



**INTERNATIONAL CIVIL AVIATION ORGANIZATION**

**SPECIAL ATS ROUTE COORDINATION MEETING  
BAHRAIN, IRAQ AND KUWAIT  
(SARCM)**

**REPORT OF THE  
SARCM**

*(Cairo, 15 – 16 July 2009)*

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

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

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## **PART I: HISTORY OF THE MEETING**

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**SARCM**  
**History of the Meeting**

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**PART I – HISTORY OF THE MEETING****1. PLACE AND DURATION**

1.1 A special ATS Route Co-ordination Meeting for Baghdad FIR, was held under the aegis of ICAO MID Regional Office at the request of Iraq Civil Aviation Authority (CAA), was convened at the ICAO MID Regional Office in Cairo, from 15 –16 July 2009.

**2. OPENING**

2.1 The Meeting was opened by Mr. Mohamed R. M. Khonji, ICAO Regional Director, Middle East Office who welcomed the delegates to Cairo. In his welcome address Mr. Khonji thanked Iraq CAA for seeking ICAO assistance to hold this meeting, he provided a summary and history of the previous meetings held with a view to support the Iraq initiative to enhance airspace capacity and in building its infrastructure. Mr. Khonji reiterated the commitment of ICAO to fully support the initiative by Iraq CAA for further enhancement to airspace capacity in Baghdad FIR and the creation of economic routes to satisfy user requirements without jeopardizing the safety requirements. He also wished the participants a fruitful outcome on the deliberations of this meeting.

**3. ATTENDANCE**

3.1 The meeting was attended by a total of 12 Participants from 3 States (Bahrain, Iraq, and Kuwait) and one organization (IATA). The list of participants is at **Appendix A** to the Report.

**4. OFFICERS AND SECRETARIAT**

4.1 Mr. Jehad Faqir, Deputy Regional Director from the ICAO Middle East Office was the Secretary of the meeting assisted by Mr. Mohamed Smaoui, Regional Officer AIS/MET and Mr.Raza Gulam Regional Officer CNS.

**5. LANGUAGE**

5.1 The discussions were conducted in the English language and documentation was issued in English.

**6. AGENDA**

6.1 The following Agenda was adopted:

Agenda Item 1: Adoption of provisional agenda

Agenda Item 2: Presentation on Iraq Progress (Normalization of Baghdad FIR)

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Agenda Item 3: Status of Communication Infrastructure in Baghdad FIR

Agenda Item 4: ATS route proposals/requirements and associated coordination issues

- ATS Route Network
- Separation Minima and Air Traffic Flow Management
- RVSM associated issues
- Updating of Letters of Agreement (LOA)

Agenda Item 5: Any other business.

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## **PART II: REPORT ON AGENDA ITEMS**

SARCM  
Report on Agenda Item 1

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**PART II: REPORT ON AGENDA ITEMS**

**REPORT ON AGENDA ITEM 1: ADOPTION OF THE AGENDA**

1.1 The meeting reviewed the Agenda of the meeting adopted it as at **Appendix 1A** to the Report on Agenda Item 1.

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SARCM – REPORT  
**APPENDIX 1A**

SARCM  
Appendix 1A to the Report on Agenda Item 1

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**SPECIAL ATS ROUTE COORDINATION MEETING  
BAHRAIN, IRAQ AND KUWAIT**

*(Cairo 15-16 July 2009)*

**REVISED PROVISIONAL AGENDA**

**Agenda Item 1:** Adoption of the Agenda

**Agenda Item 2:** Presentation on Iraq Progress (Normalization of Baghdad FIR)

**Agenda Item 3:** Status of CNS Infrastructure in Baghdad FIR

**Agenda Item 4:** ATS route proposals/requirements and associated coordination issues

- ATS Route Network
- Separation Minima and Air Traffic Flow Management
- RVSM associated issues
- Updating of Letters of Agreement (LOA)

**Agenda Item 5:** Any other business

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**SARCM**  
**Report on Agenda Item 2**

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**REPORT ON AGENDA ITEM 2: PRESENTATION ON IRAQ PROGRESS (NORMALIZATION OF BAGHDAD FIR)**

2.1 The meeting was informed about the progress achieved with Civil Normalization of Iraq Airspace. The radar and radio coverage is stronger in the centre of the FIR. Steps are being taken to improve coverage to the north, south, and west of the Baghdad FIR.

2.2 Furthermore the meeting recognized Iraq wishes to changes that improve operations and traffic flows within their FIR with the assistance of both the Kuwait and Bahrain FIRs, to the maximum possible. The required transition to non-RVSM flight levels before traffic enters the Baghdad FIR would initiate adjustments to north/south flows between Kuwait, and Baghdad FIRs in order to allow for continued successful transition to accommodate the increase of traffic through Baghdad FIR; in this regard the meeting noted that in April of 2009, Baghdad FIR over-flight traffic count exceeded 10,000 operations in a non-RVSM environment.

2.3 The meeting noted the progress achieved for creating a unidirectional parallel route structure for traffic traversing the Baghdad FIR and Ankara FIR boundary. As this important change is implemented, the importance of adjustments to routings of traffic traversing the Kuwait FIR and Baghdad FIR boundary cannot be underemphasized.

2.4 The meeting recognized the need for updating many of the Letter of Agreements (LOAs) which are in effect with the adjacent FIRs. This is mainly to keep pace with the increase in operations and the need to better serve the user in a 'normalized' ATC environment.

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**SARCM**  
Report on Agenda Item 3

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**REPORT ON AGENDA ITEM 3: STATUS OF CNS INFRASTRUCTURE IN BAGHDAD FIR**

3.1 The meeting noted with appreciation the update provided by Iraq Civil Aviation Authority (ICAA) on status of Communication and Surveillance Infrastructure in the Baghdad FIR, and the progress achieved so far.

3.2 The meeting was informed that direct land-line communications between Kuwait Area Control Centre (KACC) and Baghdad Area Control Centre (BACC) have been acceptable. The VSAT link between BACC and KACC has been the best and most reliable way of transmitting flight estimates and other ATC information between the two facilities. ICAA has begun negotiations with Iraq National Telecommunication Company (ITPC) to use the new national fiber-optic network to carry mission-critical aviation information and to improve communications with neighbouring FIRs.

3.3 With regards to air-ground radio communications southeast of a line between position ALPET and position ILMAP the meeting recognized the current difficulty and gap in air-ground communication due to VSAT technical problems. The secondary site at Basrah is required to 'fill-in' this gap. When this site is not operating effectively there is no radio coverage south of positions ALPET-ILMAP area. The meeting appreciated that Iraq is working to fill the gaps and plans are under development, where it is expected that these will be completed within six months from now. Furthermore, the meeting noted that ICAA has allocated necessary funds for the CNS infrastructure and request for proposal (RFP) has been released and contracts will be signed soon for the revitalization of the CNS required infrastructure.

3.4 The meeting also noted that ICAA plans to improve radio coverage and eliminate distortion in Iraqi airspace by moving the primary transmitter/receiver location for the north and south sectors to position Kirkuk and Tallil Airport respectively. It is anticipated that these changes will be completed within six months from now.

3.5 The meeting was informed that BACC is served by one civil long range radar located at Baghdad International Airport with an effective range of 250 nm. This is not enough range to cover the northern, southern and western parts of the Baghdad FIR; however, Kuwait radar coverage extends well north into Baghdad FIR thus sharing of radar data with Kuwait will improve radar coverage in south of Baghdad FIR.

3.6 The meeting was of the view that a proposal to look into the feasibility of using adjacent FIR radar data to augment BACC radar coverage in the Baghdad FIR should be considered; in this regard Kuwait agreed to look into this matter and revert back to ICAA.

3.7 The meeting recalled that the Special Baghdad FIR Coordination Meeting (SBFCM) held in Cairo, 28-29 May 2008, had thorough discussion on the Communication, Navigation and Surveillance issues and difficulties related to and experienced in the Baghdad FIR and developed an action plan which was supposed to be updated every six month. In this respect the meeting noted that no updates were initiate except during MIDANPIRG/11, Cairo, 09-13 February 2009.

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Report on Agenda Item 3

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3.8           The meeting noted that MIDANPIRG/11 agreed to Conclusion 11/59 (Follow-up Special Baghdad FIR Co-ordination Meeting (SBFCM)) , were, Iraq was requested to take the lead and assign resources for the implementation of the SBFCM follow-up action plan in full coordination with the ICAO MID Regional Office and concerned MID States.

3.9           The meeting agreed that the outcome of this meeting related to CNS and SBFCM to be integrated in the work programme of Baghdad FIR RVSM Implementation Working Group (BFRI WG) and consequently developed comprehensive action plan at **Appendix 3A** to the Report on Agenda Item 3.

3.10          Iraq updated the meeting by indicating that the United Nation Development Programme (UNDP) is leading the Iraq Civil Aviation Master Plan project (CAMP), where it was noted that UNDP had provided ICAA the draft CAMP in late March 2009 for final review/comments, which were subsequently submitted by ICAA to UNDP for finalization and production by UNDP later this year.

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Appendix 3A to the Report on Agenda Item 3

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**CNS SWG FOLLOW-UP ACTION PLAN**

The meeting was conducted on a brain storming method and agreed to the following Action Plan

STRATEGIC OBJECTIVE	FOLLOW-UP ACTION	TO BE DELIVERED BY	DELIVERABLE	TARGET DATE	REMARKS UPDATE FEB09
A and D	Iraq to send to all Draft VSAT Agreement And all to follow up for replies Replies received	Iraq Jordan, Syria, Saudi Arabia  All	Agreements for VSAT	15 Jun 08 15 Jul 08	Draft agreements sent to all States waiting reply State Letter
A and D	Spare for the PC/Modem connection (Solution 1) Direct connection software and hardware (solution 2) to be made available for the connection with Kuwait VSAT	Iraq	Solution Document and Materials Dual connection of AFTN with Kuwait	30 Jul 08 15 Aug 09	Unable to get visa to Kuwait
D	Confirmation on configuration Of the AFTN switch	Kuwait	AFTN Switch Dual configuration	30 Jun 08 15 Aug 09	Unable to get visa to Kuwait
D	confirmation and preparation of secured site with power and facilities for VSAT Accommodation	Jordan	- Secured site with facilities - confirmation of training location	30 Jul 08 30 Jul 09	Iraq will inform Jordan date of travel
A and, D	Supply and install the VSAT Station in Amman	Iraq	VSAT Station operational in Amman	30 Aug 08 30 Jul 09	Iraq will inform Jordan date of travel
D	Training for VSAT support to all States accommodating Iraq supplied VSAT station in Jordan	Iraq	Adequate number of engineers are trained	15 Sep 08 30 Jul 09	Iraq will inform Jordan date of travel

SARCM-REPORT  
APPENDIX 3A

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STRATEGIC OBJECTIVE	FOLLOW-UP ACTION	TO BE DELIVERED BY	DELIVERABLE	TARGET DATE	REMARKS UPDATE FEB09
D	Approval of telecom authority and Confirmation on VSAT Supply and usage of same bandwidth	Syria	VSAT Equipment ready	30 Jun 08 30 July 09	Letter to be sent to Syria
D	Supply of Specification of the VSAT stations and Bandwidth used including full details	Iraq	VSAT complete documentation	15 Jun 08	Completed
A and D	Confirmation of AFTN link Establishment	Iran	Confirmation of VSAT link	29 May 08 Completed	Executed test but unsuccessful Iran, cable disconnected Letter to be sent to Iran
D	Testing for the distribution of AFTN messages from Iraq	Iran Iraq All	Test report on exchange of AFTN messaging confirmation from other States	15 Jun 08 30 July 09	Letter to be sent to Iran
D and E	Checking which Telecom operators can provide international link between (Bahrain and Iraq)	Bahrain	List of and confirmation from (telecom operators) Iraq to provide reply	15 Jun 08 30 Sep 09	Solution proposed by Bahrain
D and E	Iraq to approach telecom operators to establish Land lines	Iraq	Link between ACC and Telecom operator	30 Jun 08 30 June 09	Tehran, Jeddah no answer Amman, Damascus, Ankara and Kuwait 4 landlines established
A and D	Request for International link to telecom provider	Iraq	Confirmation on request acceptance International links establishment	30 Jun 08 30 Aug 08	In progress

STRATEGIC OBJECTIVE	FOLLOW-UP ACTION	TO BE DELIVERED BY	DELIVERABLE	TARGET DATE	REMARKS UPDATE FEB09
A and D	Matching request filled with agreed telecom operator	Bahrain Saudi Arabia	Confirmation on request acceptance International links establishment	30 Jun 08 30 Aug 08	Letter to be sent to Saudi Arabia
D	Preparation of Voice back up proposal with Iraq	Bahrain	Voice back up proposal	30 Jul 08 30 Sep 09	Solution proposed
D	Project plan for the Voice back up Implementation	Bahrain & all	Voice back up Implemented	30 Dec 08 30 Sep 09	Solution proposed
D	Conduct of Technical Training through appropriate Organization and ICAO TCB	Iraq	Iraq Technical people trained	30 Dec 08	No budget yet Training in progress
D	<del>Request for Familiarization visits by Iraq</del>	<del>Iraq Bahrain Jordan</del>	<del>Familiarization visits report</del>	<del>30 Aug 08</del>	<del>Need invitation from States</del>
A	Complete the flight check of the VOR/DME at BASRAH	Iraq IATA	Operational confirmation of the VOR/DME BASRAH	30 Jun 08	Complete
A	VOR/DME SOGUM	Iraq IATA	Operational confirmation of the VOR/DME SOGUM	30 Dec 08	Not fixed due to security
A	VOR/DME RAMPI	Iraq IATA	Operational confirmation of the VOR/DME RAMPI	30 Dec 08	Operational since April09
A	VOR/DME (2) North KATOT and ILMAP	Iraq IATA	Operational confirmation of the VOR/DME North KATOT and ILMAP	30 Dec 08	complete
A	Completion of Installation and testing of Basrah Radar	Iraq	Operational confirmation of the BASRAH Radar	30 Sep 08 30 Dec 09	
A	ERBIL Radar PROCUREMENT/INSTALLATION	Iraq	Operational confirmation of the ERBIL Radar	30 Dec 08 30 Dec 09	

SARCM-REPORT  
APPENDIX 3A

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STRATEGIC OBJECTIVE	FOLLOW-UP ACTION	TO BE DELIVERED BY	DELIVERABLE	TARGET DATE	REMARKS UPDATE FEB09
A	RUTBA Radar PROCUREMENT/INSTALLATION	Iraq	Operational confirmation of the RUTBA Radar	TBD	Not priority at time being
A and D	Possibility of sharing Kuwait Radar data	Kuwait	Agreement/disagreement for sharing Radar Data	30 Aug 09	
A and D	Relocation of the Vsat in Iraq, for filling the communication Gap.	Iraq	Vsat relocated	30 Dec 09	

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**SARCM**  
Report on Agenda Item 4

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**REPORT ON AGENDA ITEM 4: ATS ROUTE PROPOSALS/REQUIREMENTS AND ASSOCIATED COORDINATION ISSUES**

**ATS Route Network**

4.1 The meeting reviewed two proposals submitted by Iraq Civil Aviation Authority (ICAA) as at **Appendix 4A** and IATA as at **Appendix 4B** to the Report on Agenda Item 4; for creation of new ATS route network within Baghdad FIR which would have an impact on the flow and directions of traffic through Kuwait as well as Bahrain FIRs.

4.2 The meeting was apprised of the outcome of RDGE/10 meeting which took place in Turkey where representatives from Iraq, Turkey, Eurocontrol, IATA and the ICAO EUR/NAT Office had a meeting concerning the increase of capacity at the interface between the Baghdad and Ankara FIRs. An initial agreement was reached between Iraq and Turkey regarding the establishment of a dual/unidirectional ATS route system inside Baghdad FIR, connected to the Turkish ATS route system, in order to offer increased capacity for flights to/from the Gulf area and beyond.

4.3 In this respect, it was agreed at that meeting to establish a new entry/exit point between Ankara and Baghdad FIRs (NINVA 3721N 04313E) east of position KABAN. A newly established ATS route (UT888) would link the new position NINVA point to MUS in Ankara FIR, ensuring a proper connection to the existing ATS route network. The agreed traffic flows would be southbound over position KABAN and northbound over position NINVA which would require changes to traffic flow directions of Airways UP975 and UL602 in both Kuwait and Bahrain FIRs.

4.4 The parties concerned at the RDGE/10 meeting had agreed to implement the dualisation of the above ATS route structure as soon as practicable but in any case not before the AIRAC date of 24 September 2009.

4.5 The proposed changes that were agreed to at the RDGE/10 were not supported by Kuwait and Bahrain as it will require major changes to the exiting ATS route structure within both FIRs and would also affect other adjacent FIRs in the Gulf Area mainly, Emirates, and Oman.

4.6 The meeting further considered the proposal submitted by Iraq for harmonization of ATS route network within Baghdad FIR by establishing a third parallel airway between Baghdad and Kuwait FIRs, which will require creation of a new border waypoint (MOBIS) west of position TASMI waypoint and will have R784 extended to the new entry/exit waypoint (MOBIS) for connectivity with existing ATS route network within Kuwait FIR. This airway would be bidirectional at FL290 and above. Traffic would be restricted to over-flights only and not to be used for traffic destined to land in either the Baghdad or Kuwait FIRs.

4.7 The meeting was of view that the proposal should be differed to the appropriate MIDANPIRG subsidiary body i.e. the ATM/SAR/AIS Sub-Group for review and endorsement. In the meantime Kuwait would discuss the proposal with their military authorities for consideration.

4.8 The meeting noted that ICAA requested assistance in obtaining approval of Syrian Civil Aviation Authorities (CAA) to open the segments of ATS routes UP975 and UL602 in Damascus FIR to further relieve traffic congestion in Baghdad FIR and requested ICAO MID Regional Office to pursue this matter with the Syrian CAA.

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***Separation Minima and Air Flow Traffic Management***

4.9 The meeting noted the difficulties that Bahrain ATC is facing to accommodate traffic via ATS route UL602 westbound to Kuwait FIR due to the continuous traffic growth on this route which required an immediate attention to the relaxation of level restrictions applied and longitudinal separation of 10 minutes as a result of agreement between Kuwait and Iraq ACCs. The situation is also aggravated by the presence of significant numbers of military and civil traffic routing via UL602 during certain times of the day which coincided with times at which traffic levels in Bahrain FIR reaches its peak. The meeting was advised that Bahrain had already issued a NOTAM advising all traffic on UL602 to expect delays or low cruising levels when transiting Bahrain FIR due congestion .

4.10 The meeting recognized the need for improvement of traffic flow and noted with appreciation Baghdad and Bahrain ACCs readiness to implement 40 NM longitudinal separations for traffic entering/ exiting Baghdad FIR and their commitment to workout a reasonable solution to alleviate the congestion and the difficulties faced by Kuwait ACC.

4.11 Kuwait will conduct further coordination with Bahrain and would also look into traffic crossing issues with both Tehran and Jeddah ACCs to ensure proper separation of crossing traffic from Iran & Saudi Arabia before implementing the 40 NM longitudinal separation minima and availing additional flight levels for traffic bound to Baghdad FIR.

4.12 The meeting recognized with concern the difficulties encountered by the ATC controllers in Kuwait as well as in Iraq due to coordination failure to pass flight estimates and inconsistent transfer of flight plans through AFTN system caused by infrastructure challenges. The meeting urged both States to commit to established procedures as laid down in the LOA.

***RVSM associated issues***

***Planning for RVSM implementation within Baghdad FIR***

4.13 The meeting recalled that the Special Baghdad FIR Coordination Meeting (Cairo, 28-29 May 2008), the ATM/SAR/AIS SG/10 (Cairo, 3-6 November 2008) and MIDANPIRG/11 (Cairo, 9-13 February 2009) recognized the pressing need and importance of implementing RVSM in the Baghdad FIR. It was noted, in this regard, that IATA considered that with the efforts of all concerned parties, RVSM implementation in Baghdad FIR could be achievable in 2009. However, MIDANPIRG/11 was of view that the provision of required ATC and CNS facilities and services represent one of the prerequisites for the RVSM implementation and that the Planning for RVSM implementation would require also the active participation of experts in airworthiness, flight operations, air traffic management, safety assessment and height monitoring, etc.

4.14 Based on the above, MIDANPIRG/11, through Decision 11/23, agreed to the establishment of the Baghdad FIR RVSM Implementation Working Group (BFRI WG), with Terms of Reference (TOR) as at **Appendix 4C** to the Report on Agenda Item 4, for the development of necessary planning materials related to RVSM implementation in Baghdad FIR and for assisting the Iraqi Civil Aviation Authority in expediting the implementation of such an important project.

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Report on Agenda Item 4

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4.15 The meeting recalled that the First Meeting of the BFRI WG was initially scheduled to be held in Cairo, 13-15 July 2009. However, it was noted that Iraq informed the ICAO MID Regional Office by an official letter that, they would not be ready to start the official preparation for RVSM implementation within the framework of the BFRI WG before the end of year 2009. Accordingly, Iraq requested that the BFRI WG/1 meeting be postponed to December 2009.

4.16 The meeting was apprised of the difficulties facing Baghdad ACC in handling the traffic entering/exiting Kuwait FIR. In this regard, it was highlighted that traffic westbound into the Baghdad FIR is routed over position TASMI at RVSM Flight Levels from FL240 to FL430, which is not compliant with ICAO standards. This requires that Baghdad ACC has to transition the RVSM traffic which is at FL300 and above to non-RVSM Flight Levels prior to the Ankara FIR boundary. More specifically, Baghdad ACC is currently receiving westbound traffic from Kuwait ACC at the position TASMI at FL240, FL260, FL280, and at RVSM Flight Levels i.e. FL300, FL320, FL340, FL360, FL380, FL400 and FL430. A vast majority of the TASMI traffic is requesting to remain at or climb to FL300 and above, for fuel conservation. This flow of traffic at ten (10), different Flight Levels has to be transitioned into mainly five (5) Flight Levels (FL280, FL310, FL350, FL390 and FL430) prior to reaching the Ankara FIR.

4.17 The Traffic eastbound from the Ankara FIR and the internal departures from Baghdad FIR enters Kuwait FIR over position SIDAD at non-RVSM Flight Levels, from FL250 to FL430 all inclusive, without regard to direction of flight.

4.18 Based on the above, the meeting agreed to the following:

- a) Kuwait ACC will continue to hand over traffic to Baghdad ACC at position TASMI at FL240, FL260, FL280, and RVSM Flight Levels FL300, FL320, FL340, FL360, FL380, FL400 and FL430;
- b) Baghdad ACC will continue to handover the traffic to Kuwait ACC over SIDAD at FL290, FL330, FL350, FL370, FL390 and FL410;
- c) the ICAO MID Regional Office to coordinate with the ICAO EUR/NAT Regional Office to seek the agreement of Turkey to accept traffic from Baghdad ACC at RVSM Flight Levels, prior to 31 July 2009;
- d) invite Turkey to attend the next ATM/SAR/AIS SG/11 meeting to be held in Bahrain, 10-12 November 2009;
- e) Iraq to coordinate with Turkey to review and update the agreement reached during the RDGE/10 meeting and to pursue Turkey to change traffic flow directions of the new planned parallel airways, prior to 15 August 2009;
- f) Kuwait to investigate/study the possibility of assigning more Flight Levels for the traffic received from Bahrain FIR, prior to 15 August 2009;
- g) Kuwait to further study the issue of air traffic flow management within Kuwait FIR, with a view to implement tactical separation between the East-West bound traffic and crossing traffic. The possibility of imposing air traffic flow management/regulation to traffic without Flight Plans (FPLs) or estimates should be also investigated, prior to 15 October 2009;

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Report on Agenda Item 4

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- h) Bahrain to meet with Kuwait in order to review the LOA between Bahrain and Kuwait ACCs, prior to 15 August 2009;
- i) RVSM should be implemented in Baghdad FIR in an expeditious manner;
- j) the BFRI WG/1 meeting be tentatively scheduled to be held in Cairo, from 18 to 20 January 2010;
- k) the MID RMA and concerned parties support the planning for the implementation of RVSM within Baghdad FIR in coordination with Iraq, to expedite the process;
- l) Iraq is strongly encouraged to attend the MID RMA Board meetings and the MID RVSM Safety Assessment Seminar to be held in Bahrain, 8-9 November 2009;
- m) for the purpose of developing the RVSM Pre-Implementation Safety Case (PISC) for Baghdad FIR, Iraq is to provide the FPL/traffic data for the month of June 2009 to the MID RMA as well as all Altitude Deviation Reports (ADRs), Coordination Failures (CFRs) and updated list of RVSM approved aircraft, on monthly basis; and
- n) despite the postponement of the BFRI WG/1 meeting, some of the tasks listed in the BFRI WG TOR should be undertaken before the meeting to expedite the process, in particular the readiness assessment survey for RVSM implementation within Baghdad FIR, identification of necessary ATS equipment changes to accommodate the RVSM operations, identification of training needs and development of a training plan for the ATS personnel, etc. Accordingly, the Action Plan at **Appendix 4D** to the Report on Agenda Item 4 was agreed upon, with a tentative date for **RVSM implementation in the Baghdad FIR on 18 November 2010.**

***Updating of Letters of Agreement (LOA)***

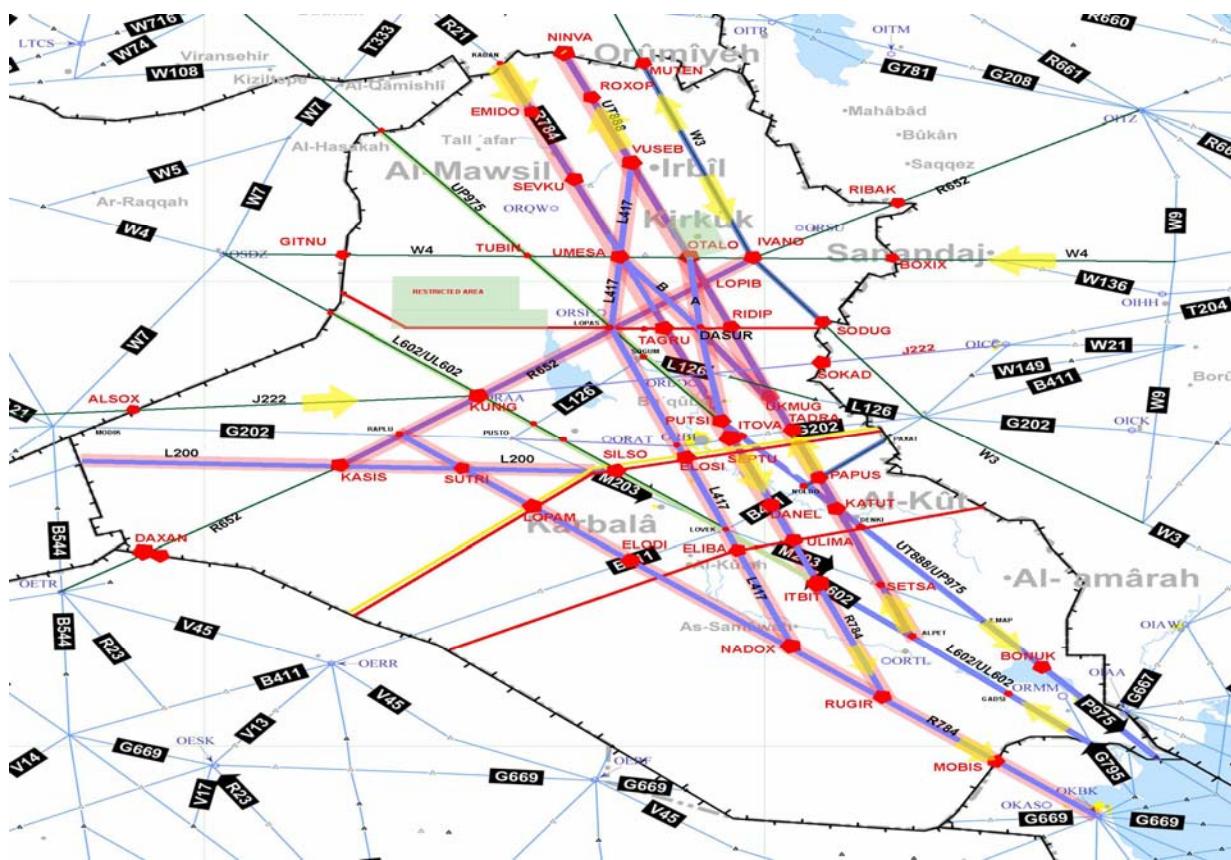
4.19 The meeting noted the proposal presented by Iraq CAA (ICAA) for amendment of the Letter of Agreement (LOA) between them and Kuwait as at **Appendix 4E** to the Report on Agenda Item 4. The revised LOA should reflect the numerous changes occurring within Baghdad FIR and the need for urgent conclusion and signature of the LOA by end of August 2009.

4.20 The meeting also noted with appreciation ICAA initiative for initiating negotiations with Damascus, Amman, and Jeddah/Riyadh ACCs to complete Letters of Agreement.

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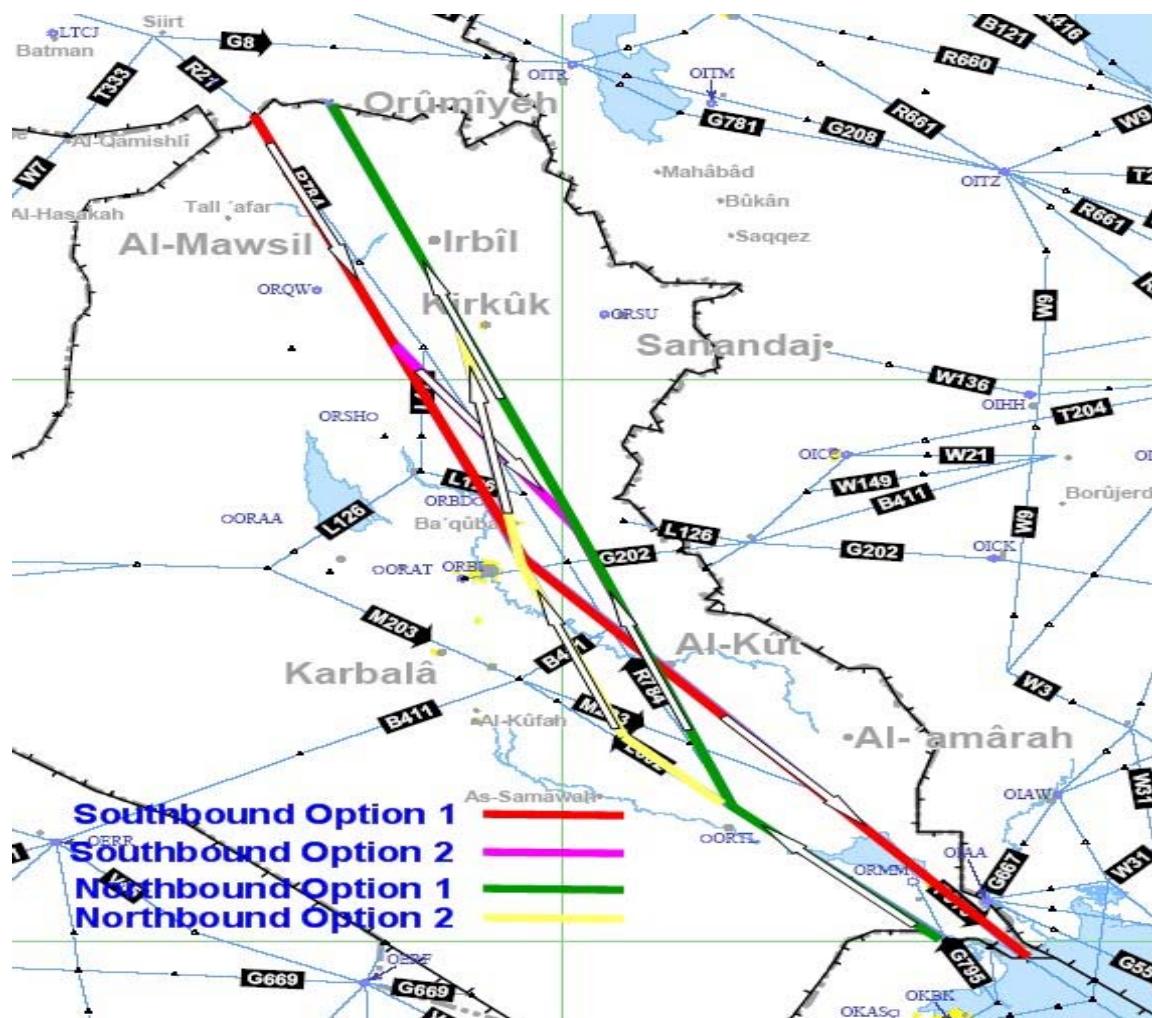
## **IRAQ CIVIL AVIATION (ICAA) PROPOSAL**



## SARCM

### Appendix 4B to the Report on Agenda Item 4

IATA PROPOSAL



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Appendix 4C to the Report on Agenda Item 4

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**BAGHDAD FIR RVSM IMPLEMENTATION WORKING GROUP  
(BFRI WG)**

**A) TERMS OF REFERENCE**

With a view to coordinate and support the RVSM implementation activities in the Baghdad FIR, the Baghdad FIR RVSM Implementation Working Group (BFRI WG) shall:

- 1) Carry out a readiness assessment survey for RVSM implementation within Baghdad FIR;
- 2) Assist Iraq in the development of a comprehensive RVSM implementation plan and national safety plan;
- 3) Monitor and coordinate with Iraq the implementation of the RVSM programme within Baghdad FIR;
- 4) Carry out a Functional Hazard Analysis (FHA) which provides assurance that all hazards and risks associated with RVSM implementation within Baghdad FIR have been identified and analyzed;
- 5) Assist Iraq in the identification of necessary ATS equipment changes to accommodate the RVSM operations within Baghdad FIR;
- 6) Assist Iraq in the development of necessary ATS procedures related to RVSM operations within Baghdad FIR, including the contingency procedures;
- 7) Develop in coordination with the MID RMA an RVSM Pre-Implementation Safety Case (PISC) to provide evidence about the safe implementation of RVSM in Baghdad FIR;
- 8) Identify the needs for training and assist Iraq in the development of a training plan for the ATS personnel;
- 9) Consider interface issues related to RVSM implementation and operations with the adjacent Regions;
- 10) Assist Iraq in the publication of necessary Aeronautical Information Publication related to RVSM implementation within Baghdad FIR;
- 11) Monitor the process of signature of updated Letter of Agreements between Baghdad ACC and the adjacent ACCs;
- 12) Prepare necessary proposal for amendment to Doc 7030 related to RVSM implementation within Baghdad FIR; and
- 13) Address any other issue related to RVSM implementation within Baghdad FIR.

**B) COMPOSITION**

The BFRI WG will be composed of:

Bahrain, Iran, Iraq, Jordan, Kuwait, Saudi Arabia and Syria, MID RMA, IATA and IFALPA.

Other representatives, who could contribute to the activity of the Working Group, could be invited to participate as observers.

**C) WORKING ARRANGEMENTS**

- 1) The BFRI WG shall:
    - report to the ATM/SAR/AIS Sub Group;
    - appoint a Rapporteur to facilitate its proceedings; and
    - meet as required and be dissolved once RVSM is implemented within Baghdad FIR.
  - 2) The work of the BFRI WG shall be carried out mainly through exchange of correspondence (email, facsimile, tel, etc) between its Members; and
  - 3) The convening of the Working Group meetings should be initiated by the Rapporteur in coordination with the Members of the Group and the ICAO MID Regional Office.
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Appendix 4D to the Report on Agenda Item 4

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## PLAN FOR RVSM Implementation in Baghdad FIR

### Background

ICAO Doc 9574 presents a five-step process to guide RVSM implementation, as follows:

**a) Step 1 — Identify the need for RVSM**

This step should be conducted in consultation with provider States and user organizations and should include an assessment of:

- 1) The potential for an increase in the airspace system capacity;
- 2) The ability to provide improved vertical flight profiles to aircraft;
- 3) The consequences for ATS in terms of:
  - Workload;
  - Required facilities;
  - Re-Sectorization; and
  - Transition procedures;
- 4) The costs to non-RVSM approved operators of having to operate outside RVSM airspace;
- 5) The overall cost/benefit of the implementation of RVSM; and
- 6) The state of RVSM implementation in adjacent regions.

**b) Step 2 — Preliminary assessment of system safety**

This step should be undertaken to determine whether RVSM can be implemented in the defined airspace in conformance with the agreed safety objectives. This step should address conditions expected after RVSM implementation, and include:

- 1) An estimate of the maximum aircraft passing frequency within Baghdad FIR;
- 2) An assessment of the typical lateral track keeping accuracy of RVSM-approved aircraft within Baghdad FIR;
- 3) An evaluation of whether a TLS budget of  $2.5 \times 10^{-9}$  fatal accidents per flight hour, as a consequence of technical height-keeping deviations, can be satisfied;
- 4) An analysis of height deviations as a consequence of operational errors and emergency actions. this should assess the frequency of occurrence of such deviations together with an assessment of the level of risk of collision in the existing environment and in the planned RVSM airspace, the causes of the errors, and recommended measures to reduce the risk in RVSM airspace. Possible sources of information include:
  - Incident and/or occurrence reports of inadvertent departures from assigned flight levels;
  - Transponder height data;
  - Routine position reports that may identify operations at an incorrect flight level; and
  - Specific data collection;
- 5) An evaluation of whether the overall risk objectives can be satisfied; and
- 6) Consideration of any other operational problems which may affect safety, e.g. wake turbulence.

**c) Step 3 — Planning and Preparation**

This step should include:

- 1) the continued consultation, cooperation and commitment of regulatory authorities, ATS providers and airspace users;
- 2) the development of a detailed work programme and identification of those issues which lie on the critical path. The programme should incorporate:
  - Implementation considerations and requirements.
  - Airworthiness issues.
  - Procedures for the State approval of aircraft.
  - Flight crew operating procedures and training;
  - ATC system requirements, simulations, procedures and training.
  - System performance monitoring considerations.
  - If applicable, an agreed means of handling non-RVSM approved aircraft;
  - Completion of any remedial measures necessary; and
  - Possible requirements for phased implementation;
- 3) Regional agreement on implementation timescales.

**d) Step 4 — Verification phase**

Before commencing this phase, it is essential that a high proportion of the anticipated RVSM aircraft population meet RVSM requirements. Further, an appropriate means of monitoring aircraft height-keeping should be in place if sufficient height-keeping data are not already available. The verification process will take place over an agreed period of time during which the total system operation will be evaluated in the existing 600 m (2 000 ft) VSM environment. This phase should continue until:

- 1) It has been demonstrated that RVSM approval requirements and related guidance material are adequate, in the sense that compliance with such requirements leads to an observed height keeping performance consistent with the global height-keeping performance specification;
- 2) The causes of observed errors inconsistent with the global height-keeping performance specification have been remedied;
- 3) The technical TLS of  $2.5 \times 10^{-9}$  fatal accidents per aircraft flight hour has been met with a predetermined level of statistical confidence;
- 4) The system integrity has been verified; this should include confirmation, with a predetermined level of statistical confidence, that the introduction of RVSM does not increase the risk due to operational errors and in-flight contingencies. This may require the implementation of additional effective safety measures to reduce the risk as a result of these events; and
- 5) If quantification of the level of overall risk indicates, with a predetermined level of confidence, that the overall safety objectives will be violated in an RVSM environment, additional effective safety measures need to be determined and implemented in order to meet the overall safety objectives.

**e) *Step 5 — Operational use of RVSM***

The commencement of the 300 m (1 000 ft) RVSM operations will be conditional upon the satisfactory completion of the 600 m (2 000 ft) verification phase. At the beginning of the operational application of RVSM, a comprehensive evaluation of all elements of RVSM operations should be carried out. After this evaluation, it will be necessary to ensure continued system safety. Particular attention will be required to ensure that:

- 1) All aircraft operating in RVSM airspace are RVSM approved;
- 2) The RVSM approval process remains effective;
- 3) The TLS of  $2.5 \times 10^{-9}$  fatal accidents per aircraft flight hour (in respect of monitored technical height-keeping performance of a representative sample of the aircraft population) continues to be met with a predetermined level of statistical confidence;
- 4) With a predetermined level of statistical confidence, the introduction of RVSM does not increase the level of risk due to operational errors and in-flight contingencies;
- 5) Additional safety measures, introduced to reduce the risk as a result of operational errors and in-flight contingencies and to meet the overall safety objectives are effective;
- 6) Evidence of altimetry system error (ASE) stability exists; and
- 7) ATC procedures remain effective.

**ACTION PLAN FOR RVSM Implementation in Baghdad FIR**

ID	ACTION	TO BE DELIVERED BY	TARGET DATE	REMARKS
1	Nomination of Baghdad FIR RVSM Program Manager	Iraq	Sep. 2009	
2	Collect traffic data for the month of June 2009	Iraq	Aug. 2009	
3	Submission of the latest airways structure for Baghdad FIR	Iraq	Aug. 2009	
4	Calculating the passing frequency for all Bagdad FIR airways	MID RMA	Sep. 2009	
5	Conclusions of the passing frequency results and evaluation of the need for ATS Route Network amendments related to RVSM	MID RMA	Sep. 2009	
6	Submit RVSM approvals to the MIDRMA for all Iraqi registered aircraft or any airline operators certified by Iraq and to continue updating these approvals as necessary	Iraq	Sep. 2009	
7	Submit coordination failure reports (CFR) and Altitude Deviation Reports (ADR) to the MIDRMA on a monthly basis	Iraq	On Monthly basis	
8	Establish requirements for pre and post implementation monitoring	MID RMA	Oct. 2009	
9	Develop ATC operational policy & procedures for normal RVSM operations	Iraq	Nov. 2009	
10	Assess the impact of RVSM implementation on controller automation systems and plan for upgrades/modifications	Iraq	Sep. 2009	
11	Develop ATC procedures for non-approved State aircraft to transit RVSM airspace	Iraq	Sep. 2009	
12	Develop procedures for handling non-compliant civil aircraft	Iraq	Sep. 2009	
13	Develop procedures for suspension of RVSM	Iraq	Sep. 2009	
14	Evaluate the need for simulations to assess ATC workload and	Iraq	Mar. 2010	

ID	ACTION	TO BE DELIVERED BY	TARGET DATE	REMARKS
	possible need for airspace/air route/Sector changes			
15	ATC training plan	Iraq	Nov. 2009	
16	Modify LOAs for all adjacent FIRs	Iraq	Sep. 2010	
17	Conduct local RVSM training for air traffic controllers	Iraq	Sep. 2010	
18	Carry out pre-implementation safety analysis	MID RMA	Jun. 2010	
19	Development of Iraq national safety plan	Iraq	Dec. 2009	
20	Carry out pre-implementation readiness Assessment	MID RMA	Sep. 2010	
21	examine existing legislation and regulations to identify any changes required for RVSM	Iraq	Sep. 2010	
22	Develop procedures for aircraft found to be non-compliant through monitoring	MID RMA & Iraq	Oct. 2010	
23	Evaluate the need for ATS Route Network amendments related to RVSM	MID RMA	Sep. 2010	
24	Go-No-Go Decision for RVSM Implementation effective 18 November 2010	BFRI WG	Sep. 2010	

## LETTER OF AGREEMENT

Between

KUWAIT AREA CONTROL  
CENTRE, STATE OF KUWAIT

AND

BAGHDAD AREA CONTROL  
CENTRE, REPUBLIC OF  
IRAQ

Effective:

### 1 General.

#### 1.1 Purpose.

The purpose of this Letter of Agreement is to define the co-ordination procedures to be applied between Baghdad ACC (BACC) and Kuwait ACC (KACC) when providing ATS to General Air Traffic (IFR/VFR) and Operational Air Traffic.

These procedures are supplementary to those specified in ICAO and National documents.

#### 1.2 Operational Status.

Both ACCs shall keep each other advised of any changes in the operational status of their facilities and navigational aids which may affect the procedures specified in this Letter of Agreement.

#### 1.3 Definitions for General Air Traffic and Operational Air Traffic.

##### 1.3.1 General Air Traffic (GAT):

“All flights which are conducted in accordance with the rules and procedures of ICAO and/or the national civil aviation regulations and legislation.”

##### 1.3.2 Operational Air Traffic (OAT):

“All flights which do not comply with the provisions stated for GAT and for which rules and procedures have been specified by appropriate national authorities.”

### 2 Areas of Responsibility and Delegation of the Responsibility for the Provision of ATS.

#### 2.1 Areas of Responsibility.

The lateral and vertical limits of the respective areas of responsibility are as follows:

Note: See paragraph 2.2 for the description of the areas where delegation of the responsibility for the provision of ATS is applicable.

---

2.1.1 Baghdad ACC

Lateral limits: As published in AIP of Republic of Iraq

Vertical limits: GND-UNL

- a. Airspace control authority in the Baghdad FIR at FL460 and below is the Iraq Civil Aviation Authority (ICAA) and is delegated to Baghdad ACC (BACC).
- b. Amendments to airspace control authority may be effective only after **30 (thirty) days** notice by the ICAA to Kuwait ACC. Notice is evidenced by mutual consent of the respective authorities are represented by the exchanged of dated authorized signatories.
- c. The MRU underlying BACC airspace operates as the contingency alternate facility for BACC.

ICAO airspace classification for the area of responsibility of Baghdad and Kuwait FIRs along the common boundary of the areas of responsibility of Baghdad ACC and Kuwait ACC is described in Annex B to this Letter of Agreement.

2.1.2 Kuwait ACC

Lateral limits: As published in AIP of State of Kuwait

Vertical limits: GND-UNL

ICAO airspace classification for the area of responsibility of Kuwait ACC along the common boundary of the areas of responsibility of BACC and KACC, is described in Annex B to this Letter of Agreement.

2.2 **Delegation of the Responsibility for the Provision of ATS.**

2.2.1 Delegation of ATS from BACC to Kuwait ACC  
Not Applicable.

2.2.2 Delegation of ATS from KACC to Baghdad ACC  
Not Applicable.

2.2.3 Other Areas.  
Not Applicable.

2.2.4 Alerting Service.  
Not Applicable

2.2.5 Territorial Matters.  
Not Applicable.

2.3 **Special Provisions.**  
Not Applicable.

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### **3 Procedures.**

- 3.1 The procedures to be applied by BACC and KACC are detailed in the Annexes to this Letter of Agreement:

Annex A: Definitions and Abbreviations  
Annex B: Area of Common Interest  
Annex C: Exchange of Flight Data  
Annex D: Procedures for Coordination  
Annex E: Transfer of Control and Transfer of Communications  
Annex F: Radar Based Coordination Procedures  
Annex G: Separation

- 3.2 These procedures shall be promulgated to the operational staff of the ATS units concerned.

### **4 Revisions and Deviations.**

#### **4.1 Revision of the Letter of Agreement.**

The revision of the present Letter of Agreement, excluding Annexes, requires the mutual written consent of the signatory authorities.

#### **4.2 Revision of the Annexes to the Letter of Agreement.**

The revision of Annexes to the present Letter of Agreement requires the mutual written consent of the authorities designated by the respective signatory approving authorities, normally the Heads of Operations at the respective units.

#### **4.3 Temporary Deviations.**

When necessary, the Supervisors of the ATS units concerned may introduce, by mutual agreement and for a specified time period, temporary modifications to the procedures laid down in the Annexes to the present Letter of Agreement.

#### **4.4 Incidental Deviations.**

Instances may arise where incidental deviations from the procedures specified in the Annexes to this Letter of Agreement may become necessary. Under these circumstances air traffic controllers are expected to exercise their best judgement to ensure the safety and efficiency of air traffic. Incidental deviations shall not become standard operating practice until the appropriate revisions are made to the existing LOA or Annexes.

### **5 Cancellation.**

- 5.1 Cancellation of the present Letter of Agreement by mutual agreement of the respective Approving Authorities may take place at any time.
- 5.2 Cancellation of this Letter of Agreement by either Approving Authority is possible at any time, provided that the cancelling party declares its intention to cancel the Letter of Agreement with a minimum pre-notification time of **30 (thirty) days** before the date the cancellation is to take effect.

## **6 Interpretation and Settlement of Disputes.**

- 6.1 Should any doubt or diverging views arise regarding the interpretation of any provision of the present Letter of Agreement or in case of dispute regarding its application, the parties shall endeavour to reach a solution acceptable to both of them.
- 6.2 Should no agreement be reached, each of the parties shall refer to a higher level of its national aviation administration, to which the dispute shall be submitted for settlement.

## **7 Validity.**

This Letter of Agreement becomes effective 1<sup>st</sup> August 2009 and supersedes the Letter of Agreement between BACC and KACC dated 1st September 2006.

Baghdad ACC 1<sup>st</sup> August 2009

Kuwait ACC 1<sup>st</sup> August 2009

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Ali Khalil Ibraheem  
Director Air Traffic Services  
Baghdad ACC  
Civil Aviation Authority  
Republic Of Iraq

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Director Air Traffic Services  
Kuwait ACC  
Civil Aviation Authority  
State of Kuwait

Date Signed:\_\_\_\_\_

Date Signed:\_\_\_\_\_

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## Annex A. Definitions and Abbreviations.

Effective:  
Revised:

### **A.1 Definitions.**

#### **A.1.1 ATS Area of Responsibility.**

An airspace of defined dimensions where a sole ATS unit has responsibility for providing air traffic services.

#### **A.1.2 Area of Common Interest.**

A volume of airspace as agreed between 2 ATS Units, extending into the adjacent/subjacent Areas of Responsibility, within which airspace structure and related activities may have an impact on air traffic co-ordination procedures.

#### **A.1.3 Approval Request.**

Request from an ATS unit to the ATS unit concerned for an approval of:

- an aircraft not yet airborne, whenever the flying time to the transfer of control point is less than the agreed minimum pre-notification time, as stated in Annex C.
- an aircraft in flight intending to operate under conditions other than those described in mutually agreed procedures.

#### **A.1.4 Expedite Clearance.**

An urgent clearance request from an ATS unit to the ATS unit concerned for an aircraft in flight whenever the flying time to the transfer of control point is less than the agreed minimum pre-notification time.

#### **A.1.5 Division Level (DL).**

The level dividing two super-imposed areas of responsibility for the provision of ATS.

#### **A.1.6 General Air Traffic (GAT).**

All flights which are conducted in accordance with the rules and procedures of ICAO and/or the national civil aviation regulations and legislation.

#### **A.1.7 Operational Air Traffic (OAT).**

All flights which do not comply with the provisions stated for GAT and for which rules and procedures have been specified by appropriate national authorities.

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A.1.8 **Reduced Vertical Separation Minimum (RVSM).**

A vertical separation minimum of 300 m (1 000 ft) which is applied between FL 290 and FL 410 inclusive, on the basis of regional air navigation agreements and in accordance with conditions specified therein.

A.1.8.1 **RVSM Approved Aircraft.**

Aircraft that have received State approval for RVSM operations within the RVSM airspace.

A.1.8.2 **RVSM Entry Point.**

The first reporting point over which an aircraft passes or is expected to pass immediately before, upon, or immediately after initial entry into RVSM airspace, normally the first reference point for applying a 300 m (1 000 ft) vertical separation minimum between RVSM approved aircraft.

A.1.8.3 **RVSM Exit Point.**

The last reporting point over which an aircraft passes or is expected to pass immediately before, upon, or immediately after leaving RVSM airspace, normally the last reference point for applying a 300 m (1 000 ft) vertical separation minimum between RVSM approved aircraft.

A.1.9 **Release.**

A.1.9.1 **Release for Climb.**

An authorization for the accepting ATS-unit to climb a specific aircraft before the transfer of control.

Note: The transferring ATS-unit remains responsible for separation within its Area of Responsibility unless otherwise agreed.

A.1.9.2 **Release for Descent.**

An authorization for the accepting ATS-unit to descend a specific aircraft before the transfer of control.

Note: The transferring ATS-unit remains responsible for separation within its Area of Responsibility unless otherwise agreed.

A.1.9.3 **Release for Turn.**

An authorization for the accepting ATS-unit to turn a specific aircraft away from the current flight path by more than **45 (forty five) degrees** before the transfer of control.

Note: The transferring ATS-unit remains responsible for separation within its Area of Responsibility unless otherwise agreed.

A.1.10 **State Aircraft.**

For the purposes of EUR RVSM, only aircraft used in military, customs or police services shall qualify as State aircraft.

**A.2 Abbreviations.**

<b>ABI</b>	Advance Boundary Information	<b>LAM</b>	Logical Acknowledge (Message Type Designator)
<b>ACI*</b>	Area of Common Interest	<b>LoA*</b>	Letter of Agreement
<b>ACT</b>	Activation Message	<b>MAC*</b>	Message for Abrogation of Coordination (OLDI)
<b>AIP</b>	Aeronautical Information Publication	<b>MFC*</b>	Multi Frequency Coding (telephone system)
<b>AMC*</b>	Airspace Management Cell	<b>NM</b>	Nautical Mile
<b>AoR*</b>	Area of Responsibility	<b>OAT*</b>	Operational Air Traffic
<b>APREQ</b>	Approval Request	<b>OLDI</b>	On-line Data Interchange
<b>ATC</b>	Air Traffic Control	<b>ORCAM</b>	Originating Region Code Assignment Method
<b>ATS</b>	Air Traffic Services	<b>PAC*</b>	Pre-activation Message (OLDI)
<b>CBA*</b>	Cross Border Area	<b>REV</b>	Revision Message
<b>CDR*</b>	Conditional Route	<b>RTF</b>	Radio Telephony
<b>COP*</b>	Co-ordination Point	<b>RVSM</b>	Reduced Vertical Separation Minimum
<b>CRAM*</b>	Conditional Route Availability Message	<b>SSR</b>	Secondary Surveillance Radar
<b>DL*</b>	Division Level	<b>TSA*</b>	Temporary Segregated Airspace
<b>ETO</b>	Estimated Time Over Significant Point	<b>UIR</b>	Upper Flight Information Region
<b>FDPS</b>	Flight Data Processing System	<b>VFR</b>	Visual Flight Rules
<b>FIC</b>	Flight Information Centre		
<b>FIR</b>	Flight Information Region		
<b>FMP*</b>	Flow Management Position		
<b>GAT*</b>	General Air Traffic		
<b>ICAO</b>	International Civil Aviation Organization		
<b>IFR</b>	Instrument Flight Rules		

Note: Abbreviations marked with an \* are non-ICAO abbreviations.

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**Annex B.**  
**Area of Common Interest.**

Effective:

Revised:

**B.1 Airspace Structure and Classification within the Area of Common Interest.****B.1.1 Baghdad ACC.**

Area	Vertical limits	Airspace Classification
UP975/UT888 (Kuwait to Baghdad FIR via SIDAD)	FL160,FL180,FL200,FL220, FL240,FL260,FL280,FL310, FL350, FL390, FL430  Other Flight Levels only after individual APREQ	A
Relocated R784 over MOBIS	FL310, FL350, FL390, FL430	A
Aircraft landing Basrah CTA shall enter the Baghdad FIR via SIDAD	12,000 Feet MSL	A

**B.1.2 Kuwait ACC.**

Area		Airspace Classification
UL602 (Baghdad to Kuwait FIR)	FL210,FL230,FL250,FL270, FL290,FL330, FL370 FL410,FL450  Other Flight Levels only after individual APREQ	A
Aircraft Overflying Kuwait FIR	FL150,FL170,FL190,FL210	A
Aircraft landing within the Kuwait FIR via UL602 TASMI	FL290,FL330, FL370,FL410, FL450	A
Relocated R784 over MOBIS (Overflights Only)	FL290,FL330, FL370,FL410, FL450	A
Aircraft departing Basrah CTA shall enter Kuwait FIR via TASMI	12,000 Feet MSL	A

**B.2 Sectorization.**

The sectorization with the ACI.

**B.2.1 Baghdad ACC Sectors.**

As published in AIP Republic of Iraq to include Baghdad High and Baghdad Low.

- B.2.2 Kuwait ACC Sectors.  
As published in AIP State of Kuwait

**B.3 Special Areas within the Area of Common Interest.**

BACC has no radar coverage southeast of the GADSI waypoint. BACC requests special assistance of KACC controllers to monitor the required 40 NM radar minimum longitudinal separation as outlined in Annex G.1.a.

- B.3.1 **Delegations of the Responsibility for the Provision of ATS to/from other ATS Units within the ACI.**  
Not Applicable.

B.3.2 **Other Areas.**

- B.3.2.1 Baghdad ACC  
Prohibited areas, danger areas, and areas restricted for flights as published in AIP of the Republic of Iraq.

- B.3.2.2 Kuwait ACC.  
Prohibited areas, danger areas and areas restricted for flight as published in AIP of the State of Kuwait.

**B.4 Non-published Coordination Points.**

Not Applicable.

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**Annex C****Exchange of Flight Data.**

Effective:

Revised:

**C.1 General.****C.1.1 Basic Flight Plans.**

Basic flight plan data should be passed via Telecommunications Network (AFTN) connectivity or other electronic means commensurate with equipment capabilities. So basic flight plan data should normally be available at the ATS-units.

**C.1.1.1 AFTN addresses:**

Baghdad ACC:	ORBBZQZX
Balad Control:	ORTLYFYX
Basrah APP	OSDIYFYZ
Kuwait ACC:	OSDIZGZX

**C.1.2 Current Flight Plan Data.**

Messages, including current flight plan data, shall be forwarded by the transferring ATS unit to the accepting ATS unit either by automatic data exchange or by telephone to the appropriate sector/position.

**C.1.2.1 Verbal Estimates.**

A verbal estimate shall be passed to the appropriate sector at the accepting ATS unit at least **ten (10) minutes** prior, but not earlier than **60 (sixty) minutes** before the aircraft is estimated to pass the transfer of control point for air traffic service route involved.

A verbal estimate shall contain:

- a) Call sign (flight number);
- b) SSR code;
- c) ETO for the appropriate COP as laid down in Annex D to this LoA.
- d) Cleared level, specifying climb or descent conditions if applicable, at the transfer of control point.
- e) Coordination Point (Transfer of control point)
- f) Other information (if necessary)

**C.1.3 Non-availability of Basic Flight Plan Data.**

If the accepting ATS unit does not have basic flight plan data available, additional information may be requested from the transferring ATS unit to supplement the ACT message or a verbal estimate.

**C.1.4 Revisions.**

Any significant revisions to the flight data are to be transmitted to the accepting ATS unit.

Time differences of **3 (three) minutes** or more are to be exchanged.

Changes to the co-ordinated levels within **5 (five) minutes** of the ETO for the transfer of control point are subject to an Approval Request.

**C.1.5 Expedite Clearance and Approval Requests.**

Whenever the minimum time of **10 (ten) minutes** for a verbal estimate cannot be met either an expedite clearance request, an approval request, as appropriate, shall be initiated.

**C.2 Means of Communications and their Use.****C.2.1 Equipment.**

The following lines are available between BACC and KACC:

**C.2.2 Telephone Coordination.**

**The VSAT voice circuits** shall be used as the **primary means of coordination** for all air traffic movement information. All telephone communications should be terminated with the initials of both parties concerned by their mutual agreement.

**VSAT circuit numbers.**

Kuwait ACC	12110
Baghdad Low	13130
Baghdad High	11121
Basrah APP	15130

Exchange of flight plan data, estimates and control messages by telephone shall be carried out in accordance with the following tables:

**C.2.2.1 Messages from BACC to KACC.**

Receiving Sector/COPs	Message	Position	Extension
COP TASMI, MOBIS	Flight Plan Data and Estimates		
	Control Messages, Expedite Clearances, Approval Requests and Revisions	Kuwait FIR	
	Radar Co-ordination		

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C.2.2.1 Messages from KACC to BACC.

Receiving Sector/COPs	Message	Position	Extension
Baghdad ACC FL240 and ABOVE	Flight Plan Data and Estimates	BAGHDAD HIGH	
COP - SIDAD, MOBIS	Control Messages, Expedite Clearances, Approval Requests and Revisions		
Balad Control FL230 and BELOW	Radar Co-ordination	BALAD CONTROL	
COP SIDAD, MOBIS			

### C.3 Failure of Ground/Ground Voice Communications.

#### C.3.1 Fall-Back Procedures for Coordination.

In the event of failure of the VSAT lines between the co-ordinating partners, co-ordination may be effected via:

- a) **Secondary method of coordination;** public telephone, etc

Kuwait ACC-Controller Primary	00-965-476-2994
Kuwait ACC Control Room	00-965-4343-2476--00-965-476-0463
Kuwait ACC Fax- Control Room	00-965-431-0096
Baghdad High	00964 07813745159
Baghdad Low	00-974-450-3478

- b) **Tertiary method of coordination** may be through pilot relay or through a third ATC facility.

#### C.3.2 Alternate Fall-Back Procedures for Coordination.

In case of communications failure where the alternatives described in paragraph C.3.1 above are not available or practicable, pilots shall be instructed, at least **10 (ten) minutes** prior to the transfer of control point, to pass flight data on the appropriate frequency of the accepting ATS unit for the purpose of obtaining an ATC entry clearance from the accepting ATS unit.

If the accepting ATS unit cannot issue an entry clearance to the pilot upon his initial contact, the pilot shall be instructed to inform the transferring ATS unit accordingly via RTF.

The transferring ATS unit shall hold the aircraft within its AoR and after a minimum of **10 (ten) minutes** instruct the pilot to re-establish RTF contact with the accepting ATS unit.

This procedure shall be repeated until an onward clearance has been obtained from the accepting ATS unit.

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**Annex D.**  
**Procedures for Coordination.**

Effective: Revised: TBA

**D.1 General Conditions for Acceptance of Flights.**

- D.1.1 Coordination of flights shall take place by reference to the COP for the relevant route and in accordance with the appropriate levels specified for the relevant route (see paragraphs D.2 and D.3).
- D.1.2 Flights shall be considered to be maintaining the coordinated level at the transfer of control point unless climb or descent conditions have been clearly stated by use of crossing conditions in the *verbal* coordination, except if otherwise described in paragraphs D.2 or D.3.
- D.1.3 If the accepting ATS unit cannot accept a flight offered in accordance with the conditions specified above, it shall clearly indicate its inability and specify the conditions under which the flight will be accepted.
- D.1.4 For any proposed deviation from the conditions specified in this Annex (e.g. COP, route or level) the transferring unit shall initiate an Approval Request.
- D.1.5 The accepting ATS unit shall not notify the transferring ATS unit that it has established ground-air communications with the transferred aircraft unless specifically requested to do so. The Accepting Unit shall notify the transferring Unit in the event that communication with the aircraft is not established as expected.

**D.2 ATS-Routes, Coordination Points and Level Allocation.**

Available ATS-routes, COPs to be used and flight level allocation to be applied, unless otherwise described in paragraph D.3, are described in the tables below.

**D.2.1 Flights from BACC to KACC .**

ATS-Route	COP	Level Allocation	Special Conditions
As published in AIP of the Republic of Iraq UL602, NR	TASMI	FL210,FL230,FL250, FL270,FL290,FL330 ,FL370, FL410	From Baghdad to Kuwait FIR Aircraft Overflying the Kuwait FIR
UL602		FL150,FL170,FL190, FL210	Aircraft landing within the Kuwait FIR
R782	MOBIS	FL290, FL330,FL370, FL410	Aircraft overflying Kuwait
UL602		11,000 Feet MSL	Aircraft departing Basrah CTA shall enter the Kuwait FIR via TASMI

**D.2.1 Flights from KACC to BACC .**

ATS-Route	COP	Level Allocation	Special Conditions
As published in AIP of The State of Kuwait UP975/UT888,NR	SIDAD, MOBIS	FL160,FL180,FL200, FL220,FL24,FL260, FL280,FL310, FL350, FL390, FL430	Aircraft entering the Baghdad FIR will be in level Flight at these levels.
		At or above FL160	Aircraft originating with the Kuwait FIR shall cross SIDAD or MOBIS intersection at or Above FL160
SIDAD direct ORMM		12,000 Feet MSL	Aircraft landing Basrah CTA Shall enter Baghdad FIR via SIDAD direct

- D.3** In the event emergency flow control measures need to be implemented, the extent of the measures shall be the subject of direct coordination between the Duty Supervisor in the respective ACCs.

14,000 feet is the transitioning level and is therefore **unusable**.

**D.4 Coordination of Status of Special Areas in the Area of Common Interest.**  
Not Applicable.

**D.5 VFR flights.**

**D.5.1 Procedures for Inter-Area VFR traffic.**

- D.5.1.1 The following limited information shall be exchanged between the ATS-units with regard to VFR flights:

- a) **VFR**
- b) Identification, type aircraft, SSR code (if available)
- c) Routing and flight level (altitude)
- d) estimated border crossing time;
- e) ETO for the next point or estimated time of arrival (if the aircraft is going to land at airports in Baghdad FIR or Kuwait FIR);
- f) Other information, If necessary.

- D.5.1.2 If no flight plan is available for receiving unit, the information above shall be supplemented with the following:

- a) Departure and destination aerodromes;
- b) Further route of flight;
- c) Any additional information if necessary.

- D.5.1.3 For group of VFR flights, the precise number of aircraft shall be emphasised as well as the call sign of the leader to communicate with.

- D.5.1.4 The accepting ATS-unit shall notify the transferring ATS-unit in case the radio contact with VFR flight has been established.

- 
- D.5.1.5 Exchange of available data for VFR flights shall be transferred at least **10 (ten) minutes** prior to the time when the aircraft is estimated to pass the common IFR boundary.
  - D.5.1.6 A revision if available shall be forwarded whenever flight data have changed and/or the estimate varies by **5 (five) minutes** or more.
  - D.5.1.7 **VFR** Flight is not authorized at or above **12,000 feet**.

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**Annex E.**  
**Transfer of Control and Transfer of Communications.**

Effective:  
Revised: TBA

**E.1 Transfer of Control.**

The transfer of control takes place at the AoR-boundary, at the transfer of control points (COPs) unless otherwise specified in paragraph D.2.1 and D.2.2.

- E.1.2 If an aircraft intends to proceed outside FIR boundaries of Baghdad FIR and Kuwait FIR due to orientation loss, or encountering dangerous meteorological conditions, the controller shall instruct the pilot to establish radio contact with the adjacent control sector immediately, if necessary. The appropriate information in such cases shall be relayed to the adjacent sector immediately, by means of the specified communications channels.

**E.2 Transfer of Communications.**

The transfer of communications shall take place not later than the transfer of control and as specified in paragraph E.3, unless otherwise co-ordinated.

**Frequencies:**

**Baghdad ACC:**

Sector	<b>Baghdad High</b>
	Primary VHF – 123.0
	Alternate VHF – 127.1
	Primary UHF – 328.6 – 269.0
Sector	<b>Balad Control</b>
	Primary VHF – 120.2
	Primary UHF – 322.05
Sector	<b>Basrah Approach (For all traffic 12,000 feet and below)</b>
	Primary VHF – 119.4
	Primary UHF - 233.225

**Kuwait ACC:**

Sector	TASMI, MOBIS
	Primary VHF – 125.3
	Alternate VHF – 132.1
	Primary UHF – 253.2

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### **E.3 Specific Points for Transfer of Control and Transfer of Communications.**

Communications hand-over points established for UL602, NR ATS routes within the Baghdad FIR are at **30 nm** northwest of the FIR Boundary (TASMI, MOBIS). Communications hand-over points for UP975/UT888, NR ATS routes are **30 nm** south of the Kuwait FIR Boundary (SIDAD, MOBIS). However, transfer of control is always at the COP (i.e. SIDAD, TASMI, MOBIS).

### **E.4 Communications Loss:**

In the event radio communication cannot be established aircraft shall be instructed to re-attempt contact every **5 (five) minutes** and maintain a listening watch on the appropriate emergency frequency (**121.5/243.0**).

### **E.5 Emergencies:**

As far as practicable each ACC should assist aircraft in distress without regard to its nationality or flight conditions and irrespective of the FIR in which the aircraft is flying. The ACC that can provide the greatest assistance may with verbal coordination utilize portions of the adjacent ACC airspace.

For any matter that might make it advisable to change this agreement, the interested ACC shall propose the pertinent revision.

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**Annex F.**  
**Radar Based Co-ordination Procedures.**

Effective:  
Revised: TBA

**F.1 SSR Code Assignment.**

- F.1.1 **Both ATS Units shall transfer aircraft on verified discrete codes, or on verified code assigned in accordance with ORCAM.**
- F.1.2 Any change of SSR code by the accepting ATS unit may only take place after the transfer of control point.
- F.1.3 The accepting ATS unit shall be notified of any observed irregularity in the operation of SSR transponders.

**F.2 Radar Coordination Procedures.**

**F.2.1 General.**

- F.2.1.1 Description of radar vectoring procedures along common AoR boundary.  
Aircraft shall not be vectored closer than **15 (fifteen) NM** from the common AoR boundary.

**F.2.2 Radar Separation.**  
Not Applicable.

**F.2.3 Silent Transfer of Radar Control.**  
Not Applicable.

**F.3 Reduced Longitudinal Separation.**  
Not Applicable.

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## Annex G. SEPARATION

Effective:  
Revised: TBA

### **G.1. Longitudinal Separation of Flights.**

- a. Transfer of control will be performed between aircraft flying at the same cruising level on the same ATS route in the same direction between similar type (turboprop-turboprop, prop-prop jet-jet) aircraft shall be a minimum of **40 NM** radar using the mach speed technique, or 10 minutes procedural using time technique. Due to BACC poor radar coverage south of the ALPET, ILMAP and NF20 intersections, KACC shall monitor all aircraft on radar until ILMAP, NF20 or after ALPET, NF20 to insure 40 NM separation is maintained. To maintain separation KACC shall issue advisories to BACC.
- b. All speed applications shall be passed to the receiving unit.
- c. When at or near minimum separation, speed control shall be issued and the first aircraft shall be faster or the same speed as the succeeding aircraft at the same level.

### **G.2. Longitudinal Separation in case of flight with a VIP on board.**

Not Applicable.

### **G.3. Vertical Separation of Flights.**

- a. Reduced Vertical Separation Minimum (RVSM) will not be permitted within the Baghdad FIR by aircraft under the control of either Baghdad ACC or Kuwait ACC until the ICAO Requirements for RVSM implementation have been achieved and implemented.
  - b. All aircraft that cross the Baghdad/Kuwait FIR boundary on ATS route UP975/G975/UT888 and UL602 shall be in level flight at an appropriate non-RVSM Level for direction of flight unless coordinated otherwise. If an aircraft is coordinated at a non-RVSM flight level that is not correct for direction of flight, the words "WRONG FLIGHT LEVEL FOR DIRECTION" shall be stated by both the requesting controller and the approving controller.
  - c. Aircraft entering the Baghdad FIR will be in level flight at the assigned flight level prior to SIDAD or MOBIS at one of the levels stated in item D.2.2.
  - d. Aircraft entering the Kuwait FIR will be in level flight at the assigned flight level prior to TASMI or MOBIS at one of the levels stated in item D.2.2., unless otherwise coordinated.
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SARCM  
Report on Agenda Item 5

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**REPORT ON AGENDA ITEM 5: ANY OTHER BUSINESS**

5.1 The meeting was uprised on the Global ATM Forum on Civil/Military Cooperation scheduled to be held at ICAO HQ in Montreal 19-21 October 2009, and accordingly States were encouraged to attend and also to have their high ranking Military personnel among their State delegations.

5.2 The meeting was further informed that in order for this meeting discussions and agreements to be implemented, participating States “Bahrain, Iraq and Kuwait” will have to follow-up the outcomes and meet on regular basis to discuss matters of mutual interest and resolve misunderstanding if any for the sake of enhancement of cooperation and coordination with the aim of provision of Safety and Efficiency in their and adjacent FIRs. ICAO MID Regional Office is not required to be present in these coordination meetings between the concerned States, unless the matter requires its presence.

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## **ATTACHMENT A**

SARCM-REPORT  
Attachment A to the Report

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