INTERNATIONAL CIVIL AVIATION ORGANIZATION

MIDDLE EAST OFFICE

REPORT OF THE SEVENTH MEETING OF MIDANPIRG RNP/RNAV TASK FORCE

(MID RNP/RNAV TF/7)

(Cairo, 10-12 May 2004)

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

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

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PART I - HISTORY OF THE MEETING

1. PLACE AND DURATION

1.1 The Seventh Meeting of MIDANPIRG Required Navigation Performance/Area Navigation Task Force (RNP/RNAV TF/7), was held at the conference room of the ICAO Middle East Office, Cairo from 10-12 may 2004.

2. OPENING

2.1 The meeting was opened by Ahmed Zerhouni, the Regional Director for the ICAO Middle East Office who welcomed the participants to this important meeting. He made a resume of activities and developments regarding RNP and RNAV implementation since the last meeting and pointed out that the Task Force should now be guided by the outcome of the 11th Air Navigation Conference. The meeting was also informed of the establishment of a Study Group named the "Required Navigation Performance and Operational Requirements Study Group (RNPSORSG)" by the ICAO Council with a view to address issues associated with RNP and RNAV implementation.

2.3 Eng. Fozan M Al-Fozan, Deputy Director General of Civil Aviation for Navigational Equipment Affairs, the Chairman of the Task Force, also welcomed the participants to Cairo. He pointed out that significant enhancements to airspace capacity have been achieved through the implementation strategy developed by the Task Force and pointed out the need to closely monitor developments in adjacent regions and other activities being carried out by ICAO for an harmonized global implementation of RNP and RNAV and to avoid divergence between regional implementations.

3. ATTENDANCE

3.1 The meeting was attended by a total of 39 participants from 9 States (Bahrain, Egypt, Kuwait, Oman, Qatar, Saudi Arabia, Syria, United Arab Emirates, and Yemen) and 3 Organizations (IATA, IFALPA and IFATCA). The list of participants is at **Appendix D** to the report.

4. OFFICERS AND SECRETARIAT

4.1 The meeting was Chaired by Eng. Fozan M Al-Fozan, Deputy Director General of Civil Aviation for Navigational Equipment Affairs from Kuwait. Mr. Dhiraj Ramdoyal, Regional Officer, Air Traffic Management (RO/ATM) from the ICAO Middle East Office was Secretary of the meeting.

5. LANGUAGE

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

6. AGENDA

6.1 The meeting adopted the following agenda:

Agenda Item 1: Status of implementation of MIDANPIRG/7 Conclusions 7/5, 7/6,7/7 and 7/8 and MIDANPIRG/8 Conclusions 8/12, 8/13 d) and 8/24

Agenda Item 2: Update on recent developments regarding RNP and RNAV

Agenda Item 3: Review of strategy for RNAV/RNP implementation in the MID Region, including use of the concept for approach, landing and departure operations and in the realization of GNSS benefits

Agenda Item 4: Monitoring requirements- in the MID Region

Agenda Item 5: Establishment if SIDS and STARS

Agenda Item 6: Review/update of the MID basic ATS route network

Agenda Item 7: Any other business.

7. FINDINGS

DRAFT CONCLUSION 7/1: ESTABLISHMENT OF A REGIONAL SAFETY AND MONITORING AGENCY IN THE MID REGION

That,

as a matter of urgency, States consider the establishment of a regional mechanism for carrying out the activities of the Middle East Central Monitoring Agency (MECMA).

DRAFT CONCLUSION 7/2: IMPLEMENTATION OF P-RNAV

Recognizing that, while ICAO approval criteria for RNP 1 will not be ready in time to meet the operational requirements of Middle East States and such 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, that:

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 P-RNAV procedures currently being implemented in Europe;

b) MID Regional Supplementary Procedures be updated to encompass provisions for introduction of P-RNAV. This provision should 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 P-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;

d) Operators be consulted and given the longest possible lead time when P-RNAV is to be implemented; and

e) P-RNAV be superseded by RNP 1 after publication of SARPs, PANS and harmonized guidance material by ICAO.

DRAFT CONCLUSION 7/3: MONITORING REQUIREMENTS IN RESPECT OF RNP 5

That, taking into account, reports from MECMA that the region has gained enough confidence on the reliability/maturity of the system established for the safe implementation and post-implementation of RNP 5 in the MID region, the monitoring mechanism as established by MECMA may be discontinued.

Note: -However, this does not absolve States of their responsibilities in ensuring that, within the framework of safety management programmes, appropriate measures are taken for ensuring that the agreed level of safety is met and continues to be met and prompt remedial actions be taken in case any adverse trend is noted.

DRAFT CONCLUSION 7/4: SAFETY ASSESSMENTS AND MONITORING REQUIREMENTS IN RESPECT OF P-RNAV AND RNP 1 IMPLEMENTATION

That,

a) States intending to implement P-RNAV and RNP 1 within TMAs in the MID Region, take appropriate steps for ensuring that implementation is supported by conclusive safety assessments and a proper monitoring mechanism be established; and

b) States explore ways and means of establishing a regional mechanism for carrying out safety assessments including support in respect of safety management programmes.

DRAFT CONCLUSION 7/5: ESTABLISHMENT OF RNAV SIDS AND STARS IN THE MID REGION

That, in accordance with the requirements of the MID CNS/ATM Implementation Plan, States develop RNAV SIDs and STARs

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PART II: REPORT ON AGENDA ITEMS

REPORT ON AGENDA ITEM 1: STATUS OF IMPLEMENTATION OF MIDANPIRG/7 CONCLUSIONS 7/5, 7/6,7/7 AND 7/8 AND MIDANPIRG/8 CONCLUSIONS 8/12, 8/13 d) 8/21) AND 8/24

1.1 Under this agenda item the meeting noted the status of conclusions/decisions endorsed by MIDANPIRG for ensuring the safe and evolutionary implementation of RNP and RNAV in the MID Region.

1.2 The Task Force also noted with concern that, with effect from 1 June 2004, the Middle East Central Monitoring Agency (MECMA), which is hosted by the United Arab Emirates, will also stop supporting solely all activities concerning RNP/RNAV implementation.

1.2.1 This will have a negative impact on follow-up action(s) agreed under MIDANPIRG/8 Conclusions 8/12 *(Establishment of a Regional Safety and Monitoring Agency*), 8/13 *(Implementation of Safety Management Programmes in the MID Region*) and 8/24 (*Data for Sustained Safety Assurance for RNP and RVSM within the MID Region*). The need for setting up a regional mechanism for taking over the responsibilities of MECMA was emphasized.

1.3 The status of conclusions/decisions endorsed by MIDANPIRG is at **Appendix 1A** to the report on the Agenda Item 1.

1.4 Based on the foregoing, the meeting accordingly adopted the following Draft Conclusion:

DRAFT CONCLUSION 7/1: ESTABLISHMENT OF A REGIONAL SAFETY AND MONITORING AGENCY IN THE MID REGION

That,

as a matter of urgency, States consider the establishment of a regional mechanism for carrying out the activities of the Middle East Central Monitoring Agency (MECMA).

MID RNP/RNAV TF/7
Appendix 1A to the Report on Agenda Item 1

STATUS OF CONCLUSIONS/DECISIONS EMANATING FROM THE MIDANPIRG/7 and MIDANPIRG/8 MEETING CONCERNING THE IMPLEMENTATION OF RNP/RNAV IN THE MID REGION

STATUS OF IMPLEMENTATION OF MIDANPIRG/7 AND MIDANPRG/8 CONCLUSIONS/DECISIONS RELATING TO THE IMPLEMENTATION OF RNP AND RNAV IN THE MID REGION.		
CONCLUSION/ DECISION	**ACTION TAKEN**	**REMARKS**
CONCLUSION 7/5: RNAV/ RNP IMPLEMENTATION STRATEGY FOR THE MID REGION That the Phase 2 implementation strategy for the RNAV/RNP implementation in the MID Region be as follows: a) the MID Region will establish RNAV/RNP areas instead of RNP/RNAV routes with a view to make maximum flexible use of the 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 in lieu of the present bi-directional routing network with a view to introduce parallel/flexible routes in an RNP 5 environment and thus paving the way for the safe introduction of RVSM in November 2003; d) the use of GNSS as a primary/supplemental means of navigation will be introduced as soon as possible, in an evolutionary manner, in accordance with the MID Region GNSS implementation strategy; e) the military authorities be fully involved in the planning process*;* and f) the tentative date for the implementation of the RNAV/RNP areas be 28 November 2002 *(one year prior to the implementation of RVSM).*	**Actioned** **On-going activity**	**Waiting for the outcome of the Required Navigation Performance Study Group (RNPSORSG) established by the 11th ANC so as to decide on the next course of action**

STATUS OF IMPLEMENTATION OF MIDANPIRG/7 AND MIDANPRG/8 CONCLUSIONS/DECISIONS RELATING TO THE IMPLEMENTATION OF RNP AND RNAV IN THE MID REGION.		
CONCLUSION/ DECISION	**ACTION TAKEN**	**REMARKS**
CONCLUSION 7/6: INTERREGIONAL COOPERATION That the MID Region States organize regular interface meetings with the AFI, EUR and ASIA/PAC Regions with a view to harmonize procedures and implementation time-frames for the implementation of the different elements of the MID CNS/ATM Plan.	**On-going activity**	
CONCLUSION 7/7: AIRWORTHINESS AND OPERATIONAL APPROVAL FOR RNP 5 AND RNP 10 OPERATIONS IN THE MID REGION That with a view to facilitate and harmonize the airworthiness and operational approvals procedures for RNP 5 and RNP 10 operations in the MID Region: 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 RNP 5 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*.*	**Actioned**	
CONCLUSION 7/8: IMPLEMENTATION OF GNSS IN THE MID REGION That recognizing that the use of GNSS will significantly facilitate RNP operational approvals in the MID Region: a) States use JAA Guidance Material on Airworthiness and Operational Criteria for use of navigation systems in European airspace designated for basic RNAV (RNP 5) operations; b) States use the FAA Order 8400.12 for the granting of RNP 10 operational approvals; and	**Actioned**	

STATUS OF IMPLEMENTATION OF MIDANPIRG/7 AND MIDANPRG/8 CONCLUSIONS/DECISIONS RELATING TO THE IMPLEMENTATION OF RNP AND RNAV IN THE MID REGION.		
CONCLUSION/ DECISION	**ACTION TAKEN**	**REMARKS**
c) States issue an AIC on the use of GNSS as a supplemental means of navigation on the AIRAC date of **18 April 2002** and ensure that provisions regarding the use of GNSS be included in their national legislation.		**Issue to be revisited by the MID GNSS Task Force**
CONCLUSION 7/9: ESTABLISHMENT OF A REGIONAL SAFETY AND MONITORING AGENCY That, a) the task of monitoring safety in conjunction with implementation of RVSM in the Middle East Regions be assigned to a Central Monitoring Agency; b) the monitoring agency, referred to as the Middle East Central Monitoring Agency (MECMA), will be established and staffed by the United Arab Emirates' General Civil Aviation Authority (UAE - GCAA) based at the Head Office in Abu Dhabi; and **c)** the Terms of Reference of the MECMA is at **Appendix 5C** to the report on Agenda Item 5	**Actioned**	**Note: UAE will stop supporting solely the activities of MECMA with effect from 1 June 2004 need for setting up a regional mechanism has been highlighted**
CONCLUSION 8/12: ESTABLISHMENT OF A REGIONAL SAFETY AND MONITORING AGENCY *That,* *a) the task of monitoring safety in conjunction with implementation of RVSM in the Middle East Region be assigned to a Central Monitoring Agency;* *b) the monitoring agency, referred to as the Middle East Central Monitoring Agency (MECMA), will be established and staffed by the United Arab Emirates' General Civil Aviation Authority (UAE-GCAA) based at the Head Office in Abu Dhabi; and* *c) the Terms of Reference of MECMA be amended as indicated at **Appendix 6F** to the report on Agenda Item 6, to include additional tasks for carrying out safety and airspace monitoring in respect of RNP/RNAV implementation.*	**Actioned**	**Note: UAE will stop supporting solely the activities of MECMA with effect from 1 June 2004**

STATUS OF IMPLEMENTATION OF MIDANPIRG/7 AND MIDANPRG/8 CONCLUSIONS/DECISIONS RELATING TO THE IMPLEMENTATION OF RNP AND RNAV IN THE MID REGION.		
CONCLUSION/ DECISION	**ACTION TAKEN**	**REMARKS**
CONCLUSION 8/13: ***IMPLEMENTATION OF THE ATS SAFETY MANAGEMENT PROGRAMMES IN THE MID REGION*** *That,* *a) In accordance with the provisions of Annex 11(Chapter 2 paragraph 2.26), States shall implement systematic and appropriate ATS safety management programme with a view to ensure that,* *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 by States ;* c) *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 programme and MECMA be invited to play a leading role in the process.*	**On-going activity**	
Conclusion 8/21: ***Amendment to the MID ATS Route Network*** That, taking into account the fact that the safety assessment for the implementation of RVSM in the MID Region has been built on the existing ATS route structure, States adopt a conservative approach while carrying out major change(s) to the MID ATS route network and it be coordinated with MECMA.	**On-going activity**	

STATUS OF IMPLEMENTATION OF MIDANPIRG/7 AND MIDANPRG/8 CONCLUSIONS/DECISIONS RELATING TO THE IMPLEMENTATION OF RNP AND RNAV IN THE MID REGION.		
CONCLUSION/ DECISION	**ACTION TAKEN**	**REMARKS**
CONCLUSION 8/24: ***DATA FOR SUSTAINED SAFETY ASSURANCE OF RNP AND RVSM WITHIN THE MID REGION*** *That, considering the on-going requirement for safety assurance related to RVSM and RNP operations within the Middle East Region,* *a) all States report data and incidents necessary for performing collision risk calculations required for sustained safe RVSM operations to MECMA. The data will include, but not necessarily be limited to:* *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;* *iv) ATC/ATC coordination failures (monthly); and* *v) traffic data (as requested by MECMA);* *b) monitoring States report navigational errors and traffic data in accordance with the Letter of Agreement concerning monitoring associated with RNP;* *c) air operators maintain procedures for reporting of turbulence;* *d) States report data on approval of operators and aircraft for RVSM operations (monthly); and* **e)** *MECMA 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.*	**On-going activity**	**MECMA support no longer available after 1 June 2004**

REPORT ON AGENDA ITEM 2: UPDATE ON RECENT DEVELOPMENTS REGARDING RNAV AND RNP

2.1 Under this agenda item the meeting was informed of different definitions and concepts to RNP and RNAV as identified by the 11th Air Navigation Conference and action being taken by ICAO for the resolution of the issues identified.

2.2 It noted that a study group named "Required Navigation Performance and Special Operational Requirements Study Group (RNPSORSG)" has been established by the ICAO Council with a view to urgently address and progress the issues associated with the introduction of RNAV and RNP.

2.3 Inconsistencies/further work were/was identified in the following fields:

i) need for reassessment of the merits of RNP concept in its application to various phases of flight and against future operational demands;

ii) need to review the definition of the RNP and its relationship with RNAV and separation standards;

iii) development of aircraft and operator approval criteria to ensure that there is a consistency between operational and functional requirements applied to the use of RNAV, RNP types and the definition of RNP airspace;

iv) harmonization of charting specifications for GNSS and RNP operations;

v) review of adequacy of technical SARPs for terrestrial navigation aids to support RNAV and RNP operations;

vi) development of guidance on testing of RNAV and RNP procedures;

vii) definition of the RNP and RNAV navigation infrastructure requirements; and

viii) development of material on NOTAMs, status monitoring and knowledge of aircraft performance in the RNP and RNAV environment.

2.4 The meeting also noted the implementation strategy endorsed in Europe concerning the implementation of RNAV and RNP. It agreed that, further review of the implementation strategy in the Middle East Region, as endorsed under MIDANPIRG/7 Conclusion 7/5, will be dictated by the outcome of the Study Group (RNPSORSG) established by the ICAO Council.

2.5 The meeting nevertheless recognized the need for taking early benefits of some of the procedures for P-RNAV which is being introduced in selected TMAs in Europe. It was however agreed that adequate lead time, consultation with operators and cost implications will be taken into account prior to the introduction of P-RNAV procedures in selected TMAs within the MID Region.

2.6 The Task Force noted that Precision Area Navigation (P-RNAV) is being progressively implemented in terminal airspace within the European Region (EUR) as an interim step towards RNP-1. Airworthiness and Operational approval criteria were published in JAA Temporary Guidance Leaflet No. 10 (TGL-10) in December 2000, while Regional Supplementary Procedures for P-RNAV were incorporated in ICAO Doc 7030 in 2003.

2.7 It was recalled that the P-RNAV application addresses navigation performance for track keeping accuracy but does not satisfy all aspects of the Required Navigation Performance (RNP) concept promulgated by ICAO in documents 9613 and 9650*(draft).* The European Region is expecting P-RNAV to be replaced by RNP/RNAV operations when approval criteria have been developed and met by a sufficiently high proportion of aircraft. Additionally, Eurocontrol has developed publications dealing with related operational and functional requirements and with the design of terminal airspace procedures for DME/DME- and GNSS-based area navigation.

2.8 It was also pointed out that in February 2004, IATA appealed to Middle East airworthiness approval authorities to introduce approval criteria for P-RNAV in line with those published by Eurocontrol in TGL-10 with the objective that Middle East operators can derive the benefits from P-RNAV procedures as they become available in Europe while avoiding a proliferation of dissimilar approval criteria that could increase costs to operators without conferring any substantial additional benefit.

2.9 The Task Force noted that traffic growths in the Middle East region is among the highest in the world, both in terms of passengers and freight. Furthermore, the emergence of new operators and purchase of additional aircraft will oblige States to implement P-RNAV procedures as an interim step, towards eventual implementation of RNP 1 within some busy TMAs so as to cope with the traffic situation. It was pointed out that traffic density and specific operational limitations in some busy TMAs combine to create a set of navigational requirements similar to those leading to a need for P-RNAV in Europe.

2.10 The meeting was of the view that handling of traffic within some confined and complex airspace will require introduction of P-RNAV / RNP 1 – in addition to a range of other measures – and some States will thus be obliged to proceed as and when required to safeguard the exceptional growth in its civil aviation industry.

2.11 The Task Force pointed out that ICAO approval criteria for RNP 1 will not be ready in time to meet the expansion as outlined above. Therefore, it is intended to pursue P-RNAV as an interim step while global standards and procedures are being prepared for RNP 1.

2.12 While Middle East Region is not obliged to implement European navigation systems and standards within its airspace, it is known from the RVSM readiness and safety assessments that the majority of airframes flying at Middle East airports also operate at European airports, where EUR SUPPs apply. Moreover, it is known that in excess of 85% of the airframes navigating within the MID Region are readily certifiable for P-RNAV. In response to the IATA request for approval criteria for P-RNAV, at least two States are responding with the issue of approval criteria equivalent to JAA TGL-10.

2.12.1 Consequently, the Middle East Region is presented with both a fait accompli and an opportunity:

- The majority of aircraft navigating in the Region's airspace need to carry P-RNAV approval to benefit from new terminal procedures in Europe;
- airworthiness approval criteria have been available for more than three years and can be implemented without difficulty for the majority of MID operators;
- SUPPs for P-RNAV are already incorporated in the EUR section of ICAO Doc 7030;
- guidance in procedure and airspace design has been developed by Eurocontrol and is available for implementation in the MID Region; and
- *information material for flight crews and ATC has been prepared and can readily be adapted to MID conditions*

2.13 The Task Force was of the view that the basic operational objective – a lateral track-keeping capability of ±1 NM for 95% of the time – is an urgent requirement and is readily achievable, while fulfilment of the full set of requirements embodied in the RNP 1 concept will take longer and require greater investment. Consequently, P-RNAV is seen as an interim step to satisfy an urgent requirement, while RNP 1 is progressed towards maturity in the appropriate ICAO panels.

2.14. Based on the foregoing, the meeting adopted the following Draft Conclusion:

DRAFT CONCLUSION 7/2:- IMPLEMENTATION OF P-RNAV

Recognising that, while ICAO approval criteria for RNP 1 will not be ready in time to meet the operational requirements of Middle East States and such 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, that:

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 P-RNAV procedures currently being implemented in Europe;

b) MID Regional Supplementary Procedures be updated to encompass provisions for introduction of P-RNAV. This provision should 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 P-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;

d) Operators be consulted and given the longest possible lead time when P-RNAV is to be implemented ; and

e) P-RNAV be superseded by RNP 1 after publication of SARPs, PANS and harmonised guidance material by ICAO.

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REPORT ON AGENDA ITEM 3: REVIEW OF STRATEGY FOR RNAV/RNP IMPLEMENTATION IN THE MID REGION, INCLUDING USE OF THE CONCEPT FOR APPROACH, LANDING AND DEPARTURE OPERATIONS AND IN THE REALIZATION OF GNSS BENEFITS

3.1 Under this agenda item the meeting noted an airline perspective for a global approach/implementation strategy for the evolutionary implementation of RNAV and RNP and the urgent need to capture the benefits associated with the introduction of GNSS.

3.2 The Task Force noted that the concerns raised by the users are in line with the general airline policy and has also been presented/ reviewed and endorsed by the 11th Air Navigation Conference.

3.2.1 The following points were noted:

- Imperative need for individual and collective aircraft navigation performance capabilities to be recognized in the provision of future air traffic management services.

- Need for harmonized implementation of the concept of required navigation performance (RNP) developed by ICAO, and full support of GNSS as the primary radio navigation system for positioning and timing in the near future – subject to rigorous cost justification.

- The choice by a State or Region of ICAO specified RNP route or airspace values or requirements must, in all cases, be benefit driven. States and Regions should only select RNP values in accordance with those promulgated in Annex 11.

- The annual costs of navigation aid upgrade, operations and maintenance drive a significant portion of global user charges.

- As traffic increases on these fixed route structures, capacity suffers against the need to maintain adequate levels of safety. With increasing traffic levels around the world, pressure is being applied to improve route networks – both fixed and flexible. This requires enhanced navigation capability so as to maintain a high degree of safety with that flexibility.

3.3 It was also stated that the annual costs of navigation aid upgrade, operations and maintenance drive a significant portion of global user charges. There is increasing pressure to lower costs associated with navigation services provision. A cost benefit driven approach has been the driving force in the pursuit of new and better systems to replace the existing terrestrial infrastructure.

3.4 The meeting fully shared the concerns of IATA and pointed out that, as far as the Middle East Implementation strategy is concerned, further action will be dictated by the outcome of the Study Group, which has been established by the ICAO Council, and furthermore, IATA has always been an active partner in the planning/ implementation process.

REPORT ON AGENDA ITEM 4: MONITORING REQUIREMENTS- IN THE MID REGION

Monitoring requirements for RNP 5

4.1 Under this agenda item, the Task Force taking into account ICAO provisions regarding monitoring requirements for RNP 5, and reports received from MECMA, decided on the next course of action in respect of post-implementation monitoring. The Task Force also noted that MECMA support will no longer be available as of 1 June 2004 and the need for the establishment of a regional mechanism was hence emphasized.

4.2 It was pointed out that effective aircraft and operator approval processes and programmes are the principle elements, which ensure that aircraft navigation standards performance are met and aircraft safety standards are maintained. Furthermore, it was highlighted that monitoring is a quality control function that has been used to give ATS providers and users confidence that approval programmes are applied effectively by operators.

4.3 Monitoring should be conducted during verification and operational trials leading to the implementation of a reduced separation standard. However, after confidence is gained that aircraft and operator programmes are effective, the complexity and extend of monitoring programmes may be reduced or eliminated, e.g. aircraft certification and maintenance programmes may prove to be sufficiently adequate to ensure aircraft population performance without the necessity for a specific monitoring programme.

4.4 The Task Force also noted that monitoring may be accomplished through a number of channels: specific data collection, mandatory occurrence reports, special incident reports, tactical monitoring by air traffic authorities or routine flight crew and maintenance procedures, and regional monitoring programmes that can be designed to meet specific risk parameters, such as, the annual proportion of large errors and the standard deviation of core performance.

4.5 Monitoring can be implemented to assess many different parameters: navigation performance, intervention performance (surveillance and communications) traffic density, effectiveness of procedures, controller workload implications or other system characteristics. If monitoring demonstrates that performance is outside the established limits, remedial action will need to be instituted to restore the system to conformance. A number of options may be considered, namely:

a) Improving training programmes for individual operators or service providers;

b) Changing ATC operating procedures;

c) Limiting demand;

d) Modifying the route structure or airspace classification (level of ATS provided); and

e) Increasing separation minima.

4.6 As far as the safe implementation of RNP and RNAV in the MID Region is concerned, the meeting recognized that MECMA has, insofar, been the driving force in ensuring that the agreed level of safety is maintained through proper analysis of monitoring data provided by States. The meeting also expressed its appreciation to the five States (*Bahrain, Egypt, Iran, Saudi Arabia and Oman)*, which have participated in the monitoring programmes for ensuring the safe implementation of RNP 5.

4.7 Traffic data was forwarded to MECMA on a monthly basis on 12 monitoring points that were established. Report from MECMA indicates that traffic data on over 900,000 flights which have been monitored during the past 3½ years, of which only ten deviation reports were recorded. This figure is well below the acceptable limits which was established and has had no significant impact on the target level of safety. Furthermore, monitoring reports indicate a decrease in trend.

4.8 Based on the foregoing, the Task Force endorsed the recommendation from MECMA that as far as the implementation of RNP 5 is concerned, the region has gained substantial confidence on the reliability/maturity of the system and to this effect, monitoring mechanism as established by MECMA may thus be discontinued.

Establishment of safety management programmes by States

4.9 However, it was clarified that this does not absolve States of their responsibilities for ensuring that within the framework of safety management programmes, appropriate measures be taken to ensure that the agreed level of safety is met and continues to be met. Prompt remedial actions should be taken in case any adverse trend is noted.

4.10 The meeting recalled that MIDANPIRG/8 under conclusion 8/13: concluded that:

CONCLUSION 8/13: IMPLEMENTATION OF THE ATS SAFETY MANAGEMENT PROGRAMMES IN THE MID REGION

That,

a) In accordance with the provisions of Annex 11(Chapter 2 paragraph 2.26), States shall implement systematic and appropriate ATS safety management programme with a view to ensure that,

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 ;*

c) *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 programme and MECMA be invited to play a leading role in the process."*

4.11 The Task Force noted that Annex 11 para. 2.26.4 states that "An ATS safety management programme shall, inter alia:

a) identify actual and potential hazards and determine the need for remedial action;

b) ensure that remedial action necessary to maintain an acceptable level of safety is implemented; and

c) provide for continuous monitoring and regular assessment of the safety level achieved."

4.12 The meeting also pointed out that guidance on the establishment of safety management programmes for Air Traffic Services is provided in the (draft) Manual on Safety Management for Air Traffic Services.

Monitoring requirement for the implementation of P-RNAV and RNP 1

4.13 The Task Force, however, clarified that safety assessment and appropriate monitoring should be carried out for ensuring the safe implementation of P-RNAV or the eventual implementation of RNP 1 within some TMAs in the region. Until a regional mechanism is established for carrying out the above tasks, States were reminded of their responsibilities in respect of safety assessments including pre and post implementation monitoring.

4.14 Based on the foregoing the meeting adopted the following Draft Conclusions:

DRAFT CONCLUSION 7/3: MONITORING REQUIREMENTS IN RESPECT OF RNP 5

That, taking into account, reports from MECMA that the region has gained enough confidence on the reliability/maturity of the system established for the safe implementation and post-implementation of RNP 5 in the MID region, the monitoring mechanism as established by MECMA may be discontinued.

.

Note:-However, this does not absolve States of their responsibilities in ensuring that, within the framework of safety management programmes, appropriate measures are taken for ensuring that the agreed level of safety is met and continues to be met and prompt remedial actions be taken in case any adverse trend is noted.

DRAFT CONCLUSION 7/4: SAFETY ASSESSMENTS AND MONITORING REQUIREMENTS IN RESPECT OF P-RNAV AND RNP 1 IMPLEMENTATION

That,

a) States intending to implement P-RNAV and RNP 1 within TMAs in the MID Region, take appropriate steps for ensuring that implementation is supported by conclusive safety assessments and a proper monitoring mechanism be established; and

b) States explore ways and means of establishing a regional mechanism for carrying out safety assessments including support in respect of safety management programmes.

REPORT ON AGENDA ITEM 5: ESTABLISHMENT OF SIDS AND STARS

5.1 Under this agenda item the meeting noted that most States in the region have established standard SIDs and STARs procedures with a view to ensure the efficient handling of traffic within TMAs.

5.2 Furthermore, the meeting also noted that some States have established or are in the process of establishing RNAV SIDs and STARs. It was noted that the establishment of RNAV SIDs and STARs enables a significant reduction in the number of navaids that are required and a marked reduction in workload had been observed for both pilots and air traffic controllers.

5.3 It was pointed out that appropriate guidance on the establishment of SIDs and STARs are available in ICAO Doc 8168 and further guidance material is also available in documents produced by Eurocontrol and FAA. The Task force also recalled that the establishment of RNAV SIDs and STARs is also a requirement in the MID CNS/ATM implementation plan.

5.4 Based on the foregoing, the meeting endorsed the following Draft Conclusion:

Draft CONCLUSION 7/5: ESTABLISHMENT OF RNAV SIDS AND STARS IN THE MID REGION

That, in accordance with the requirements of the MID CNS/ATM Implementation Plan, States develop RNAV SIDs and STARs

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REPORT ON AGENDA ITEM 6: REVIEW/UPDATE OF THE MID BASIC ATS ROUTE NETWORK

6.1 Under this agenda item the Task Force noted that although proposals for the amendment to the MID ATS route network is normally carried out within the framework of the ATM/SAR/AIS Sub-Group some States have taken unilateral action(s) for the creating/alignment of some major strategic routes in the region without following established procedures. It was recalled that established procedures for amendments to the basic ANP and FASID documents have also been highlighted by MIDANPIRG/8.

6.2 On the basis of action taken by States, the ATS route requirements in the MID region, as endorsed by MIDANPIREG/8 meeting (7 –11 September 2003), have been updated by the Secretariat. States were also accordingly invited to provide updated information on the status of implementation of ATS routes within their respective FIRs.

6.3 The meeting also noted that the assignment of ATS route designators were not coordinated with the Regional Office and domestic/ temporary designators have been assigned to RNAV or other long-haul routes in the region. The need for following established procedures was highlighted. The meeting also pointed out that the list of route desingnators assigned to the Middle East Office has to be reviewed as they are likely to cause confusion within congested airspaces (eg. L300, N300, P300 etc…). The Secretariat was requested to consider liaising with other ICAO Regions for sharing of ATS route designators and assign different designators to some ATS routes likes to cause confusions.

6.4 The Task Force also noted with appreciation that, many States/groups of States, in coordination with the users, have through informal meetings, reviewed the ATS route requirement in some regions and identified additional requirements have been identified. With a view to expedite the implementation process, the Task Force established a Working Group to update the requirements indicated in the MID Plan.

6.5 The Task Force was also informed that due to the recent developments in Iraq, a review of the transit routes passing through the Baghdad FIR was carried out by the Secretariat, in consultation with the Iraqi civil aviation authorities and the Coalition Provisional Authority (CPA) and IATA. Furthermore, at two informal meetings organized under the aegis of ICAO, new requirements have been identified within Baghdad FIR and the proposals have been harmonized within the Ankara, Bahrain, Damascus and Kuwait FIRs accordingly.

6.6 Within Bahrain, Emirates, Jeddah, Muscat and Sana'a FIRs, major changes were proposed for transit routes and they have been implemented and harmonized with adjacent regions.

6.7 The meeting accordingly:

a) amended the MID Basic ATS route network indicated at **Appendix C** to the report;

b) reiterated the need for States to follow established procedures for the amendment to the MID Basic ANP and FASID documents; and

c) requested the Secretariat to initiate procedures for the inclusion of these requirements in the MID basic ANP.

REPORT ON AGENDA ITEM 7: ANY OTHER BUSINESS

7.1 Under this agenda item the meeting addressed the following issues:

- Need to revise the Terms of Reference of the Task Force
- Action being taken regarding the establishment of a regional mechanism for taking over the duties and responsibilities of MECMA
- Next meeting of the Task Force

7.2 **Need to revise the Terms of Reference of the Task Force**

7.2.1 The meeting requested the Secretary to draft a revised Terms of Reference for the RNP/RNAV Task Force on the basis of developments within the framework of the Required Navigation Performance and Special Operational Requirements Study Group (RNPSORSG) which has been established by the ICAO Council.

7.3 **Action being taken regarding the establishment of a regional mechanism for taking over the duties and responsibilities of MECMA**

7.3.1 The meeting was also briefed by the ICAO Regional Director, Mr. Ahmed Zerhouni, on action which he is taking/intends to take as Secretary of MIDANPIRG on the future of MECMA. Among the options were:

-
- meeting with MIDANPIRG Member States,
- informal consultations with Eurocontrol and the FAA,
- consultations with the users,
- considerations for the establishment of a regional funding mechanism by DGCAs.

7.4 **Next meeting of the Task Force/Future meetings/seminars in ATM fields**

7.4.1 The Task Force agreed that the date for the next meeting will be dictated by the outcomes of the RNPSORSG.

7.4.2 States/organizations were however invited to fully contribute to the ATM/SAR/AIS Sub-Group meeting to be held in Cairo from 11-14 October 2004.

7.4.3 States were also invited to participate actively in the Seminar on safety oversight/human factors- ATM aspects to be held in Cairo from 6-8 December 2004.

MID RNP/RNAV TF/7
Appendix A to the Report

TERMS OF REFERENCE OF THE RNP/RNAV TASK FORCE

(To be reviewed by the Secretary)

1. to carry out studies in support of the implementation of required navigation performance(RNP) in the MID Region on an evolutionary basis, taking into account the introduction of new technologies, anticipated requirements for reductions in separation standards and the work being carried out by the ICAO Separation and Air Safety Panel (SASP);

2. determine and recommend, on the basis of these studies, the RNP for application in the MID Region as well as areas and/or routes where RNP should be applied;

3. devise suitable methodologies for ensuring that the effects of projected traffic increases and system changes on occupancy and collision risk in the future environment are taken into account;

4. ensure that implementation of RNP/RNAV routes/areas and procedures are harmonized with adjacent ICAO Regions;

5. closely monitor deficiencies identified by States with their safety management programmes and provide advice and assistance accordingly;

6. identify additional areas or points from which traffic monitoring data is required;

7. ensure that RNP/RNAV areas are implemented in an evolutionary manner throughout the MID Region; and

8. consider further reductions in RNP types to be applicable in the region and introduce further enhancements to safety and increase in airspace capacity.

MID RNP/RNAV TF/7
Appendix B to the Report

DUTIES AND RESPONSIBILITIES OF MECMA

The Middle East Central Monitoring Agency (MECMA) for RVSM implementation has the following duties and responsibilities:

a) to establish and maintain a central registry of State RVSM approvals of operators and aircraft using the Middle East Region airspace where RVSM will be applied;

b) to facilitate the transfer of approval data to and from other RVSM regional monitoring agencies;

c) to establish and maintain a data base containing the results of height-keeping performance monitoring and all altitude deviations of 300 ft or more within Middle East Region airspace, and to include in the database the results of MECMA requests to operators and States for information explaining the causes of observed large height deviations;

d) provide timely information on changes of monitoring status of aircraft type classifications to State authorities and operators;

e) to assume overall responsibility for

i) coordination of the Global Positioning System Monitoring System (GMS); and

ii) assessing compliance of operators and aircraft with RVSM height-keeping performance requirements in conjunction with RVSM introduction in the Middle East Region;

f) to provide the means for identifying non-RVSM approved operators using Middle East airspace where RVSM is applied; and notifying the appropriate State approval authority; and

g) to conduct readiness assessments and safety assessments as an aid for the Middle East RVSM Task Force for decision making in preparation for RVSM implementation on a specified date.

h) to establish and maintain a database containing results of navigation error monitoring;

i) to prepare, each six months, reports setting out the results of navigation error monitoring for the preceding six-month period. These results shall be presented to the ICAO Middle East Office, Cairo, and States as part of their decision process related to safety management;

j) to conduct safety assessments as an aid for the Middle East RNP/RNAV Task Force for decision making in conjunction with expansion or changes to the RNP route structure within the Middle East Region;

k) to liaise with other Regional monitoring agencies and organisations to harmonise RNP implementation and upgrading.

MID RNP/RNAV TF/7
Appendix C to the Report

(Note that this version is being coordinated with States for inclusion in ANP)

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 navaids 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.***

FRENCH

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	
A145	**(LUXOR)** **WEJH** **GASSIM** **KING FAHD**
A219	**(NAWABSHAH)** **SERKA 2951.0N 06615.0E** **KANDAHAR** **(TERMEZ)**
A400	**KAPET 163322N 0530614E** **KURNA 200318N 0495248E** **IMRIX 204731N 0485842E** **KAPOP 220926N 0471533E** **KITUB 224922N 0462342E**
A408	**(ADDIS ABABA)** **HODEIDAH**
A411	**(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**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	
UA145	**(LUXOR)** **WEJH** **GASSIM** **KING FAHD**
UA219	**(NAWABSHAH)** **SERKA 2951.0N 06615.0E** **KANDAHAR** **(TERMEZ)**
UA400	**KAPET 163322N 0530614E** **KURNA 200318N 0495248E** **IMRIX 204731N 0485842E** **KAPOP 220926N 0471533E** **KITUB 224922N 0462342E**
UA401	**GIBAL 2437.2N 03634.7E** **EGSOP 2251N 05015 E** **ALPEK 2246.8N 05359.7E** **LUDID 2302.5 N 05518.0 E** **OBROD 230812N 0554714E** **LAKLU 232300N 0570500E** **ITURA 232225N 0580407E** **KUSRA 231726N 0585102E** **RAGMA 230600N 0610539E** **SETSI 230543N 0614047E** **RASKI 230330N 0635200E**
UA408	**(ADDIS ABABA)** **HODEIDAH**
UA411	**(CAIRO)** **SHARM EL SHEIKH** **PASAM 2730.8N 03455.7E** ***Note 7(OE)** **WEJH** **KING ABDULAZIZ** **JAZAN** **SANA'A**
UA412	**JERUSALEM* Note 4(OJ)** **AMMAN** **ZELAF 3257.0N 03800.0E** **TANF**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	
A413	**TESSO 2828.9N 04927.4E VUXAL 2835.5N 04946.1E ALNIN 2840.9N 05001.6E BUSHEHR**
A414	**GITLA 3219.1N 03402.8E (SITIA)**
A415	**KING KHALID DOHA * Note 2 and 3(OE) SHARJAH**
A416	**ARDABIL RASHT NOSHAHR DASHTE NAZ SABZEVAR**
~~**A417**~~	~~**HAWIJA SAMARRA BAGHDAD HASHIMIYA SHATRA BASRAH ABADAN**~~
A418	**TEHRAN ESFAHAN SHIRAZ PAPAR 2640N 05427E)* Note 7 (OI and OM) SHARJAH**
A419	**ASHGHABAT RIKOP 3740.0N 05814.8E SABZEVAR TABAS DARBAND KERMAN BANDAR ABBAS DARAX 260942N 0555300E SHARJAH ~~ABU DHABI~~ * Note 4 (OM) ~~NORLO 211028N 0510142E~~**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	
UA413	**TESSO 2828.9N 04927.4E VUXAL 2835.5N 04946.1E ALNIN 2840.9N 05001.6E BUSHEHR**
UA414	**GITLA 3219.1N 03402.8E (SITIA)**
UA415	**KING KHALID DOHA * Note 2 and 3 (OE) SHARJAH**
UA416	**ARDABIL RASHT NOSHAHR DASHTE NAZ SABZEVAR**
~~**UA417**~~	~~**HAWIJA SAMARRA BAGHDAD HASHIMIYA SHATRA BASRAH ABADAN**~~
UA419	**ASHGHABAT RIKOP 3740.0N 05814.8E SABZEVAR TABAS DARBAND KERMAN BANDAR ABBAS DARAX 260942N 0555300E SHARJAH ~~ABU DHABI~~ * Note 4 (OM) ~~NORLO 211028N 0510142E~~**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	
	~~TADBO 195538N 0494113~~ MIADA 245112N 0545736E MEMBI 243705N 0542631E KITAP 224928N 0522923E PURDA 210805N 0510329E KURNA 200318N 0495248E SHARURAH (SHA) SANA'A
~~A421~~	~~HADITHA * Note 4~~ ~~(SANLIURFA)~~ ~~(GEMEREK) * Note 3~~
A422	UROMIYEH TABRIZ PARSABAD (BAKU)
A424	BAGHDAD RAFHA * Note 3 HAIL 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)
A453	KABUL GHAZNI KANDAHAR ZAHEDAN BANDAR ABBAS GHESHM (KHM) BANDAR LENGEH KISH BAHRAIN * Note 7 (OB, OI)
A466	(TERMEZ)

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	
	~~TADBO 195538N 0494113~~ MIADA 245112N 0545736E MEMBI 243705N 0542631E KITAP 224928N 0522923E PURDA 210805N 0510329E KURNA 200318N 0495248E SHARURAH (SHA) SANA'A
~~UA421~~	~~HADITHA*Note 4~~ ~~(SANLIURFA)~~ ~~(GEMEREK) * Note 3~~
UA422	UROMIYEH TABRIZ PARSABAD (BAKU)
UA424	BAGHDAD RAFHA * Note 3 HAIL MADINAH KING ABDULAZIZ
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)
UA453	KABUL GHAZNI KANDAHAR ZAHEDAN BANDAR ABBAS GHESHM (KHM) BANDAR LENGEH KISH BAHRAIN * Note 7 (OB, OI)
UA466	(TERMEZ)

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	
	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)**
A777	**TONVO 250500N 0563200E** **BUBAS 245938N 05700 03E** **NADSO 244957N 0574926E** **MIXOL 240618N 0592739E** **VAXIM 231900N 0611100E**
A788	**SHIRAZ** **BUSHEHR** **KAPIP 290217N 0500054E** **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** **RATUN 2646.2N 05108.0E** **SHARJAH** **IMLOT 2517.1N 05708.1E** **(JIWANI)**
B121	**RUDESHUR(RUS)** **RASHT(RST)** **MEGRI(MGR)**
B400	**SEEB (MCT)**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	
	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)**
UA775	**REXOD 211230N 0613830E** **KUSRA 231726N 0585102E**
UA788	**SHIRAZ** **BUSHEHR** **KAPIP 290217N 0500054E** **PATIR 285606N 0492923E** **WAFRA 2837.3N 04757.5E** **HAFR AL BATIN** **HAIL** **HALAIFAH**
UA791	**SISIK 2936.0N 03241.1E** **NUWEIBAA** **KITOT 2902.1N 03450.8E** ***Note 7 (OE)** **SOBAS 2756.0N 03904.9E** **HAIL** **KING FAHD** **BAHRAIN** **RATUN 2646.2N 05108.0E** **SHARJAH** **IMLOT 2517.1N 05708.1E** **(JIWANI)**
UB121	**RUDESHUR(RUS)** **RASHT(RST)** **MEGRI(MGR)**
UB400	**SEEB(MCT)**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	
	ITURA 232351N 0580720E **IZKI (IZK)** **HAIMA (HAI)** **DAXAM 171612N 0544715E** **BOSKI 1607.3N 5416.8E** **ALULA 1207.3N 05102.7E** **(MOGADISHU)**
B401	**ARAR** **BASRAH * Note 3**
B402	~~**HADITHA**~~ **DIER-ZZOR** **ALEPPO** **(GETAK 364648N 0363843E)** **(BUK 401430N 0330617E)**
B406	**BEN GURION** **(LARNACA)**
B407	**KING ABDULAZIZ** **MAHDI 2026.0N 03739.3E** **(PORT SUDAN)**
B410	**(MUT)** **CHEKKA *Note 3 (OS)** **DAMASCUS**
B411	**METSA 2930.0N 03500.0E** **AL SHIGAR* Notes2 and 3** **ARAR** ~~**HASHIMIYA**~~ ~~**ZUBEIDIYA**~~ ~~**MANDALY * Note 3**~~ **LOVEK 3222.1N 04440.0E** **NOLDO 3249.5N 04521.5E** **PAXAT 332056N 0460519E** **ILAM** **MALAYER** **SAVEH** **[TEHRAN] * Note 1** **DEHNAMAK** **MASHHAD**
B412	**DAMASCUS**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	
	ITURA 232351N 0580720E **IZKI (IZK)** **HAIMA (HAI)** **DAXAM 171612N 0544715E)** **BOSKI 1607.3N 5416.8E** **ALULA 1207.3N 05102.7E** **(MOGADISHU)**
UB401	**ARAR** **BASRAH * Note 3**
UB402	~~**HADITHA**~~ **DIER-ZZOR** **ALEPPO** **(GETAK 364648N 0363843E)** **(BUK 401430N 0330617E)**
UB406	**BEN GURION** **(LARNACA)**
UB407	**KING ABDULAZIZ** **MAHDI 2026.0N 03739.3E** **(PORT SUDAN)**
UB410	**(MUT)** **CHEKKA *Note 3 (OS)** **DAMASCUS**
UB411	**METSA 2930.0N 03500.0E** **AL SHIGAR* Notes2 and 3** **ARAR** ~~**HASHIMIYA**~~ ~~**ZUBEIDIYA**~~ **LOVEK 3222.1N 04440.0E** **NOLDO 3249.5N 04521.5E** **PAXAT**332056N 0460519E **ILAM** **MALAYER** **SAVEH** **[TEHRAN] * Note 1** **DEHNAMAK** **MASHHAD**
UB412	**DAMASCUS**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	
	[AMMAN] * Note 2(OS, OJ) AL SHIGAR [KING ABDULAZIZ]
B413	(PORT SUDAN) DANAK 1608.0N 04129.0E HODEIDAH TAIZ ADEN ZIZAN 1151.6N 04539.2E (GAGDO 0725.0N 04827.0E) (PRASLIN)
B415	BUNDU 2500.4N 05229.4E [DOHA] [BAHRAIN] * Note 3 (OB, OT)
B416	KUWAIT KUVER 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 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

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	
	[AMMAN] * Note 2(OS, OJ) AL SHIGAR [KING ABDULAZIZ]
UB413	(PORT SUDAN) DANAK 1608.0N 04129.0E HODEIDAH TAIZ ADEN ZIZAN 1151.6N 04539.2E (GAGDO 0725.0N 04827.0E) (PRASLIN)
UB415	BUNDU 2500.4N 05229.4E [DOHA] [BAHRAIN] * Note 3 (OB, OT)
UB416	KUWAIT KUVER 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 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

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	
	SELEG 2801.5N 04922.2E **KUWAIT**
B441	**MASHHAD** **OTRUZ 363108N 0610956E** **ASHGABAT**
~~**B450**~~	~~**TOTOX 215030N 0622230E**~~ ~~*** Note 7**~~ ~~**TULBU 230005N 0571827E**~~
B451	**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 232300N 0570500E** **LOTUD 223720N 0583503E** **REXOD211230N 0613830E**
B524	**NADSO 244957N 0574926E** **ALPOR 2404 42N 06120E**
B525	**LALDO 251806N 0563600E** **NADSO 244957N 0574926E** **EGTAL 2434 58N 06037 24E**
B526	**(ASMARA)** **HODEIDAH** **SANA'A** ~~**BEIHAN**~~ ~~**ATAQ**~~

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	
	SELEG 2801.5N 04922.2E **KUWAIT**
UB424	**SANA' A 153000N0441312E** ~~**HAIMA**~~ **OTISA 201000N 0554556E** **GISKA 213503N 0574014E**
UB441	**MASHHAD** **OTRUZ 363108N 0610956E** **ASHGABAT**
~~**UB450**~~	~~**TOTOX 215030N 0622230E**~~ ~~*** Note 7**~~ ~~**TULBU 230005N 0571827E**~~
UB451	**DEHNAMAK** **BOJNORD (BRD)** **DOLOS 375006N 0580200E** **(ASHGABAT)**
UB457	**BAHRAIN** **ELOSA 2548.8N 05142.6E** *** Note7 *(segment ELOSA-REXOD)*** **ABU DHABI** **LABRI 240344N 0553842E** **EGROK 235253N 0560126E** **LAKLU 232300N 0570500E** **LOTUD 223720N 0583503E** **REXOD 211230N 0613830E**
UB526	**(ASMARA)** **HODEIDAH** **SANA'A** ~~**BEIHAN**~~ ~~**ATAQ**~~

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	
	RIYAN
	ODAKA 1440.6N 05234.0E
B535	**(DJIBOUTI)**
	ADEN
	RIYAN
	KAPET 1633 22N 0530614E
	SALALAH
	MARMUL(MRL)
B538	**(GAZIANTEP)**
	ALEPPO
	KARIATAIN
	DAMASCUS * Note 2(OS)
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
	SANA'A
B545	**(MUT)**
	BALMA 3428.9N 035 3.0E
	KHALDEH
	AMMAN * Note 3&4 (OJ)
G183	**(KAROL 3252.0N 03229.0E)**
	PASOS
	EL ARISH
	TABA
	NUWEIBAA

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	
	RIYAN
	ODAKA 1440.6N 05234.0E
UB535	**(DJIBOUTI)**
	ADEN
	RIYAN
	KAPET 1633 22N 0530614E
	SALALAH
	MARMUL(MRL)
UB538	**(GAZIANTEP)**
	ALEPPO
	KARIATAIN
	DAMASCUS * Note 2 (OS)
UB544	**(GAZIANTEP)**
	ALEPPO
	TANF
	TURAIF
	AL SHIGAR
	HALAIFA
	MADINAH
	RABIGH
	KING ABDULAZIZ
	ABHA
	SANA'A
UB545	**(MUT)**
	BALMA 3428.9N 035 3.0E
	KHALDEH
	AMMAN * Note 3&4(OJ)

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	
G202	**(VELOX 3349.0N 03405.0E) SILKO 3347.9N 03435.0E KHALDEH* Note 4 (OS) DAKWE 3338.9N 03555.0E DAMASCUS TANF MODIK 3328.1N 03901.0E ~~HADITHA~~ ~~SAMARRA~~ ~~SALAM~~ ~~MANDALY~~ 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**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	
UG202	**(VELOX 3349.0N 03405.0E) SILKO 3347.9N 03435.0E KHALDEH * Note 4(OS) DAKWE 3338.9N 03555.0E DAMASCUS TANF MODIK 3328.1N 03901.0E ~~HADITHA~~ ~~SAMARRA~~ ~~SALAM~~ ~~MANDALY~~ 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**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	
	KERMAN **ZAHEDAN** **(RAHIMYAR KHAN)**
G462	**BAHRAIN** **PIMAL2626.5N 05122.1E** *** Note 7 between AUH and ~~PIMAL~~ URITO** **URITO 2616.1N 05148.8 E** **BALUS 2545.9N 05304.4E** **ABU DHABI**
G650	**KING ABDULAZIZ** **RASKA 1908.0N 03903.0E** **(ASMARA)**
G651	**ADEN** **(HARGEISA)**
G652	**ADEN** **SAYUN * Note 2 (OY)** **HAIMA** **~~ETUKO 2214.0N 05525.2E~~** **~~Note 7 (OO)~~** **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**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	
	KERMAN **ZAHEDAN** **(RAHIMYAR KHAN)**
UG462	**BAHRAIN** **PIMAL2626.5N 05122.1E** *** Note 7 between AUH and ~~PIMAL~~ URITO** **URITO 2616.1N 05148.8 E** **BALUS 2545.9N 05304.4E** **ABU DHABI**
UG650	**KING ABDULAZIZ** **RASKA 1908.0N 03903.0E** **(ASMARA)**
UG651	**ADEN** **(HARGEISA)**
UG652	**ADEN** **SAYUN * Note 2 (OY)** **HAIMA** **~~ETUKO 2214.0N 05525.2E~~** **~~* Note 7 (OO)~~** **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**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	
	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** **DESDI 2536.1N 05442.5E** **MIADA 245112N 0545736E**
G667	**TEHRAN** **SAVEH** **AHWAZ** **ABADAN** **ALSAN 2957.1N 04814.9E** **FALKA** **KUWAIT** **WAFRA** **MAGALA** **KING KHALID** **WADI AL DAWASIR** **NEJRAN** **SANA'A** **NOSKI 145116N 0440310E)** **YASIN 135859.6N 0434942E** **PARIM 123142.7N 0432712E** **(DJIBOUTI)**
G668	**ZHOB** **GHAZNI** **RAPTA 3727.0N 06538.0E**
G669	**KARIATAIN** **TONTU 3148.1N 03811.2E** **AL SHIGAR**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	
	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** **DESDI 2536.1N 05442.5E** **MIADA 245112N 0545736E**
UG667	**TEHRAN** **SAVEH** **AHWAZ** **ABADAN** **ALSAN 2957.1N 04814.9E** **FALKA** **KUWAIT** **WAFRA** **MAGALA** **KING KHALID** **WADI AL DAWASIR** **NEJRAN** **SANA'A** **NOSKI 145116N 0440310E)** **YASIN 135859.6N 0434942E** **PARIM 123142.7N 0432712E** **(DJIBOUTI)**
UG668	**ZHOB** **GHAZNI** **RAPTA 3727.0N 06538.0E**
UG669	**KARIATAIN** **TONTU 3148.1N 03811.2E** **AL SHIGAR**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	
	AL JOUF **RAFHA** **SOLAT 2909.7N 04638.2E** **KUWAIT** **SESRA 2908.1N 04854.9E** **NANPI 2905.0N 04932.0E** **BUSHEHR** **VATOB 285126N 0511636E)** **[SHIRAZ[**
G670	**RASHT** **LALDA 3817.1N 04943.0E** **(BAKU)**
G671	**TANF** **HAWIJA** **MOSUL** **UROMIYEH * Notes 2 and 3**
G674	**MADINAH** **GASSIM 2617.9N 04346.8E**
G775	**(ASHGHABAT)** **ORPAB 3742N 05834.5E** **MASHHAD** **[BIRJAND] * Note 1** **ZAHEDAN**
G781	**(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**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	
	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]**
UG670	**RASHT** **LALDA 3817.1N 04943.0E** **(BAKU)**
UG671	**TANF** **HAWIJA** **MOSUL** **UROMIYEH * Notes 2 and 3**
UG674	**MADINAH** **GASSIM 2617. 9N 04346.8E**
UG775	**(ASHGHABAT)** **ORPAB 3742N 05834.5E** **MASHHAD** **[BIRJAND] * Note 1** **ZAHEDAN**
UG781	**(VAN)** **BONAM 3802.9N 04418.0E** **UROMIYEH** **ROVON 3716 01N 0455322E** **ZANJAN**
UG782	**KING ABDULAZIZ** **RAGABA** **KING KHALID** **MAGALA** **WAFRA 2837.3N 04757.5E** **KUWAIT**
UG783	**PURDA 210805N 0510329E** **TANSU 224136N 0542828E** **NIGEL230146N 0551430E**

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	

			ELUDA 235107N 0552905E **ALN 241535N 0553623E** **GIDIS 243600N 055600E** **BUBIN 245742N 0560642E**
G787E	**LAKLU 232235N 0570401E** **SEEB(MCT)** **DORAB 235033N 0594746E** **ALPOR 240441N 0612000E** **LATEM** **(KC)**	**UG787E**	**LAKLU 232235N 05704 01E** **SEEB(MCT)** **DORAB 235033N 0594746E** **ALPOR 240441N 0612000E** **LATEM** **(KC)**
G787W	**(KC)** **PARET** **TAPDO 242400N 0612000E** **VUSET 235540N 0590812E** **PASOV 243841N 0565037E**	**UG787W**	**(KC)** **PARET** **TAPDO 242400N 0612000E** **VUSET 235540N 0590812E** **PASOV 243841N 0565037E**
G792 ***CPA & Pakistan to comment***	**(TURKMENBASHI)** **MASHAD** **CHARN 3510.0N 06108.0E** **HERAT** **KANDAHAR** ~~**QUETTA * Note 3 (OA)**~~ **ASLUM 3101N 06637E** **(RAHIM YAR KHAN)**	**UG792**	**(TURKMENBASHI)** **MASHAD** **CHARN 3510.0N 06108.0E** **HERAT** **KANDAHAR** ~~**QUETTA * Note 3 (OA)**~~ **ASLUM 3101N 06637E** **(RAHIM YAR KHAN)**
G795	**BAHRAIN** **SELEG 2801.5N 04922.2E** ~~**ALSAN 2957.5N 04815.0E * Note 2**~~ **FALKA 2926.2N 04818.3E** **TASMI 300120N 0475505E** **BSR 303132.4N 0472112E** **RAFHA**	**UG795**	**BAHRAIN** **SELEG 2801.5N 04922.2E** ~~**ALSAN 2957.5N 04815.0E * Note 2**~~ **FALKA 2926.2N 04818.3E** **TASMI 300120N 0475505E** **BSR 303132.4N 0472112E** **RAFHA**
		UL124	**(VAN)** **BONAM** **URUMIYEH (UMH)** **ZANJAN(ZAJ)** **SAVEH (SAV)** **YAZD(YZD)** **KERMAN(KER)** **KEBUD 273558N 0625028E** **(PANJGUR)**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	
L126	PUSTO 3321.0N 04245.0E SOGUM 3412.2N 04354.9E MIGMI 3345.9N 04527.4E ILAM
L200	AMMAN 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

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	
UL125	DULAV 3857N 04537.9E TABRIZ (TBZ) ZANJAN PAROT 360940N 0495756E TEHRAN ANARAK DARBAND ZAHEDAN DANIB 2909.5N 06120.1E (PANJGUR)
UL126	PUSTO 3321.0N 04245.0E SOGUM 3412.2N 04354.9E MIGMI 3345.9N 04527.4E ILAM
UL200	AMMAN PASIP 3300.0N 03855.2E 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 YENBO 2408.8N 03803.9E DAFINAH 2317.0N 04143.2E LOTOS 2200N 05039.2E ALPEK 2246.8N 05359.7E
UL301	AAU 5153N 07523 38.6E NOBAT 210902.5N 0880000.1E RASKI 230330N 0635200E VAXIM 231900N 0611100E RAGMA 232301N 0603846E MIBSI 234139N 0575523E

Designation Désignation Designación	Significant points Points significatifs Puntos significativos	Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2	1	2
LOWER AIRSPACE		UPPER AIRSPACE	
L305	**DOHA** **ITITA 2544.2N 05418.7E**		
L306	**TOKRA 220925N 0553350E* *** **Note- (OO)** **DEMKI 224941N 0562308E** **LAKLU 232235N 0570401E**	**UL306**	~~**MUSRU 230256N 0502223E**~~ ~~**TULBU 230006N 0571827E**~~ **TOKRA 220925N 0553350E** *** Note- (OO)** **DEMKI 224941N 0562308E** **LAKLU 232235N 0570401E**
L315	**HURGHADA * Note 3 (HE)** **GIBAL 2437.2N 03634.7E**	**UL315**	**HURGHADA * Note 3 (HE)** **GIBAL 2437.2N 03634.7E**
		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** ~~**TADBO 195538N 0494113E**~~ ~~**CIPNA 193735N 0514311E**~~ **TUBMA 202100N 0463000E** **LOSIM 200318N 0495248E** **DIRAS 195235N 0513704E** **GOBRO 193622N 0534741E** **BOVOS 182230N 0575844E** **ASPUX 174406N 0600006E** **(TRIVANDRUM)**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	
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** **QATRANEH (QTR)**
L519	**MIADA 245112N 0545736E** **KUMUN 254000N 0551512E**
L555	~~**LAKLU 232235N 0570401E**~~ ~~**CIDAN 230104N 0582232E**~~ **TOTOX 215030N 0622230E** **TUMET 222307N 0595702E** **LOTUD 224008N 0583624E**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	
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** **QATRANEH (QTR)**
UL550	**WAFRA *Note7 (OE)** **ROSID 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	~~**LAKLU 232235N 0570401E**~~ ~~**CIDAN 230104N 0582232E**~~ **TOTOX 215030N 0622230E** **TUMET 222307N 0595702E** **LOTUD 224008N 0583624E**
UL556	**TUBMA 202100N 0463000E** **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**
UL601	**(BAGLUM –BAG 04004.2 03248.6)**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	
L631	TOTOX 215030N0622230E SEVLA 233321N 0591122E
L750	ZHOB 3121.3N 06927.6E ROSIE 3140.0N 06900.0E MAXIM 3246.2N 06727.4E 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

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	
	* Note 7 ADANA 3656.4N 03512.6E KARIATAIN 3412.8N 03715.9E
UL602	ALVON 270009N 0500711E*Note 7 SELEG 280130N 0492212E RAPSI 282326N 0490551E DARVA 284814N 0484734E FALKA 292611N 0481819E TASMI 300120N 0475505E LOVEK322206N 0444000E DELMI331911N 0431731E ELEXI 344237N 0411054E DRZ 351724N 0401124E KUKSI 364508N 0374910E GAZ 365701N 0372824E
~~UL610~~	~~FESAL 3429.0N 03731.4E * Note 4(OS) NIKAS 3511.6N 03543.0E (VESAR 3554.9N 03401.0E)~~
UL631	TOTOX 215030N0622230E SEVLA 233321N 0591122E
~~UL675~~	~~WADI AL DAWASIR NORLO 211028N0510142E ETUKO 221354N 0552454E~~
UL750	ZHOB 3121.3N 06927.6E ROSIE 3140.0N 06900.0E MAXIM 3246.2N 06727.4E HORST 3327.6N 06627.5E VELDT 3430.0N 06454.1E RANAH 3535.0N 06312.0E (AFGAN-3824.0N 05817.0E
UL764	SEEB (MCT) ALMOG 233524N 0574940E IVETO 233520N 0570704E PAXIM 240245N 0561631E
UL883	~~ETUKO 221354N 0552454E EMADA 215222N 0564256E GOLNI 210014N 0594130E~~

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	

	~~LOTAV 203700N 0605700E~~ REXOD 211230N 0613830E UMILA 211555N 0584738E SITOL 211604N 0552514E PURDA 210805N 0510329E KITUB 224922N 0462342E
M203	PUSTO 3321.0N 04245.0E LOVEK 3222.1N 04440.0E DISAR 3131.3N 04613.4E
M300	LOTAV 2037N 0605700E EMURU 221535N 0584950E
M320	KING FAHD JUBAIL KUWAIT
UM552	(RAHIM YAR KHAN) BIRJAND (BJD) DEHNAMAK(DHN) TEHERAN (TRN) ZANJAN TABRIZ (TBZ)
M555	HAZEM 3214.0 N 03638.0 E GURIAT 3124.8 N 03717.2 E * Note 3 (OS, OJ)
M561	KISH * Note 3&4 (OI) MOBET 2645.3N 05609.8E PANJGUR

UM203	PUSTO 3321.0N 04245.0E LOVEK 3222.1N 04440.0E DISAR 3131.3N 04613.4E
UM300	(CALICUT) LOTAV 2037N 0605700E EMURU 221535N 0584950E
UM320	KING FAHD JUBAIL KUWAIT
UM321	RAGHBA HAIL
UM551	DONSA1435.3N06344.0E ANGAL1614.1N 06000.1E AVAVO 1646.3N 05526.1E
UM552	(RAHIM YAR KHAN) BIRJAND (BJD) DEHNAMAK(DHN) TEHERAN (TRN) ZANJAN TABRIZ (TBZ)
UM555	HAZEM 3214.0 N 03638.0E GURIAT 3124.8 N 03717.2E * Note 3 (OS, OJ)
UM561	KISH * Note 3&4 (OI) MOBET 2645.3N 05609.8E PANJGUR
UM573	TEHERAN (TRN) TABRIZ 3808.3N 04613.9E

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	
M628	~~DIPIC 231423N 0562002E~~ ~~LAKLU 232235N 0570401E~~ ~~CEPOT 231446N 0580053E~~ ~~MUSRU 230256N 0592223E~~ GEVED 230105N 0575111E GIDAN 230104N 0582232E KAXEM 225103N 0595243E PARAR 222630N 0630700E
M762	REXOD 211230N 0613830E SUR 223159N 0592829E ALMOG 233524N0574940E TAPRA 242607N 0563803E VAXAS 244308N 0561807E * Note 7 (OM, OO) BUBIN 245742N 0560642E
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)
M999	(LUXOR) DEDLI 2242 32N 03737 19E OSAMA 2215 54N 03817 34E KING ABDULAZIZ (JDW
N303	PARIM 1231.7N 04327.2E RIBOK 1547N 04152.5E LABNI 1656.3N 04109.4E

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	
UM628	DAFINAH 231700N 0414312E KIPOM 225316N 0501518E MIGMA 225035N 0512749E KITAP 224928N 0522923E ALPEK 224648N 0535942E LUDID 230227N 0551800E ~~DIPIC 231423N 0562002E~~ ~~LAKLU 232235N 0570401E~~ ~~CEPOT 231446N 0580053E~~ EGVAN 230127N 0561907E TULBU 230005N 0571827E GEVED 230105N 0575111E GIDAN 230104N 0582232E KAXEM 225103N 0595243E MUSRU 230256N 0592223E PARAR 222630N 0630700E
UM877	VUSET 235540N 0590812E KUSRA 232426N 0582611E
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
UM999	(LUXOR) DEDLI 2242 32N 03737 19E OSAMA 2215 54N 03817 34E KING ABDULAZIZ (JDW)
UN303	PARIM 1231.7N 04327.2E RIBOK1547N 04152.5E LABNI 1656.3N 04109.4E

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	

UN315 **ASPUX 174406N 0600006E**
KUTVI 184306N 0582642E
~~**HAIMA**~~
~~**IMDAM 202416N 0550801E**~~
Note:- 7 (OO/OB)
SITOL 211604N 0552514E
LOTOS 220000N 0503912E
RAPMA 232229N 0482010E
RESAL 240649N 0470427E
KING KHALED

UN318 ~~**BALMA 3428.9N 03503.0E**~~
~~*** Note 7 (OE, OJ, OL, OS)**~~
~~**CHEKKA 3418.0N 03542.0E**~~
~~**LEBOR 3415.9N 03635.0E**~~
~~**KARIATIAN**~~
TONTU 314804N 0381110E
RAGOM 313227N 0381656E
NEVOL 3024.7N 03938.6E
VELAL2946.0N 04038.4E
TAMRO 2838.6N 04240.8E
MOGON 2738.8N 04445.9E
TAGSO 2727.7N 04545.2E
~~**MEDRI 2758.33N 0425306E**~~
~~**TOTAD 2750.3N 0433904E**~~
KUSAR 2647.7N 04902.3E
KFA

UN319 **ZAHEDAN**
TABAS (TBS)
DASHTENAZ (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

Designation Désignation Designación	Significant points Points significatifs Puntos significativos	Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2	1	2
LOWER AIRSPACE		UPPER AIRSPACE	
	EXOLU 201248N 0713412E **(BBB- 190506N 0725230E**		
		UN555	**BELGAUM** **BISET 1823.4N 06918.1E** **KATBI 1931.6N 06500.0E** **LOTAV 2037.0N 06057.0E**
N563	**REXOD 211230N 0613830E** **EMURU 221357N 0585338E** **TULBU 230005N 0571827E** ~~**COLKO 234312N 0554635E**~~ **MEKNA 223309N 0560815E** **SODEX 234954N 0553202E** **NOBTO 235525N 0551840E** **AUH 242612N 0543900E**	**UN563**	**(BANGALORE)** **REXOD 211230N 0613830E** **EMURU 221357N 0585338E** **TULBU 230005N 0571827E** ~~**COLKO 234312N 0554635E**~~ **MEKNA 223309N 0560815E** **SODEX 234954N 0553202E** **NOBTO 235525N 0551840E** **AUH 242612N 0543900E**
		UN569	**NASIR 221642N 0400318E** **LOTOS** ~~**ETUKO 221354N 0552454E**~~ ~~**REXOD 211230N 0613830E**~~ **Note:- 7 (OB/OO)** **TOKRA 220925N 0553350E** **UMILA 211555N 0584738E** **LOTAV 203700N 0605700E**
N571	**PARAR 2226.5 N 06307E** **RAGMA 230600N 0610539E** *** Note 7 (OO)** **VUSET 235540N 0590812E** ~~**ENADA 245056N 0563451E**~~ **MENSA 245750N 0563249E** **ATBOR 251007N 0551947E** **RANBI 251908N 0544500E** **BALUS 254554N 0530424E**	**UN571**	**(SUGID- 1933.1 N 06921.0E)** **PARAR 2226.5 N 06307E** **RAGMA 230600N 0610539E** *** Note 7 (OO)** **VUSET 235540N 0590812E** ~~**ENADA 245056N 0563451E**~~ **MENSA 245750N 0563249E** **ATBOR 251007N 0551947E** **RANBI 251908N 0544500E** **BALUS 254554N 0530424E**
N629	**TARDI 243418N 0560915E** **NOSMI 241757N 0563002E** **RAGUD 234701N 0571644E** **SEEB (MCT)**	**UN629**	**TARDI 243418N 0560915E** **NOSMI 241757N 0563002E** **RAGUD 234701N 0571644E** **SEEB (MCT)**
		UN644	**(DERA ISMAIL KHAN)** **GHAZNI (GN)**

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	

	LEMOD 3610.0N 06417.5E **(MEKOL -3730.0N 06200.0E)** **(TABIP-3900.0N 05820.0E**
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**
P302	**HALAIFA*Note 4(OE)** **GURIAT**
UP302	**HALAIFA *Note 4(OE)** **GURIAT**
P312	**RIYAN** **(HARGEISA)**
UP312	**RIYAN** **(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** **SITAD 201032N 0564415E** **GISKA 213503N 0574014E** **RADAX 220809N 0580230E** **SEEB (MCT)**
UP318N	**NOBAT 2109 02N 0680000E** **KABIM 2330 00N 06628 00E** **PAXUR-2400N 0660000E** **PARET 2527.2N 06451.5E** **PANJGUR * Note 7 (OI)**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	
P319	**PANJGUR * Note 7 (OI)** **DOSTI 255800N 0650300E** **KHI -255436N 0671036E** **SAPNA 2330N 06750E** **PAXUR 2400N 06600E** **BILAT 205824N 06800E**
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**
P513	**BUBAS 245938N 0570003E** **GERAR 240600N 0573616E** **MIBSI 234139N 0575523E** **SEEB (MCT) * Note 7**
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)**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	
UP319	**PANJGUR * Note 7 (OI)** **DOSTI 255800N 0650300E** **KHI -255436N 0671036E** **SAPNA 2330N 06750E** **PAXUR 2400N 06600E** **BILAT 205824N 06800E**
UP323	**DONSA 143518N0651533E** **GIDAS 142004N0600000E** **KADER151300N 05500E** **~~SHARURAH 1728.2N 04708E~~** **AL-GHAIDAH** **THAMUD 1717.0N 04955.0E** **BISHA 1958.7N 04237.5E** **JEDDAH**
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**
UP555	**NUWEIBAA*See Note 3** **RASDA 3306.0N 03057.0E** **(KAVOS)**
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**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos	Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2	1	2
LOWER AIRSPACE		UPPER AIRSPACE	
			KMC MUSKO 2726.7N 04737.1E KEDAT 2721.8N 04759.0E JUBAIL (JBL) ALVON 2700.2N 05007.2E RATUN 2646.2N 05108.0E
		UP567	**BIRJAND ODKAT 3540.6N 05457.2E DASHT-E-NAZ -3638.7N 05311.4E (ULDUS -3800.0N 05101.0E)**
P570	**KITAL 2003N 06018E MIBSI 234139N 0575523E**	**UP570**	**TRIVENDRUM VISET1831 12N 06229 64E KITAL 2003N 06018E MIBSI 234139N 0575523E**
P571	**LABNI 16 620N 0410921E NISMI 162415N 0421838E SANA'A (SAA)**	**UP571**	**LABNI 165620N 0410921E NISMI 162415N 0421838E SANA'A (SAA)**
		UP574	**(BELGAUM) (BISET- 1823.4N 06918.1E) TOTOX 215030N 0622230E * Note 7 (OO) KUSRA 231726N 0585102E MIBSI 234138N 0575525E LUDAL 235023N 0574305E SOLUD 243223N 0564421E GISMO 244743N 0562236E BUBIN 245742N 0560642E KUMUN 254000N 0551512E * Note 7 (KUMUN-PARAR) PAPAR 264000N 0542700E SHIRAZ ESFAHAN TEHRAN ULDUS**
		UP634	**LALDO 251806N 0563600E ATBOR 251007N 0551947E**
P899	**PARAR 222630N 0630700E**	**UP899**	**PARAR 222630N 0630700E**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	
	MIBSI 234139N 0575523E **PAXIM 240245N 05617631E** **ITRAX 241248N 0554749E** **AL AIN (ALN)** **ABU DHABI**
R205	**ANARAK** **BIRJAND**
R219	**SHARJAH * Note 7 (OM)** **RATUN 2646.2N 05108.0E** **KING FAHD** **BOROP 2653 17 N 04852 03E** **KEDAT 2721 49N 04759 01E** ~~**KING KHALID (KMC)**~~ ~~**TAMRO 2838.6N 04240.8E**~~ ~~**TURAIF**~~ ~~**FESAL3429.9N 037 31.4E**~~ ~~**BASEL 3434.1N 03624.4E**~~ ~~**FANOS 3436.5N 03541.0E**~~
R401	**AMPEX 0810.0N 05500.0E** **SUHIL 1200.0N 05500.0E** **KADER 1506.0N 05500.0E** **AVAVO 1647.1N 05526.1E**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	
	MIBSI 234139N 0575523E **PAXIM 240245N 05617631E** **ITRAX 241248N 0554749E** **AL AIN (ALN)** **ABU DHABI**
UP975	**(ELAZIG)*Note7** **(DYB) 384225N 0391328E** **LESRI 370818N 0405653E** **KANOK 363504N 0413154E** **SOGUM 341212N 0435454E** **ETBOM 332143N 0444813E** **NOLDO 324930N 0452130E** **PUSMO 304444N 0473547E** **SIDAD 295231N 0482944E** **LONOS 283633N 0492719E** **TESSO 282852N 0492723E** **MIXAR 270800N 0503300E** **RATUN 264613N 0510759E**
UR205	**ANARAK** **BIRJAND**
UR219	~~**PARAR 2226.5N 06307.0E**~~ ~~*** Note 7**~~ ~~**ENADA 245056N 0563451E**~~ ~~**PIMAL 2626.5N 05122.1E**~~ ~~**ALVON 2700.2N 05007.2E**~~ ~~**KEDAT 2721 49N 04759 01E**~~ ~~**KING KHALID (KMC)**~~ ~~**TAMRO 2838.6N 04240.8E**~~ ~~**TURAIF**~~ ~~**FESAL3429.9N 03731.4E**~~ ~~**BASEL 3434.1N 03624.4E**~~ ~~**FANOS 3436.5N 03541.0E**~~ **OTILA 3201.5N 03901.9E*Note 7** **ARAAM 3430.8N 03731.8E** **SOMAR 3437.9N 03715.2E** **ALPHA 3453.0N 03640.0E** **BANIAS 3513.7N 03557.5E**
UR401	**AMPEX 08 10.0N 055 00.0E** **SUHIL 12 00.0N 055 00.0E** **KADER 15 06.0N 055 00.0E** **AVAVO 16 47.1N 055 26.1E**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	
	HAIMA **~~DEBOK 2328.5 N 05544.0 E~~** **DEMKI 224941N 0562308E** **MUSAP241754N 0555245E** **GIDIS 243600N 0555600E** **RAS AL** **DARAX**
R402	**LAKLU 232235N 0570401E** **~~DEKLI 220201N 0564510E~~** **HAIMA (HAI)**
B407	**KING ABDULAZIZ** **MAHDI 2026.0N 03739.3E** **(PORT SUDAN)**
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** **QATRANEH** **AQABA** **METSA 2930.0N 03500.0E**
R653	**JERUSALEM* Note 4(OS)**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	
	HAIMA **~~DEBOK 2328.5 N 05544.0 E~~** **DEMKI 224941N 0562308E** **MUSAP 241754N 0555245E** **GIDIS 243600N 0555600E** **RAS AL KHAIMAH** **DARAX**
UR402	**LAKLU 232235N 0570401E** **~~DEKLI 220201N 0564510E~~** **HAIMA (HAI)**
UB407	**KING ABDULAZIZ** **MAHDI 2026.0N 03739.3E** **(PORT SUDAN)**
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** **QATRANEH** **AQABA** **METSA 2930.0N 03500.0E**
UR653	**JERUSALEM * Note 4(OS)**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
LOWER AIRSPACE	
	RAMTHA **DAMASCUS**
R654	**ESFAHAN** **YAZD** **KERMAN** **NABOD 2816.1N 05825.3E** **CHAH BAHAR (CBH)** ~~**DENDA**~~ **EGTAL 243458N 0603724E** **VAXIM 231900N 0611100E**
R655	**(LARNACA)** **CHEKKA** **KARIATAIN**
R658	**SEEB** **MELMI 2647.0N 05723.0E** **BANDAR ABBAS**
R659	**SHIRAZ** **DOHA** **MARMI 251400N 0511330E** **MIGMA 225035N 0512749E** **PURDA 210805N 0510329E** **SANA'A * Note 3 (OY)**
R660	**(ERZERUM)** **DASIS 38 54.5N 044 12.5E** **TABRIZ** **RASHT** **TEHRAN**
R661	**DULAV 3857.0N 04537.9E** **TABRIZ** **ZANJAN** **RUDESHUR** **VARAMIN** **DEHNAMAK**
R775	**LUXOR** **KING ABDULAZIZ** **DANAK 1608.0N 04129.0E** **(ASSAB)**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2
UPPER AIRSPACE	
	RAMTHA **DAMASCUS**
UR654	**ESFAHAN** **YAZD** **KERMAN** **NABOD 2816.1N 05825.3E** **CHAH BAHAR (CBH)** ~~**DENDA**~~ **EGTAL 243458N 0603724E** **VAXIM 231900N 0611100E**
UR655	**(LARNACA)** **CHEKKA** **KARIATAIN**
UR658	**SEEB** **MELMI 2647.0N 05723.0E** **BANDAR ABBAS**
UR659	**SHIRAZ** **DOHA** **MARMI 251400N 0511330E** **MIGMA 225035N 0512749E** **PURDA 210805N 0510329E** **SANA'A * Note 3 (OY)**
UR660	**RASHT** **TEHRAN**
UR661	**DULAV 3857.0N 04537.9E** **TABRIZ** **ZANJAN** **RUDESHUR** **VARAMIN** **DEHNAMAK**
UR775	**LUXOR** **KING ABDULAZIZ** **DANAK 1608.0N 04129.0E** **(ASSAB)**

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	

R777	**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** ~~**SHATRA**~~ ~~**MILAD 3249.54N 04521.49E**~~ ~~**VALRE 3324.20N 04502.02E**~~ ~~**ZUBEIDYA**~~ ~~**SALAM 3400.13N 04442.0E**~~ ~~**HAWIJA 3516.66N 04356.25E**~~ ~~**MOSUL**~~ ~~**KIMBO 3600.00N 04327.00E**~~ **PUSMO 304444N 0473547E** **ALVET 313500N 0471500E** **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**
R794	**ULDUZ 3810.0N 05020.0E** **NOSHAHR** **DEHNAMAK** **TABAS** **BIRJAND * Note 5 (OI)**

UR777	**DANAK 1608.0N 04129.0E** **SANA'A** **TAIZ** **ARABO 1238.8N 04404.0E** **TORBA 1210.6N 04402.1E**
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** ~~**SHATRA**~~ ~~**MILAD 3249.54N 04521.49E**~~ ~~**VALRE 3324.20N 04502.02E**~~ ~~**ZUBEIDYA**~~ ~~**SALAM 3400.13N 04442.0E**~~ ~~**HAWIJA 3516.66N 04356.25E**~~ ~~**MOSUL**~~ ~~**KIMBO 3600.00N 04327.00E**~~ **PUSMO 304444N 0473547E** **ALVET 313500N 0471500E** **ITSOP 330422N 0454208E** **GONSI 332622N 0451837E** **SIGNI 340006N 0444200E** **RAMPI 351642N 0435618E** **KATOT 360000N 0432700E** **KABAN 3715.0N 04239.0E** **(SIIRT)**
UR785	**TURAIF** **ZELAF 3257.0N 03800.0E** **KARIATAIN** **BANIAS** **NIKAS 3511.6N 03543.0E**
UR794	**ULDUZ 3810.0N 05020.0E** **NOSHAHR** **DEHNAMAK** **TABAS** **BIRJAND * Note 5 (OI)**

Designation Désignation Designación	Significant points Points significatifs Puntos significativos	Designation Désignation Designación	Significant points Points significatifs Puntos significativos
1	2	1	2
LOWER AIRSPACE		UPPER AIRSPACE	
New Designator to be assigned		**UT507**	**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**
New Designator to be assigned		**UW335**	**KING KHALED** **OVEKU 250955N 0445701E** **MADINAH**
New Designator to be assigned		**UV999**	**MAGALA** **EGNOV** **EMILU** **ASVIR** **KUWAIT**
New Designator to be assigned		**UT517**	**WAFRA** **GOVAL** **KMC**

MID RNP/RNAV TF/7
Appendix D to the Report

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