO strategic initiatives, while Phase 3 or long term activities will be focused towards meeting the expectations of the ATM Operational Concept.

6.9 The meeting was apprised of the scope and description of the Global Plan Initiatives (GPIs) and how the current MID Region work programme might relate to specific GPIs. The meeting noted that as the States and PIRGs consider implementation of the initiatives, they would use common programme templates contained in the planning tools, as the basis for establishing performance objectives and implementation time lines, as well as to develop a comprehensive schedule and programme of planning activities to accomplish the work associated with the relevant initiatives.

6.10 The meeting recalled that in December 2004 the Council approved the six (6) ICAO Strategic Objectives for the period 2005-2010 within the framework of the ICAO Business Plan, and that the Strategic Objectives became the basis for the development of the Action Plan. The next critical elements became the process of identifying priorities, based on clear and rational criteria, and the introduction of project management. In this regard, in accordance with the Business Planning process, all future work of the Planning and Implementation Regional Groups (PIRGs) has to be justified and based on clearly established performance objectives in support of the ICAO Strategic Objectives.

6.11 The meeting also recalled that ALLPIRG/5 meeting received a comprehensive presentation on the Global Plan. Furthermore that, pursuant to the developments regarding the amended Global Plan and the ICAO Business Plan approach, the ALLPIRG/5 meeting developed Conclusion 5/2 which reads as follows:

CONCLUSION 5/2: IMPLEMENTATION OF GLOBAL PLAN INITIATIVES (GPIs)

That, recognizing that the evolution continues from a systems-based to a performance-based approach to planning and implementation of the air navigation infrastructure, the regional planning groups:

- a) note that the Global Plan is a significant component in the development of regional and national plans and that, together with the global ATM operational concept, it provides an effective architecture for achieving a harmonized and seamless Global ATM system;*
- b) identify GPIs that most closely align with the well established implementation plans of their respective regions;*
- c) select GPIs that would be most effective in achieving the objectives of the region while ensuring continuation of the work already accomplished;*
- d) implement GPIs that take into account the Initiatives across regions, to align work programmes and to develop national and regional plans that facilitate achieving a Global ATM system;*

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Report on Agenda Item 6

- e) *utilize the planning tools as the common planning and implementation mechanism, thereby ensuring proper coordination and global integration; and*
- f) *review, at each PIRG meeting as a part of its regular agenda, the progress achieved and challenges identified in the implementation of GPIs using a common template*

6.12 In light of the above, the meeting considered the scope and description of each GPI in detail noting that the actions and tasks under each GPI were elaborate, and that these would have to be reviewed, prioritised and regularly updated by each MIDANPIRG subsidiary body. Furthermore, the meeting recognized that content and presentation of the actions and the tasks under each GPI would have to be adjusted when the Planning Tools (e.g. software applications, planning documentation, web-based reporting forms, project management tools), which are under development by ICAO, became available.

6.13 The meeting was of the view that, in order to minimize the possibility of duplication of efforts due to overlaps in the GPIs, the action plan for implementation of the GPIs should reflect together, the GPIs that are implemented through common actions and tasks. With regards to the responsibility for action, the meeting agreed that the action plan should distinguish responsibilities for ICAO, States and users accordingly.

6.14 The meeting considered projects that had been proposed by the ATM/SAR/AIS SG/8 and the CNS/MET SG/7 meetings in support of the evolution from a systems-based approach to a performance-based approach to planning and implementation of air navigation, and agreed that the relevant GPIs should be reflected against the projects.

6.15 In light of the foregoing, the meeting adopted the MID Region Strategy for implementation of the GPIs, and identified the GPIs that are more directly related to the MID Region and relevant implementation actions as at **Appendix 6A** to the report on Agenda Item 6 and **Attachment 1** thereto, respectively. The meeting adopted a set of near term projects which reflect the priority of the Region. Each project consists of a combination of a certain number of GPIs.

6.16 Based on the above the meeting developed the following Draft Conclusions:

DRAFT CONCLUSION 3/4: MID REGION STRATEGY FOR THE IMPLEMENTATION OF THE GLOBAL PLAN INITIATIVES (GPIs)

*That, the MID Region Strategy for the implementation of the Global Plan Initiatives (GPIs) be adopted as at **Appendix 6A** to the report on Agenda Item 6.*

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Report on Agenda Item 6

DRAFT CONCLUSION 3/5: IMPLEMENTATION OF WORK PROGRAMME IN SUPPORT OF STRATEGIC PERFORMANCE OBJECTIVES

That, in support of the evolution from a systems-based approach to a performance-based approach to planning and implementation of air navigation, the following projects are to be reflected in the MID Region implementation plan:

- a) improvement of the MID ATS route structure (FUA, dynamic and flexible ATS route management, improved Civil/Military coordination, etc);*
- b) enhancement of MID States' TMA management;*
- c) MID RMA operations continuity;*
- d) support of the introduction and implementation of SMS in the MID States;*
- e) development of MID States' contingency plans;*
- f) improvement of the quality and efficiency of aeronautical information services provided by MID States;*
- g) provision of eTOD by MID States;*
- h) establishment of Initial FPL Processing System (IFPS) in the MID Region;*
- i) implementation of ATN in the MID Region;*
- j) improvement of communication infrastructure; and*
- k) implementation of GNSS.*

CNS/ATM/IC SG/3
Appendix 6A to the Report on Agenda Item 6

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

Considering:

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

Recognizing that:

- i) the evolution continues from a systems-based to a performance-based approach to planning and implementation of the air navigation infrastructure; and
- ii) the Global Air Navigation Plan is a significant component in the development of regional and national plans and that, together with the global ATM operational concept, it provides an effective architecture for achieving a safe, harmonized, interoperable, and seamless Global ATM system;

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

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

GLOBAL AIR NAVIGATION PLAN: GLOBAL INITIATIVES

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

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

ABBREVIATIONS:

Airspace Organization and Management

AOM

Demand and Capacity Balancing

DCB

Aerodrome Operations

AO

Traffic Synchronization

TS

Conflict Management

CM

Airspace User Operations

AUO

ATM Service Delivery Management

ATMSDM

IMPROVEMENT OF THE MID ATS ROUTE STRUCTURE

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

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

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

RVSM OPERATIONS IN THE MID REGION

GPI-2: REDUCED VERTICAL SEPARATION MINIMA

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

DECISION SUPPORT AND IMPROVEMENT OF SITUATIONAL AWARENESS

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

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

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

ENHANCEMENT OF MID STATES' TMA MANAGEMENT

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

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

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

ENHANCEMENT OF AERODROME INFRASTRUCTURE AND MANAGEMENT

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

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

IMPROVEMENT OF STATE’S AERODROME OPERATIONS

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

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

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

GPI-18: AERONAUTICAL INFORMATION

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

IMPLEMENTATION OF GNSS IN THE MID REGION

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

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

IMPROVEMENT OF COMMUNICATION INFRASTRUCTURE

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

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

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

NOTE:

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

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REPORT ON AGENDA ITEM 7: ADS/CPDLC ACTIVITIES IN THE MID REGION

7.1 ADS-B activities in the MID Region

7.1.1 Under this Agenda Item, the meeting noted with appreciation that Saudi Arabia has developed a plan for an ADS-B Test Bed. The project is planned for trial purpose and the trials are expected to take place in the first quarter of 2009.

7.1.2 An ADS-B Ground Station will be installed in Jeddah, King Abdulaziz International Airport (KAIA) and will be interfaced with the new ATM system in Jeddah ACC. The objective will be to provide ADS-B coverage for the approach area. It is to be noted that only aircraft equipped with ADS-B transmitter/receiver system and/or Mode S extended Squitter, will participate in the trials.

7.1.3 The meeting noted that the ADS-B system will include the following elements:

- ADS-B Ground Station, including site monitor equipment;
- Remote Control and Monitor System (RCMS);
- Software Support Facility (SSF);
- site monitor;
- antennas; and
- display workstation.

7.1.4 The meeting was apprised of the experience of Airservices Australia and SITA in the implementation of ADS-B. It was noted, in this regard, that Airservices Australia is the first air navigation service provider in the world to proceed with the deployment of an ADS-B infrastructure across its entire territory for operational surveillance of its airspace. The initial operational capability of the ADS-B service is scheduled to be 1st quarter 2007.

7.1.5 The project includes:

- the deployment of dual redundant ADS-B receivers at twenty eight sites across Australian territory;
- the deployment required ground communications infrastructure;
- the upgrades to the air traffic management systems to receive, process and display ADS-B data;
- development of safety cases to utilise ADS-B data as a means of airspace surveillance; and
- training of air traffic controllers to manage aircraft reporting their positions via ADS-B.

7.1.6 The meeting noted also that a pilot ADS-B trial is to be carried out in Indonesia. The trial is supported the Airservices/SITA Alliance and will involve the deployment of up to three ADS-B receivers at strategic sites on Indonesian territory.

7.1.7 The meeting recognized that these activities are in line with the 11th Air Navigation Conference Recommendations especially Recommendation 1/7:

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*RECOMMENDATION 1/7 – GROUND AND AIRBORNE AUTOMATIC DEPENDENT SURVEILLANCE-
BROADCAST (ADS-B) APPLICATIONS FOR GLOBAL INTEROPERABILITY*

That ICAO and States:

- a) recognize ADS-B as an enabler of the global ATM operational concept bringing substantial safety and capacity benefits;*
- b) support the cost-effective early implementation of packages of ground and airborne ADS-B applications, noting the early achievable benefits from new ATM applications; and*
- c) ensure that implementation of ADS-B is harmonized, compatible and interoperable with respect to operational procedures, supporting data link and ATM applications.*

7.1.8 The meeting recalled also that the 11th Air Navigation Conference in reviewing the available information on implementation decisions, noted that one of the key factors in the decision making process at the national and regional level appeared to have been the overriding requirement to ensure global interoperability while enabling the near term introduction of ADS-B services. Such requirement was dictated by safety and efficiency reasons; was responsive to the needs of the user community; and had been extensively embraced and supported throughout the industry.

7.1.9 The 11th Air Navigation Conference was of the opinion that a significant number of States from several regions might not be in a position to fully support such convergence on a global near-term solution at the present time without further study and consideration. In particular, it was recognized that certain States might not have identified a near term need for introducing ADS-B in their airspace; or might be still in the process of selecting an appropriate ADS-B link technology; or might be conducting regional coordination in the interest of regional harmonization before committing to a technology choice; or might have already identified as their preferred technical solution one that was partly or wholly inconsistent with the implementation of the SSR Mode S extended squitter. In this regard, the meeting recognized that for the near term, other link technologies supporting the initial introduction of ADS-B applications may optionally be used on a local or regional basis either in addition to Mode S extended squitter or in lieu of Mode S extended squitter in support of local or regional operations.

7.1.10 On the basis of the above considerations with regard to potential near term ADS-B solutions, the 11th Air Navigation Conference formulated the following Recommendation:

RECOMMENDATION 7/1 – STRATEGY FOR THE NEAR-TERM INTRODUCTION OF ADS-B

That States,

- a) note that a common element in most of the approaches currently adopted for early implementation of ADS-B is the selection of the SSR Mode S extended squitter as the initial data link; and*

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- b) *take into account this common element to the extent possible in their national and regional implementation choices in order to facilitate global interoperability for the initial introduction of ADS-B.*

7.1.11 It was also highlighted that MIDANPIRG/9 when reviewing the outcome of the 11th Air Navigation Conference related to the strategy for near term introduction of ADS-B, encouraged MID States to implement ADS-B taking into account studies carried out in the other ICAO Regions.

7.1.12 Reference was made to the Global Plan where ADS-B is considered as an enabler of GPI-9 “*SITUATIONAL AWARENESS*”. In this respect, it is recognized that further implementation of enhanced surveillance techniques (ADS-C or ADS-B) will allow reductions in separation minima and an enhancement of safety, increase in capacity, improved flight efficiency, all on a cost-effective basis. These benefits may be achieved by bringing surveillance to areas where there is no primary or secondary radar, when cost-benefit models warrant it. In airspaces where radar is used, enhanced surveillance can bring further reductions in aircraft separation minima and improve, in high traffic density areas, the quality of surveillance information both on the ground and in the air, thereby increasing safety levels. It was also highlighted that the 1090 extended squitter should be accepted as the global choice for the ADS-B data link.

7.1.13 Based on the above, the meeting encouraged States in collaboration with the airspace users to develop and implement an ADS-B trials programme using the available technology and services, aimed at improving the ADS-B knowledge and evaluating the benefits for the Air Traffic Management in the MID Region. Accordingly, the meeting developed the following Draft Conclusion:

DRAFT CONCLUSION 3/6: MID REGION STRATEGY FOR THE IMPLEMENTATION OF ADS-B

That,

- a) *MID States, in collaboration with the airspace users, are encouraged to develop and implement ADS-B trials programme, when cost-benefit models warrant it; and*
- b) *the Strategy at **Appendix 7A** to the report on Agenda Item 7 be endorsed as the MID Region Strategy for the implementation of ADS-B.*

7.2 FANS 1/A activities in the MID Region

7.2.1 The meeting noted that FANS 1/A (ADS & CPDLC) trials have been carried out by Saudi Arabia during the period from 4 January to 3 April 2006. The trials were based on the two prototype workstations with FANS-1/A capability, which were installed in the Riyadh Approach Control facility in December 2005.

7.2.2 It was noted that the trials were conducted in two phases:

- Phase I: limited number of aircraft participating from Saudi Airlines only. This phase was a systems familiarization phase limited to 8 hours per day; and
- Phase II: two additional airlines participated in the trials after signing an MOU and the hours of Trial operation was extended to 16 hours per day.

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7.2.3 Voice clearances remained the primary means of communications throughout the Trials and data link messages supplemented voice communications.

7.2.4 The meeting noted that the comments received from participating airlines indicated that:

- trials were very successful;
- CPDLC is very useful and Airlines want the service operational;
- FANS services should be applicable to the whole Jeddah FIR;
- timeframe required for Voice reporting was a duplication with CPDLC;
- FANS Procedures must be consistent with other FIRs; and
- the FANS-1/A Operations Procedures Manual needs to include guidance for flight over Continental airspace;
- the potential benefits of the FANS 1/A implementation would be the reduction of the:
 - overflight permission burden; and
 - problems associated with the occurrences of lost ICAO FPLs.

7.2.5 The meeting noted the following lessons learned from the FANS 1/A trials:

- FANS-1/A has potential benefits for Saudi Arabia, and possibly other parts of the region, if implemented;
- the system works very well once air traffic controllers are well trained;
- flight Data is key to making the system work correctly;
- there were no safety concerns identified during the trials;
- the system supports preferred routing but there are airspace issues that need to be addressed as well;
- FANS 1/A implementation has implications beyond Saudi Arabia and this should be studied on a regional basis.

7.2.6 The meeting noted also that a proposal for a larger Regional FANS-1/A trial was made at the SITA/IATA/ACAC/NANSC “*FANS IMPLEMENTATION AND CNS/ATM TECHNOLOGY SEMINAR*” held in Cairo from 2 to 3 May 2006. This has been adopted and an ACAC FANS Implementation Group (AFIG) has been established to, inter-alia, coordinate the trials. The AFIG/1 meeting was held in Jeddah from 19 to 20 September 2006. The meeting noted that the objectives of the trials are to:

- exercise and introduce new CNS/ATM functionalities in a controlled operational environment;
- provide an opportunity for ATC personnel to become familiar with new FANS1/A procedures;
- obtain direct feedback from ATC and crew on the applications and aspects of data link;
- monitor , record and assess accuracy of ADS position information together with the practice associated with CPDLC;
- establish the requirements for a fully integrated operational data link service and to test and shakedown the system “end to end” to establish that the system works correctly; and
- obtain first hand factual data on the operational benefits, requirements, human errors, procedures and any problems with using air-ground data link.

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7.2.7 Bahrain confirmed that they will join Saudi Arabia in the FANS 1/A trials. IATA supported also the implementation of FANS 1/A in the region and confirmed that more than 50% of the MID based Airlines' aircraft are equipped with FANS 1/A as reflected in **Appendix 7B** to the report on Agenda Item 7.

7.2.8 The meeting noted that many areas in the MID Region are still not covered by radar (around 40%). This includes the Oceanic airspace, the empty quarter, parts of Baghdad FIR, Cairo FIR, Damascus FIR and Sana'a FIR. Furthermore, concern was raised about the coordination between States in the MID region mainly for the exchange of radar data and improvement of the VHF communication.

7.2.9 Reference was also made to the Global Plan and especially GPI-17 "*DATA LINK APPLICATIONS*". In this respect, it is recognized that the use of CPDLC and implementation of other data link applications can bring significant advantages in terms of workload and safety over voice communication for both pilots and controllers. In particular, they can provide efficient linkages between ground and airborne systems, improved handling and transfer of data, reduced channel congestion, reduced communication errors, interoperable communication media and reduced workload. The reduction of workload per flight translates into capacity increases and enhances safety. It was also highlighted that communication data link and data link surveillance technologies and applications should be selected and harmonized for seamless and interoperable global operations. ADS-C, ADS-B and CPDLC are in service in various regions of the world but lack global harmonization. Current regional initiatives, including utilizing unique message subsets and CPDLC procedures, hinder efficient development and acceptance for global aircraft operations. Existing and emerging technologies should be implemented in a harmonized global manner in the near term to support long-term goals. Harmonization will define global equipage requirements and therefore minimize user investment.

7.2.10 The meeting recognized that FANS-1/A and ATN applications support similar functionality, but with different avionics requirements and that many internationally operated aircraft are initially equipped with FANS-1/A avionics to take advantage of data link services offered in certain oceanic and remote regions. Accordingly, the meeting agreed that any implementation of the FANS 1/A should be supported by a safety case.

7.2.11 Based on the above, and after an extensive discussion, some of the participants were of view that FANS 1/A should be implemented in the region as an interim solution until a fully ATN compliant ADS/CPDLC system is made available. Accordingly, the meeting developed the following Draft Conclusion:

DRAFT CONCLUSION 3/7: FANS 1/A ACTIVITIES IN THE MID REGION

That MID States, in coordination with users, are encouraged to implement FANS 1/A (ADS-C/CPDLC) as an interim solution, until a fully ATN compliant ADS/CPDLC system is made available.

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Appendix 7A to the Report on Agenda Item 7

**MID REGION STRATEGY FOR THE IMPLEMENTATION OF AUTOMATIC
DEPENDENT SURVEILLANCE-BROADCAST (ADS-B)**

Considering:

- a) the ICAO strategic objectives;
- b) the ICAO Business Plan;
- c) the Global Air Traffic Management Operational Concept;
- d) the revised Global Air Navigation Plan and associated GPIs;
- e) the outcome of the 11th Air Navigation Conference; and

Recognizing that:

- i) the implementation of data-link surveillance technologies is an evolutionary process, but which has significant potential for safety and cost-effectiveness; and
- ii) implementation of ADS-B is in support of various Global Plan Initiatives;

The MID Region strategy for the implementation of ADS-B is detailed below:

- A) the MID Region ADS-B implementation plan should:
 - 1) be evolutionary and consistent with the Global Air Navigation Plan taking into consideration associated MID Region priorities;
 - 2) when cost/benefit models warrant it, prioritize implementation in areas where there is no radar coverage surveillance, followed by areas where implementation would otherwise bring capacity and operational efficiencies;
 - 3) ensure that implementation of ADS-B is harmonized, compatible and interoperable with respect to operational procedures, supporting data link and ATM applications;
 - 4) identify sub-regional areas where the implementation of ADS-B would result in a positive cost/benefit in the near term, while taking into account overall Regional developments and implementation of ADS-B in adjacent homogeneous ATM areas;
 - 5) be implemented following successful trial programmes with regards to safety and operational feasibility, taking into account studies and implementation experiences from other ICAO Regions; and
 - 6) be implemented in close collaboration with users.
- B) Implementation should be monitored to ensure collaborative development and alignment with the MID Region projects and relevant elements of the GPIs.

Airplane type	QTY	NAVIGATION CAPABILITY																	COMMUNICATIONS CAPABILITY				
		FMS	GPS STAND ALONE	GPS COUPLED TO FMS	IRU	RNAV DME/DME	RNAV DME/DME/IRU	RNAV GPS	RNP-10	RNP-4 Oceanic	RNP-5 BRNAV	RNP-1 P-RNAV	RNP 1.0	RNP .3	RNP .5	FANS	ADS	ADS-B	HF	HF DATA LINK	ACARS	ACARS OVER VDL2	SATCOM
A300-600	14	14			14	10	14		10		14	10							14				
A300-B2	4	4		4				4			4								4				
A300-B4	4	4	4	4		4	4	4	4										4				
A310-200	8	8			8	2	8				8	2							8				
A310-300	7	7	5		7	5	7		5	5	7								7				
A310/F	4	4		4	4	4	4	4			4							4	4		4		
A319-100	2	2		2	2	2	2		2		2	2					2		2	2	2	2	2
A320-200	37	37	6	25	37	27	35	15	37	12	37	21	6	6	6		13		37	13	26	3	
A321-200	12	12	10	8	12	12	12	8	12	10	12	8	6	6	6	6	8	6	12	8	12	8	
A330-200	59	59	3	59	59	53	59	48	59	42	59	59	48	48	48	59	53	42	59	25	59	25	59
A330-300	12	12		12	12	12	12		12		12	12				12	12		12	12	12	12	12
A340-200	4	4	4		4	4	4	4	4	4	4								4		4		4
A340-300	18	18		18	18	9	18	18	18	9	18	18	18	18	18	1	1	1	18	1	18	1	18
A340-500	13	13		13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	3	13
A340-600	3	3		3	3	3	3		3		3	3				3	3		3	3	3	3	3
B727	10		7			6	3	7	6		10	3	3	3	6				10				
B737	1	1		1				1				1							1				
B747	31	29		29	29	31		10	26	2	31	5	24	5	2	5	5		31		5	5	5
B767-300	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B767-3P6ER	9	9	9		9		9		9		9								9		9		
B767	10	10	9	1	10	1	10	1	10	1	10	1	1	1	1	1	1	1	10	1	10	1	1
B777	71	71	0	71	71	71	48	71	71	48	71	71	71	71	48	71	71	48	71	5	71	5	71
ERJ	15	15		15	15	15		15			15	15	15	15					15		15		15
F-100	12	12			12		12				12								12				
F90	1	1			1						1								1				
G2	4										4								4				
G3	2	2									2								2				
G4	5	5			5						5								5				
MD11	4	4		4	4	4			4		4	4	4	4		4	4		4		4		4
MD90	29	29		29	29	29		29			29	29		29		29	29		29		29		29
Total	406	390	57	303	379	318	278	253	306	147	401	278	210	220	149	205	216	116	406	84	297	69	237
Percentage		96.06%	14.04%	74.63%	93.35%	78.33%	68.47%	62.32%	75.37%	36.21%	98.77%	68.47%	51.72%	54.19%	36.70%	50.49%	53.20%	28.57%	####	20.69%	73.15%	17.00%	58.37%

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REPORT ON AGENDA ITEM 8: OTHER CNS/ATM ACTIVITIES

8.1 Under this Agenda Item the meeting noted the progress made with regard to the development of the feasibility study for the establishment of an Integrated Initial FPL Processing System (IFPS) in the MID Region which is led by Bahrain as per MIDANPIRG Conclusion 9/18.

8.2 The meeting noted that Bahrain had carried out the necessary work on the feasibility study as the first version of the study was completed by the end of September 2006, and will be available on the ICAO MID website.

8.3 Bahrain highlighted that the document is not to be considered final since the study is based only on Bahrain's input, and in order to have the document fully complete more inputs are needed from all MID States. The meeting agreed that each individual MID State should nominate an IFPS focal point for coordination purpose also to provide the needed input on timely manner for the finalization of the study.

8.4 It was brought to the attention of the meeting that in Europe, Eurocontrol, has established the Initial Flight Plan Processing System (IFPS) with units in Brussels and France and the MID IFPS feasibility study recognizes the vital importance that Eurocontrol will play in the success of the project. Eurocontrol have had an operational IFPS for several years and there is little to be gained from 'reinventing the wheel'. Thus a dialogue with Eurocontrol should be opened to get the maximum use of their experience and expertise in the implementation of the IFPS in the MID Region.

8.5 The meeting noted that there are two main areas that are required for the successful implementation of an IFPS:

- technical aspect – physical mechanics of how the system operates in terms of hardware and software; and
- regulatory aspects – the provision of the necessary rules upon which the technical aspect is based and the regulations that cover its operation.

8.6 It was also highlighted that although IFPS has been successfully introduced in Europe under the auspices of Eurocontrol, a pan-European organization, for the regulatory framework (Eurocontrol) was already in place prior to IFPS implementation. In the MID region there is no single regulatory body equivalent and the implementation of IFPS cannot attain its full potential until the necessary regulations are in force.

8.7 Based on the above the meeting developed the following Draft Conclusion, which is proposed to replace and supersede MIDANPIRG/9 Conclusion 9/18:

DRAFT CONCLUSION 3/8: ESTABLISHMENT OF AN INTEGRATED INITIAL FPL PROCESSING SYSTEM (IFPS) IN THE MID REGION

That,

- a) *MID States designate their IFPS focal points and send their contact details to the ICAO MID Regional Office prior to 31 May 2007;*

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- b) *the IFPS focal points participate in the finalization of the feasibility study for the implementation of an IFPS in the MID Region, which is led by Bahrain; and*
- c) *coordination be carried out with Eurocontrol with a view to benefit from their experience and expertise in the implementation of an IFPS, including the development of a regulatory framework.*

8.8 The meeting was informed about the study carried out under the auspices of ACAC for the CNS-ATM deployment which aimed at giving a detailed schedule and the main steps or milestones for ACAC countries to harmonize and modernize the services and the infrastructure provided to all airspace users.

8.9 Syria informed the meeting that, since July 2006, radar service for enroute traffic has been provided for 8 hours a day and shortly the service would be extended to 24 hours. In this regard, the Air Traffic Controllers in Damascus ACC will need more On-the-Job Training (OJT). Hence, Syria requested the support from the MID States which have a long experience with radars to assist them in the provision of OJT. The meeting noted that Egypt and Bahrain are willing to support Syria for the provision of OJT, provided that a formal request is sent by Syria.

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Report on Agenda Item 9

REPORT ON AGENDA ITEM 9: FUTURE WORK PROGRAMME

9.1 Update to CNS/ATM/IC SG Terms of Reference and Work Programme

9.1.1 Under this Agenda Item, the meeting recalled that the Third Meeting of the MIDANPIRG Member States, convened in Jeddah, Saudi Arabia from 4 to 6 September 2006, noted that the TOR of PIRGs are deemed outdated as a result of the changing aviation environment and that work is in progress to revise them.

9.1.2 The meeting noted that with a view to increase the efficiency and effectiveness of ICAO including the Regional Air Navigation Planning and Implementation Groups (PIRGs), the TOR of all subsidiary bodies within the scope of the Strategic Objectives will have to be revised to reflect the necessary changes.

9.1.3 Based on the above, the meeting reviewed and updated the TOR of the CNS/ATM/IC Sub-Group as at **Appendix 9A** to the report on Agenda Item 9, and agreed to the following Draft Decision:

DRAFT DECISION 3/9: REVISED TOR OF THE CNS/ATM/IC SUB-GROUP

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

9.1.4 With regard to the date of the next CNS/ATM/IC Sub-Group meeting, it was agreed that, in accordance with the MIDANPIRG Procedural Handbook, and based on its Terms of Reference and Action Plan/Work Programme, the date of the CNS/ATM/IC SG/4 will be determined by the ICAO MID Regional Office in coordination with the Chairman of the Sub-Group.

9.1.5 In accordance with the ICAO Business plan and the requirements for performance monitoring, the meeting developed a draft follow-up action plan as at **Appendix 9B** to the report on Agenda Item 9.

CNS/ATM/IC SG/3
 Appendix 9A to the Report on Agenda Item 9

**COMMUNICATIONS, NAVIGATION, SURVEILLANCE/
 AIR TRAFFIC MANAGEMENT/IMPLEMENTATION COORDINATION SUB-GROUP**

(CNS/ATM/IC SG)

REVISED TERMS OF REFERENCE AND WORK PROGRAMME

TERMS OF REFERENCE

In accordance with the MID Region strategy for the implementation of the Global Plan Initiatives (GPIs) and, taking into consideration that the evolution from a systems-based approach to a performance-based approach should be evolutionary and consistent with the Global plan, the CNS/ATM/Implementation Coordination Sub-Group should:

Task No.	Strategic Objectives	Tasks
1	A/D/E	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, the Global Air Navigation Plan and the associated Global Plan Initiatives (GPIs).
2	A/D/E	Develop and continuously update, the MID Region Implementation Plan in the light of new developments, taking into consideration the region priorities and MID States national plans.
3	D	Monitor the progress of updated studies, projects, trials and demonstrations carried out by MID States, and information available from other Regions.
4	A/D/E	Identify deficiencies and constraints that would impede implementation of the GPIs, and propose solutions that would facilitate the rectification of such problems.
5	C/D	Use the guidance provided by the Committee on Aviation Environmental Protection (CAEP) in the analysis of environmental benefits of implementing CNS/ATM systems.

WORK PROGRAMME

- a) review and identify intra and inter regional co-ordination issues and where appropriate recommend actions to address those issues;
- b) identify GPIs that most closely align with the MID Region implementation plan;
- c) select GPIs that would be most effective in achieving the objectives of the region while ensuring continuation of the work already accomplished;
- d) utilize or draw on business cases for the implementation of a global ATM system in the development of the MID regional plan;

- e) provide assistance to MID States in the implementation of GPIs, especially those related to the implementation of ATM and supporting CNS systems, that take into account the initiatives across regions, to align work programmes and to develop national and regional plans that facilitate achieving a Global ATM system;
- f) suggest ways and means for rectifying the problems as they arise related to the implementation of GPIs;
- g) ensure that the link between planned activities, organizational cost and performance assessment is well established;
- h) review the Tables contained in the MID ANP and FASID, in order to facilitate integration of the GPIs into the planning process and to maximize their usefulness;
- i) monitor studies, demonstrations, trials and test beds carried out by MID States, related to GNSS, ADS, CPDLC, etc;
- j) identify sub-regional areas, where there is a positive cost/benefit for implementation of ADS-B;
- k) support the cost-effective early implementation of packages of ground and airborne ADS-B applications; and
- l) ensure that the initial introduction of ADS-B is carried out in a harmonized manner, taking into consideration global interoperability issues.

COMPOSITION

The Sub-Group will be composed of the:

- a) 15 MID Region Provider States; and
- b) IATA, IFALPA, IFATCA and SITA, as observers.

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Appendix 9B to the Report on Agenda Item 9

**CNS/ATM/IC SUB GROUP
FOLLOW-UP ACTION PLAN**

CONC/DEC No. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
<i>CONCLUSION 3/1 -- D</i>	<i>REVISED STRATEGY FOR THE IMPLEMENTATION OF GNSS IN THE MID REGION</i>	That, the Revised Strategy for the Implementation of GNSS in the MID Region be amended as shown at Appendix 4A to the report on Agenda Item 4.	Approval of the Strategy; Implementation of the Strategy.	MIDANPIRG/10; GNSS TF CNS/ATM/ IC SG	Approved Strategy; GNSS TF/6 Report; CNS/ATM/IC SG/4 Report	Apr.07; Jun.07; TBD
<i>CONCLUSION 3/2 -- D</i>	<i>COORDINATION OF GNSS ACTIVITIES</i>	That, a) all GNSS activities be coordinated in line with the MID Region GNSS Strategy; b) MID States; i) share experience gained during demos, test bed trials and implementation; ii) provide input to the GNSS Task Force; iii) are encouraged to participate in the GNSS Research and Development in a coordinated manner; and	Follow up the R&D Participate in GNSS TF and CNS/ATM/IC SG meetings Designate Focal Points	ICAO States	State Letter Updated R&D results posted on the MID Forum Updated List of GNSS focal points GNSS TF/6 Report CNS/ATM/IC SG/4 Report	May.07 TBD Jun.07 Jul.07 TBD

CONC/DEC NO. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
		iv) designate GNSS focal points and send their contact details to the ICAO MID Regional Office prior to 31 May 2007.				
<i>DECISION 3/3</i> -- <i>A, C, D</i>	<i>REVISED TERMS OF REFERENCE AND WORK PROGRAMME FOR THE GNSS TASK FORCE</i>	That, the revised Terms of Reference and Work Programme of the GNSS Task Force be adopted as presented at Appendix 4B to the report on Agenda Item 4.	Follow up of the Work Programme	MIDANPIRG/10 GNSS TF CNS/ATM/IC SG	Approved TOR GNSS TF/6 REPORT	Apr.07 Jul.07
<i>CONCLUSION 3/4</i> -- <i>A, C, D, E</i>	<i>MID REGION STRATEGY FOR THE IMPLEMENTATION OF THE GLOBAL PLAN INITIATIVES (GPIS)</i>	That, the MID Region Strategy for the implementation of the Global Plan Initiatives (GPIS) be adopted as at Appendix 6A to the report on Agenda Item 6.	Approval of Strategy Implementation of Strategy	MIDANPIRG; ICAO; States; MIDANPIRG Subsidiary bodies	Approved strategy Feedback from States National Plans Status of implementation of GPIS	Apr.07 TBD
<i>CONCLUSION 3/5</i> -- <i>A, C, D, E</i>	<i>IMPLEMENTATION OF WORK PROGRAMME IN SUPPORT OF STRATEGIC PERFORMANCE OBJECTIVES</i>	That, in support of the evolution from a systems-based approach to a performance-based approach to planning and implementation of air navigation, the following projects are to be reflected in the MID Region implementation plan: a) improvement of the MID ATS route structure (FUA, dynamic and flexible ATS route	Approval of projects Follow up progress on each project	MIDANPIRG ICAO States MIDANPIRG Subsidiary bodies	WP to MIDANPIRG/10 Feed back on each project	April 07 TBD

CONC/DEC No. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
		management, improved Civil/Military coordination, etc); b) enhancement of MID States' TMA management; c) MID RMA operations continuity; d) support of the introduction and implementation of SMS in the MID States; e) development of MID States' contingency plans; f) improvement of the quality and efficiency of aeronautical information services provided by MID States; g) provision of eTOD by MID States; h) establishment of Initial FPL Processing System (IFPS) in the MID Region; i) Implementation of ATN in the MID Region; j) Improvement of communication infrastructure; and k) implementation of GNSS.				

CONC/DEC No. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
<p><i>CONCLUSION</i> 3/6 -- C, D</p>	<p>MID REGION STRATEGY FOR THE IMPLEMENTATION OF ADS-B</p>	<p>That, a) MID States, in collaboration with the airspace users, are encouraged to develop and implement ADS-B trials programme, when cost-benefit models warrant it; and b) the Strategy at Appendix 7A to the report on Agenda Item 7 be endorsed as the MID Region Strategy for the implementation of ADS-B.</p>	<p>Approval of the Strategy Implementation of Strategy</p>	<p>MIDANPIRG States Users Data link service providers; ICAO CNS/ATM/IC SG</p>	<p>Approved strategy Feedback from States on ADS-B trials Report of the CNS/ATM/IC SG/4 meeting</p>	<p>Apr. 07 TBD</p>
<p><i>CONCLUSION</i> 3/7 -- C, D</p>	<p>FANS 1/A ACTIVITY IN THE MID REGION</p>	<p>That MID States, in coordination with users, are encouraged to implement FANS 1/A (ADS-C/CPDLC) as an interim solution, until a fully ATN compliant ADS/CPDLC system is made available.</p>	<p>Follow-up trials, demonstrations and implementation activities</p>	<p>States Users Data link service providers</p>	<p>FANS 1/A Trials and Feed Back from States on FANS 1/A activities</p>	<p>TBD</p>
<p><i>CONCLUSION</i> 3/8</p>	<p>ESTABLISHMENT OF AN INTEGRATED INITIAL FPL PROCESSING SYSTEM (IFPS) IN THE MID REGION</p>	<p>That, a) MID States designate their IFPS focal points and send their contact details to the ICAO MID Regional Office prior to 31 May 2007; b) the IFPS focal points participate in the finalization of the feasibility study for the implementation of an IFPS in the MID Region, which is led by Bahrain; and</p>	<p>Designate focal points Follow up the progress on the finalization of the Study Coordination with Eurocontrol</p>	<p>States ICAO Bahrain CNS SG</p>	<p>State Letter Updated list of focal points Regulatory framework agreed upon</p>	<p>May.07 Jun.07 TBD</p>

CONC/DEC NO. --- STRATEGIC OBJECTIVE	TITLE OF CONCLUSION/DECISION	TEXT OF CONCLUSION/DECISION	FOLLOW-UP ACTION	TO BE INITIATED BY	DELIVERABLE	TARGET DATE
		c) coordination be carried out with Eurocontrol with a view to benefit from their experience and expertise in the implementation of an IFPS, including the development of a regulatory framework.			Study finalized	
<i>DECISION 3/9</i>	<i>REVISED TOR OF THE CNS/ATM/IC SUB-GROUP</i>	That, the Terms of Reference and Work Programme of the CNS/ATM/IC Sub-Group be updated as at Appendix 9A to the report on Agenda Item 9.	Follow up the Work Programme	MIDANPIRG/10 CNS/ATM/IC SG	Approved TOR Report of CNS/ATM/IC SG/4 meeting	Apr.07 TBD

CNS/ATM/IC SG/3
Report on Agenda Item 10

REPORT ON AGENDA ITEM 10: ANY OTHER BUSINESS

10.1 Under this Agenda Item, Bahrain confirmed to the meeting that they will continue to support the MID Forum.

10.2 The meeting was of the view that the results of the CNS/ATM trials and test beds carried out in the MID Region should be posted on the MID Forum.

CNS/ATM/IC SG/3
Attachment A to the Report

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