

الهيئة العامة للطيران المدني  
GENERAL CIVIL AVIATION AUTHORITY



# UAE ATFM

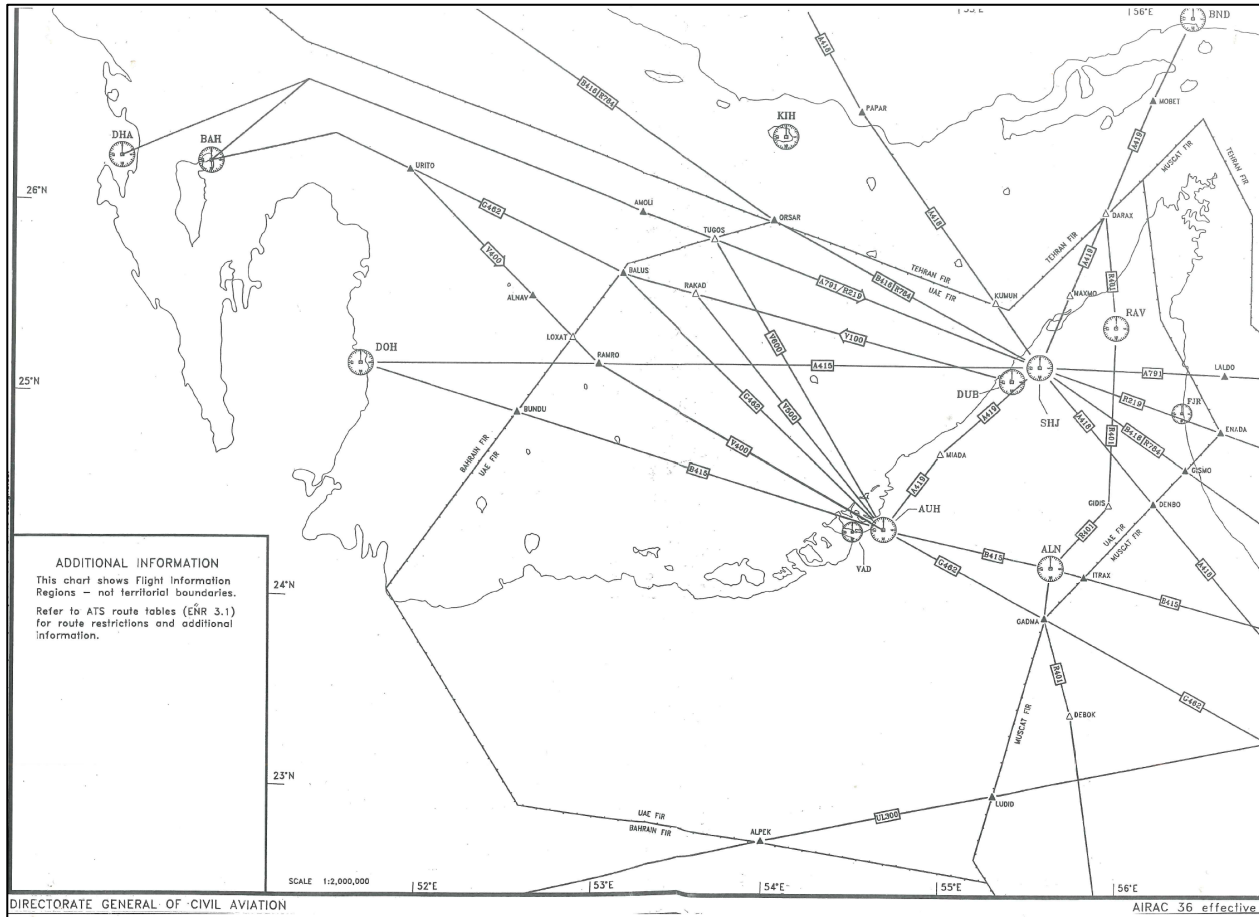
**ICAO APAC/MID ATFM & FF-ICE Seminar 2025  
(23 – 27 Feb 2025, Dubai – UAE)**



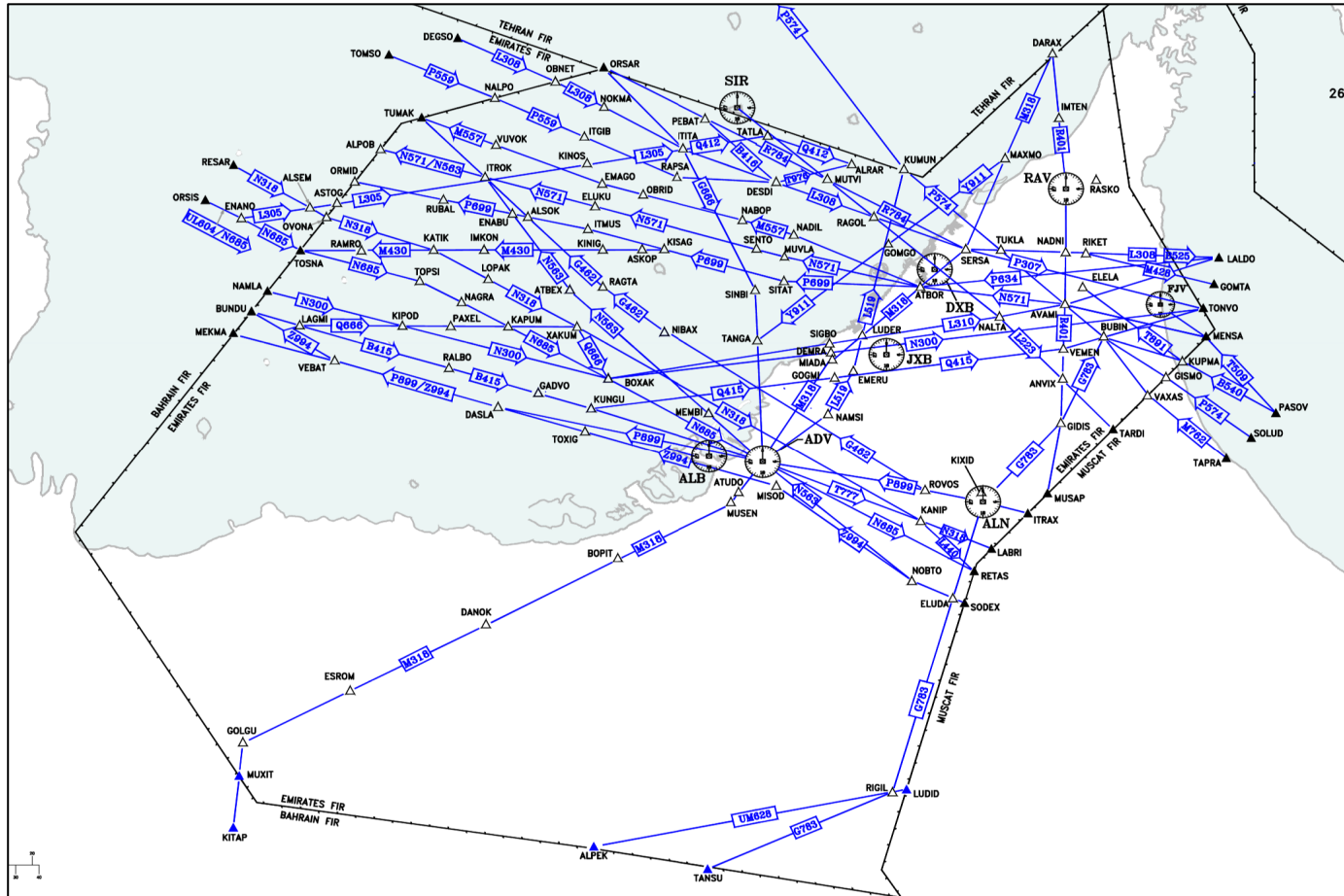
## UAE Aviation

- 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.

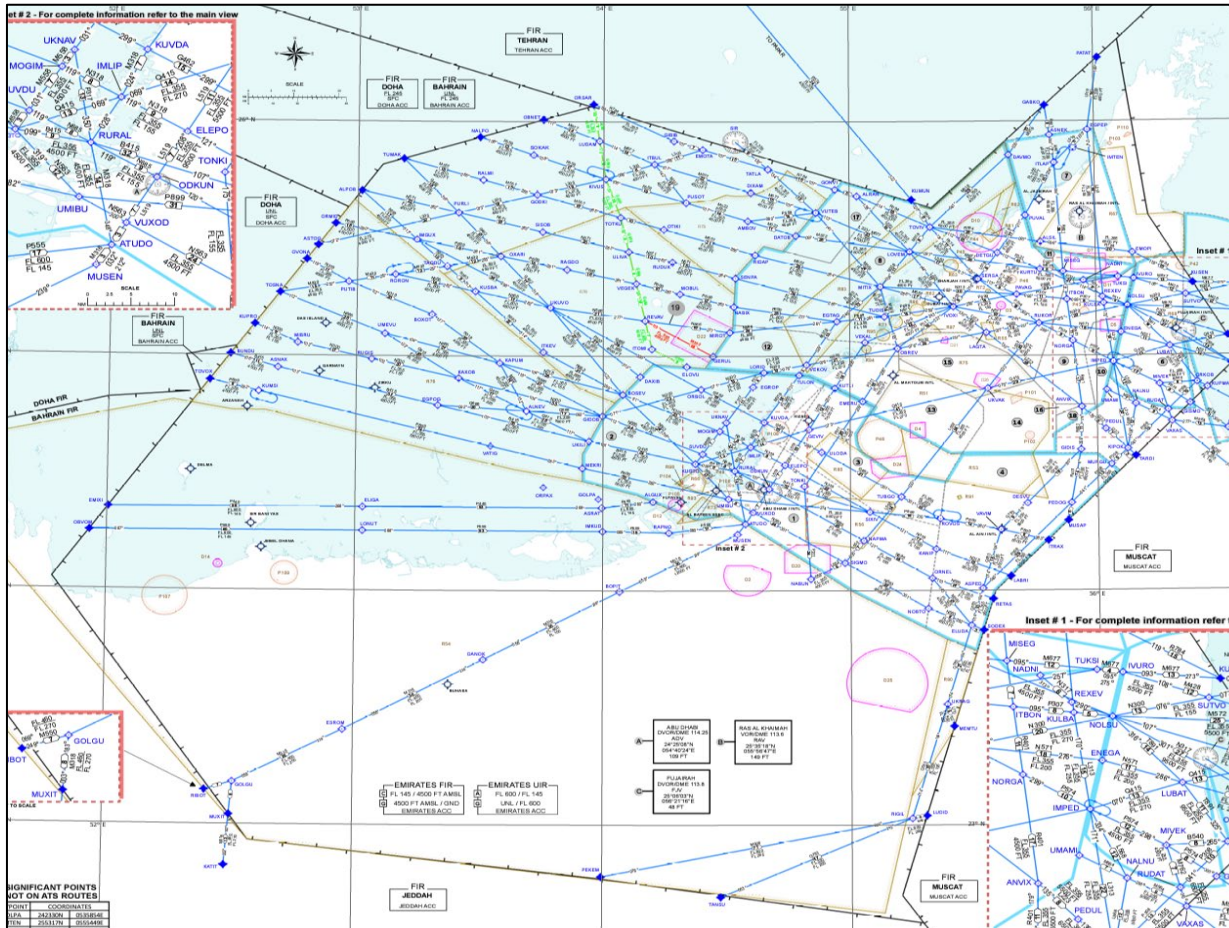
# History of the Emirates FIR



# The Evolution of the Emirates FIR – 2014 to 2017

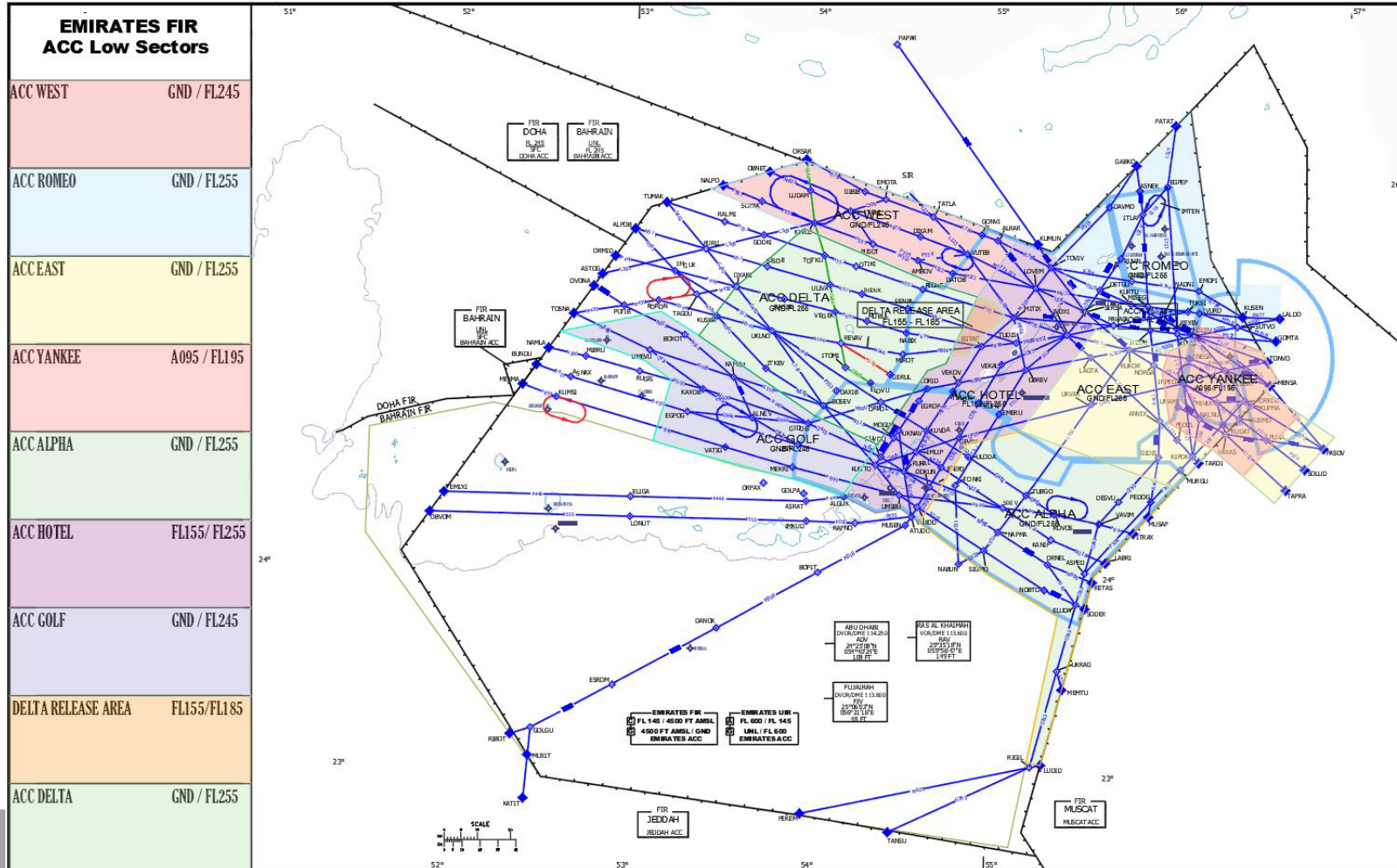


# Emirates FIR - Now



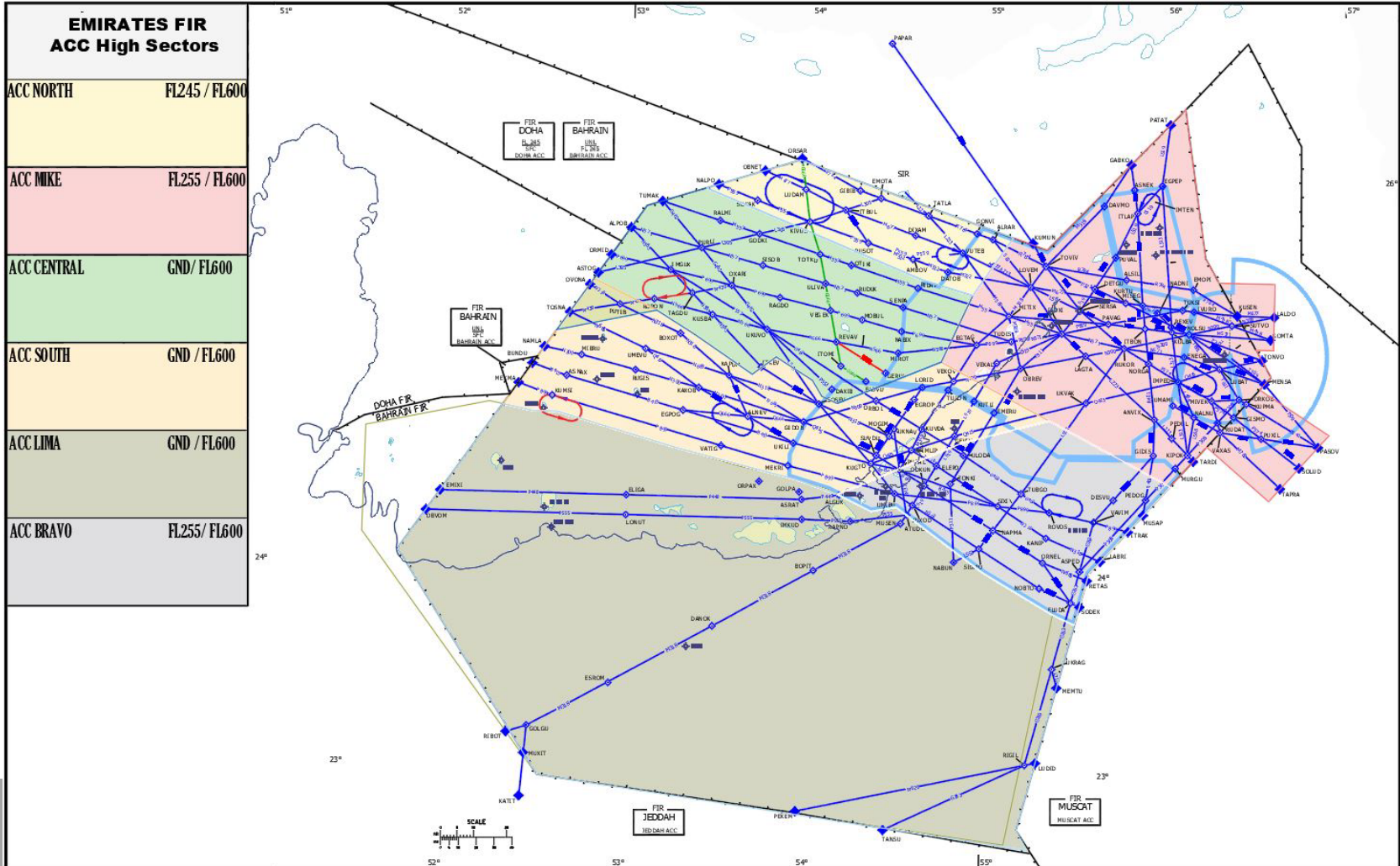


# Emirates FIR – Low Sectors

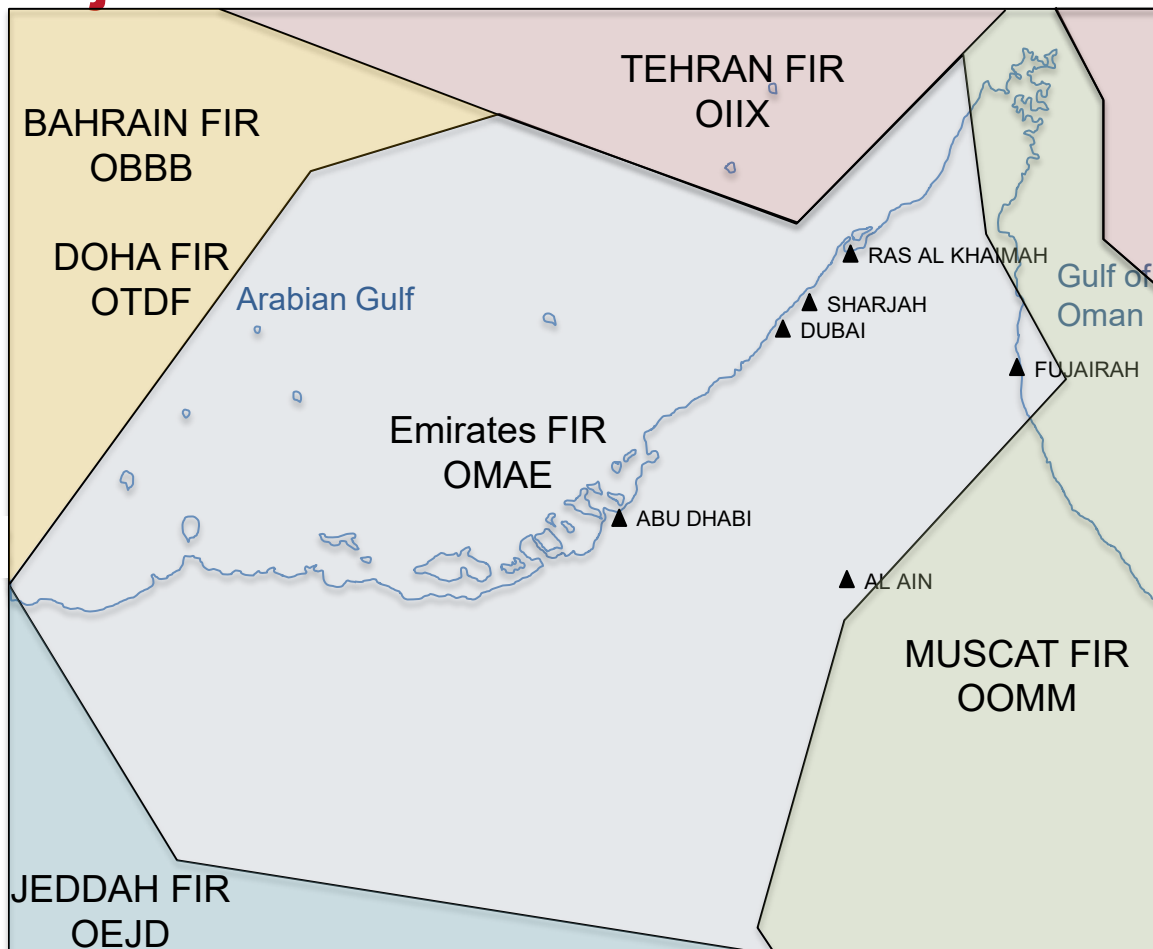




# Emirates FIR – High Sectors

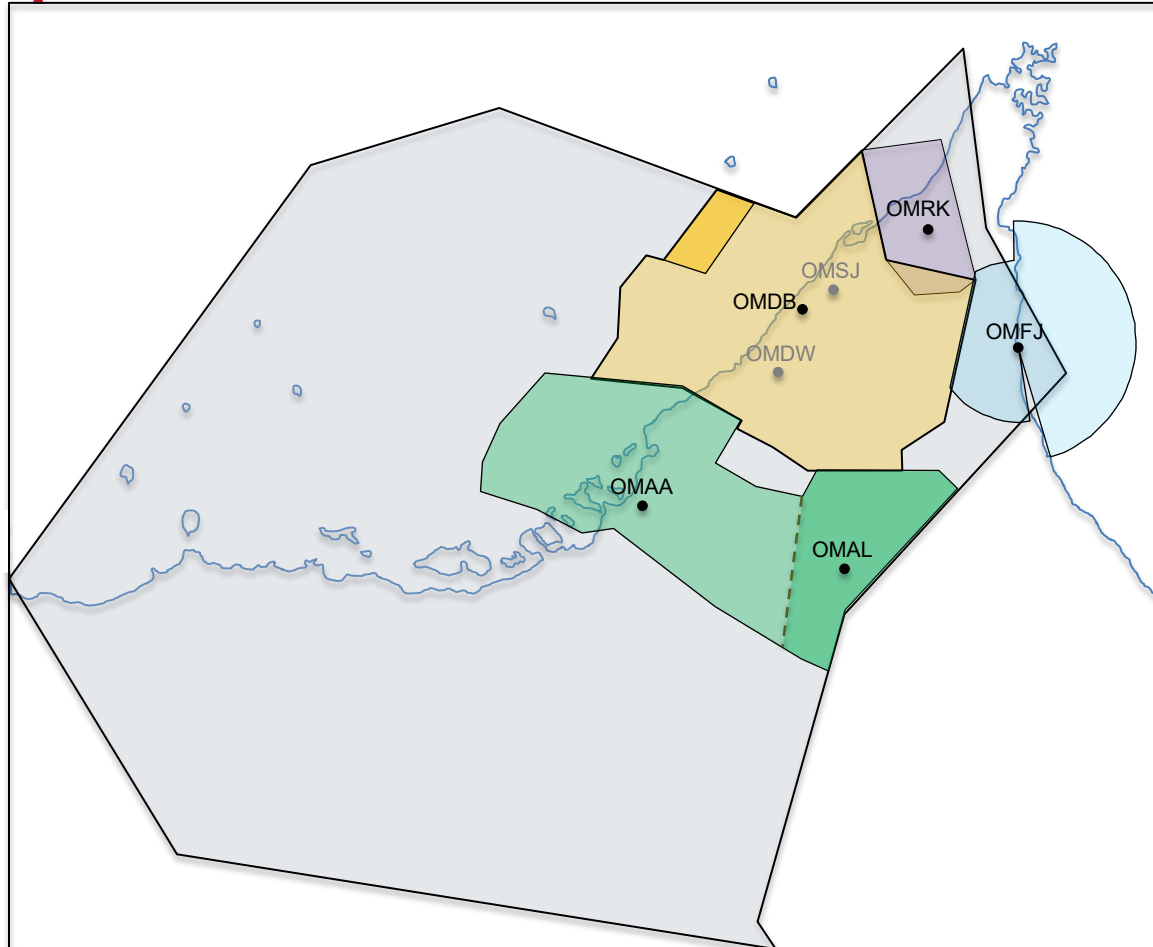


## UAE & Adjacent FIR's

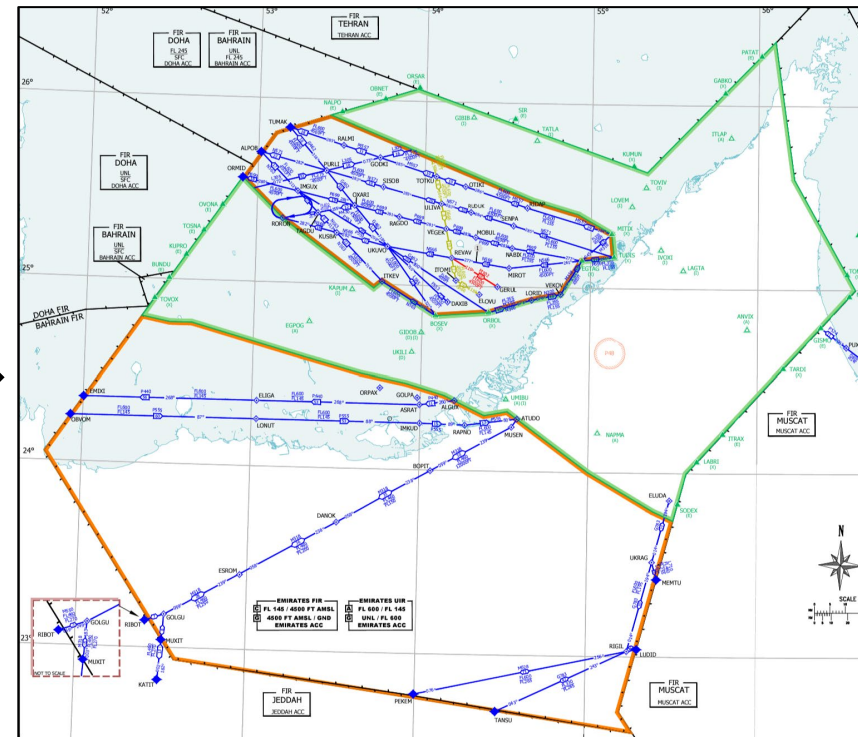
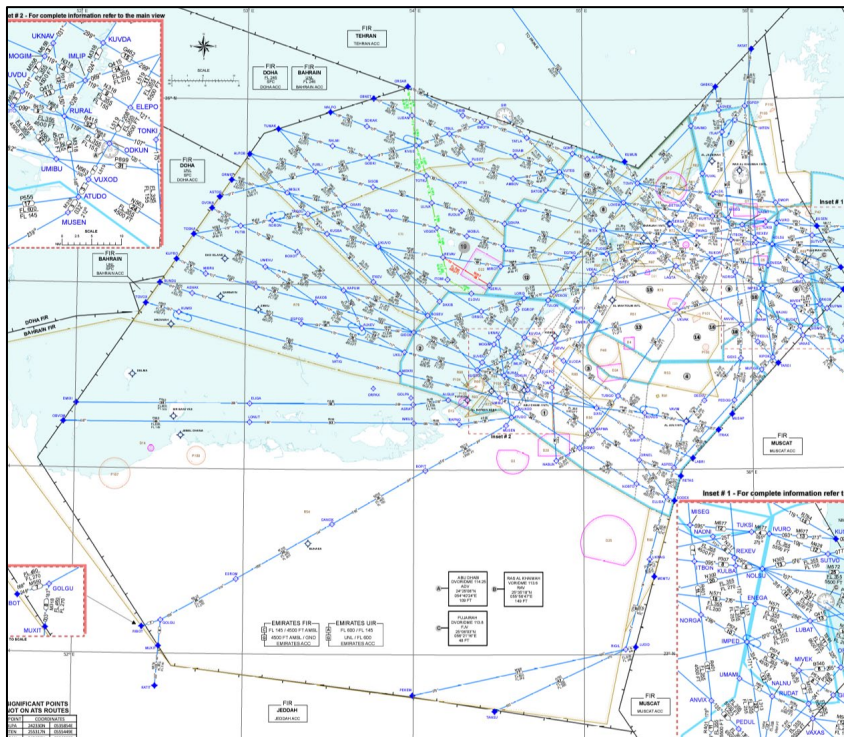




# UAE Airports CTA's

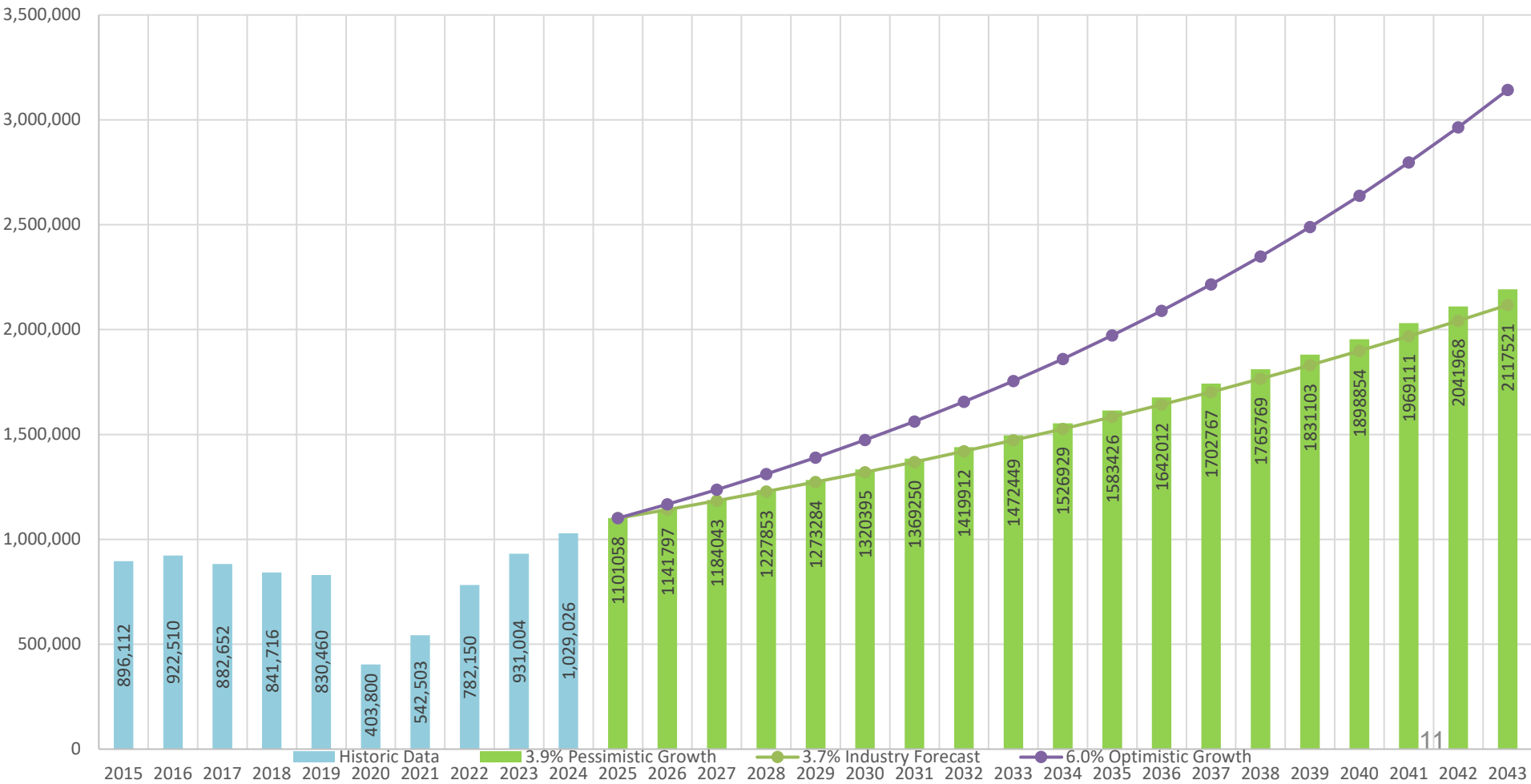


# Free Route Airspace (FRA)





# UAE Air Traffic Growth 2023 Forecast





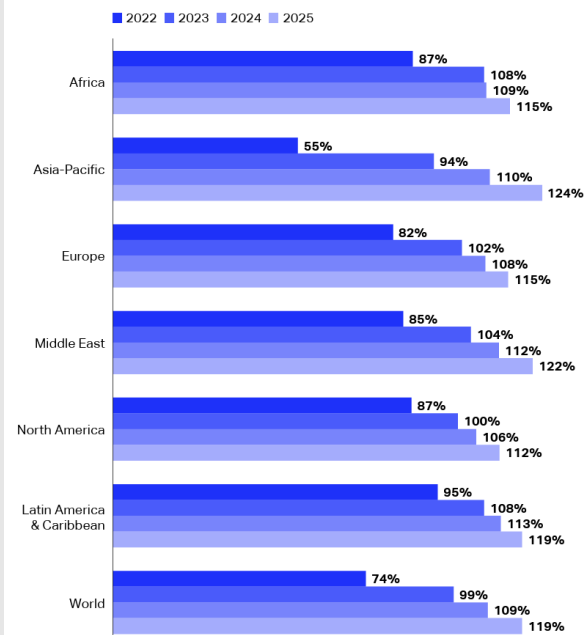
# What About Tomorrow?

**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 ecosystem will enhance predictability, optimize airspace capacity, and improve traffic flow management while ensuring long-term sustainability to accommodate future growth.

DFlow Window

Callsign	ADEP	ADES	Lvl	RWY	Time	DST
SEJ018	OMDB	VOCI				

Find Request Confirm Reject Clear Flow Aid Swap Squeeze SFPL

DFlow List 33 entries

Callsign	ADEP	RWY	ADES	ETOT	ATOT	COPX	FPoint	FLev	FTime
AKB355	OMSJ	12C	VOCL	1402	1409	TARDI	LABTAR		1422
AKB356	OMSJ	12C	VOCL	1402	1416	TARDI	LABTAR		1429
FDB557	OMDB	12C	VCBI	1510	1510	TARDI	LABTAR		1523
AKB540	OMDB	12C	VOTV	1620	1620	TARDI	LABTAR		1633
AIC934	OMSJ	12C	VOCI	1657	1657	TARDI	LABTAR		1710
ABY503	OMSJ	12C	VCBI	1712	1712	TARDI	LABTAR		1725
ABY413	OMSJ	12C	VOCB	1722	1722	TARDI	LABTAR		1735
UAE532	OMDB	12C	VOCI	1735	1735	TARDI	LABTAR		1747
ABY497	OMSJ	12C	VOBL	1722	1741	TARDI	LABTAR		1754
ABY454	OMSJ	12C	VOCL	1722	1748	TARDI	LABTAR		1801
ABY501	OMSJ	12C	VCBI	1722	1755	TARDI	LABTAR		1808
UAE522	OMDB	12C	VOTV	1735	1802	TARDI	LABTAR		1815
ETD286	OMAA	14R	VOBL	1810	1810	LABRI	LABTAR		1823
ABY445	OMSJ	12C	VOTV	1812	1817	TARDI	LABTAR		1830
ETD250	OMAA	14R	VOCL	1825	1825	LABRI	LABTAR		1838
AKB452	OMAA	14R	VOCI	1825	1832	LABRI	LABTAR		1845
ETD266	OMAA	14R	VCBI	1825	1839	LABRI	LABTAR		1852
ETD280	OMAA	14R	VOCI	1830	1846	LABRI	LABTAR		1859
ETD272	OMAA	14R	VOTV	1835	1853	LABRI	LABTAR		1906

Cancelled Flightplanes

Callsign	ADEP	RWY	ADES	ETOT	ATOT	COPX	FPoint	FLev	FTime
AIC968	OMSJ	12C	VOTV	1842	1947	TARDI	LABTAR		2000
AIC998	OMSJ	12C	VOCL	1942	1954	TARDI	LABTAR		2007
AIC998	OMSJ	12C	VOCL	1842	1947	TARDI	LABTAR		2000

Close



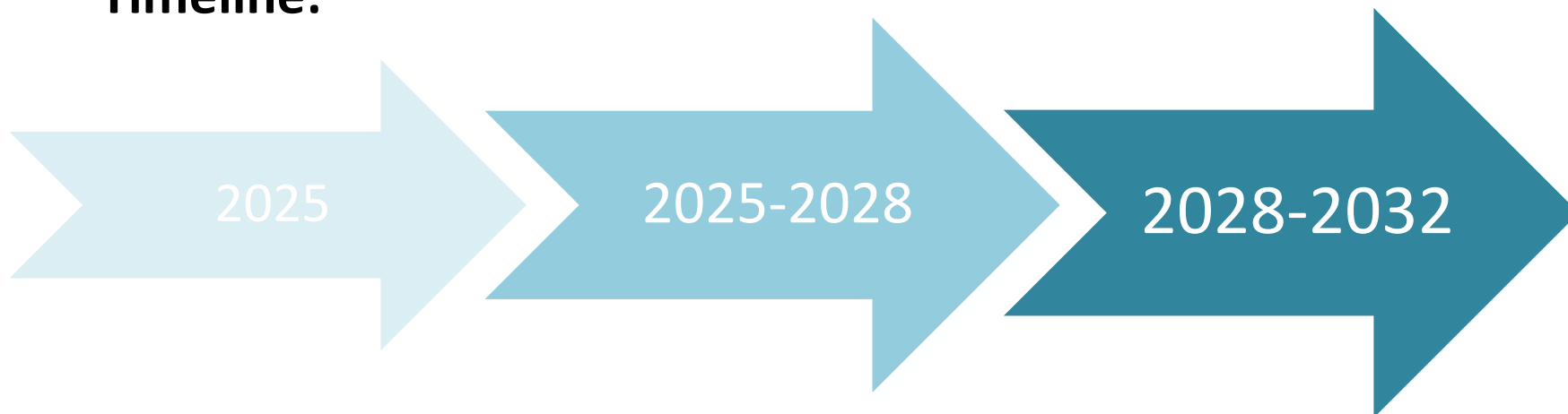
## Establishing an ATFM Unit in the UAE FIR

- 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:**



- 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.

( Note : ■ Departure Stopped ■ Departure Allowed )

### Zone Departures Stopped

	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



## 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.

The screenshot displays the 'Unified E-Services Platform' for the 'AIRSPACE MANAGEMENT SYSTEM'. At the top, it shows summary statistics: 6 Submitted, 11 Approved, 4 Rejected, 7 Acknowledged, 14 Executed, and 46 Total. Below these are three detailed tables for Submitted, Approved, and Acknowledged reservations, each with columns for Slot Airspace, Activity, Date, Time, and Action.

The main part of the interface is a calendar grid for April 2024, showing reservation slots across various airspace types. A legend on the right indicates reservation statuses: Draft/Submitted (yellow), Approved (blue), Acknowledged (green), Completed (red), and Rejected/Conflict (pink).

Submitted (4/6)	Approved (4/11)	Acknowledged (4/7)																																																																											
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## 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.