الهيئة العامة للطيران المدني
GENERAL CIVIL AVIATION AUTHORITY

United Arab Emirates

UAE ATFM

ICAO APAC/MID ATFM & FF-ICE Seminar 2025
(23 – 27 Feb 2025, Dubai – UAE)

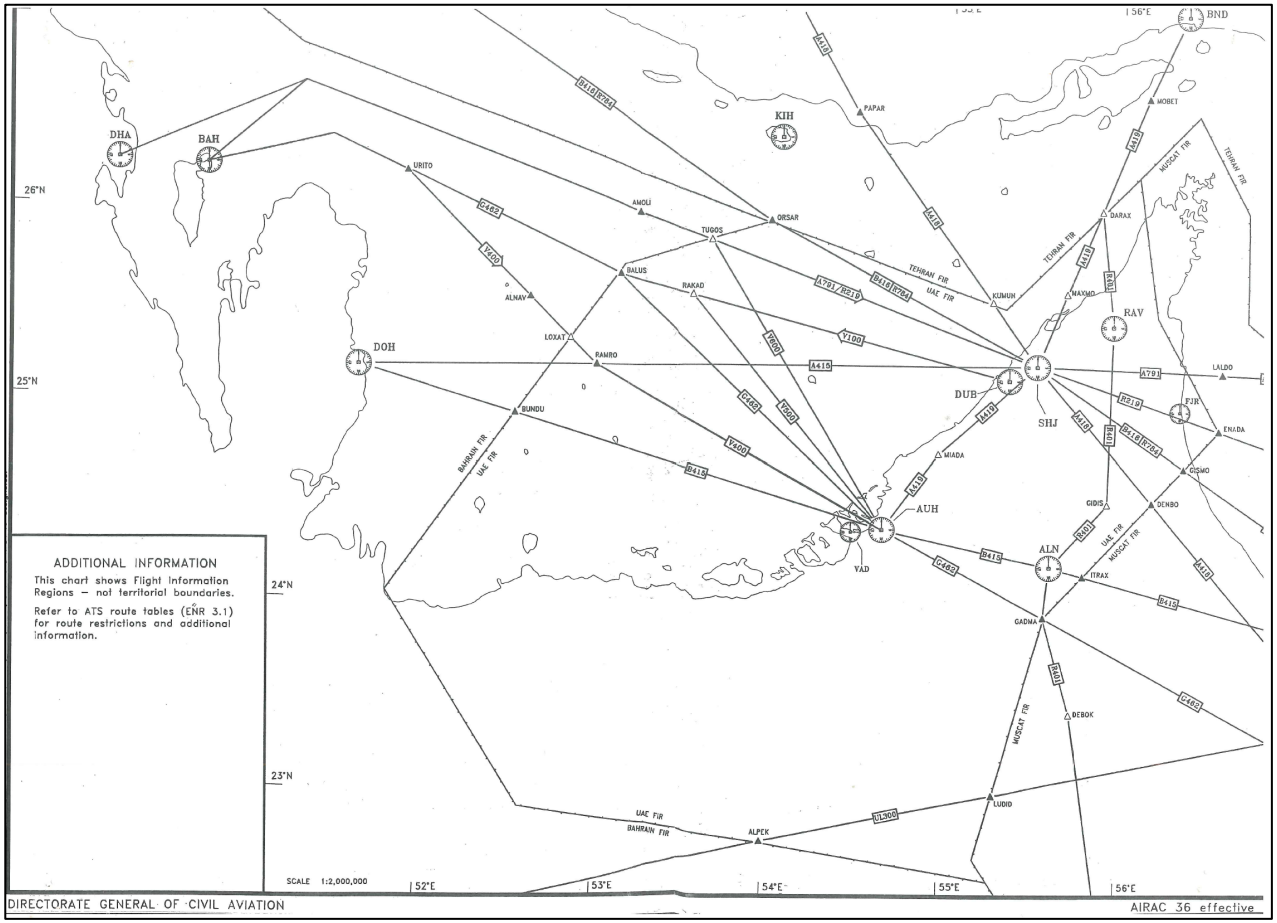
UAE Aviation

- The UAE is witnessing rising air traffic movements each year, exceeding 1 Million flights through the Emirates FIR in 2024, reflecting its role as a global connector.

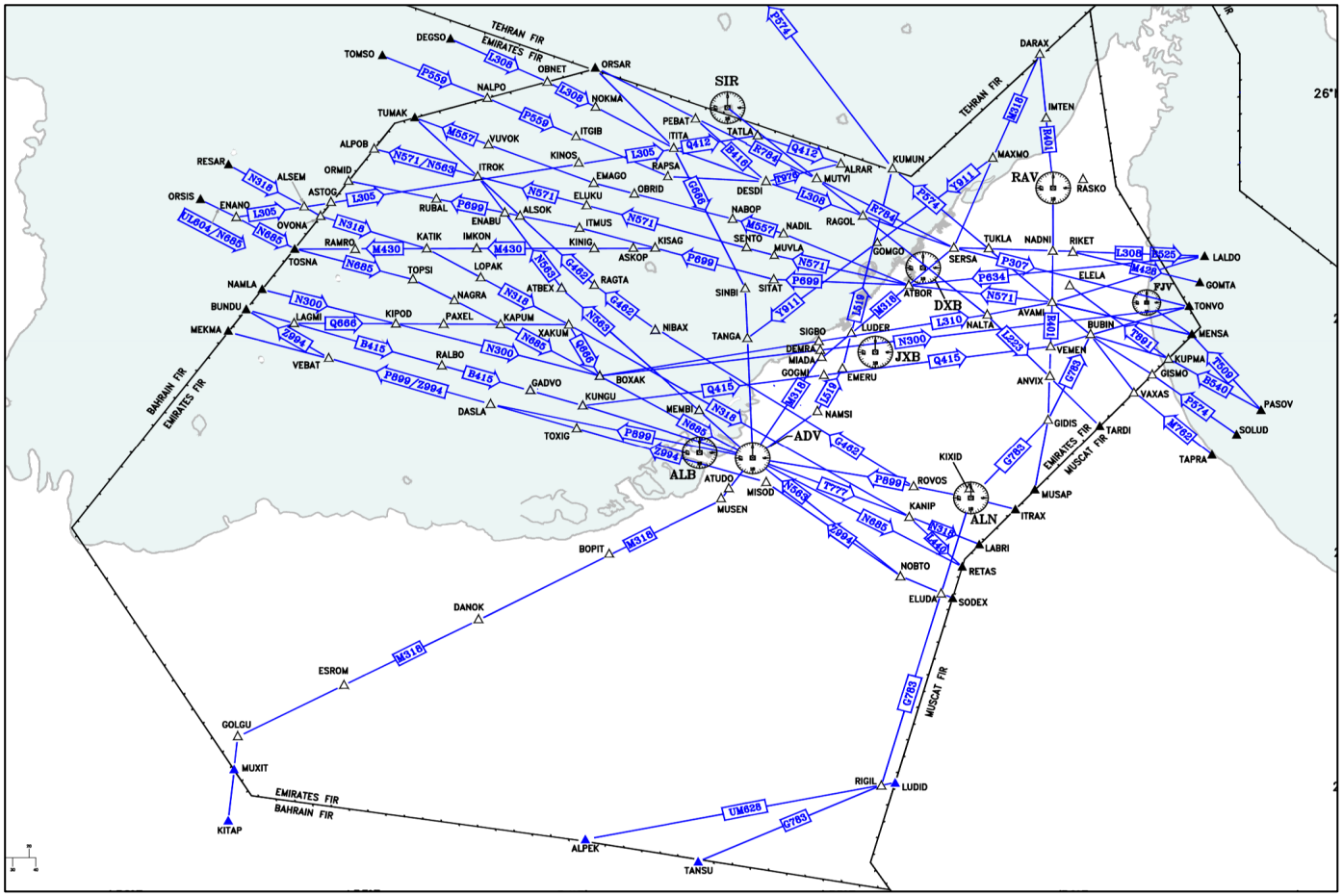
- Current initiatives and measures such as infrastructure expansions and optimized airspace routes help accommodate this growth, but long-term efficiency requires advanced flow management tools.

- To maintain smooth operations amid continued expansion, the UAE is enhancing the ATM and airport capacity.

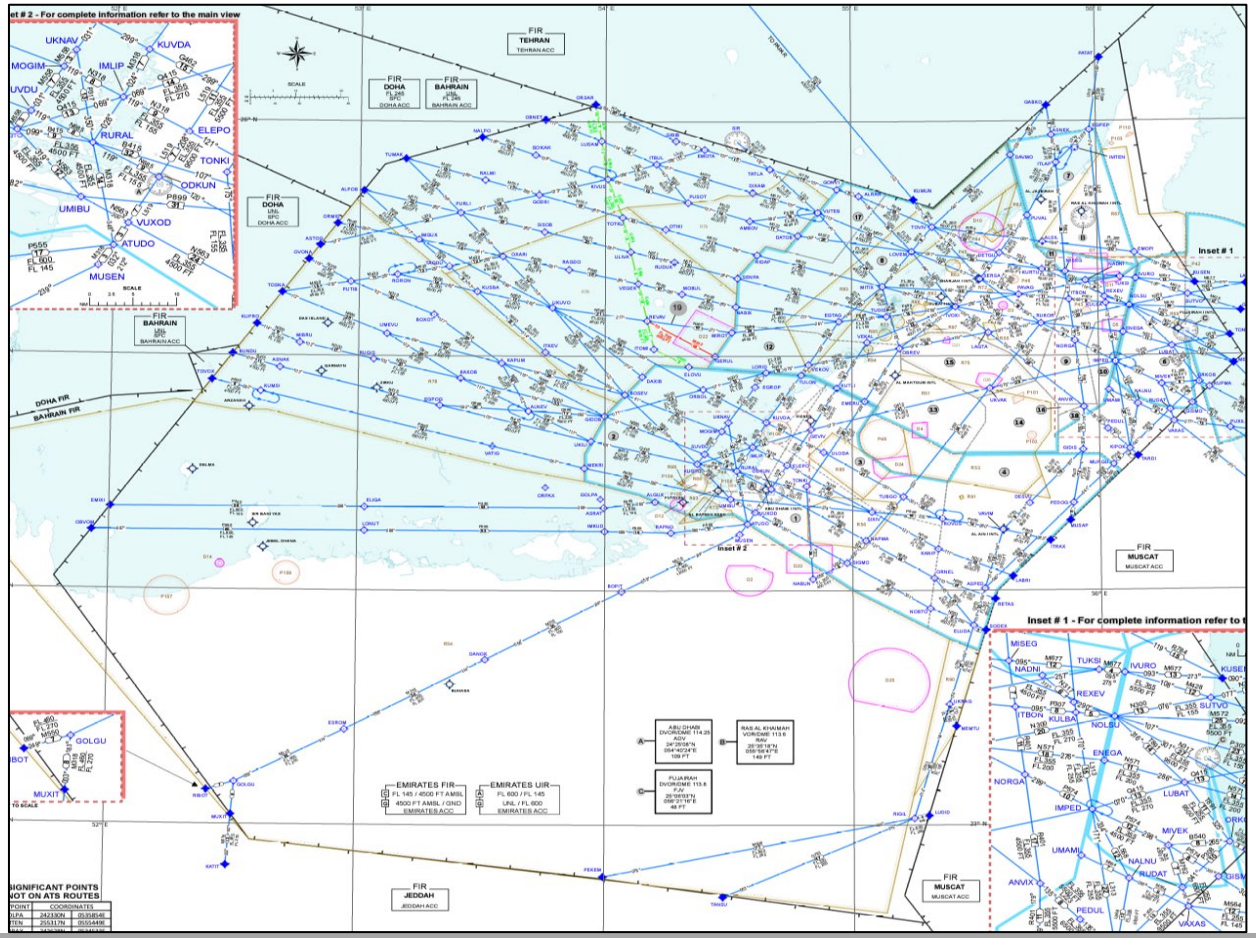
History of the Emirates FIR



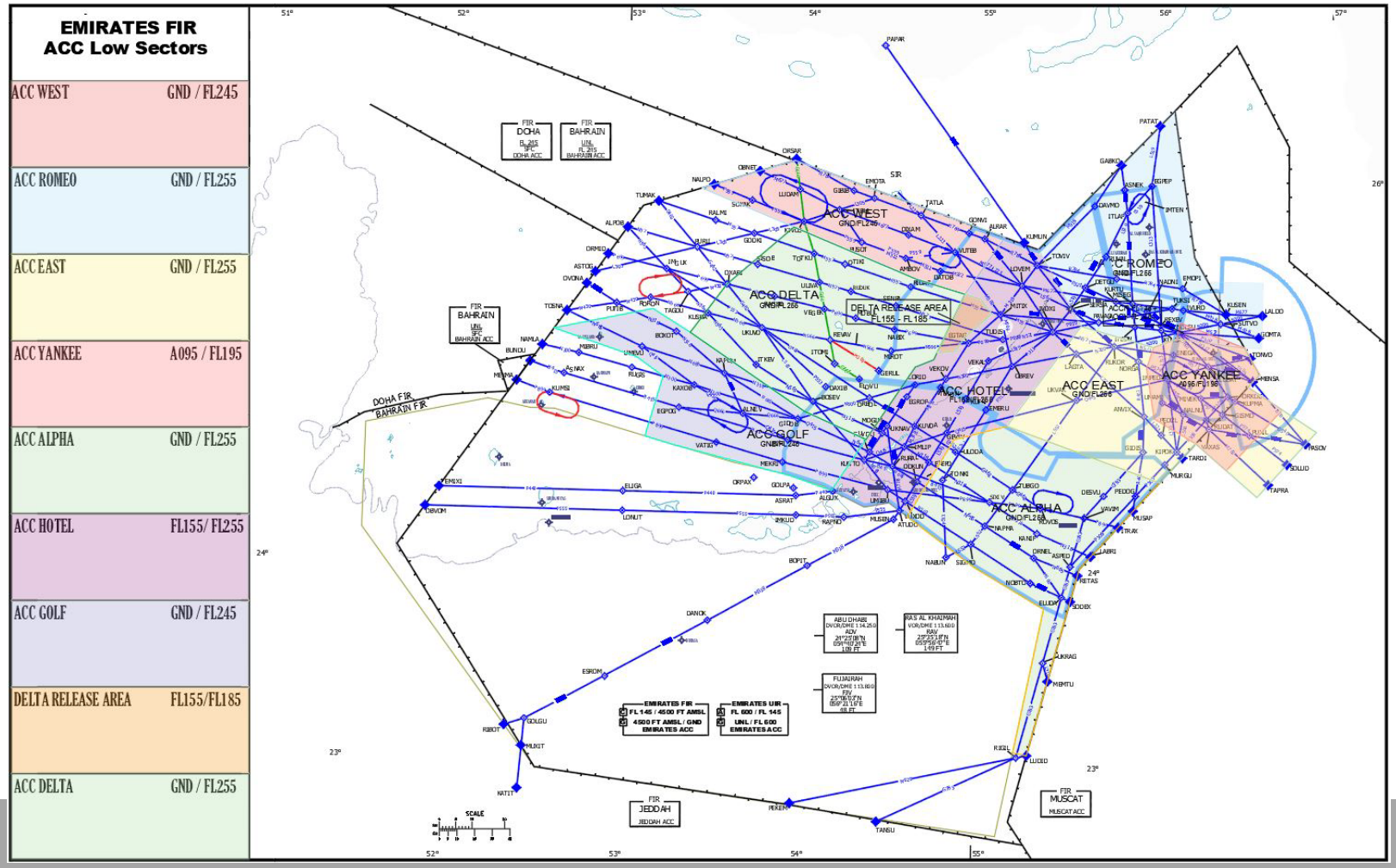
The Evolution of the Emirates FIR – 2014 to 2017



Emirates FIR - Now

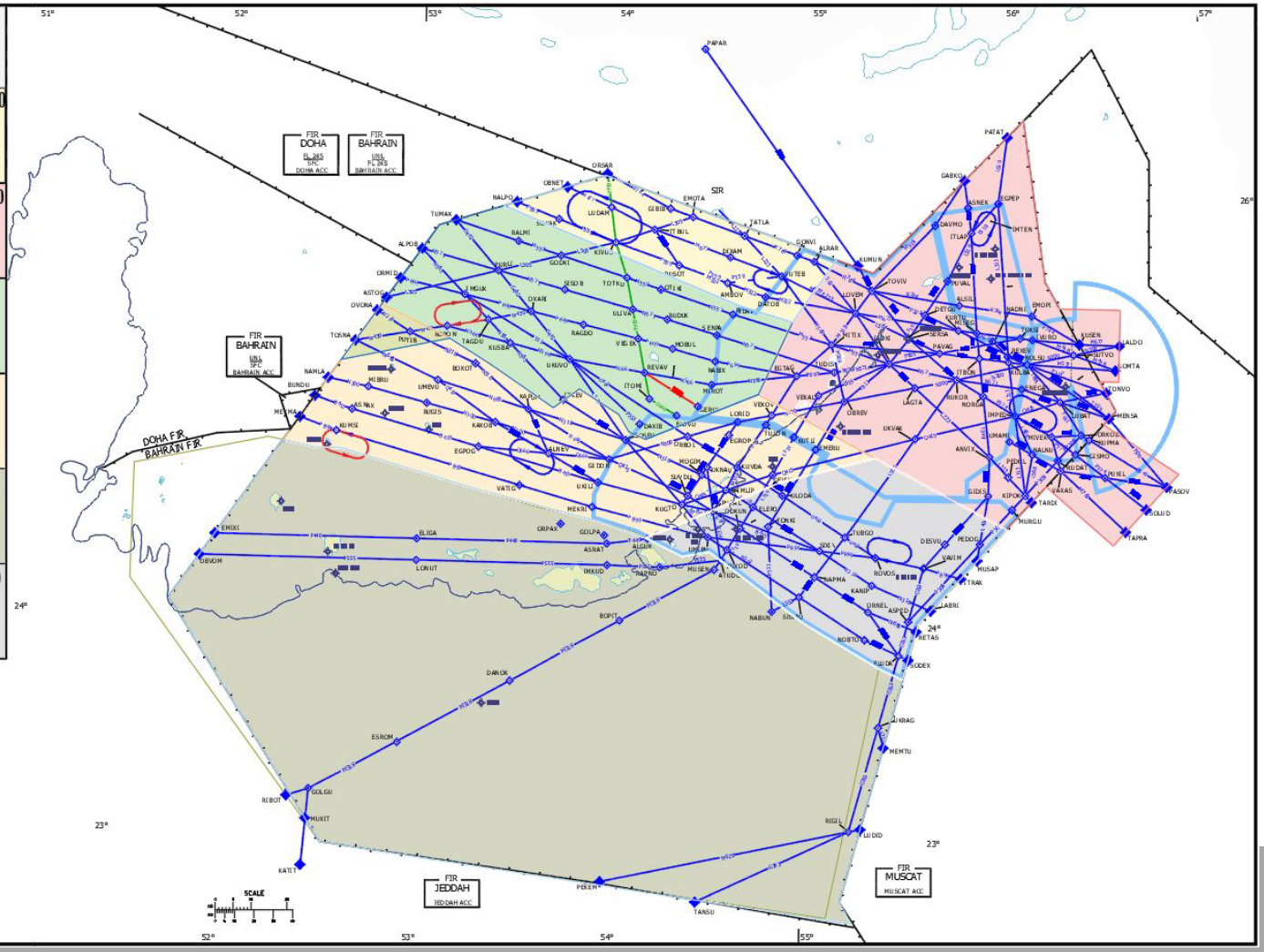


Emirates FIR – Low Sectors

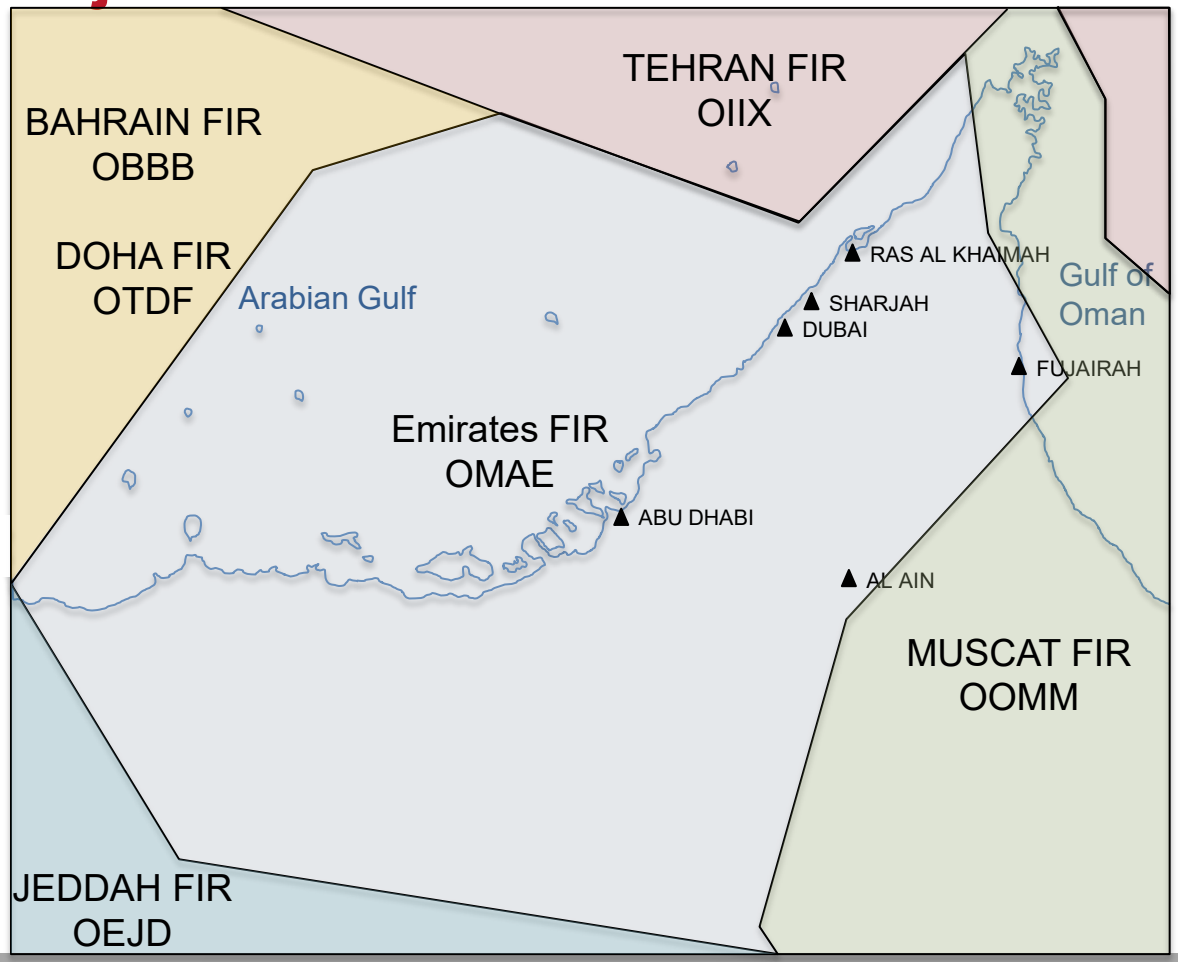


Emirates FIR – High Sectors

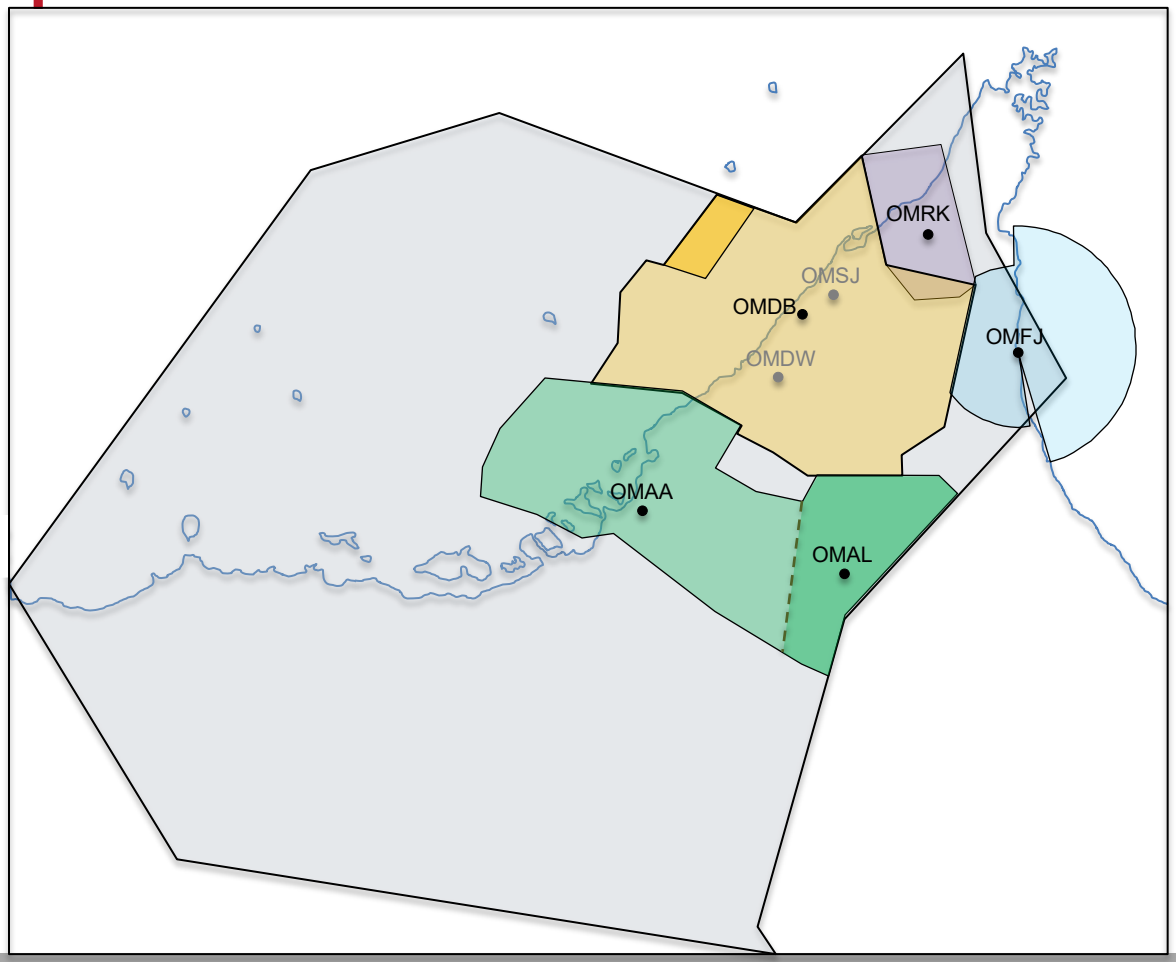
EMIRATES FIR ACC High Sectors	
ACC NORTH	FL245 / FL600
ACC MIKE	FL255 / FL600
ACC CENTRAL	GND/ FL600
ACC SOUTH	GND / FL600
ACC LIMA	GND / FL600
ACC BRAVO	FL255/ FL600



UAE & Adjacent FIR's



UAE Airports CTA's



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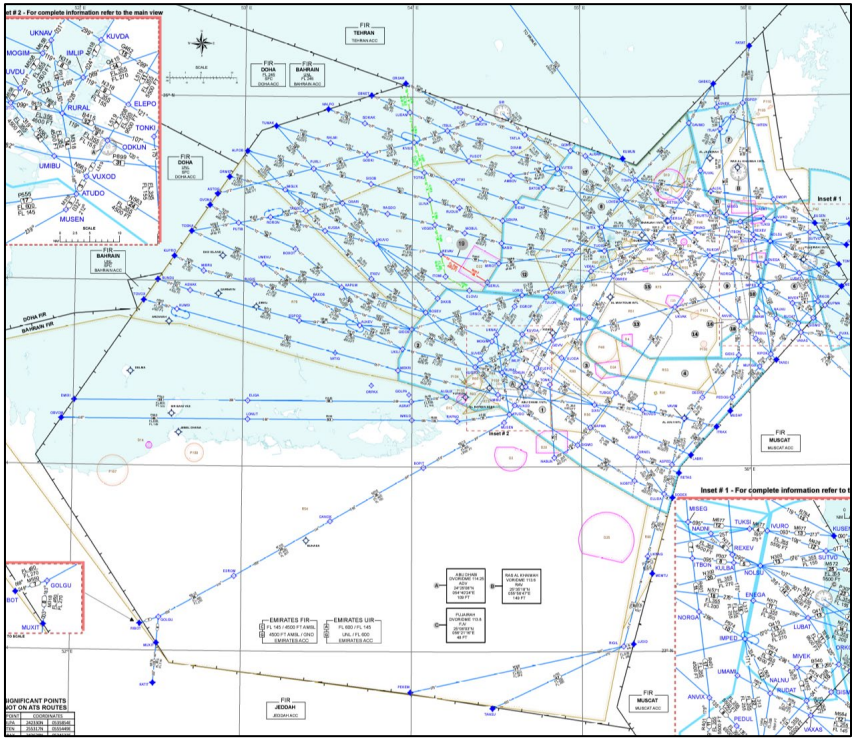
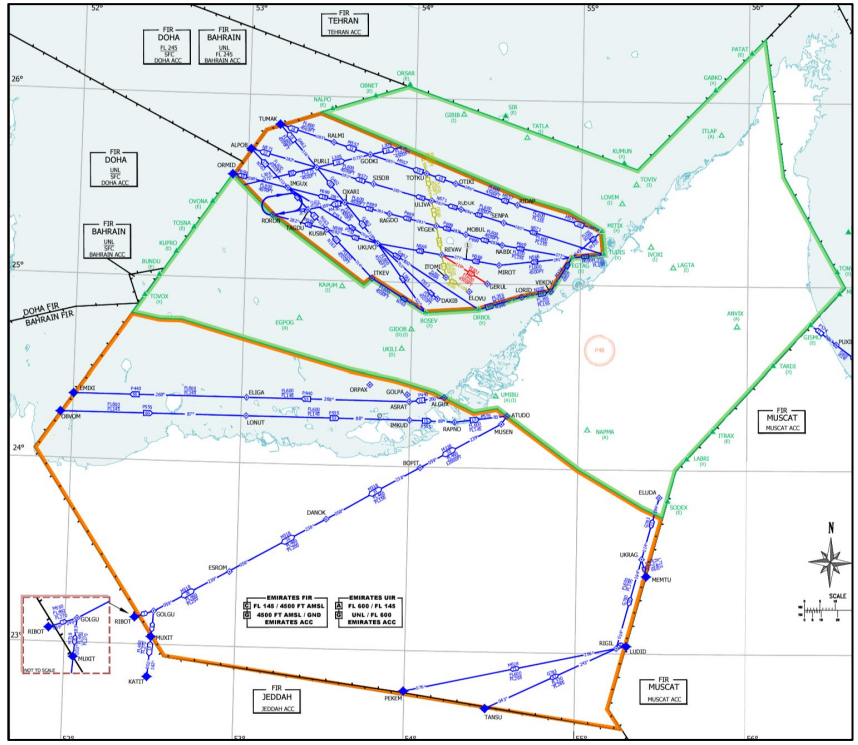
Free Route Airspace (FRA)





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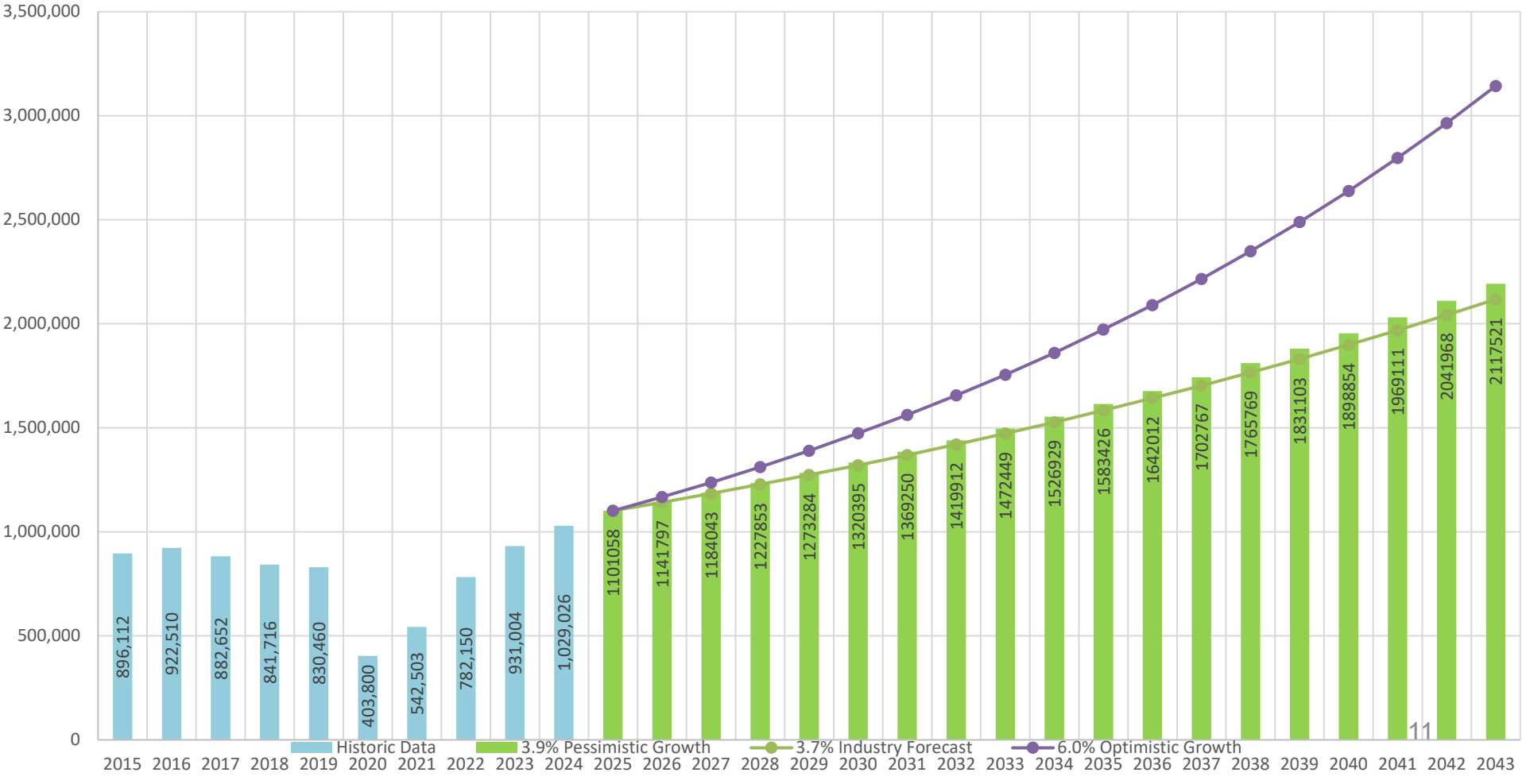
UAE Air Traffic Growth

2043 Forecast



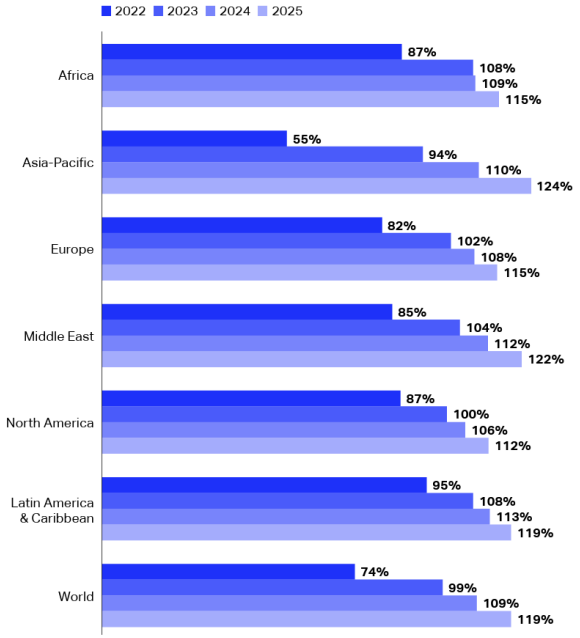
What About Tomorrow?

Table 1: Air passenger forecast summary

Region	Recovery year	CAGR (2019 - 2040)	Additional passengers by 2040, millions
Africa	2023	3.6%	169.7
Asia Pacific	2024	4.5%	2,536.8
Europe	2023	2.2%	701.4
Middle East	2023	3.6%	264.1
North America	2023	2.2%	558.5
Latin America & Caribbean	2023	2.8%	304.0
World	2024	3.4%	3,923.0

Sources: IATA Sustainability and Economics, Tourism Economics (September 2023 release)

Chart 13: Regional passenger totals, % share of 2019 levels



Sources: IATA Sustainability and Economics, Tourism Economics (September 2023 release)

Why ATFM?

- As ICAO Doc 9971 Manual on Collaborative Decision-Making (CDM), states, “As a general rule, ATFM is needed whenever airspace users are faced with constraints on their operations, and in areas where traffic flows are significant”

- Supporting the UAE’s long-term vision for sustainable and efficient aviation. By matching flight demand with available capacity, it reduces congestion and delays, ensures efficiency.

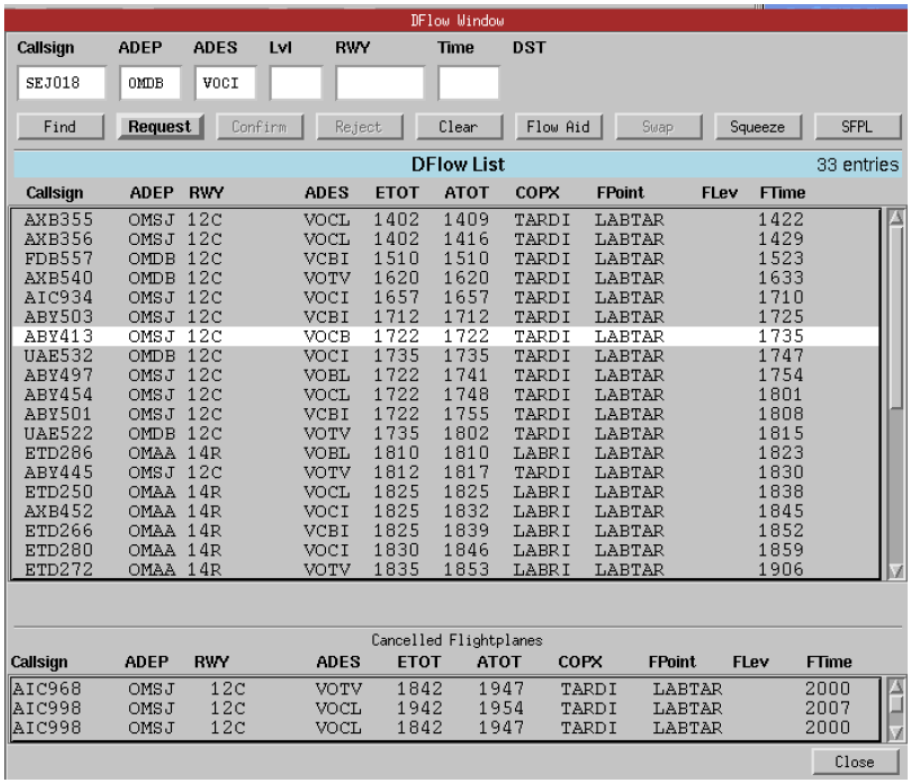
- In line with ICAO MID DOC 014, a strong ATM strategy enhances flexibility in handling disruptions, strengthens safety, and ensures a high-quality travel experience, aligning with the UAE’s growth objectives.

Current ATFM System and Need for Upgrades

- The UAE currently uses various systems like Departure Flow (D-Flow) and Arrival Manager (AMAN) to manage the flow of air traffic, but these do not constitute a full ATFM solution.

- The increase of air traffic demand requires upgraded systems with enhanced automation, integration, and real-time data sharing.

- Establishing a full scope ATFM eco-system will enhance predictability, optimize airspace capacity, and improve traffic flow management while ensuring long-term sustainability to accommodate future growth.



Establishing an ATFM Unit in the UAE FIR

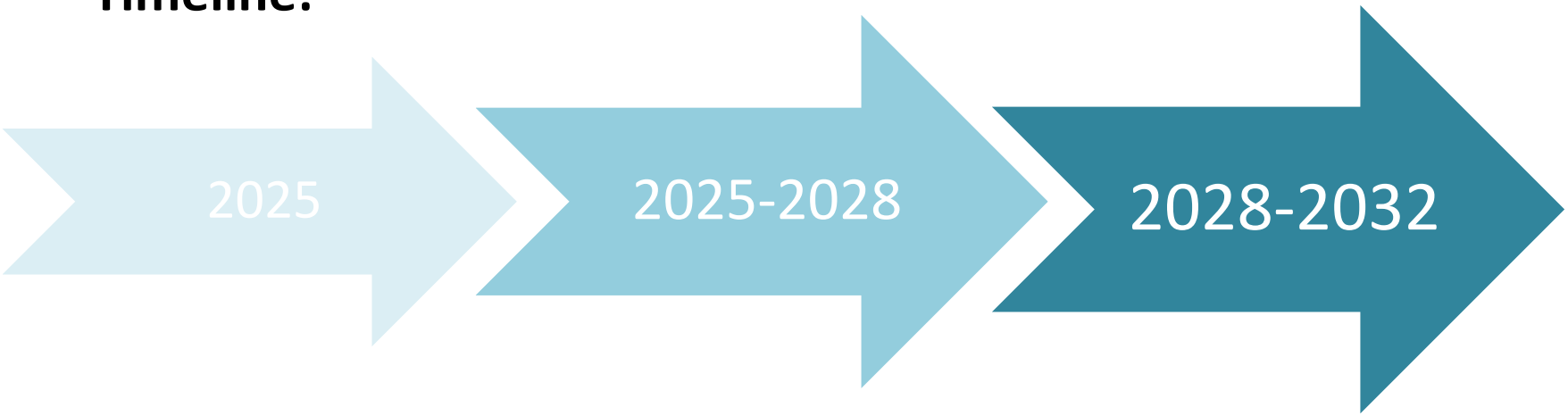
- The establishment of the ATFM Unit as the central coordinating entity for all flow-related data within the by 2025 is driven by the need to manage growing air traffic demand, enhance operational efficiency, and ensure a sustainable and safe airspace in alignment with the country's long-term aviation strategy.

- It will gather information from various ATFM stakeholders, manage the dedicated web platform UAE Airspace Coordination and Contingency Cell (UACACC) for publishing updates, and lead teleconferences to ensure synchronized planning.

- By consolidating inputs from other ATFM units, airlines, and airports, the unit maintains real-time situational awareness, enabling strategic decision-making and clear communication across all levels of strategic, pre-tactical and tactical air traffic management.

Establishing a New ATFM Unit in the UAE

- **Timeline:**



2025	2025-2028	2028-2032
❑ Establish New ATFM unit	❑ The development of ATFM features for the UAE ATFM System ❑ Update and upgrade software and hardware	❑ By 2028, implement ATFM system for live testing ❑ By end of 2032, ATFM system fully developed and implemented, including FF-ICE enablement

ATFM Teleconference & ADP

- The UAE's ATFM unit will host virtual teleconferences focused on upcoming operations, gathering input on potential constraints from stakeholders and publishing updates.

- Using the UACACC platform, all relevant data such as capacity limits, special events, or weather impacts will be consolidated into an ATFM Daily Plan (ADP) for collective reference.

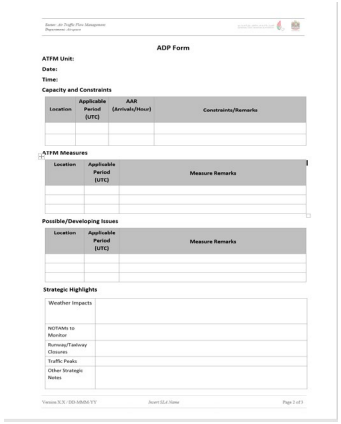
Zone Departures Stopped (**Note :** Departure Stopped Departure Allowed)

	UAE FIR	OMRK	OMFJ	OMAA	OMDW	OMDB	OMSJ	OMAL
Zone 01								
Zone 02								
Zone 03								

(**Note :** Parking Slot = 0 Parking Slot >= 1 =< 3 Parking Slot > 3)

No. of Available parking slots

	OMRK	OMFJ	OMAL	OMDW	OMSJ
Last Updated	23/04/2024 01:51:43	23/04/2024 02:05:40	23/04/2024 01:55:34	21/02/2024 17:06:37	11/03/2024 02:59:29
Medium	3	5	2	11	0
Heavy	0	1	0	11	0
Super	0	0	0	11	0


ADP Form

ATFM Unit:

Date:

Time:

Capacity and Constraints

Location	Applicable Period (UTC)	AAR (Arrivals/Hour)	Constraints/Remarks

ATFM Measures

Location	Applicable Period (UTC)	Measure Remarks

Possible/Developing Issues

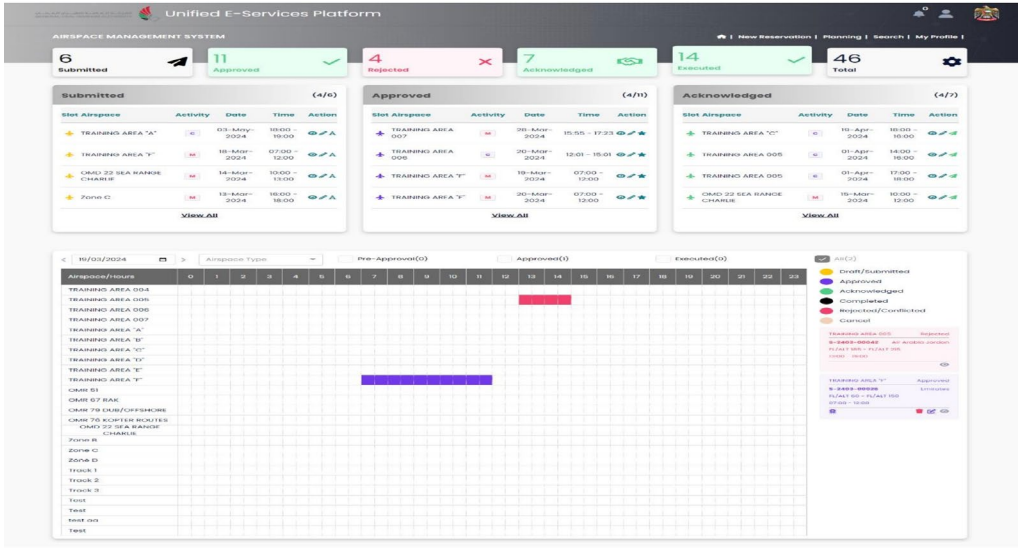
Location	Applicable Period (UTC)	Measure Remarks

Strategic Highlights

Weather Impacts	
NOTAMs to Monitor	
Runway/Taxiway Closures	
Traffic Peaks	
Other Strategic Notes	

Airspace Reservation System (ARS) “FUA”

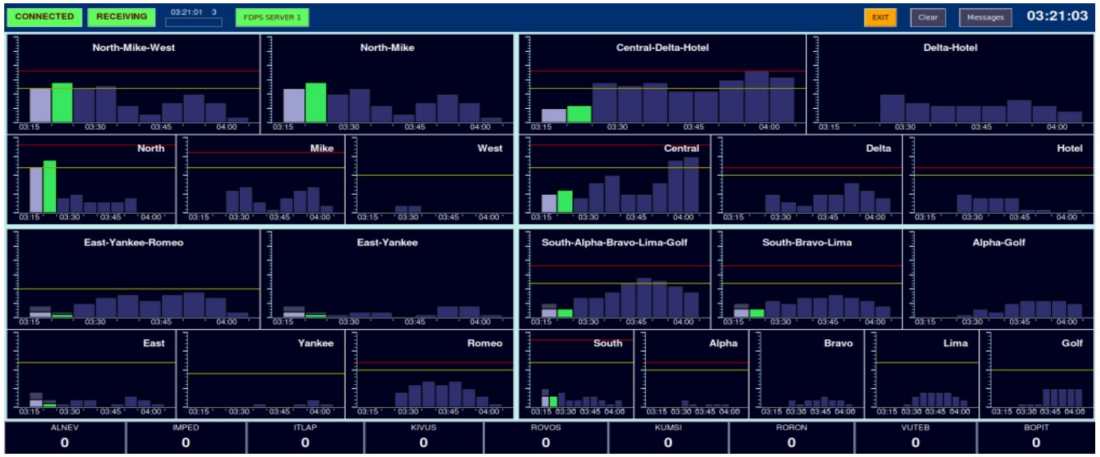
- Stakeholders including airlines and military units can then reserve slots or restricted/training areas on UAE Airspace Reservation System(ARS), ensuring a coordinated transparent approach to flow management.



Supporting Systems (TRAMON)

- The Traffic monitor (TRAMON) system serves as a centralized platform for real-time and predictive oversight of traffic loads across all airspace sectors.

- This enables agile and proactive decision-making processes for staff allocation and sector management.



Conclusion

- In closing, the UAE's ATFM roadmap demonstrates proactive steps toward air traffic flow management, in line with ICAO guidelines and regional collaboration efforts.

- By streamlining procedures and enhancing real-time data exchange, the UAE reaffirms its commitment to efficient, safe, and sustainable aviation.

- Moving forward, the focus will be on finalizing operational procedures, expanding digital platforms, and integrating tools to handle evolving traffic demands with resilience and transparency.