



ICAO MID



Airspace Closure Contingency Arrangements & Procedures

Civil Aviation Authority, Oman



1. Background
2. Traffic Scenario during airspace closure
3. Operational Impact
4. Muscat ACC Overall Actions
5. Contingency Arrangements and Procedures
6. Regional Cooperation
7. Major Operational Challenges and Hazards
8. Lessons learnt
9. Recommendations
10. Conclusions

Background

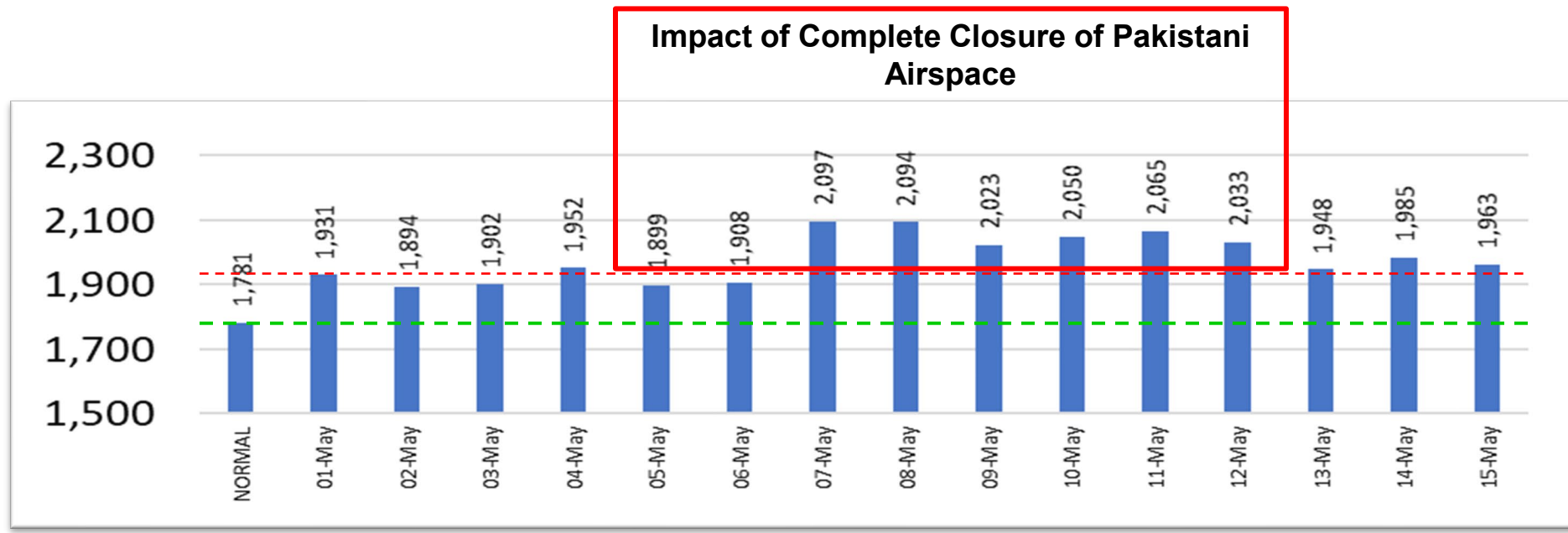
➤ Pakistani Airspace Closure Status

- 24 Apr 2025: NOTAM A0220/25 from 250424 1230 UTC to 25052359 UTC
Closure of Pakistani Airspace for Indian registered A/C only
- 05 May 2025: Complete closure of Pakistani Airspace
- 07 May 2025: Some airports reopened in Pakistan .
- 09 May 2025 Complete closure of Karachi FIR Airports (except Quetta)
- 12 May 2025 Opening of Pakistani Airspace except for Indian registered A/C
This situation still exist as of 24 July 2025.

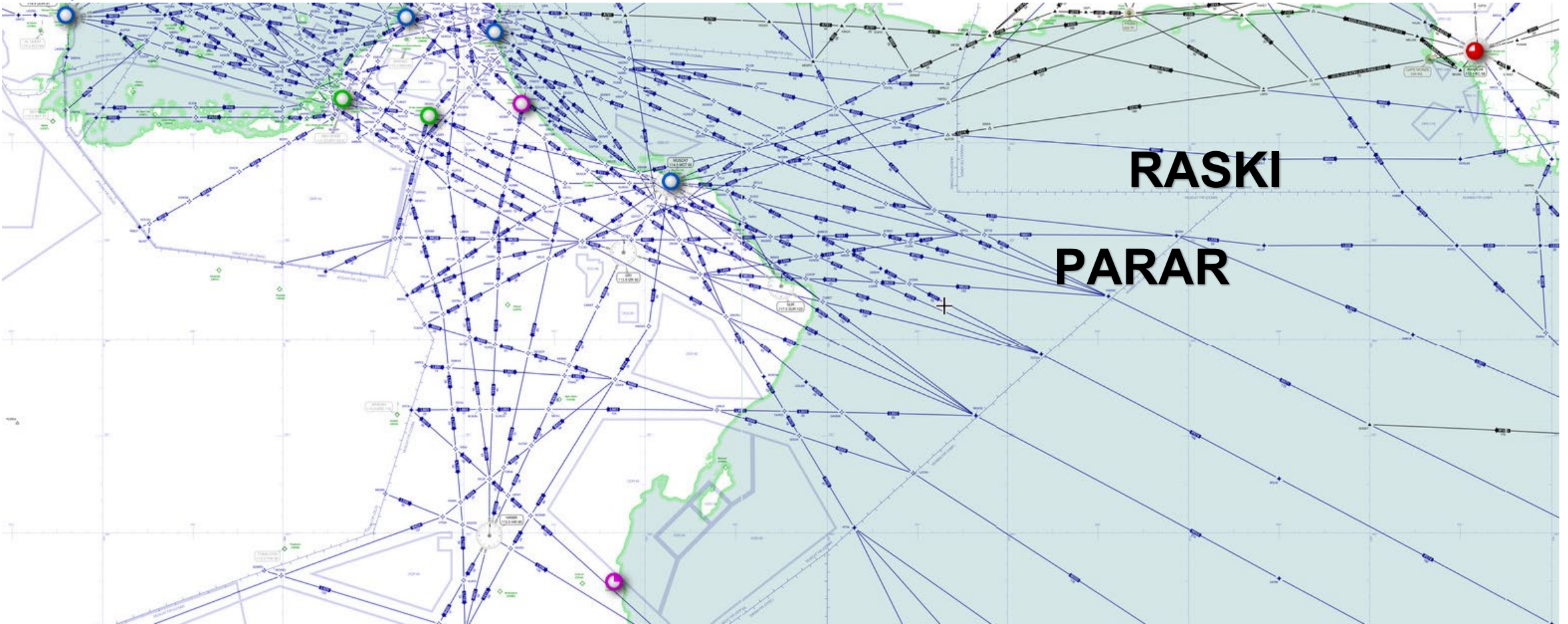
➤ Iranian Airspace Closure Status

- | | |
|--------------|--|
| 13 June 2025 | Iranian Airspace closed |
| 23 June 2025 | Doha, Bahrain and Kuwait FIRs closed for some hours followed by partial closure of UAE FIR except Muscat & Saudi FIRs. |
| 26 June 2025 | Eastern part of Iranian airspace opened (DENDA, MESPO, IMLOT opened) |

➤ Traffic Scenario during Pakistani Airspace Closure

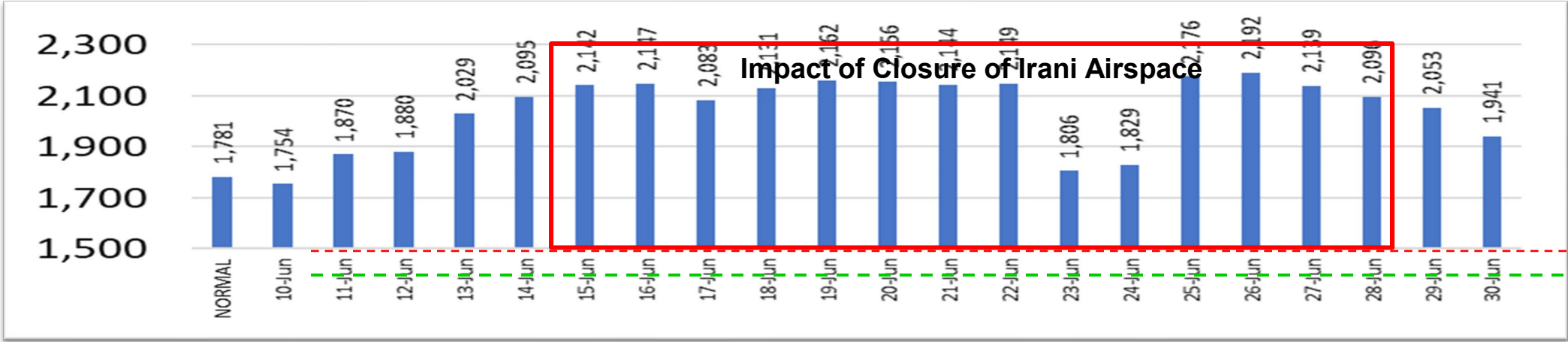


➤ Traffic went from 1780 flights to 2097 flights per day (18%)



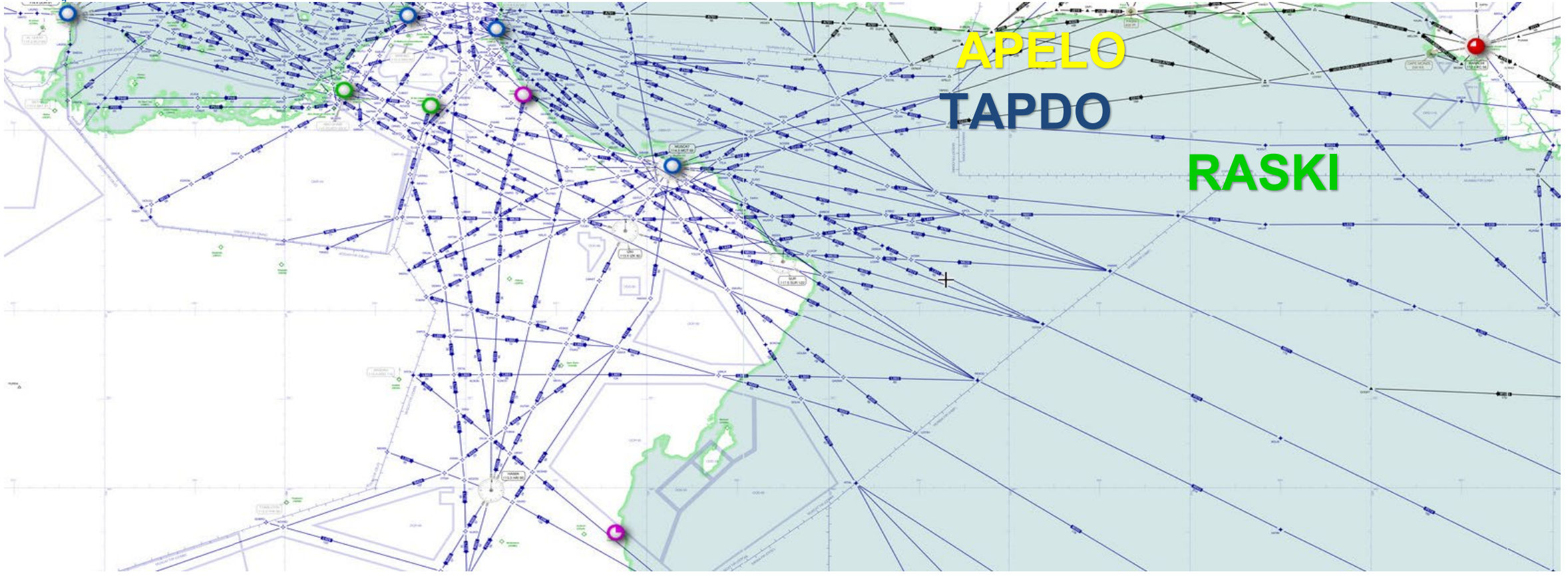
- RASKI remained particularly alarming, +78% (Max.) from 375 to 668
- PARAR second most affected, + 81% (Max.) from 240 to 435

➤ Traffic Scenario during Irani Airspace Closure





ICAO MID



- A significant surge in eastbound traffic over APELO , 315% (Max.) from 54 to 224.
- A significant surge in westbound traffic over TAPDO, in few instances exceeding RASKI, +117% (Max.) from 121 to 262



- Uncoordinated Flights Entering Muscat FIR
- Long Airborne and Ground Delays
- Unplanned Diversions to Muscat International Airport (OOMS)
- Return to Departure Airports
- High Workload on ATCOs, WSOs, and ATC Assistants
- ATCO and Support Staff Fatigue
- Sectors Capacity Exceeded
- Flight Level Constraints at Exit Points (RASKI, PARAR, APEL & TOTOX)
- Suspension of Controller Validation.
- Temporary Suspension of Training in some Sectors
- Delays in ATM Projects

4. Muscat ACC Overall Actions

- Formation of a Crisis Management Committee
- Risk Assessment for Airspace Closure Scenarios- both partial and full closures
- Strategic Coordination with Adjacent ACCs
- Departure Restrictions for Muscat Traffic
- Activation of Standby ATCOs
- Increased ATC Staffing Levels
- 24/7 Availability of Senior Team for Monitoring and Support
- Dynamic Traffic Rerouting (Traffic from MESPO–RASKI segment re-routed to TARDI–TOTOX segment)
- International Coordination via ICAO MID Crisis Coordination Team (CCT) to facilitate effective and efficient regional coordination.

5. Contingency Arrangement and Procedures

Contingency Actions During Pakistan Airspace Closure from 19:00 to 0200 UTC

- Immediate flow control measures implemented at:
 - TARDI and LABRI for UAE departures to Muscat FIR(4 mints)
 - LALDO and GOMTA for northern UAE departures(20nm to 50 nm)

- Longitudinal separation of 50 NM enforced at RASKI and PARAR bidirectionally
- Additional restrictions applied to:
 - Departures from Muscat to the east (5min).
 - Flights destined to Southeast Asia (e.g., WSSS and VTBS), which were barred from RASKI and PARAR routing.



ICAO MID

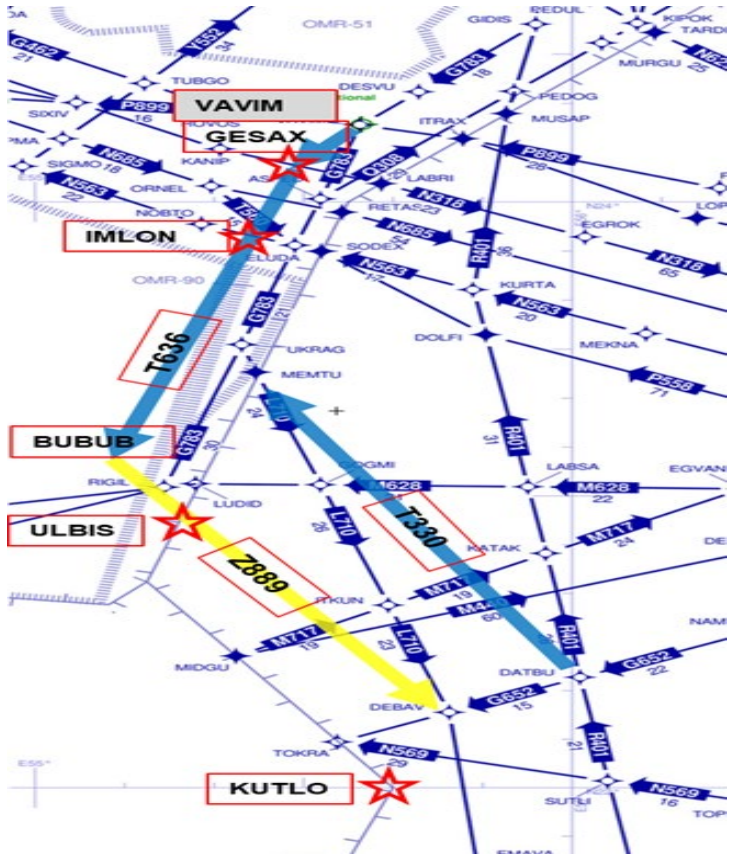


Contingency Actions During Iran Airspace Closure from 19:00 to 0200 UTC

- Flow restrictions of 20–50 NM for UAE and DOHA dep via LALDO and GOMTA
- TARDI and LABRI for UAE departures to Muscat FIR(4 mints)
- As capacity improved, dynamic spacing adjustments allowed reduction to 15–20 NM.
- 20 aircraft diversions into Muscat Airport and 4 flights at SLL during full closures of certain Gulf states FIRs.

6. Regional cooperation

- Applied tactical routing strategies to manage traffic.
- Activation of Gulf States CCT initiated by SANS (GULF CCT)
- Introducing a new contingent tactical route with UAE (east bound)



7. Major operational challenges and hazards

- Insufficient Staffing during peak periods, increased ATC workload and potential safety risk
- Airway unavailability constrained routing flexibility
- Lack of clarity in adjacent FIR's decision about airport status, affecting effective planning
- Increasing request for flow measure exemption from airline complicated traffic planning and management.
- Lack of awareness among new airlines about the flow management procedure caused coordination challenges and safety concerns.
- Frequency congestion in multiple sectors caused reduction in communication effectiveness
- Level restriction at RASKI by VABB impacted the optimal routing, complicating coordination.
- Unplanned diversions to Muscat due to fuel limitations and route congestion increased workload on ATC and ground services.

8. Lessons learnt

- Enhancement of the contingency Management and planning at the national & regional levels with all relevant stakeholders for the dynamic management and coordination covering such geopolitical crises.
- Real-time FIR coordination, flexible airspace use, and adaptive flow control were key to managing unpredictability and ensuring traffic flow.
- The situation highlighted the need for ongoing investment in system capacity, staffing, and training.

9. Recommendations

Operational Readiness & Coordination

➤ **Establish Regional Contingency Protocols**

Develop dynamic contingency frameworks supported by digital coordination platforms or mechanisms across GCC States to enable standardized and timely responses during regional disruptions.

➤ **Enhance Inter-FIR Data Exchange**

Implement real-time data-sharing systems or mechanisms with adjacent FIRs to improve situational awareness regarding airspace availability, sector capacity, and rerouting options.

➤ **Strengthen Civil–Military Contingency Procedures**

Formalize mixed civil/military coordination processes, including predefined airspace release agreements and rapid communication mechanisms during contingencies.

Human Resource Development & Staffing

➤ **Expand ACC Staffing Capacity**

Recruit and train additional ATCOs to ensure sustained operational performance during high-traffic periods and prolonged disruptions.

➤ **Implement Crisis-Focused Refresher Training**

Integrate real-world crisis scenarios into simulator-based refresher courses to improve tactical adaptability and preparedness.

➤ **Supervisor Training in Crisis Management**

Provide targeted leadership and decision-making training for ACC supervisors to enhance management effectiveness during critical situations.

Systems Support & Institutional Knowledge

➤ **Strengthen ANSP–Airports company Contingency Procedures**

Formalize mixed coordination processes to tactically manage airport operations and capacities in departure flow and accommodating diversion flights.

Staff Motivation & Recognition

➤ **Structured Reward Mechanism**

Acknowledge outstanding staff performance during contingency operations through structured reward and recognition programs

10. Conclusions

- Muscat ACC maintained safe operations through flow management, tactical spacing, and real-time FIR coordination.
- Cross-border coordination and flexible airspace structures remain critical for future contingencies.
- The crisis demonstrated the resilience of Oman's ATM system and the dedication of its personnel.



شكراً

Thank You