



ADS-B

UAE IMPLEMENTATION



Background

- In 2009 ADS-B coverage was installed throughout the UAE for operational use as part of the new ACC, Sheikh Zayed Air Navigation Center.
- At the time the daily movements were around 1000 however as of 2018 the daily movements are now around 2800.
- While the UAE doesn't have a big FIR, it is highly complex and split into an upper and lower airspace.
- In December 2017 the UAE implemented the ARP3 which was a total overhaul of our FIR to facilitate air traffic growth throughout our FIR.
- To facilitate the traffic growth within the region comprehensive, redundant surveillance coverage is required as one of the enablers.
- Redundant Mode S radar coverage is available throughout our FIR however a radar station has a lifespan of around 15 year and replacing a site is extremely expensive.
- The cost benefit of replacing/supplementing radars with additional ADS-B sites is a huge saving however a clear mandate needs to be in place to ensure all users of the FIR are ADS-B equipped.

UAE FIR – Post ARP3

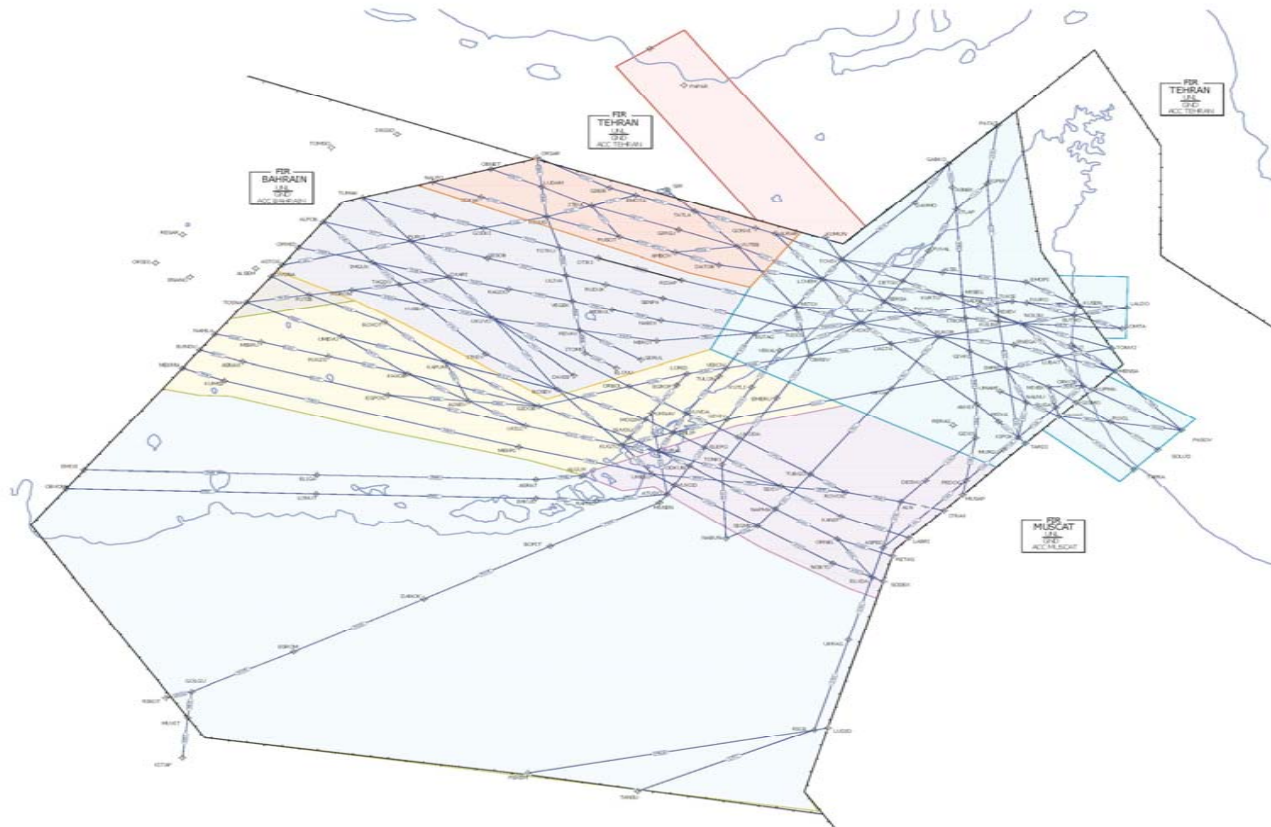


CURRENT UAE FIR



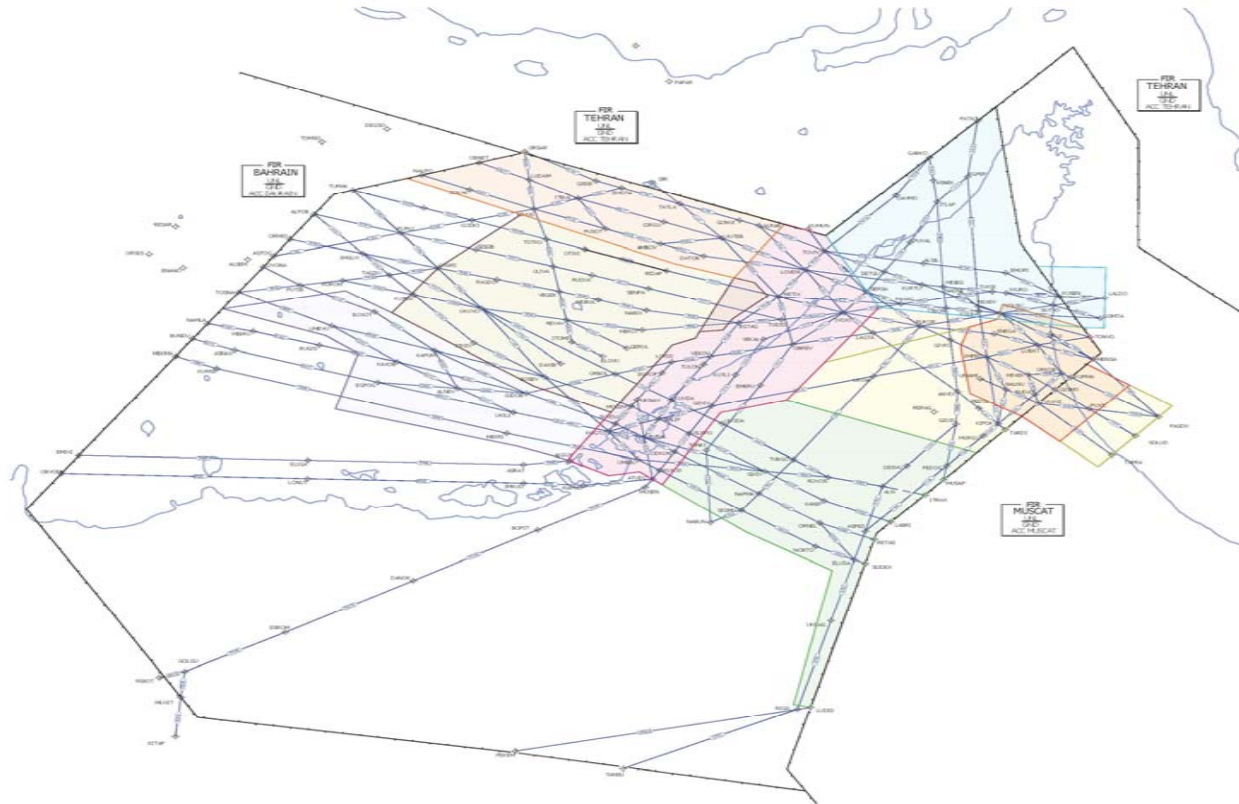


CURRENT UAE UPPER FIR





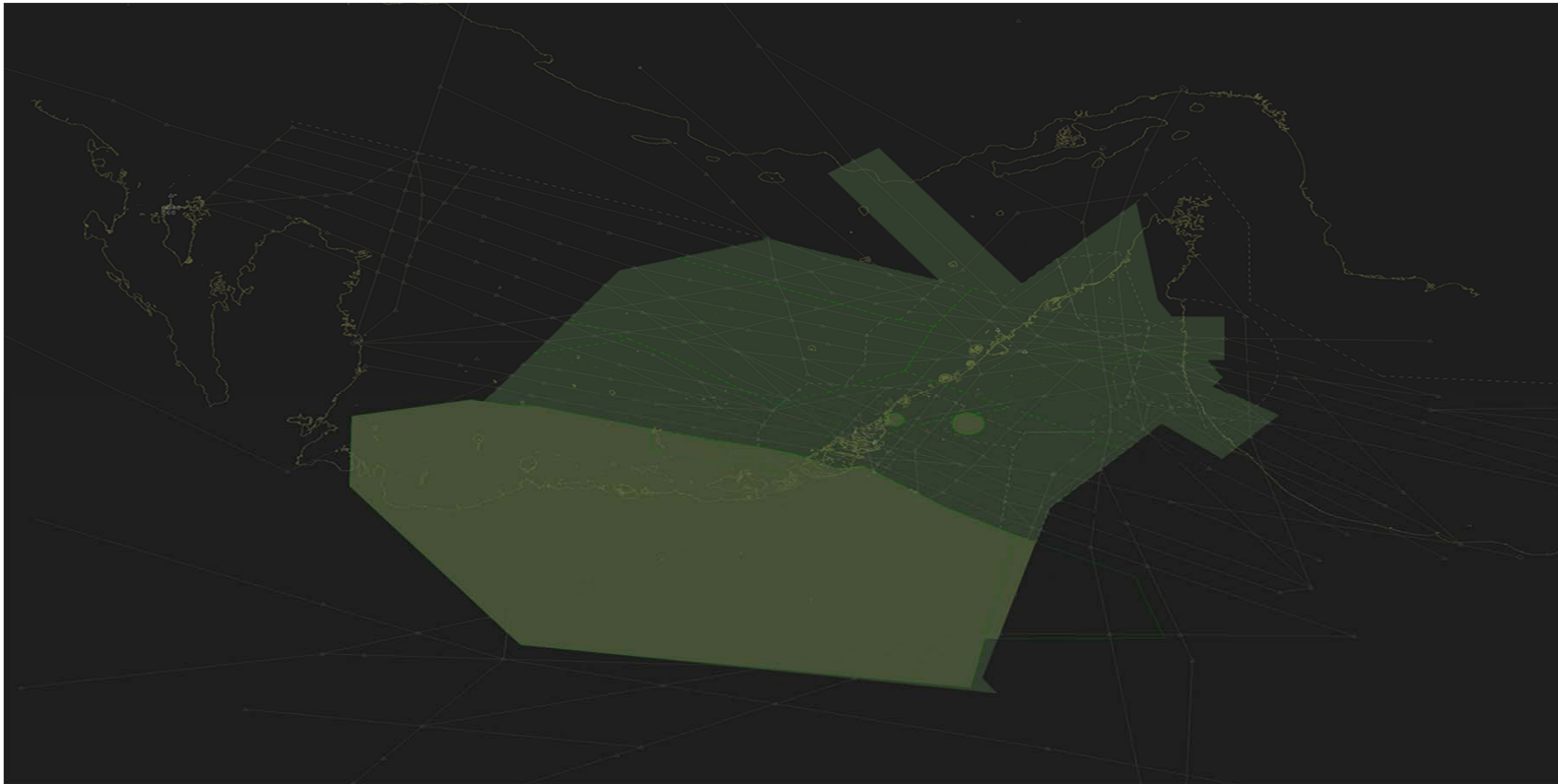
CURRENT UAE LOWER FIR



Current ADS-B coverage



ADS-B COVERAGE - FL130 TO FL450





ADS-B CONFIGURATION AND FUTURE PLANS

Currently we have 8 redundant en route ADS-B sites throughout the UAE.

The following is planned:

1 new site – Q1 2018

1 WAM system – Q4 2018

1 new site Q1 2020

1 new site Q4 2020

Based on a study GCAA did in 2015 around 60% of civil carriers using the UAE FIR were ADS-B compliant. As of Q1 2018 more than 95% of civil carriers are ADS-B compliant.



ADS-B CONFIGURATION AND FUTURE PLANS

As per the CAR Part IV, Operation Regulations, CAR – OPS 1 Commercial & Private Air Transportation (Aeroplanes):

CAR-OPS 1.867 ADS-B (OUT and IN)

a) ADS-B OUT

An operator shall not operate an aeroplane under IFR after 01 January 2020, unless it is equipped with ADS-B OUT.

b) ADS-B IN

An operator shall not operate an aeroplane equipped with the ADS-B IN capability unless approved by the GCAA.



THE END

