International Civil Aviation Organization

MIDANPIRG Air Traffic Management Sub-Group

Eleventh Meeting (ATM SG/11)
(Abu Dhabi, UAE, 19 – 23 October 2025)

Agenda Item 3: Planning and Implementation issues related to ATM/SAR

PRELIMINARY RESULTS OF THE MID RVSM SMR 2025

(Presented by MIDRMA)

SUMMARY

This working paper presents the preliminary results of the MID RVSM Safety Monitoring Report (SMR) for the first nine months for year 2025. The analysis aims to assess whether the key safety objectives outlined in ICAO Doc 9574 (Third Edition) continue to be met within the operational RVSM airspace of the Middle East Region. The results demonstrate that the estimated technical and overall collision risk values remain below the ICAO Target Levels of Safety (TLS). However, the MIDRMA emphasizes that the lack of properly formatted Traffic Data Samples (TDS) and the continued absence of Large Height Deviation (LHD) reports from most Member States remain major challenges that significantly affect the confidence of the final results.

Action by the meeting is at paragraph 3.

REFERENCES

- MIDRMA Board/20 Final Report
- ATM SG/10 meeting report
- MIDANPIRG/21 & RASG-MID/11 (Abu Dhabi, UAE, 4 – 8 March 2024)
- MIDANPIRG/22 & RASG-MID/12 (Doha, Qatar, 4 – 8 May 2025)

1. INTRODUCTION

1.1 The Middle East Regional Monitoring Agency (MIDRMA) issues the MID RVSM Safety Monitoring Report (SMR) annually for endorsement by the Middle East Air Navigation Planning and Implementation Regional Group (MIDANPIRG). This report provides evidence that, based on the data and methodologies employed, all RVSM safety objectives in accordance with ICAO Doc 9574 (Third Edition) are maintained within operational service levels.

1.2 The MIDRMA continues to face ongoing and serious difficulties in obtaining complete and correctly formatted Traffic Data Samples (TDS) from several Member States. Many submissions are delayed or presented in incorrect formats, making them unsuitable for automated processing and risk analysis.

1.3 Additionally, the absence of Large Height Deviation (LHD) reports from most MIDRMA Member States persists as a critical issue. These reports are essential for calculating the operational component of the overall risk (Safety Objective No. 2). Without adequate LHD data, the confidence in the overall collision risk assessment remains low, a problem that has recurred in all previous SMR cycles.

1.4 The meeting may wish to recall the MIDANPIRG/22 Conclusion related to the collection of the data required for the development of the SMR 2025, as follows:

MIDANPIRG CONCLUSION 22/9: MID RVSM SMR 2025

That,

a) the FPL/traffic data for the period 01 – 31 May 2025 to be used for the development of the MID RVSM Safety Monitoring Report (SMR 2025); before 1 July 2025.

b) only the appropriate Flight Data form available on the MIDRMA website (www.midrma.com) should be used for the provision of FPL/traffic data to the MIDRMA; and

c) the final version of the MID RVSM SMR 2025 be ready for presentation and endorsement by the MIDANPIRG/23 Meeting.

1.5 Despite these obstacles, preliminary results for 2025 indicate that the MID RVSM airspace continues to meet the ICAO Target Levels of Safety (TLS) for both technical and overall risk. Nevertheless, the MIDRMA stresses that the reliability of these results is limited due to incomplete data submissions.

2. DISCUSSION

2.1 Preliminary Results of the MID RVSM SMR 2025:

2.1.1 The implementation and continued operation of RVSM airspace depend on safety assessments that confirm compliance with the objectives outlined in ICAO Doc 9574 (Third Edition). The preliminary calculations for 2025 indicate that all safety objectives have been met based on the available data and analytical methods used.

Objective 1 The risk of collision in MID RVSM airspace due solely to technical height-keeping performance meets the ICAO target level of safety (TLS) of **2.5×10^{-9}** fatal accidents per flight hour. The value computed for technical height risk is estimated **8.932×10^{-11}** this is satisfying RVSM Safety Objective 1.

Objective 2 The overall risk of collision due to all causes which includes the technical risk and all risk due to operational errors and in-flight contingencies in the MID RVSM airspace meets the ICAO overall TLS of **5×10^{-9}** fatal accidents per flight hour.The value computed for the overall risk is estimated **9.278×10^{-10}** this is satisfying RVSM Safety Objective 2.

Objective 3 Address any safety-related issues raised in the SMR by recommending improved procedures and practices; and propose safety level improvements to ensure that any identified serious or risk-bearing situations do not increase and, where possible, that they decrease. This should set the basis for a continuous assurance that the operation of RVSM will not adversely affect the risk of en-route mid-air collision over the years.

Scope:

2.1.2 The geographic scope of the MID RVSM Safety Monitoring Report for 2025 covers the MID RVSM airspace, which comprises the following FIRs/UIRs:

Amman	Bahrain	Beirut	Baghdad	Cairo	Damascus*	Emirates
Jeddah	Kuwait	Khartoum	Muscat	Sana'a	Tehran	Tripoli
			Doha			

T-1: FIRs/UIRs of the Middle East RVSM Airspace
*Note: Damascus FIR excluded from the RVSM safety analysis due to lack of data

2.1.3 The Data Sampling periods covered by SMR 2025 are as displayed in the below table

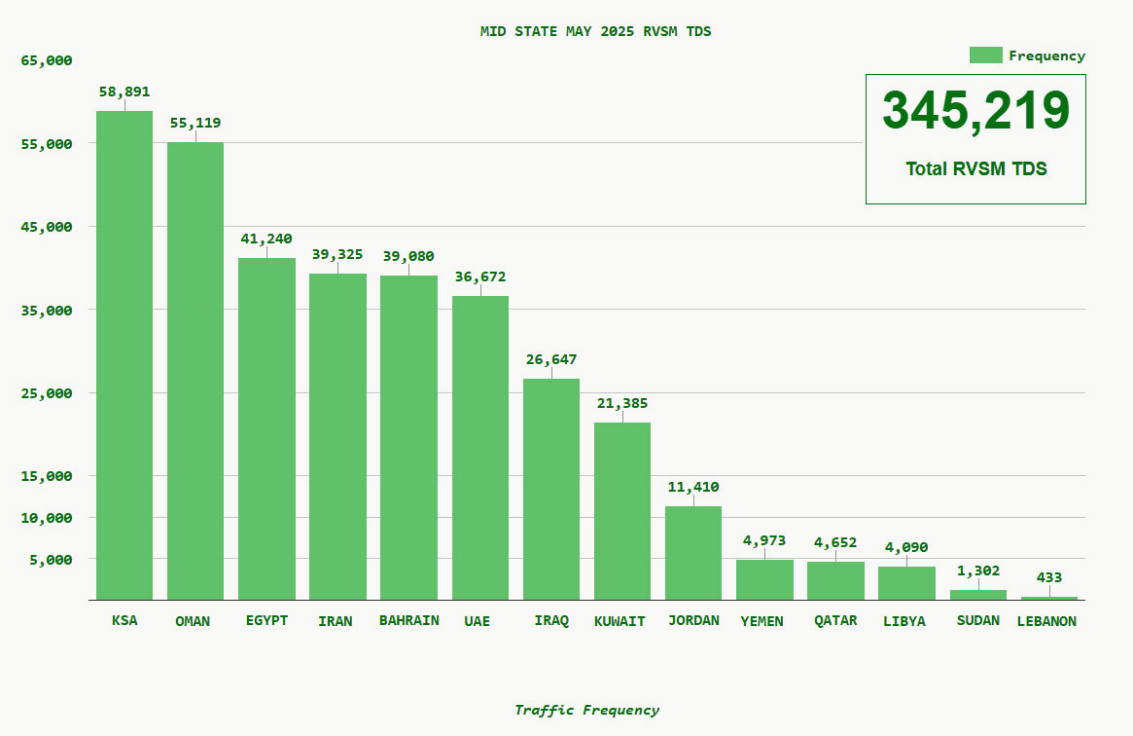
Report Elements	Time Period
Traffic Data Sample	01/05/2025 - 31/05/2025
Operational & Technical Errors	01/01/2025 - 30/09/2025*

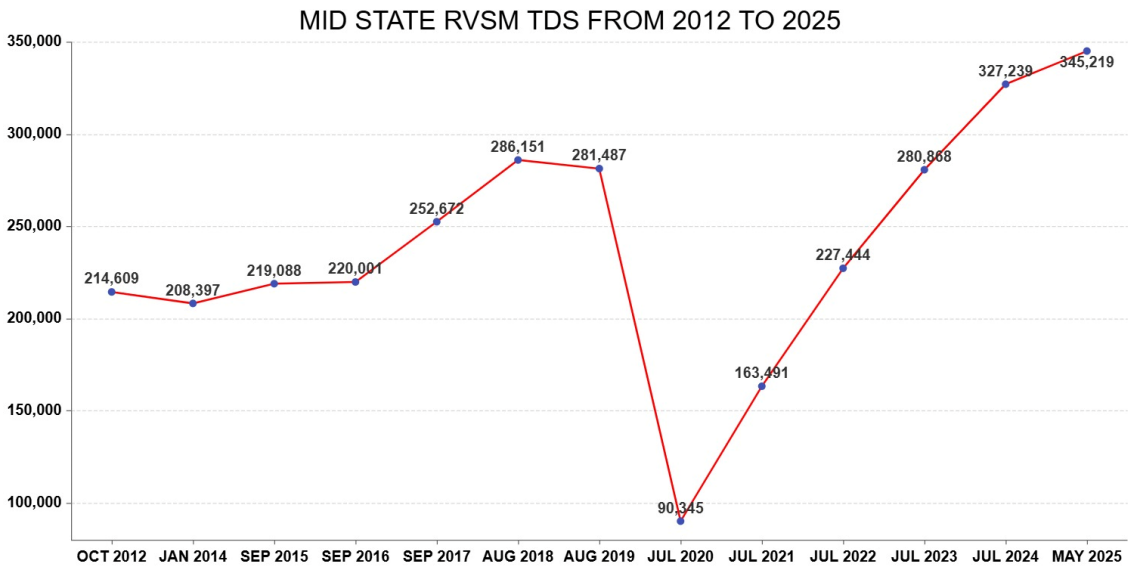
* The final results will include the remaining period of year 2025 cycle.

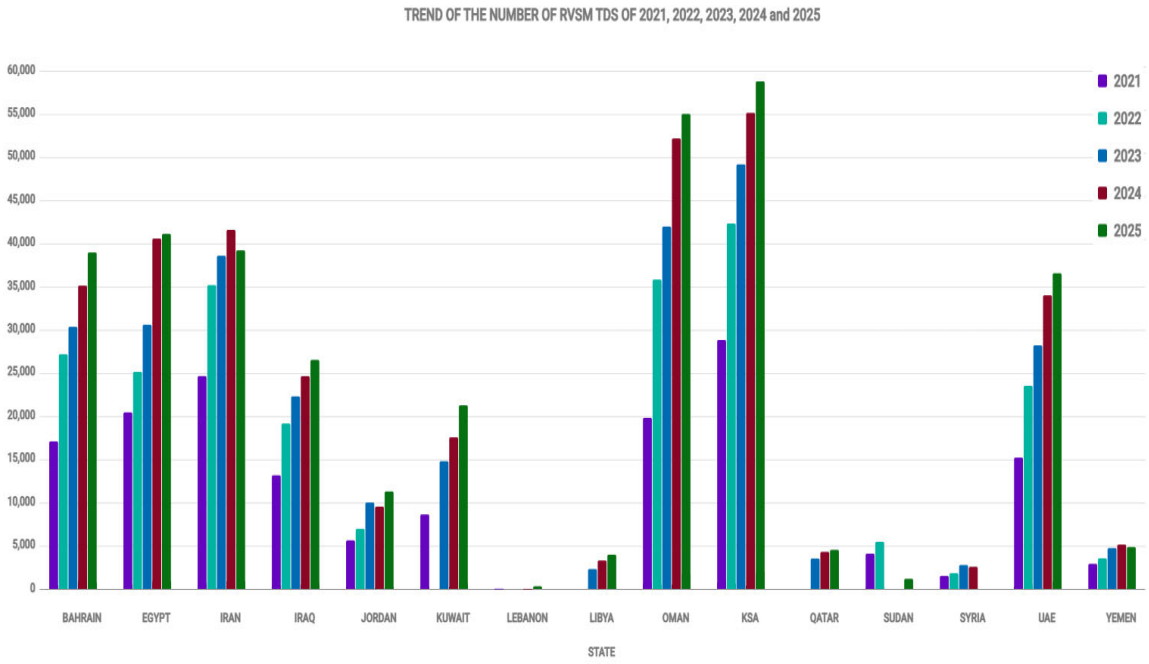
2.1.4 Despite the encouraging results, the MIDRMA reiterates that the incomplete and improperly formatted TDS submissions from several States, combined with the near absence of LHD reports, continue to undermine the confidence level of the final risk estimation. This issue remains a serious obstacle to maintaining a reliable safety monitoring process.

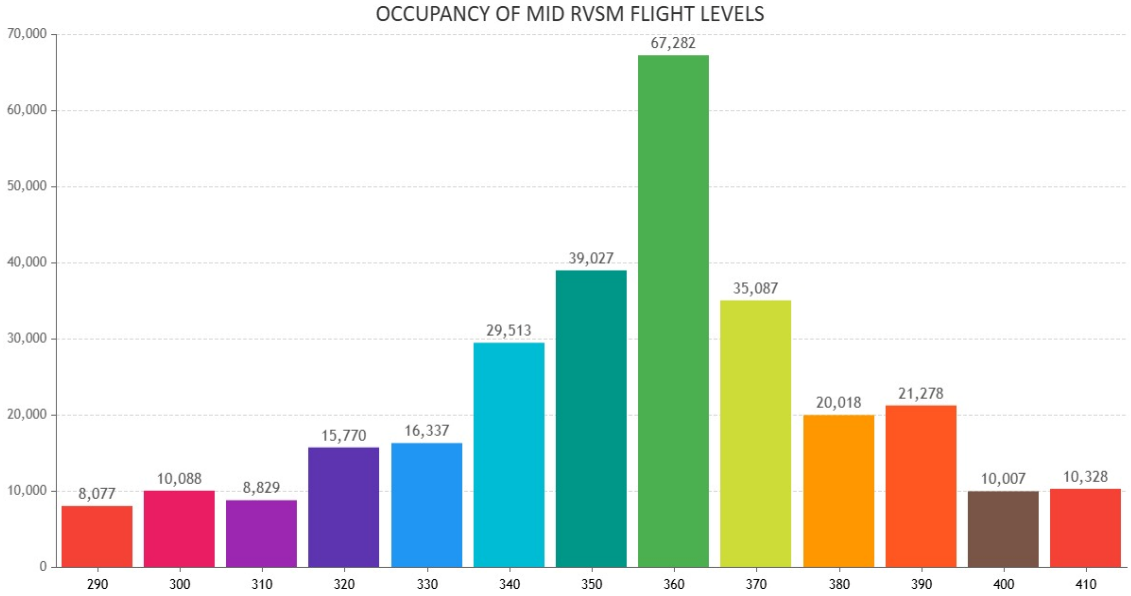
MID States	Received Date	No. of Flights
BAHRAIN	7/3/2025	**39080**
EGYPT	6/30/2025	**41240**
IRAN	7/28/2025	**39325**
IRAQ	6/12/2025	**26647**
JORDAN	7/1/2025	**11410**
KUWAIT	6/13/2025	**21385**
LEBANON	9/3/2025	**433**
LIBYA	6/30/2025	**4090**
OMAN	6/19/2025	**55119**
KSA	6/29/2025	**58891**
QATAR	6/23/2025	**4652**
SUDAN	7/20/2025	**1302**
SYRIA	**No data submitted *Excluded from SMR 2025**	
UAE	6/11/2025	**36672**
YEMEN	6/30/2025	**4973**
Total	**345219**	

2.1.5 The tables and graphs below illustrate the distribution of submitted Traffic Data Samples (TDS) across all MID States, the overall number of flights analyzed, and the long-term trend of TDS submissions from 2012 to 2025. These visuals reflect a steady increase in total data volume.









2.1.6 **Pz(1000) Compliance**

2.1.6.1 The Pz(1000) represents the likelihood of two aircraft at adjacent RVSM flight levels losing vertical separation due to technical height-keeping errors. Based on the observed Altimetry System Errors (ASE) and typical Aircraft Altimetry Data (AAD), the estimated probability of vertical overlap Pz(1000) is calculated to be **1.456×10^{-9}**.

2.1.6.2 This result complies with the Global System Performance Specification, which states that the probability of losing the 1000ft procedural vertical separation between two aircraft must not exceed **1.7×10^{-8}**.

Note 1: MIDRMA continues to distribute the Minimum Monitoring Requirements (MMRs) using its automated MMR software. This software is designed to provide member states with updated monitoring requirements based on the most recent RVSM approvals.

Note 2 : All member states must review and adhere to their MMRs, which are accessible on the MIDRMA website (www.midrma.com).

2.1.7 **Large Height Deviation (LHD) Reports 2025**

2.1.7.1 The MIDRMA remains deeply concerned that the submission of Large Height Deviation (LHD) reports continues to be extremely inadequate, despite the Agency's extensive and ongoing efforts to resolve this persistent issue. Throughout the first nine months of this year, only two LHD reports were received—both submitted by Emirates ATC, whose proactive cooperation and responsiveness to safety monitoring requirements are highly appreciated.

2.1.7.2 Despite repeated official requests, monthly reminders, and continuous direct coordination with the designated focal points of all Member States, the overall level of LHD reporting remains critically low. It is important to emphasize that this shortfall specifically concerns the LHD reports that have direct operational relevance to RVSM safety, namely those classified under Categories A, B, C, D, J, and K.

2.1.7.3 The continued lack of such data severely undermines the accuracy and reliability of the operational risk assessment and significantly reduces the confidence level associated with Safety Objective No. 2. This situation remains a matter of serious concern from a regional safety oversight perspective and requires urgent corrective action by all Member States.

MID FIRs	No. of Reported LHDs	No. of Related LHDs
Bahrain	**6**	**5**
Baghdad	**4**	**-**
Amman	**-**	**2**
Tehran	**-**	**3**
Cairo	**2**	**1**
Damascus	**-**	**2**
Khartoum	**-**	**-**
Kuwait	**-**	**1**
Muscat	**61**	**79**
Jeddah/ Riyadh	**5**	**30**
Qatar	**4**	**-**
Tripoli	**-**	**-**
Emirates	**2**	**4**
Sana'a	**265**	**8**

2.1.7.1 RVSM Safety Protocol at the Eastern Boundaries of Muscat FIR and the increased number of LHD reports submitted by Muscat and Mumbai ATCUs related to each other:

a. The latest review of the RVSM safety situation at the Eastern Boundaries of Muscat FIR shows that the concern over Large Height Deviation (LHD) occurrences between Muscat and Mumbai ATC units continues in 2025. The table below presents the number of LHD reports exchanged between both ATC units over the past years, reflecting the current situation:

YEAR	LHD Reported by Muscat	LHD Reported by Mumbai
2022	**16**	**41**
2023	**25**	**79**

2024	**75**	**98**
2025	**38 (Jan – Jun 2025)**	**44 (Jan – Aug 2025)**

b. Although several corrective and preventive measures have been introduced since opening this protocol, the number of LHD reports remains unacceptably high, showing that the safety concerns are still unresolved. While there was a slight reduction in the first half of 2025 compared with 2024, the figures remain well above acceptable safety thresholds and clearly indicate that the implemented measures have not yet achieved the desired level of safety improvement.

c. This ongoing issue demonstrates that the problem is systemic rather than occasional, and unless more robust corrective actions are taken, it will continue to pose a significant safety risk to RVSM operations between Muscat and Mumbai FIRs. The current trend underscores the urgent need to reassess coordination procedures, improve data-sharing and incident investigation processes, and implement sustained monitoring mechanisms to ensure that corrective actions lead to measurable and lasting safety benefits.

d. Given the critical nature of these deviations, it is essential that both Muscat and Mumbai ATC units intensify their collaborative efforts to identify the underlying causes particularly those related to handover procedures, communication errors, and flight level transition management and take decisive actions to ensure that this situation does not persist beyond 2025.

Note: More details of the LHD reports field by Muscat and Mumbai related to each other is in Appendix A of this working paper.

2.1.7.4 RVSM Safety Protocol for Sana'a FIR:

a. A comparison between the first nine months of 2024 and 2025 shows a continuing increase in Large Height Deviation (LHD) reports involving Sana'a FIR and its surrounding FIRs, reflecting a persistent and serious safety concern for the region's RVSM operations. During the same period in 2024, a total of 218 LHD reports were filed, while in 2025, the number rose to 265 reports, representing an increase of approximately 22%. The most notable rise is observed in coordination with Addis Ababa FIR (from 107 to 123 LHDs) and Muscat FIR (from 36 to 77 LHDs), while a reduction was recorded with Jeddah FIR (from 33 to 22). This uneven pattern indicates that while progress is being made in some areas, others continue to experience significant operational and coordination difficulties.

Sanaa Related To ---►	Addis Ababa	Asmara	Jeddah	Mumbai	Muscat	TOTAL
Jan-25	18	2	2	8	17	**47**
Feb-25	7	0	2	2	10	**21**
Mar-25	7	0	3	0	8	**18**
Apr-25	4	1	1	4	7	**17**
May-25	2	0	2	4	7	**15**
Jun-25	11	0	2	10	10	**33**
Jul-25	20	1	4	3	3	**31**
Aug-25	34	1	2	4	13	**54**
Sep-25	20	0	4	3	2	**29**
Total Report	123	5	22	38	77	**265**

Sanaa Related To ---►	Addis Ababa	Asmara	Jeddah	Mumbai	Muscat	Total
Jan-2024	1	0	8	0	3	**13**
Feb-2024	1	0	3	4	2	**11**
Mar-2024	6	1	3	5	3	**19**
Apr-2024	1	1	2	3	4	**13**
May-2024	5	2	1	0	0	**9**
Jun-2024	8	0	3	2	6	**22**
Jul-2024	39	0	3	2	8	**52**
Aug-2024	29	0	6	11	7	**54**
Sep-2024	17	1	4	10	3	**35**
Total	**107**	**5**	**33**	**37**	**36**	**218**

b. The increase in LHD occurrences between Yemen and Muscat FIRs, in particular, is highly concerning and suggests that existing procedural and communication measures have not yet effectively mitigated the underlying causes of the deviations. The frequency and persistence of such reports reflect a lack of stability in handover coordination, level assignment verification, and real-time communication, especially under challenging operational conditions. This continuing rise in figures highlights the urgency for Yemen ACC and its neighbouring ACCs to adopt more robust coordination mechanisms, reinforce standard phraseology, and implement stronger monitoring and verification procedures during flight handovers. Without decisive corrective actions, these deviations could compromise the safety of the RVSM airspace.

2.1.8 **Assessment of Non-RVSM Approved Aircraft 2025:**

a. In line with the guidance outlined in ICAO Documents 9574 and 9937, the MIDRMA continues to closely oversee the operational compliance of aircraft flying within the RVSM airspace. Through its regular monthly safety monitoring, MIDRMA has detected a small number of flights conducted by aircraft lacking valid RVSM authorization. These cases are generally attributed to temporary lapses in approval validity or administrative processing delays rather than intentional non-compliance. Member States are therefore urged to maintain their RVSM approval databases accurately and promptly, ensuring that any renewal or status update is reflected without delay to preserve the safety and integrity of RVSM operations across the region.

b. The MIDRMA extends its sincere appreciation to the Civil Aviation Authorities of Bahrain, Iraq, and the United Arab Emirates for their continued collaboration and timely provision of monthly RVSM traffic data. Their ongoing support plays an essential role in sustaining the effectiveness of the regional RVSM safety monitoring framework and ensuring the reliability of the risk assessment process.

Note: The results for the assessment of Non-RVSM approved aircraft for the first nine months are in **Appendix B** of this working paper.

2.1.9 The MID RVSM Risk Analysis Hotspots and Airways Occupancy – May 2025, are displayed in **Appendix C**.

2.2 Conclusions:

The estimated technical and overall collision risks within the MID RVSM airspace for the first nine months of 2025 remain below the ICAO TLS. However, the persistent lack of standardized and timely TDS submissions and the chronic non-receipt of LHD reports from most Member

States seriously compromise the accuracy and confidence level of the safety analysis. The MIDRMA considers this an urgent regional concern that requires immediate attention and coordinated corrective action by all States and ICAO MID Office.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) review and discuss the preliminary results of the first nine months of the MID RVSM SMR 2025;

b) acknowledge the seriousness of the ongoing deficiencies in Traffic Data Sample (TDS) and Large Height Deviation (LHD) submissions, and urge all Member States to take immediate corrective measures;

c) request Oman to provide an update on the OLDI/AIDC connection with Mumbai ACC and the actions taken to update MAAR in this issue;

d) discuss the increased numbers of LHD reports filed by Sana'a ACC related to its neighboring ACCs; and

e) encourage the States to take notes on the results of MID RVSM Risk Analysis Hotspots and Airways Occupancy, at **Appendix C**.

Appendix A

LHD Reports Submitted by Muscat ACC related to Mumbai ACC

#	ID	Date of Occ	Reported By	Related to	Location	Nature of the occurrence:	Category
1	12299	Jan 01, 2025	Muscat	Mumbai	TOTOX	Revised FL Not Coordinated	E
2	12347	Jan 03, 2025	Muscat	Mumbai	PARAR	ACFT Entered FIR Without Coordination	E
3	12348	Mar 03, 2025	Muscat	Mumbai	KITAL	ACFT Entered FIR Without Coordination	E
4	12349	Mar 03, 2025	Muscat	Mumbai	LOTAV	ACFT Entered FIR Without Coordination	E
5	12350	Mar 05, 2025	Muscat	Mumbai	PARAR	ACFT Entered FIR Without Coordination	E
6	12351	Mar 06, 2025	Muscat	Mumbai	PARAR	ACFT Entered FIR Without Coordination	E
7	12352	Mar 09, 2025	Muscat	Mumbai	PARAR	ACFT Entered FIR Without Coordination	E
8	12353	Mar 09, 2025	Muscat	Mumbai	TOTOX	ACFT Entered FIR Without Coordination	E
9	12354	Mar 12, 2025	Muscat	Mumbai	RASKI	ACFT Entered FIR Without Coordination	E
10	12355	Mar 15, 2025	Muscat	Mumbai	LOTAV	Revised FL Not Coordinated	E
11	12356	Mar 22, 2025	Muscat	Mumbai	PARAR	Revised FL Not Coordinated	E
12	12357	Mar 24, 2025	Muscat	Mumbai	REXOD	ACFT Entered FIR Without Coordination	E
13	12358	Mar 25, 2025	Muscat	Mumbai	RASKI	ACFT Entered FIR Without Coordination	E
14	12385	Apr 05, 2025	Muscat	Mumbai	RASKI	Revised FL Not Coordinated	E
15	12386	Apr 06, 2025	Muscat	Mumbai	RASKI	Revised Estimate Not Coordinated	E
16	12477	Jun 06, 2025	Muscat	Mumbai	RASKI	Revised FL Not Coordinated	E
17	12478	Jun 05, 2025	Muscat	Mumbai	RASKI	Revised Estimate Not Coordinated	E
18	12479	Jun 05, 2025	Muscat	Mumbai	RASKI	Revised FL Not Coordinated	E
19	12480	Jun 06, 2025	Muscat	Mumbai	LOTAV	Revised FL Not Coordinated	E
20	12481	Jun 13, 2025	Muscat	Mumbai	RASKI	Revised FL Not Coordinated	E
21	12482	Jun 13, 2025	Muscat	Mumbai	LOTAV	ACFT Entered FIR Without Coordination	E
22	12483	Jun 14, 2025	Muscat	Mumbai	TOTOX	ACFT Entered FIR Without Coordination	E
23	12484	Jun 14, 2025	Muscat	Mumbai	RASKI	Revised FL Not Coordinated	E
24	12485	Jun 15, 2025	Muscat	Mumbai	PARAR	ACFT Entered FIR Without Coordination	E
25	12486	Jun 17, 2025	Muscat	Mumbai	RASKI	Revised FL Not Coordinated	E
26	12487	Jun 18, 2025	Muscat	Mumbai	TOTOX	ACFT Entered FIR Without Coordination	E
27	12488	Jun 18, 2025	Muscat	Mumbai	RASKI	Revised FL Not Coordinated	E
28	12489	Jun 20, 2025	Muscat	Mumbai	PARAR	Revised FL Not Coordinated	E
29	12490	Jun 22, 2025	Muscat	Mumbai	LOTAV	Revised FL Not Coordinated	E
30	12491	Jun 24, 2025	Muscat	Mumbai	PARAR	ACFT Entered FIR Without Coordination	E
31	12492	Jun 24, 2025	Muscat	Mumbai	ASPUX	ACFT Entered FIR Without Coordination	E
32	12493	Jun 24, 2025	Muscat	Mumbai	REXOD	ACFT Entered FIR Without Coordination	E
33	12494	Jun 25, 2025	Muscat	Mumbai	TOTOX	ACFT Entered FIR Without Coordination	E
34	12495	Jun 26, 2025	Muscat	Mumbai	RASKI	ACFT Entered FIR Without Coordination	E
35	12496	Jun 28, 2025	Muscat	Mumbai	RASKI	Revised FL Not Coordinated	E
36	12497	Jun 29, 2025	Muscat	Mumbai	RASKI	Revised FL Not Coordinated	E
37	12498	Jun 30, 2025	Muscat	Mumbai	RASKI	Revised FL Not Coordinated	E
38	12499	Jun 26, 2025	Muscat	Mumbai	RASKI	ACFT Entered FIR Without Coordination	E

LHD Reports Submitted by Mumbai related to Muscat

#	ID	Date of Occ	Reported By	Related to	Location	Nature of the occurrence:	Category
1	LHD003030	30-1-2025	Mumbai	Muscat	PARAR	No or late FL revision	E
2	LHD003031	3-1-2025	Mumbai	Muscat	PARAR	No transfer information	E
3	LHD003032	4-1-2025	Mumbai	Muscat	RASKI	No or late FL revision	E
4	LHD003033	7-1-2025	Mumbai	Muscat	PARAR	No or late FL revision	E
5	LHD003034	7-1-2025	Mumbai	Muscat	TOTOX	No or late FL revision	E
6	LHD003035	13-1-2025	Mumbai	Muscat	TOTX	No or late FL revision	E
7	LHD003037	18-1-2025	Mumbai	Muscat	RASKI	No or late FL revision	E
8	LHD003038	19-1-2025	Mumbai	Muscat	PARAR	No or late FL revision	E
9	LHD003039	21-1-2025	Mumbai	Muscat	TOTOX	No or late FL revision	E
10	LHD003040	28-1-2025	Mumbai	Muscat	RASKI	No or late FL revision	E
11	LHD003067	9-2-2025	Mumbai	Muscat	PARAR	No or late FL revision	E
12	LHD003068	9-2-2025	Mumbai	Muscat	KITAL	No or late FL revision	E
13	LHD003069	12-2-2025	Mumbai	Muscat	LOTAV	No or late FL revision	E
14	LHD003109	3-3-2025	Mumbai	Muscat	PARAR	No transfer information	E
15	LHD003110	3-3-2025	Mumbai	Muscat	PARAR	No transfer information	E
16	LHD003111	8-3-2025	Mumbai	Muscat	PARAR	No or late FL revision	E
17	LHD003112	9-3-2025	Mumbai	Muscat	LOTAV	No or late FL revision	E
18	LHD003113	24-3-2025	Mumbai	Muscat	KITAL	No or late FL revision	E
19	LHD003114	24-3-2025	Mumbai	Muscat	REXOD	No or late FL revision	E
20	LHD003153	3-4-2025	Mumbai	Muscat	PARAR	No or late FL revision	E
21	LHD003154	5-4-2025	Mumbai	Muscat	RASKI	No or late FL revision	E
22	LHD003155	5-4-2025	Mumbai	Muscat	PARAR	No or late FL revision	E
23	LHD003156	11-4-2025	Mumbai	Muscat	PARAR	No or late FL revision	E
24	LHD003157	17-4-2025	Mumbai	Muscat	PARAR	No or late FL revision	E
25	LHD003158	21-4-2025	Mumbai	Muscat	LOTAV	No or late FL revision	E
26	LHD003159	23-4-2025	Mumbai	Muscat	LOTAV	No or late FL revision	E
27	LHD003176	5-5-2025	Mumbai	Muscat	TOTOX	No or late FL revision	E
28	LHD003178	8-5-2025	Mumbai	Muscat	LOTAV	No or late FL revision	E
29	LHD003179	14-5-2025	Mumbai	Muscat	REXOD	No or late FL revision	E
30	LHD003180	22-5-2025	Mumbai	Muscat	TOTOX	No or late FL revision	E
31	LHD003181	22-5-2025	Mumbai	Muscat	TOTOX	No or late FL revision	E
32	LHD003182	27-5-2025	Mumbai	Muscat	REXOD	No or late FL revision	E
33	LHD003183	27-5-2025	Mumbai	Muscat	TOTOX	No transfer information	E
34	LHD003217	29-6-2025	Mumbai	Muscat	KITAL	No transfer information	E
35	LHD003218	27-6-2025	Mumbai	Muscat	KITAL	No or late FL revision	E
36	LHD003253	4-7-2025	Mumbai	Muscat	KITAL	No estimate time revi.	E
37	LHD003254	9-7-2025	Mumbai	Muscat	PARAR	No or late FL revision	E
38	LHD003255	23-7-2025	Mumbai	Muscat	PARAR	No transfer information	E
39	LHD003256	3-7-2025	Mumbai	Muscat	LOTAV	No or late estimate rev.	E
40	LHD003305	3-8-2025	Mumbai	Muscat	LOTAV	No or late FL revision	E
41	LHD003306	22-8-2025	Mumbai	Muscat	LOTAV	No or late FL revision	E
42	LHD003307	29-8-2025	Mumbai	Muscat	LOTAV	No or late estimate rev.	E
43	LHD003308	30-9-2025	Mumbai	Muscat	PARAR	No or late FL revision	E
44	LHD003309	24-8-2025	Mumbai	Muscat	RASKI	No or late FL revision	E

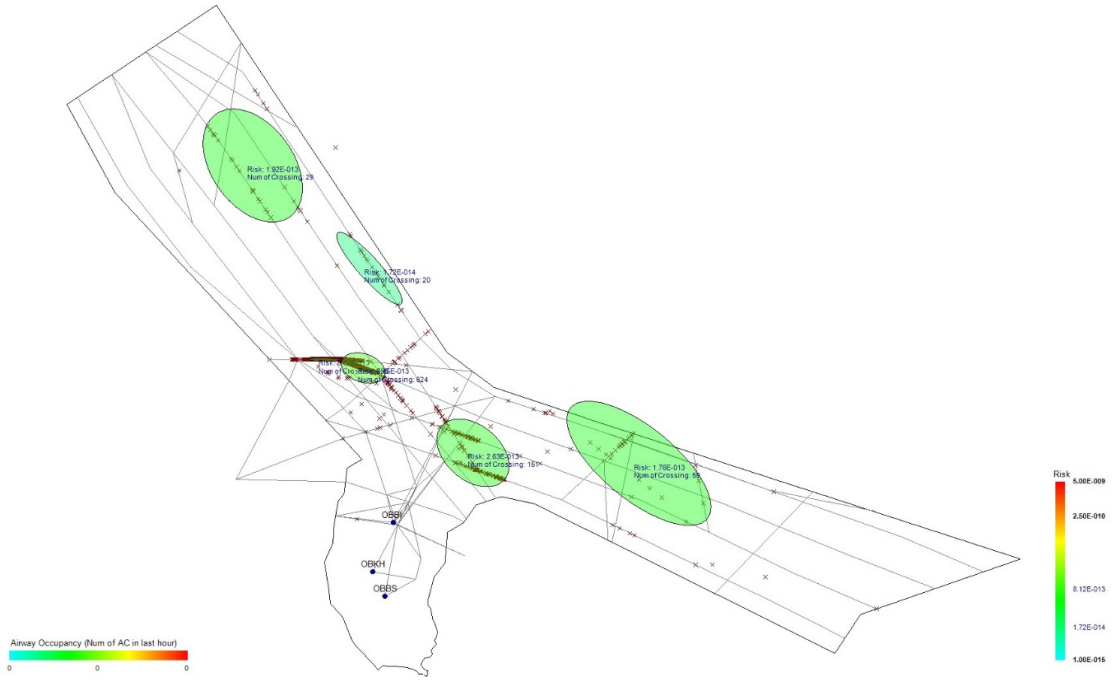
Appendix B

Non-RVSM Approved Aircraft

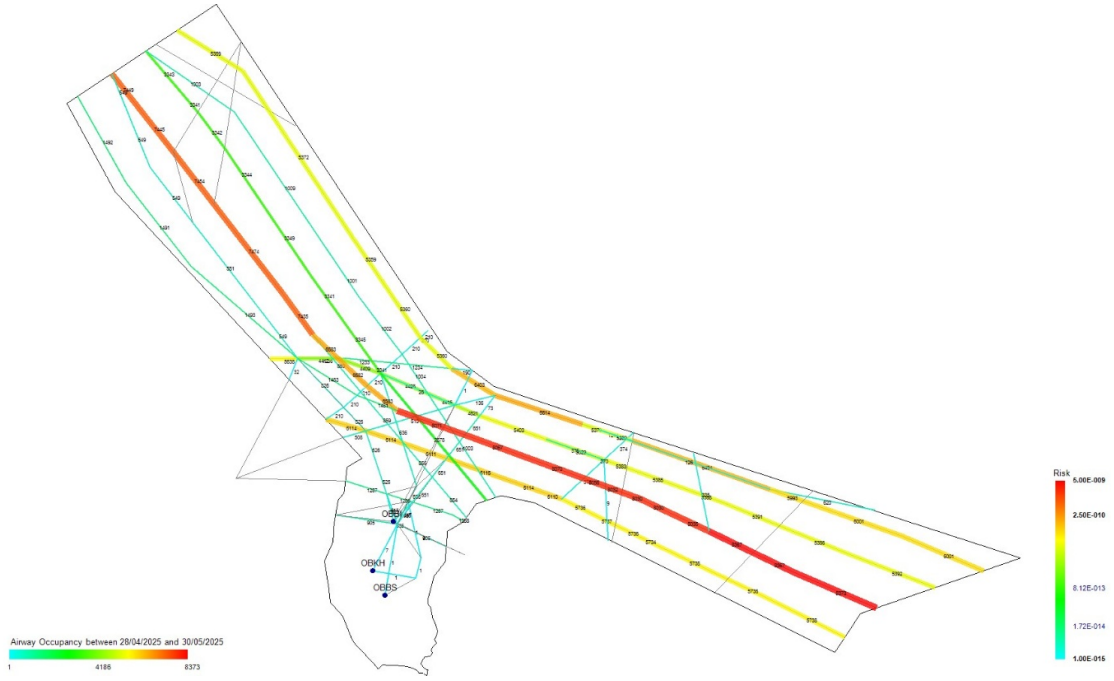
#	Registration of Violating ACFT	ICAO Type	First Observed on	FIR/RMA Observed	STATE/RMA Responsible
1	40001A	C17	25-01-2020	MIDRMA	AAMA
2	60208A	C17	30-03-2020	MIDRMA	AAMA
3	PKBGZ	B738	13-12-2022	MIDRMA	AAMA
4	PKBKM	A320	30-11-2022	MIDRMA	AAMA
5	PKLSU	B739	27-11-2022	MIDRMA	AAMA
6	PKLSV	B739	21-12-2022	MIDRMA	AAMA
7	PKLSW	B739	8/3/2023	MIDRMA	AAMA
8	PKLVF	B739	20-01-2023	MIDRMA	AAMA
9	PKSJH	A320	6/11/2022	MIDRMA	AAMA
10	PKSTD	A320	19-01-2023	MIDRMA	AAMA
11	PKSTH	A320	27-11-2022	MIDRMA	AAMA
12	5HONE	GLF5	15-05-2024	MIDRMA	AFIRMA
13	5HTCP	B39M	19-05-2024	MIDRMA	AFIRMA
14	5HTCQ	B39M	15-05-2024	MIDRMA	AFIRMA
15	5NADM	B744	28-05-2024	MIDRMA	AFIRMA
16	5NBBN	B772	18-05-2024	MIDRMA	AFIRMA
17	5NBOD	GLF4	28-01-2022	MIDRMA	AFIRMA
18	5NBYJ	E290	6/6/2024	MIDRMA	AFIRMA
19	5NHMM	B744	15-05-2024	MIDRMA	AFIRMA
20	5YFAN	CRJ2	15-07-2020	MIDRMA	AFIRMA
21	5YFQA	B734	15-05-2024	MIDRMA	AFIRMA
22	5YFQC	B734	20-05-2024	MIDRMA	AFIRMA
23	5YWBH	C56X	14-07-2020	MIDRMA	AFIRMA
24	9SPRR	IL76	9/6/2024	MIDRMA	AFIRMA
25	ETATF	B350	8/7/2020	MIDRMA	AFIRMA
26	TTDAB	H25B	31-05-2024	MIDRMA	AFIRMA
27	XTEBO	IL76	7/6/2024	MIDRMA	AFIRMA
28	ZSCQP	CRJ9	7/7/2020	MIDRMA	AFIRMA
29	CCBGV	B789	8/6/2022	MIDRMA	CARSAM
30	FAB2857	KC39	22-05-2022	MIDRMA	CARSAM
31	21140	IL76	19-06-2022	MIDRMA	CHINARMA
32	EW550TH	IL76	4/12/2021	MIDRMA	EURRMA
33	ICJSN	C25C	15-05-2023	MIDRMA	EURRMA
34	UR11316	AN12	22-07-2020	MIDRMA	EURRMA
35	URAZN	B753	1/2/2022	MIDRMA	EURRMA
36	URAZO	B753	1/2/2022	MIDRMA	EURRMA
37	URAZR	B77W	3/2/2022	MIDRMA	EURRMA
38	URFSA	IL76	9/5/2021	MIDRMA	EURRMA
39	URFSC	IL76	5/12/2021	MIDRMA	EURRMA
40	URFSD	IL76	24-12-2021	MIDRMA	EURRMA
41	URFSE	IL76	11/12/2022	MIDRMA	EURRMA
42	URSQO	B738	2/12/2021	MIDRMA	EURRMA
43	80002A	C17	23-07-2020	MIDRMA	MAAR
44	CB8001	C17	29-07-2020	MIDRMA	MAAR
45	CB8004	C17	24-07-2020	MIDRMA	MAAR

46	IN307	IL38	3/12/2020	MIDRMA	MAAR
47	K3604	E35L	17-07-2020	MIDRMA	MAAR
48	KJ3452	IL76	3/8/2020	MIDRMA	MAAR
49	KJ3454	IL76	16-03-2020	MIDRMA	MAAR
50	5ALEX	BE200	9/7/2022	EURRMA	MIDRMA
51	STALL	CRJ1	11/6/2022	MIDRMA	MIDRMA
52	STPSA	F900	18-10-2023	EURRMA	MIDRMA
53	N1112B	B350	16-07-2020	MIDRMA	NAARMO
54	N145DB	E35L	22-01-2022	MIDRMA	NAARMO
55	N27GA	FA50	30-05-2024	MIDRMA	NAARMO
56	N298RB	GLF4	14-05-2021	MIDRMA	NAARMO
57	N320MK	GLF3	24-09-2022	MIDRMA	NAARMO
58	N411VP	EA50	1/5/2022	MIDRMA	NAARMO
59	N44UA	CL60	7/6/2020	MIDRMA	NAARMO
60	N46HB	F9000	22-08-2022	MIDRMA	NAARMO
61	N505MS	C55B	3/6/2024	MIDRMA	NAARMO
62	N605AS	PC12	11/4/2022	MIDRMA	NAARMO
63	N651CV	C650	21-11-2022	MIDRMA	NAARMO
64	N685MF	GLF4	8/12/2021	MIDRMA	NAARMO
65	N779CK	B77W	8/6/2024	MIDRMA	NAARMO
66	N788DP	B737	25-02-2024	MIDRMA	NAARMO
67	N800AJ	CL60	10/2/2023	MIDRMA	NAARMO
68	N882RR	PC12	10/3/2025	MIDRMA	NAARMO
69	N890DA	GLF5	25-02-2023	MIDRMA	NAARMO
70	N981DB	H25B	5/4/2022	MIDRMA	NAARMO
71	N993JA	A333	18-03-2025	MIDRMA	NAARMO

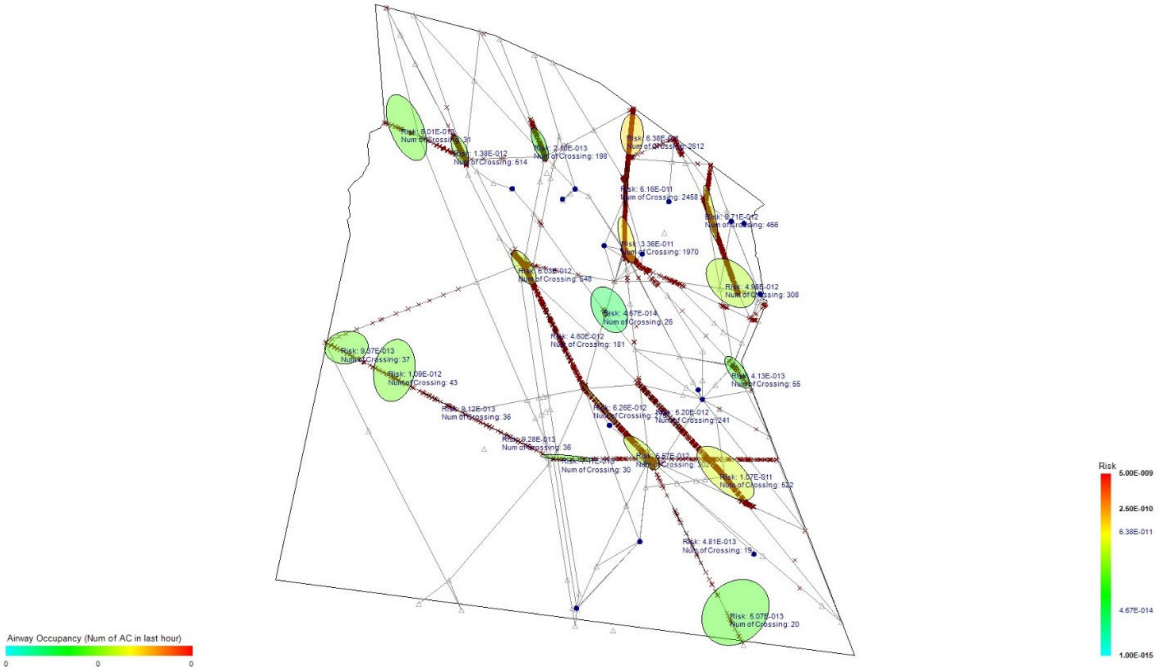
Appendix C
MID RVSM Risk Analysis Hotspots and Airways Occupancy – May 2025



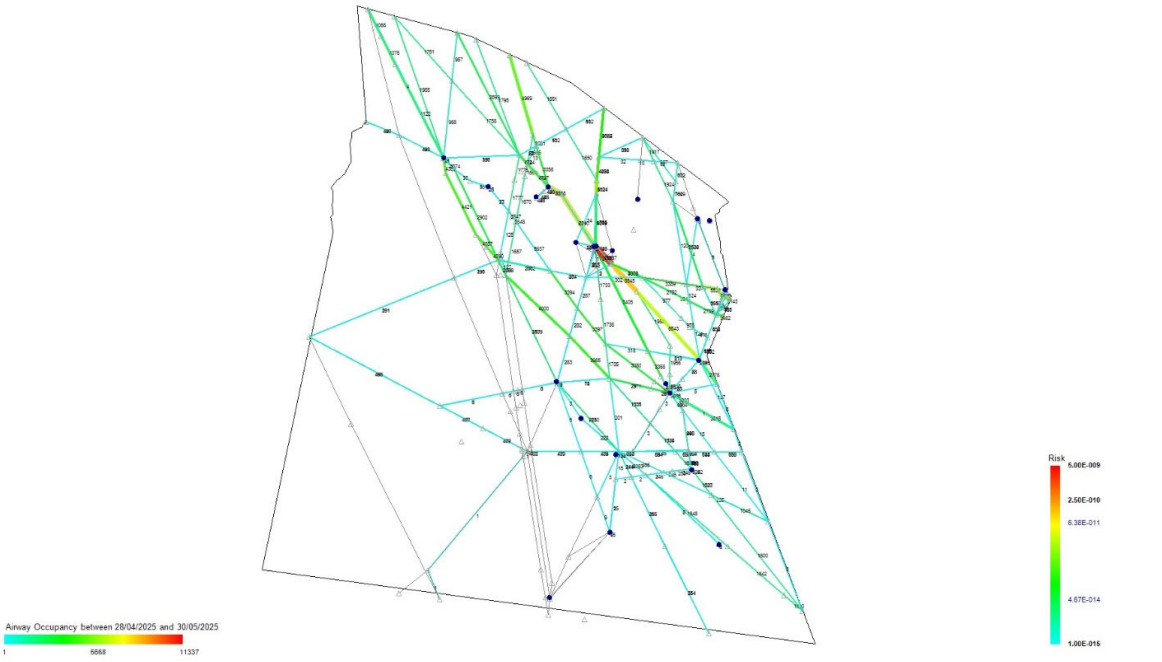
Bahrain FIR Hotspots



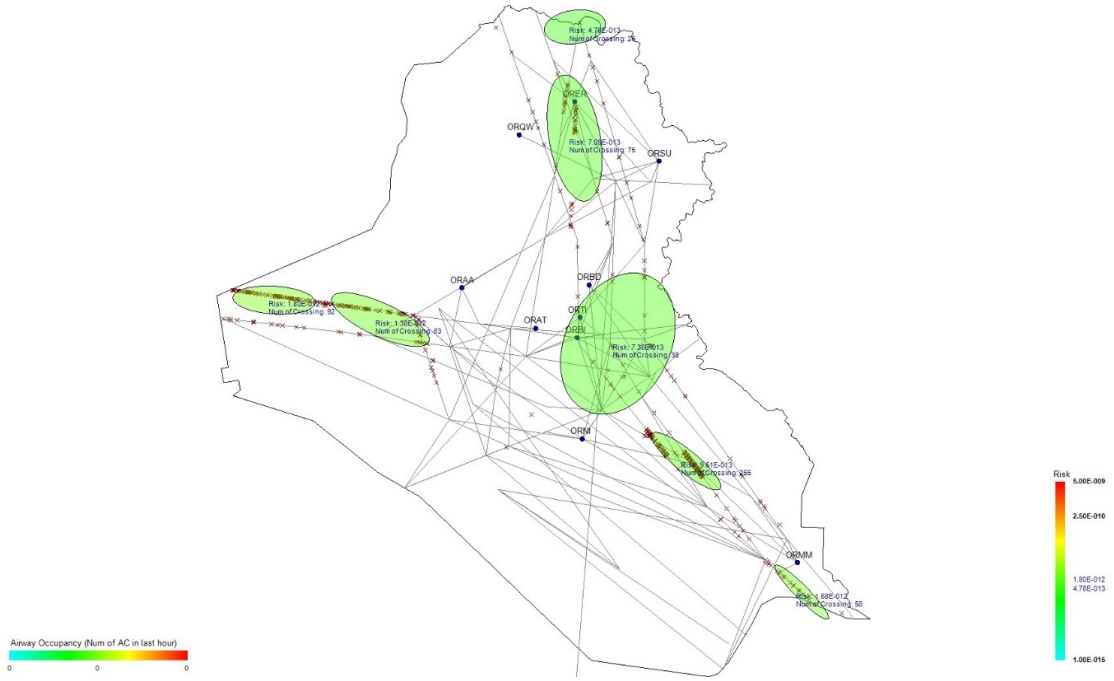
Bahrain FIR Airways Occupancy



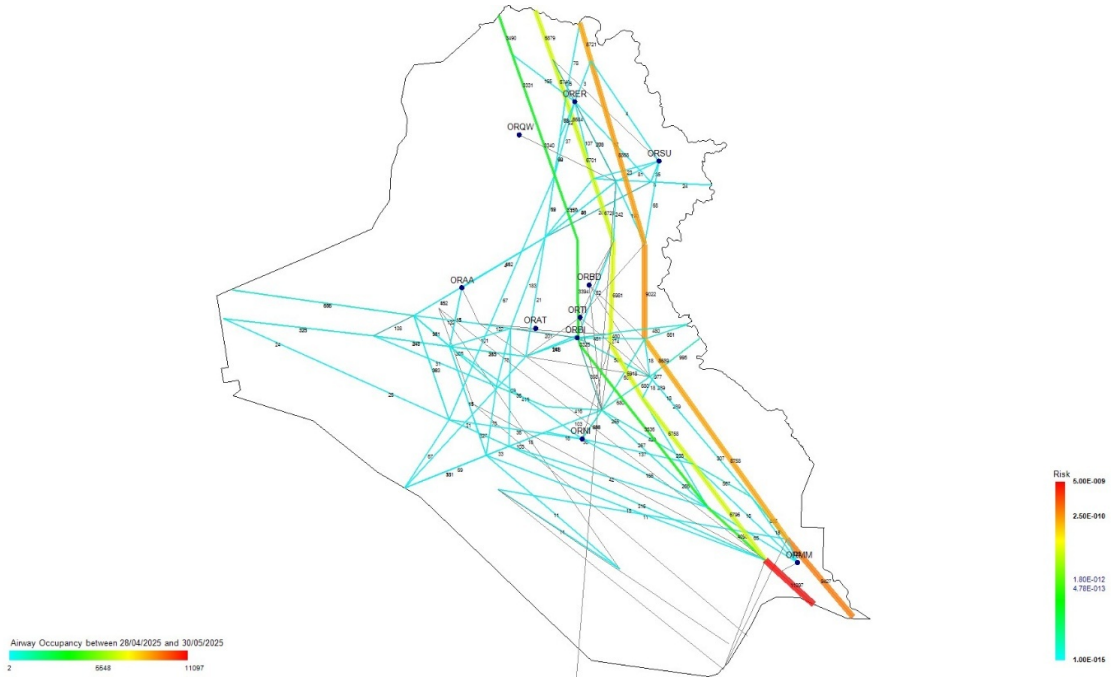
Cairo FIR Hotspots



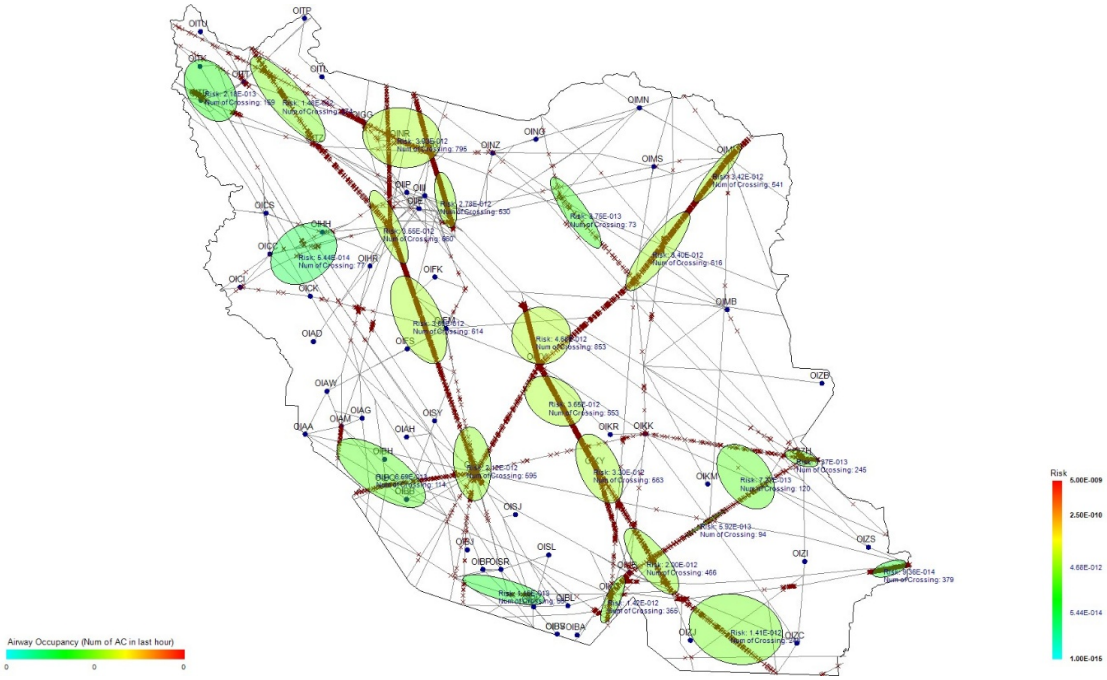
Cairo FIR Airways Occupancy



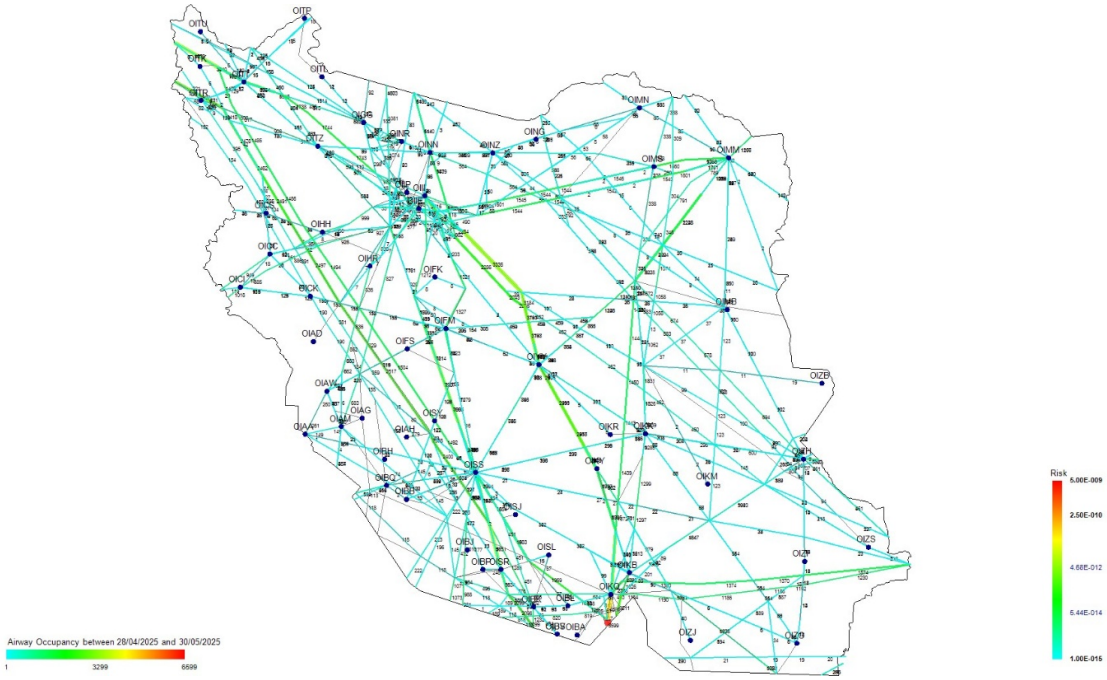
Baghdad FIR Hotspots



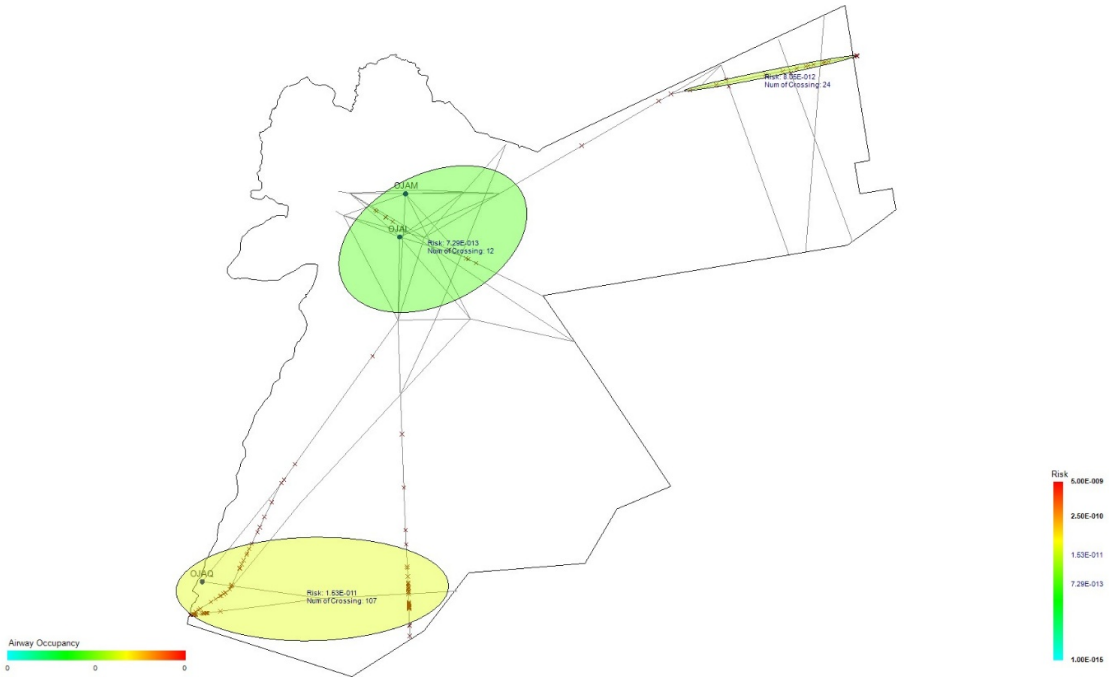
Baghdad FIR Airways Occupancy



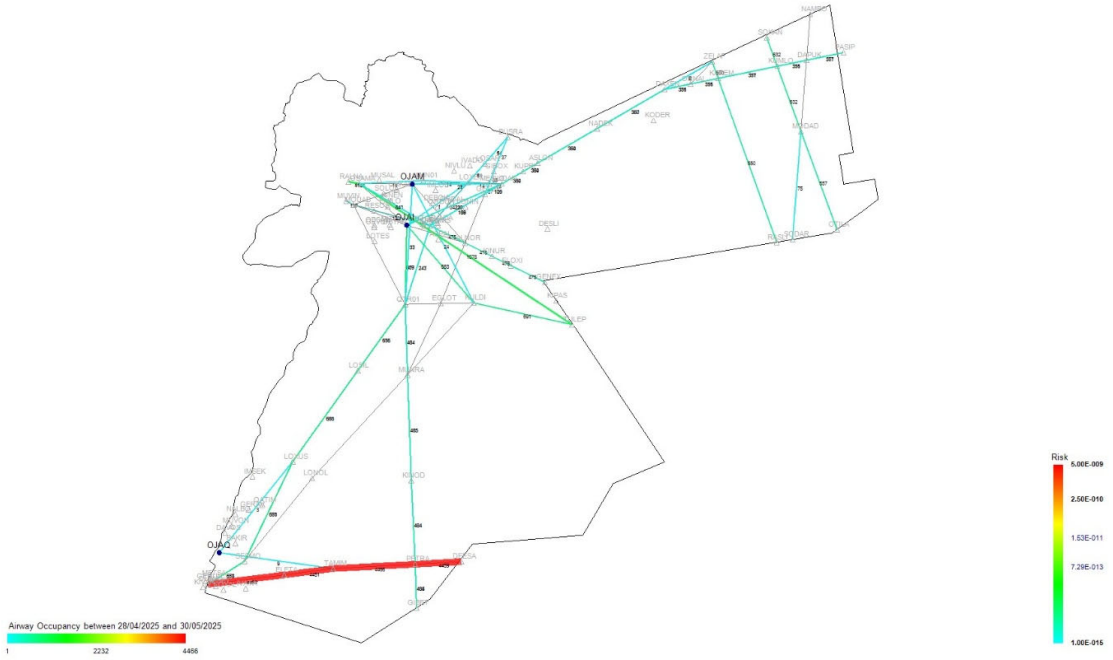
Tehran FIR Hotspots



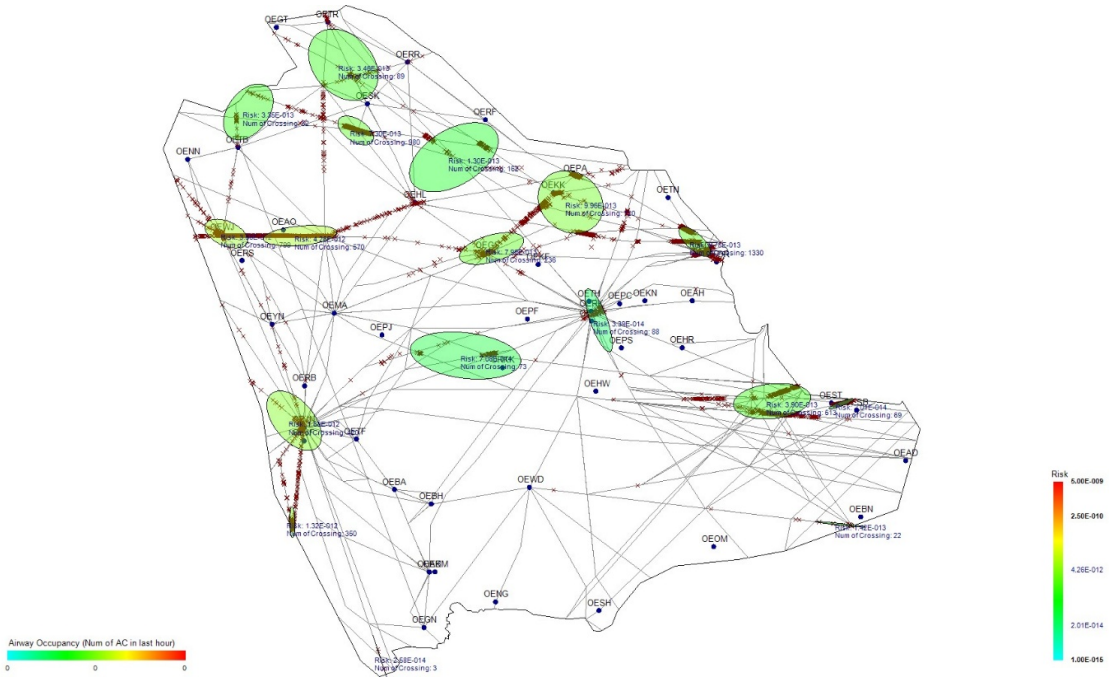
Tehran FIR Airways Occupancy



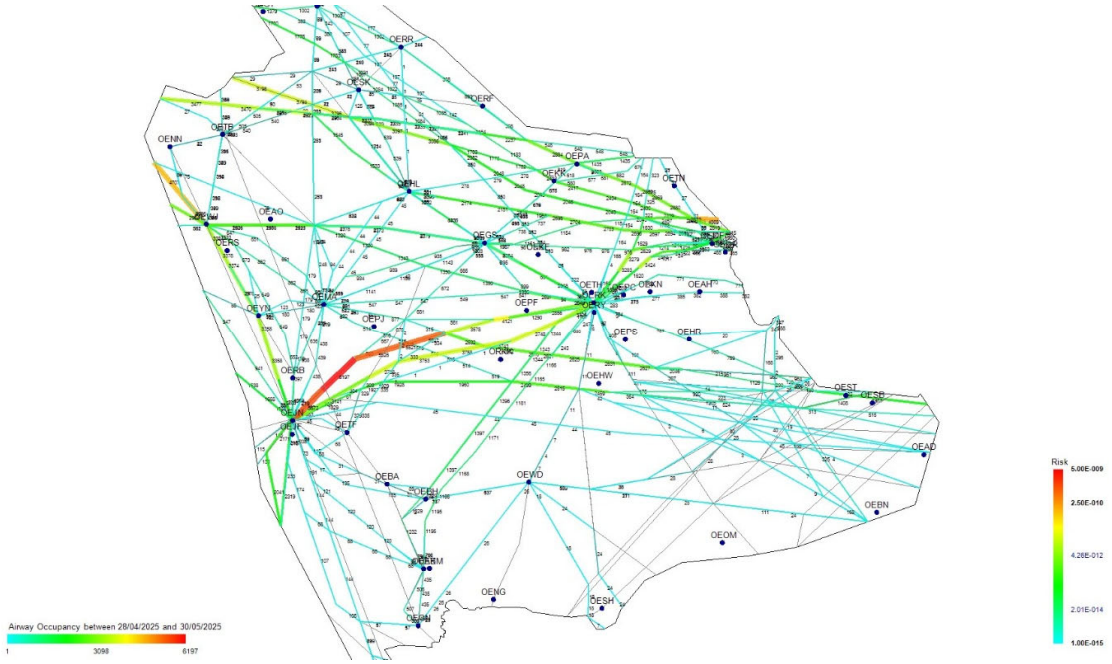
Amman FIR Hotspots



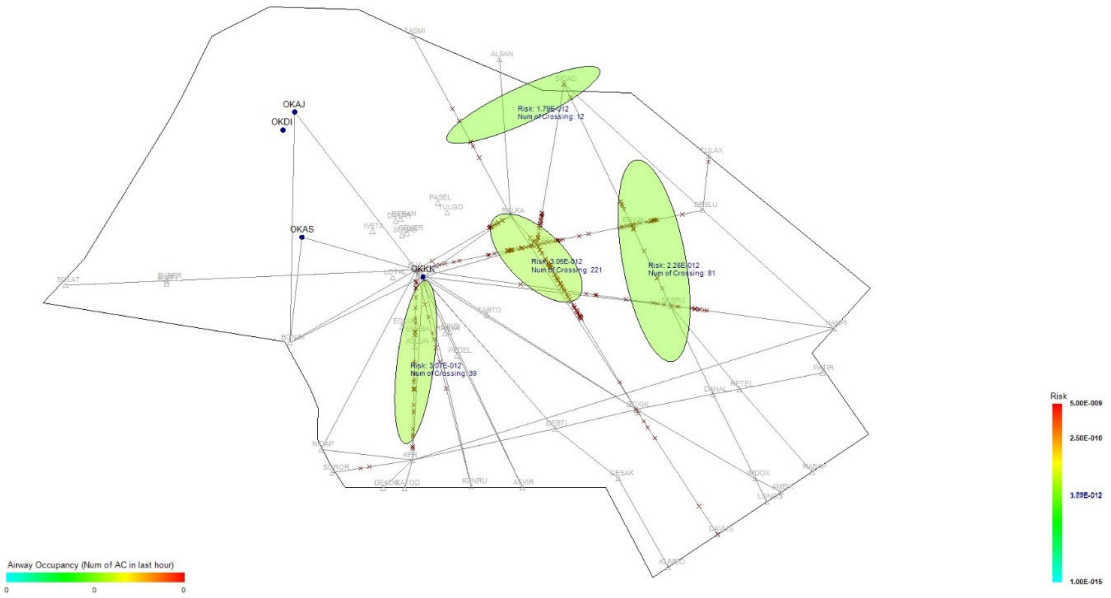
Amman FIR Airways Occupancy



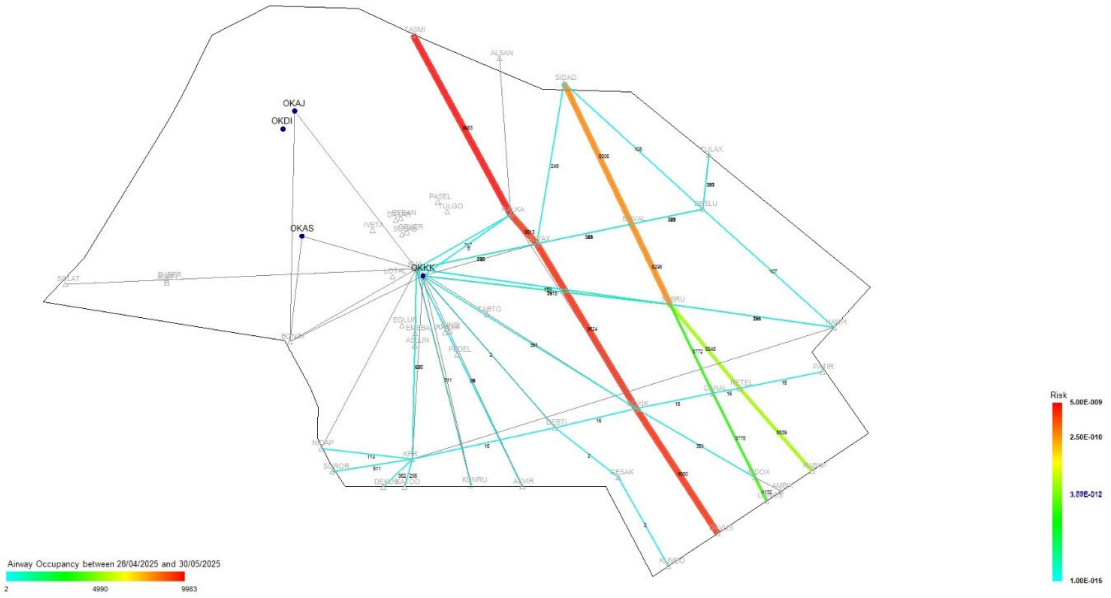
Jeddah FIR Hotspots



Jeddah FIR Airways Occupancy

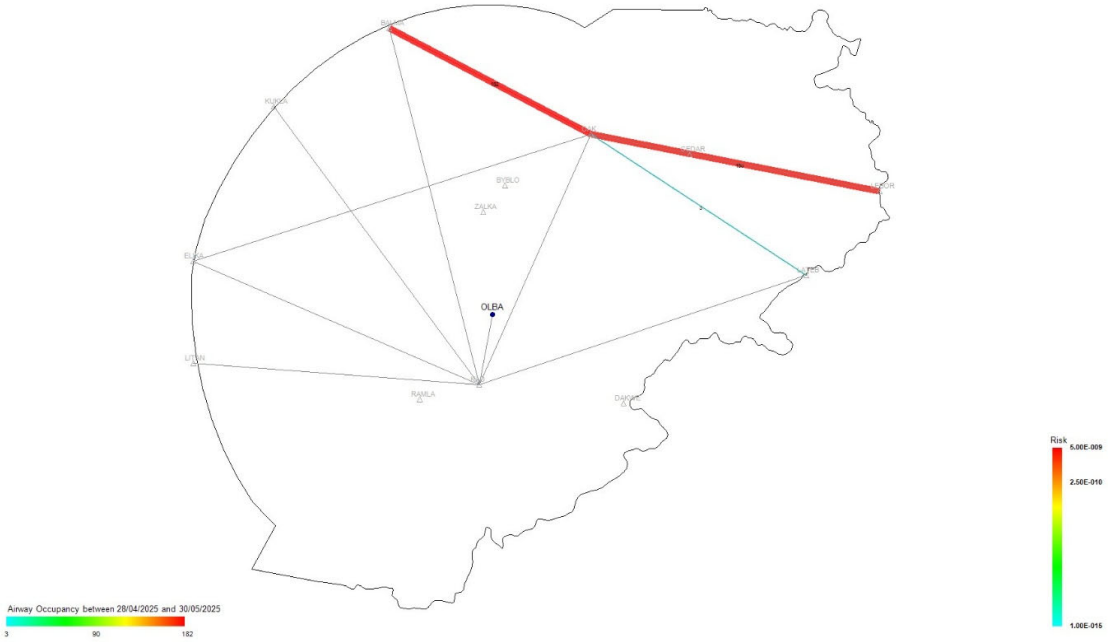


Kuwait FIR Hotspots

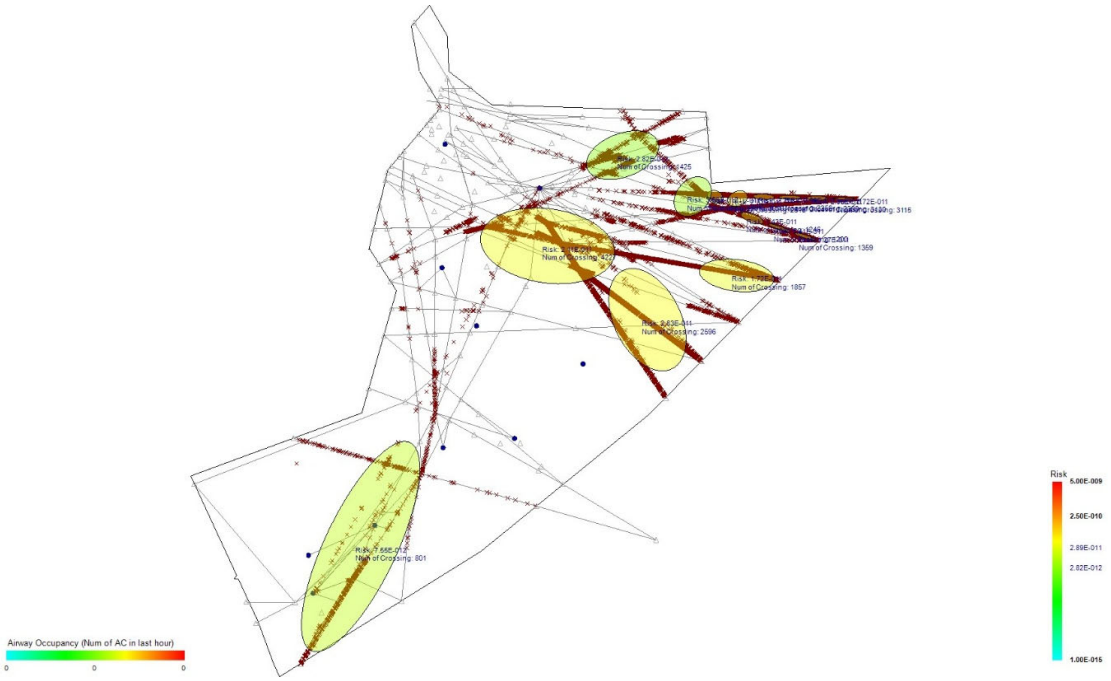


Kuwait FIR Airways Occupancy

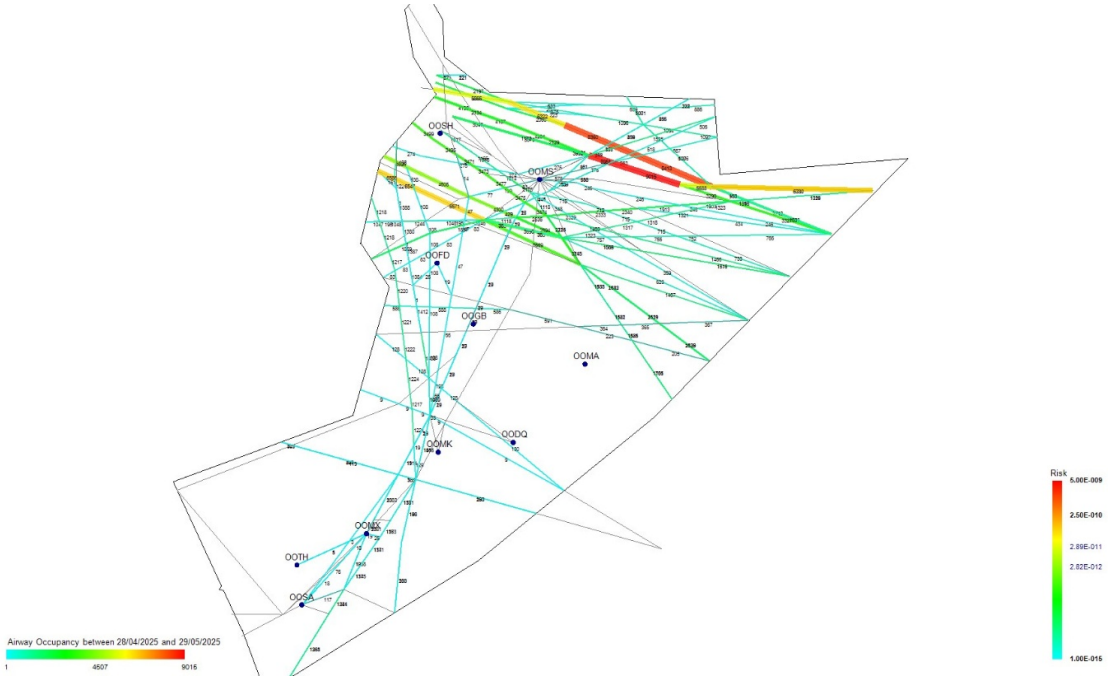
No Hotspots Observed Within Beirut FIR



Beirut FIR Airways Occupancy

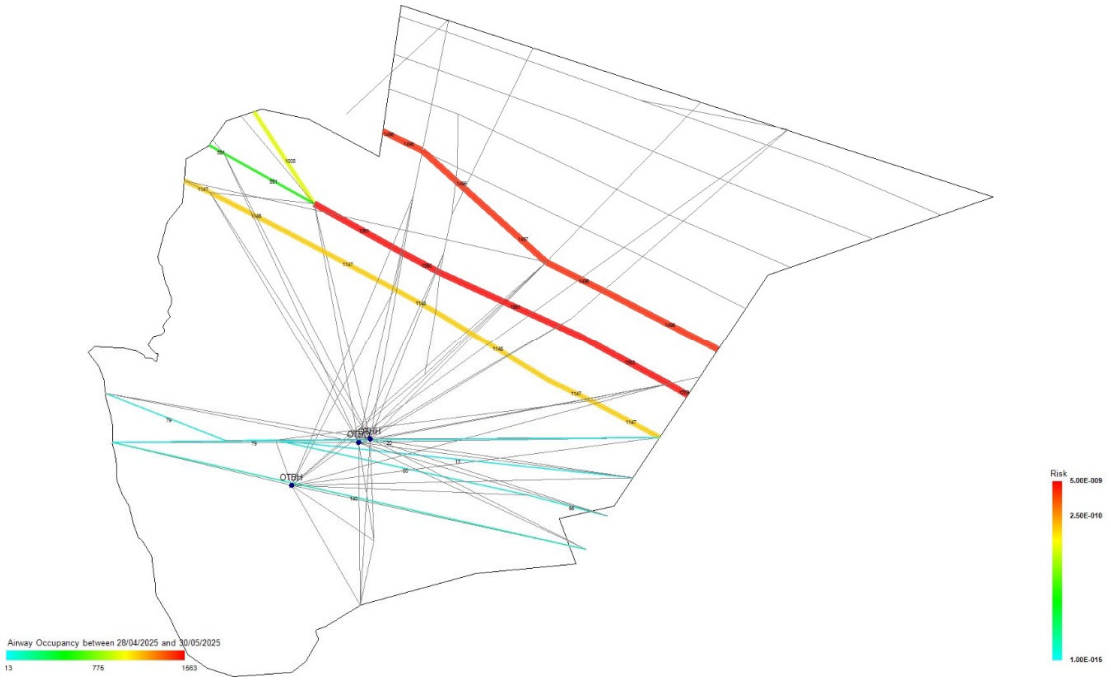


Muscat FIR Hotspots

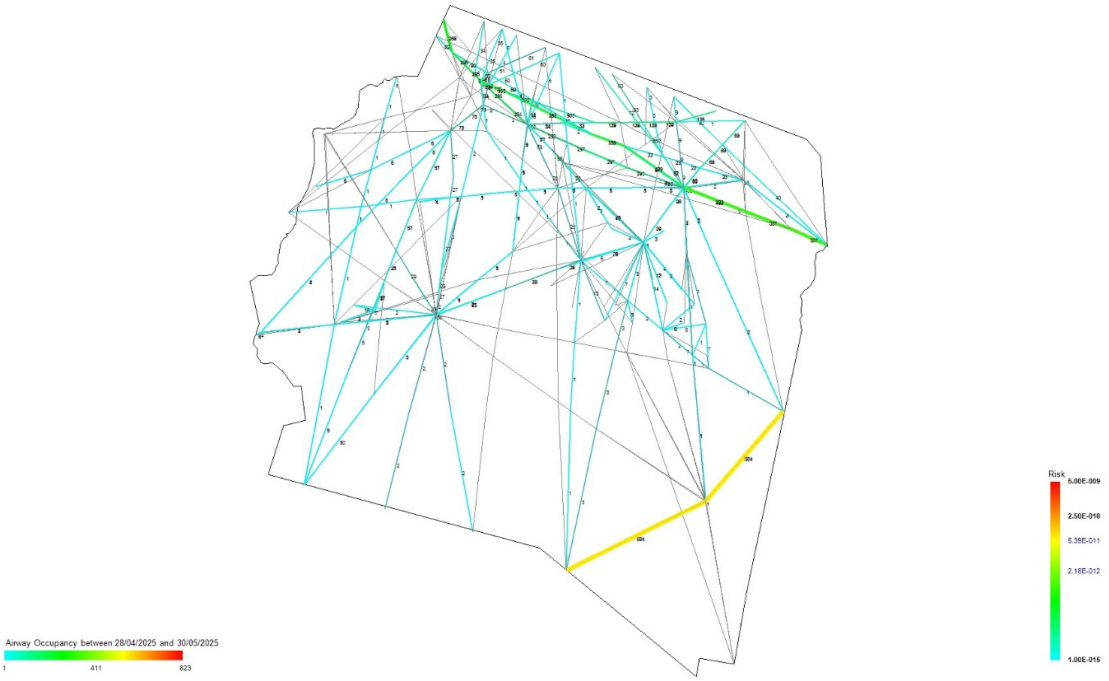


Muscat FIR Airways Occupancy

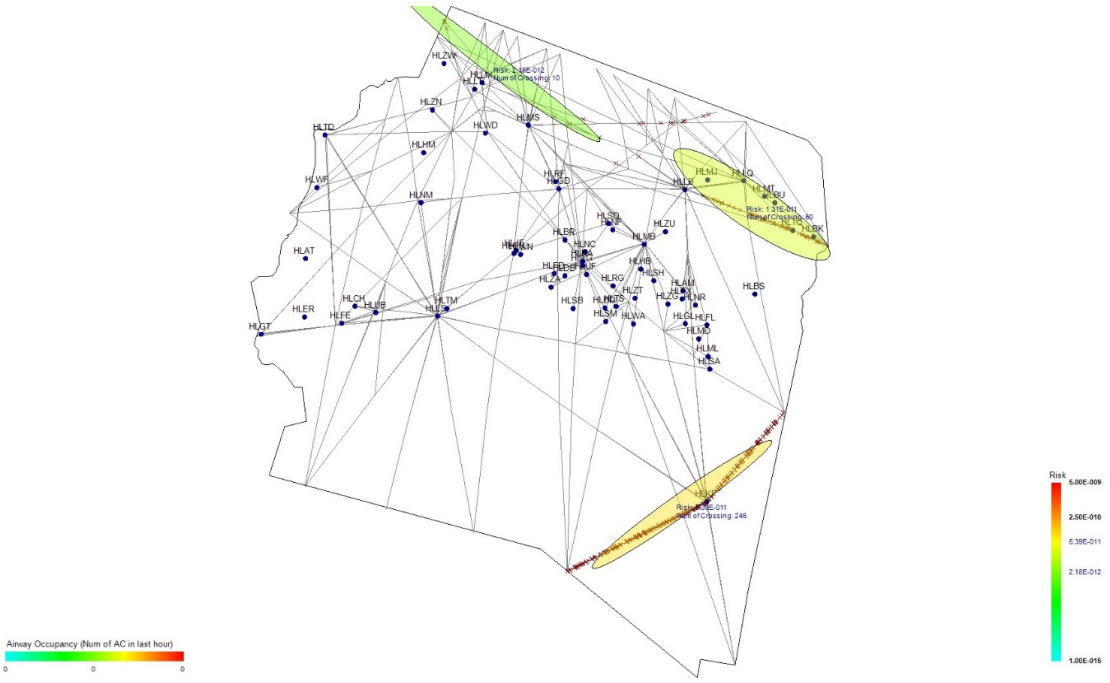
No Hotspots Observed Within Doha FIR



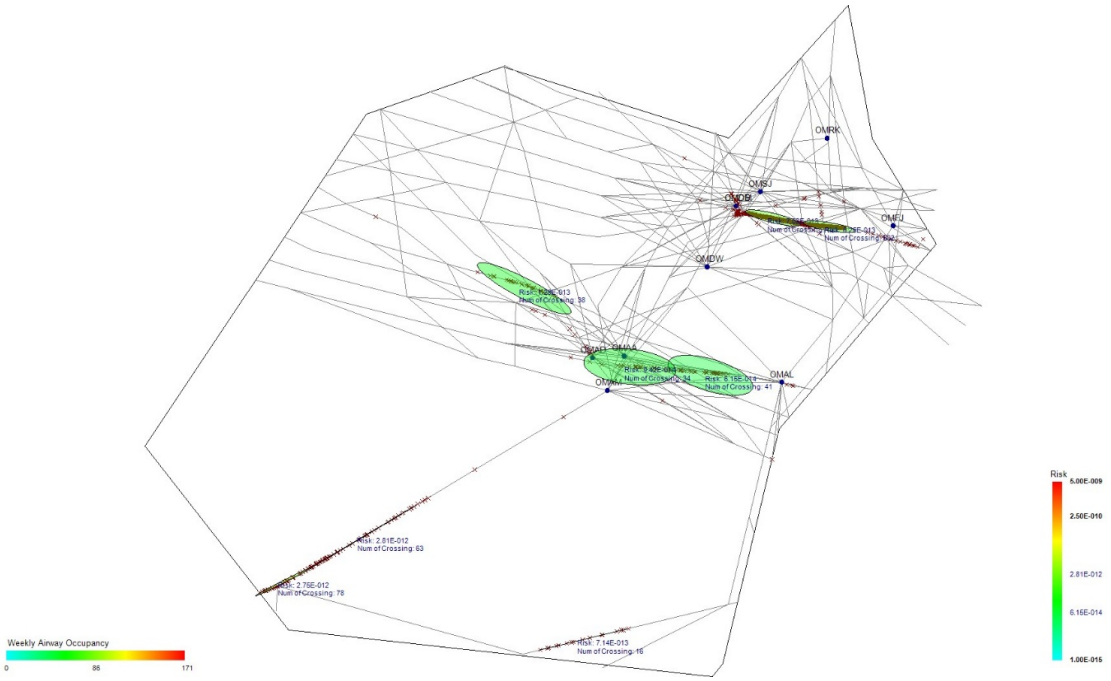
Doha FIR Airways Occupancy



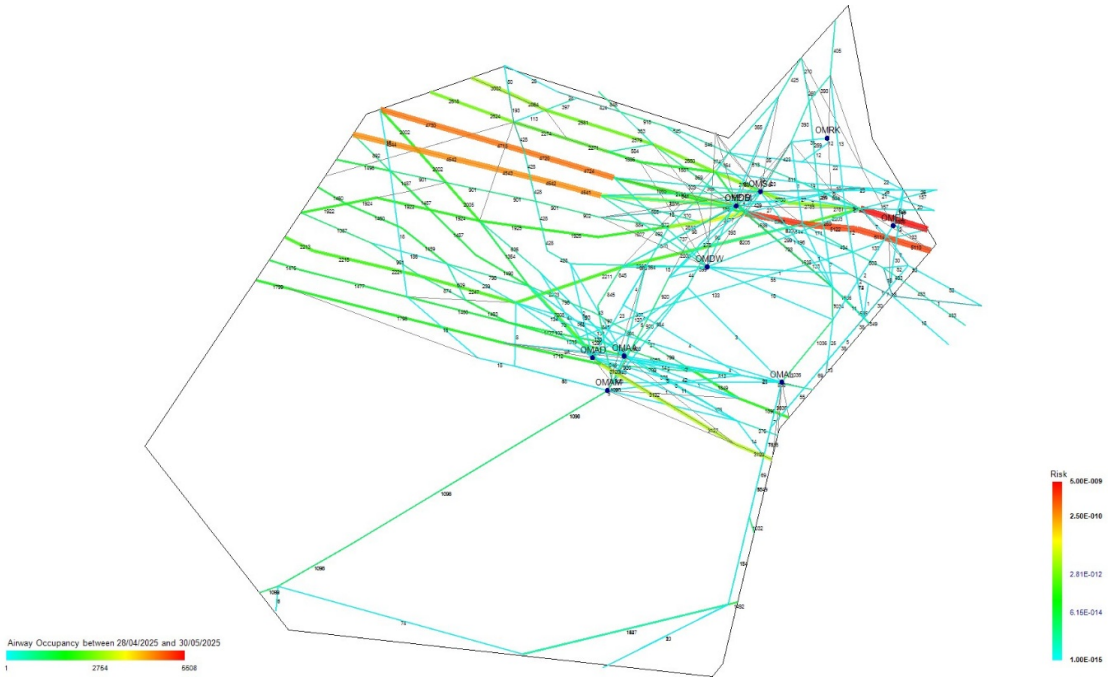
Tripoli FIR Hotspots



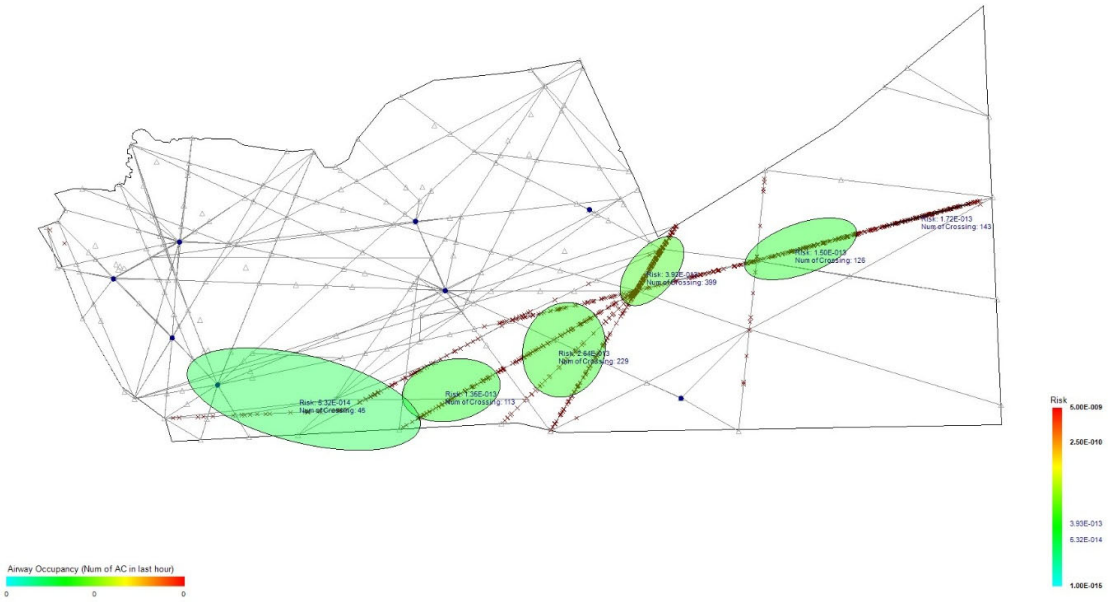
Tripoli FIR Airways Occupancy



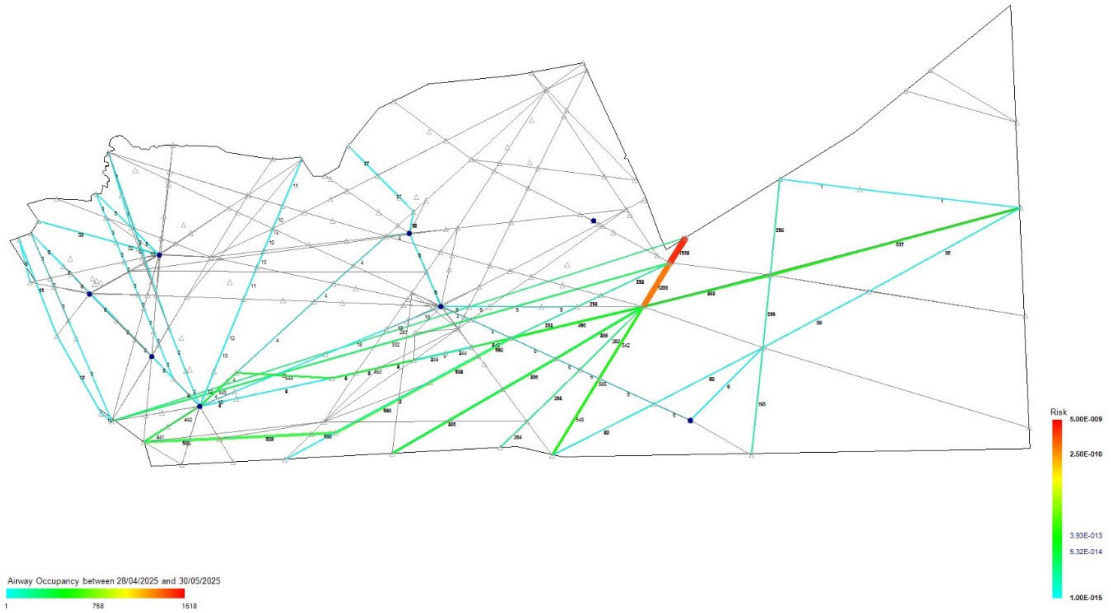
Emirates FIR Hotspots



Emirates FIR Airways Occupancy



Sana'a FIR Hotspots



Sana'a FIR Airways Occupancy

- END -