



ICAO MID



CCO-CDO Workshop

ICAO MID Workshop on the Continuous Climb Operations (CCO) /
Continuous Descent Operations (CDO) Implementation

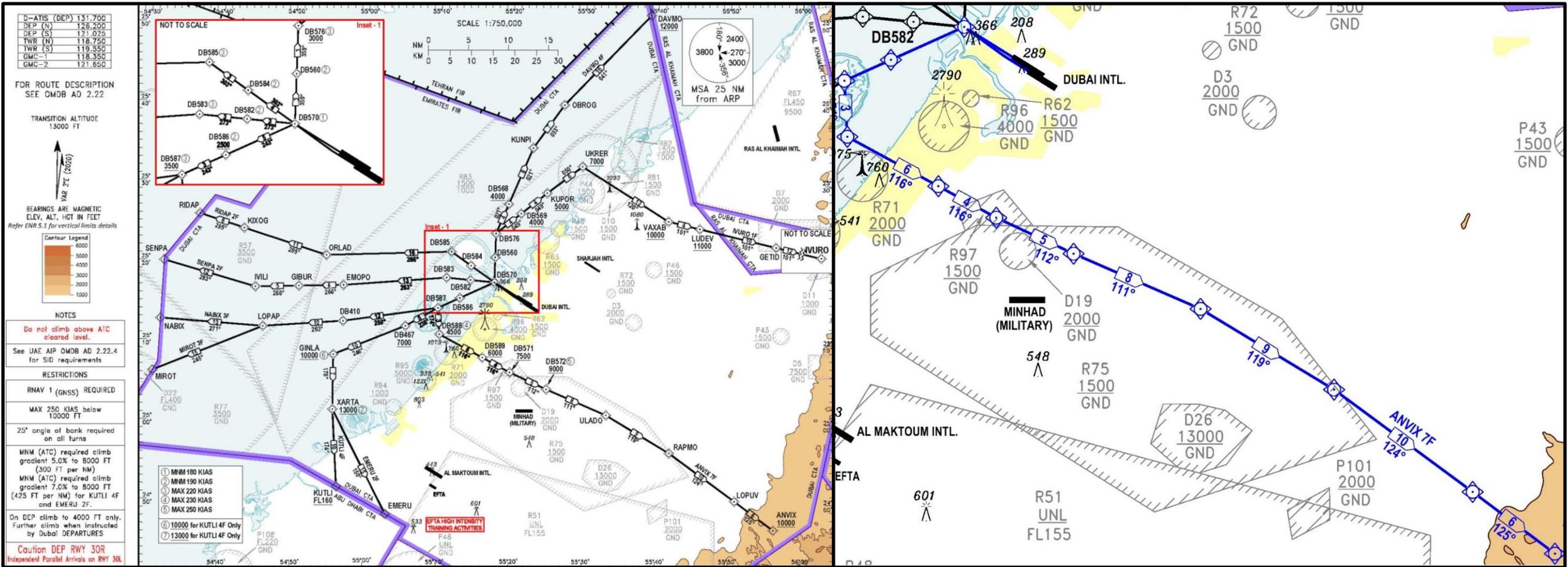
Abu Dhabi, UAE

13 – 14 June 2022

CCO implementation. IFP design case at Dubai Intl.

Manuel Martin , Senior Specialist Airspace & Procedure Design

OMDB SID RWY 30L/R. ANVIX SID

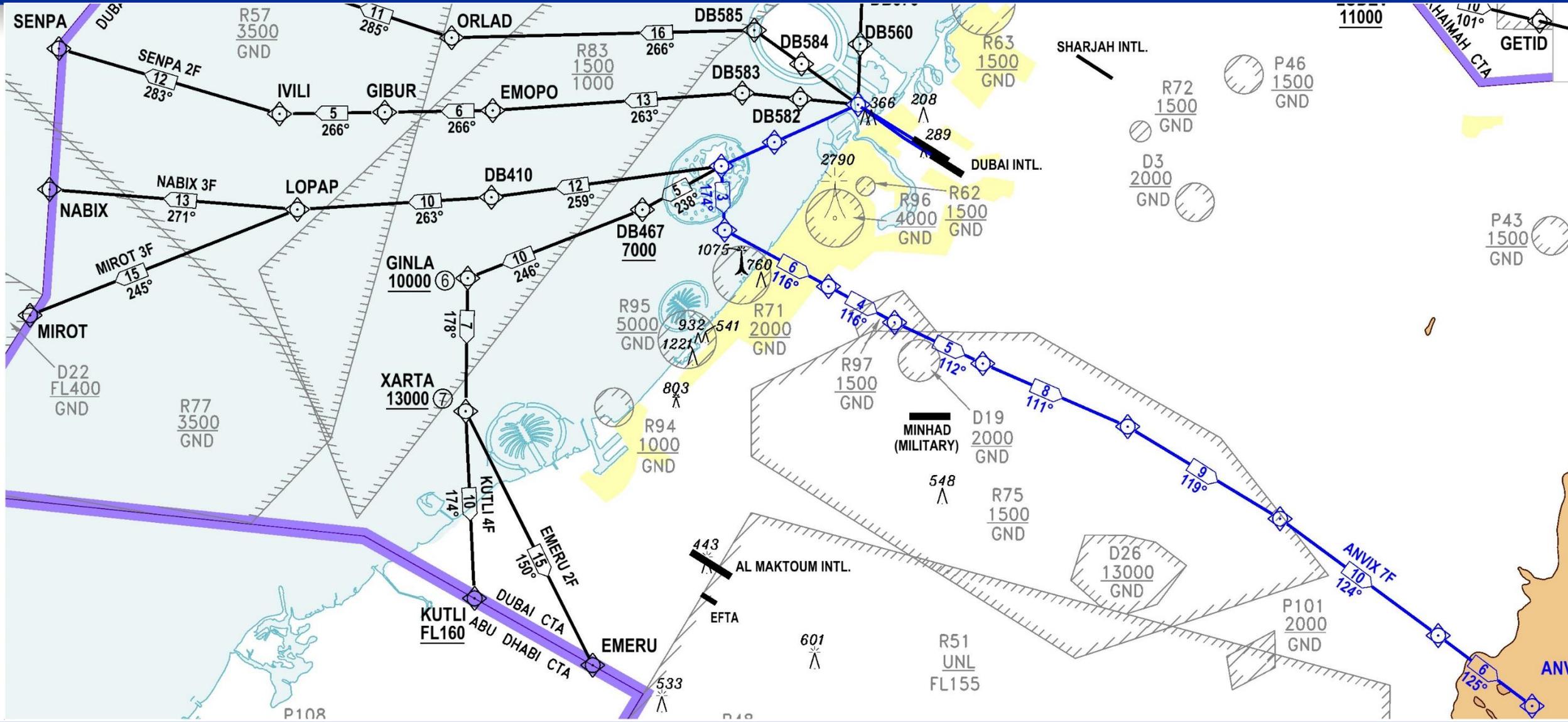




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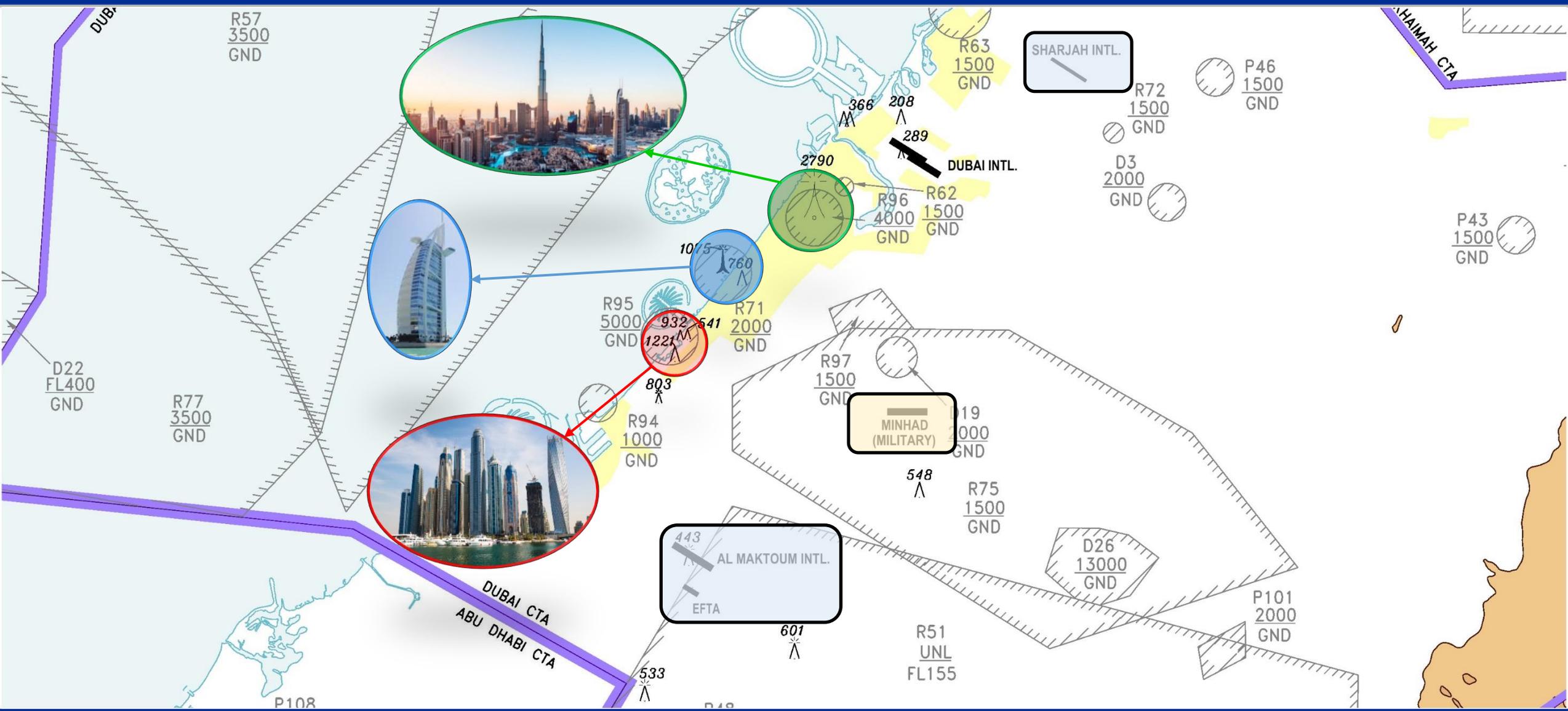
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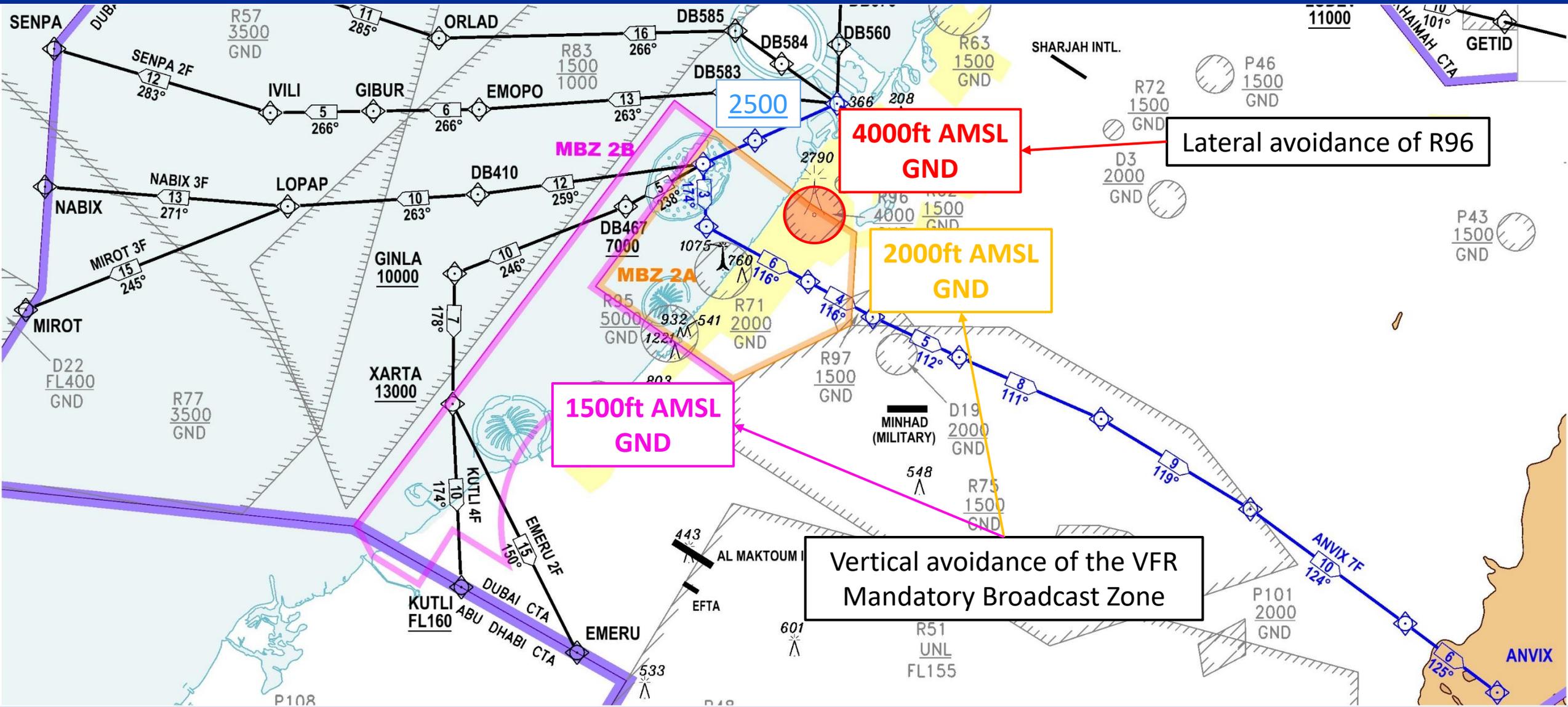
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Lateral avoidance of R96

4000ft AMSL
GND

2000ft AMSL
GND

1500ft AMSL
GND

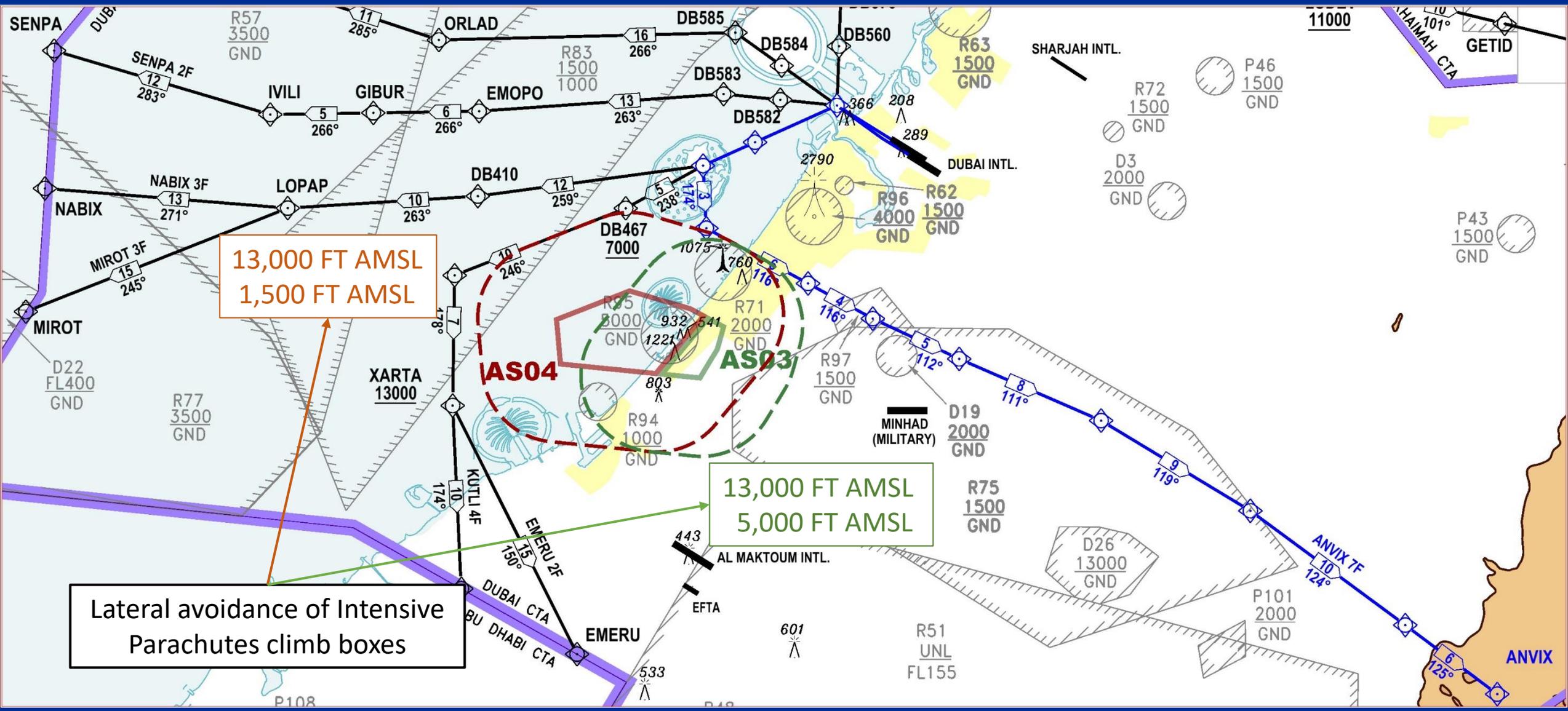
Vertical avoidance of the VFR
Mandatory Broadcast Zone



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13,000 FT AMSL
1,500 FT AMSL

13,000 FT AMSL
5,000 FT AMSL

Lateral avoidance of Intensive
Parachutes climb boxes

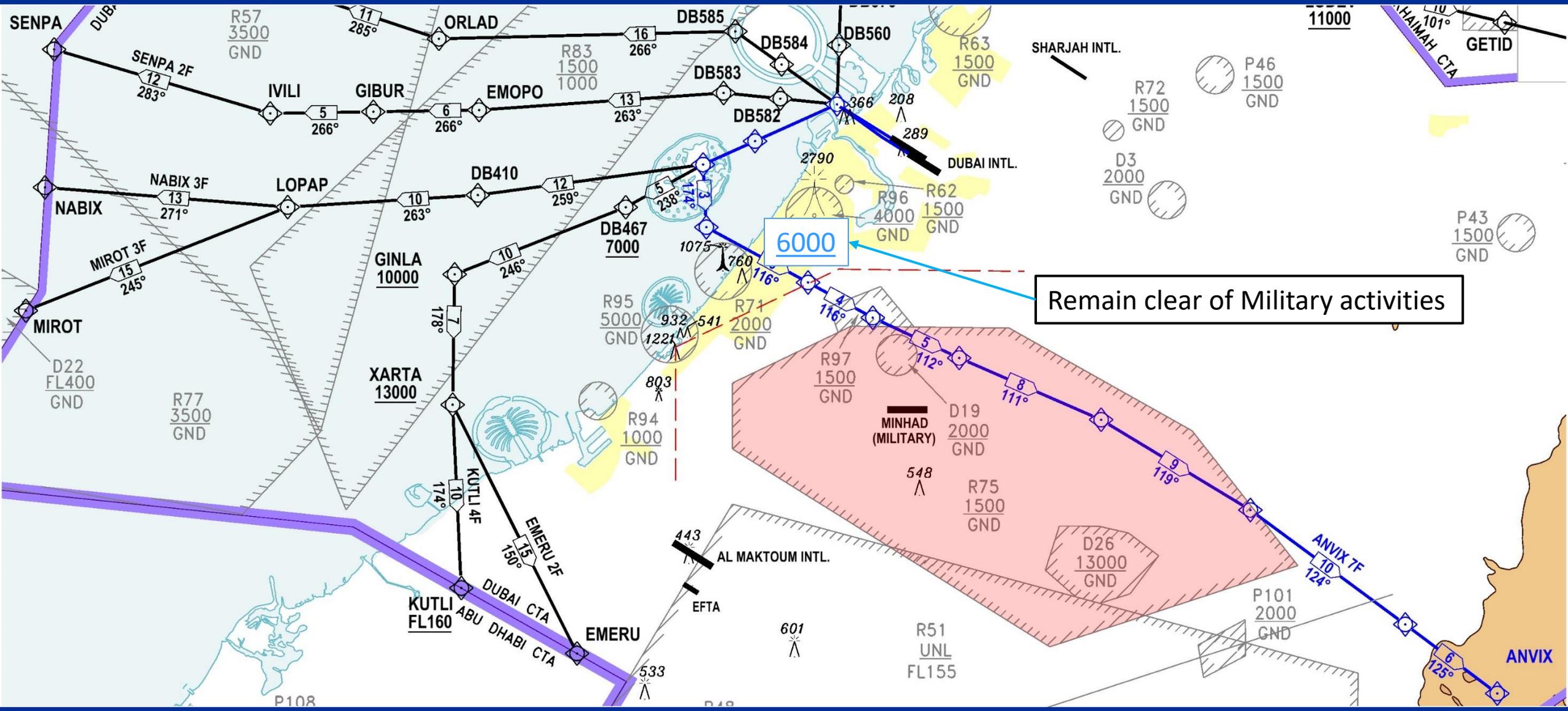


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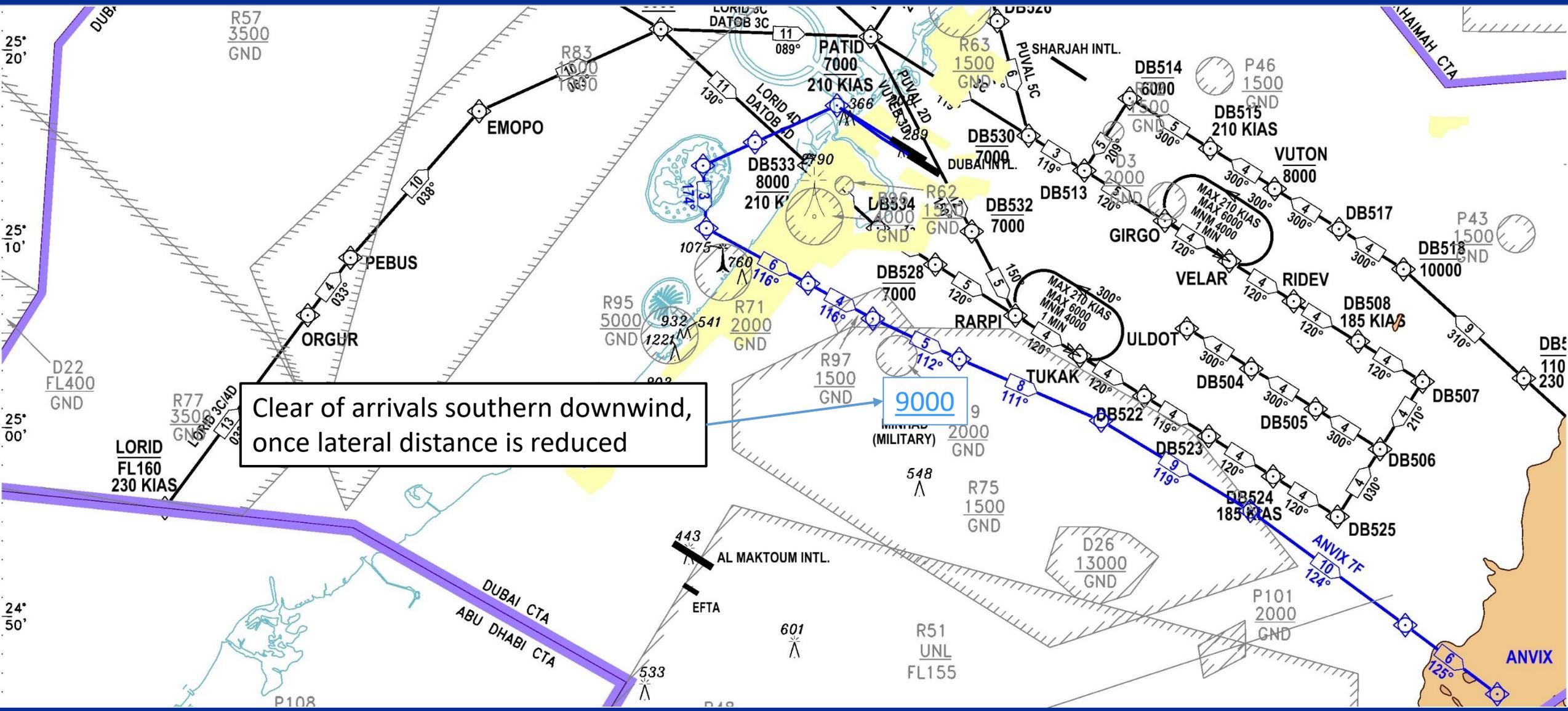




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Clear of arrivals southern downwind, once lateral distance is reduced

9000

(MILITARY) 2000 GND

D26 13000 GND

P101 2000 GND

R51 UNL FL155

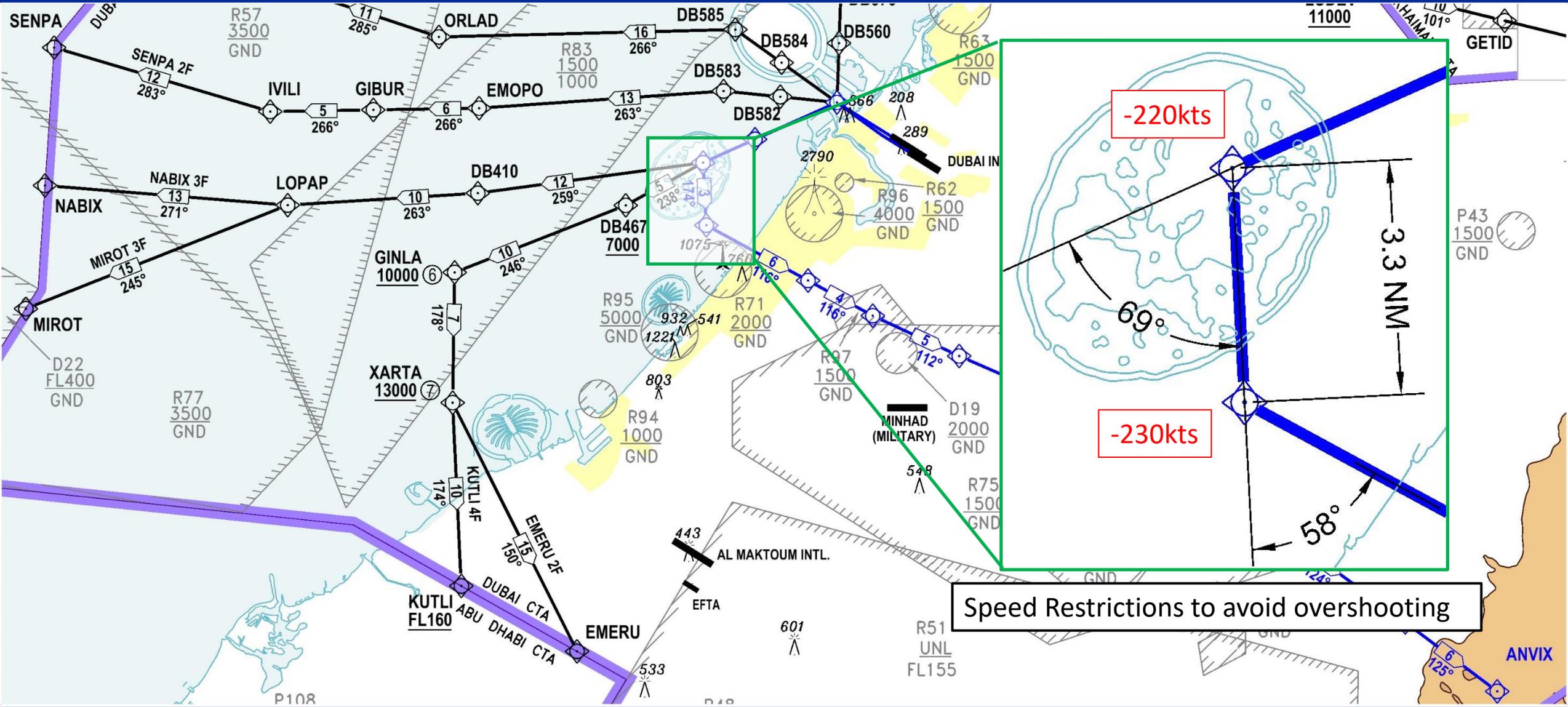
ANVIX



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-220kts

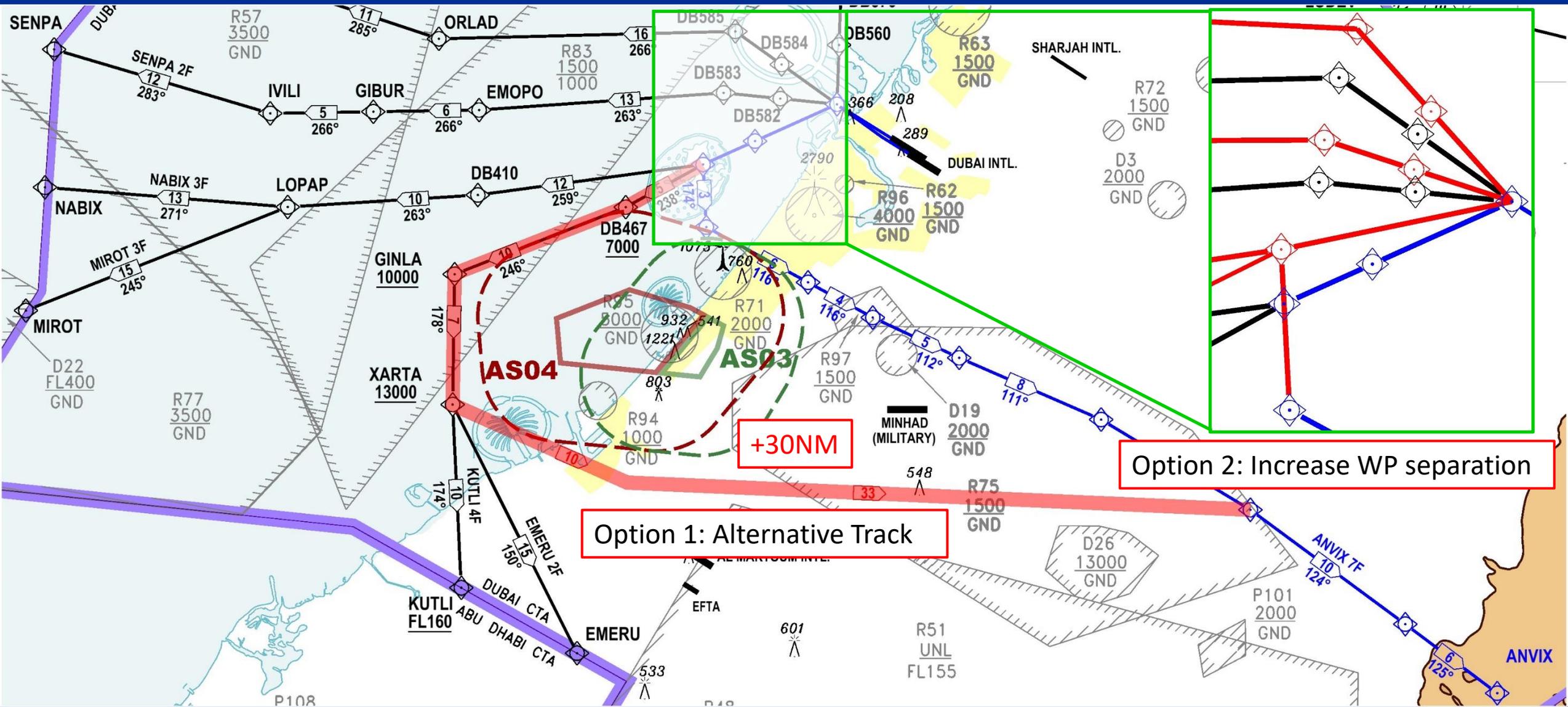
-230kts

Speed Restrictions to avoid overshooting

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+30NM

Option 1: Alternative Track

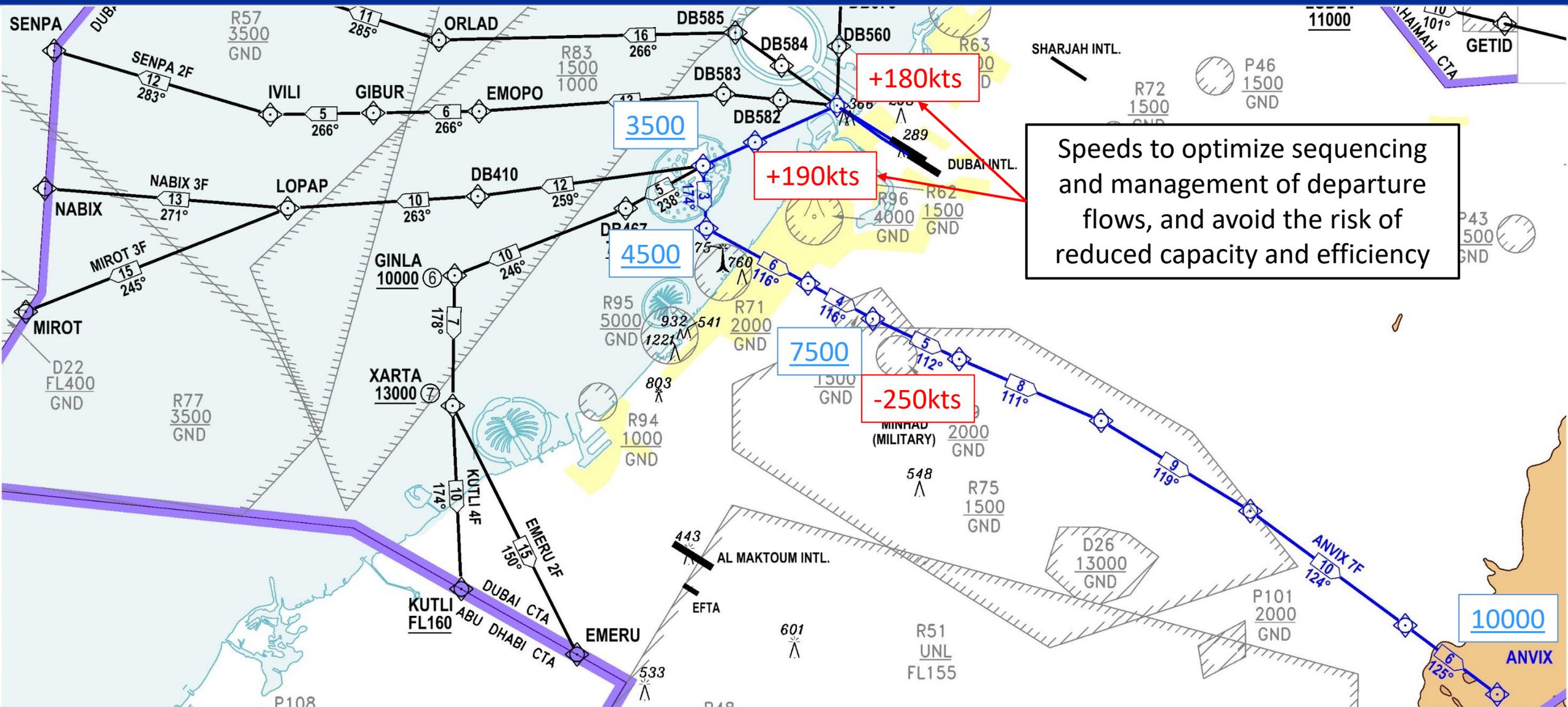
Option 2: Increase WP separation



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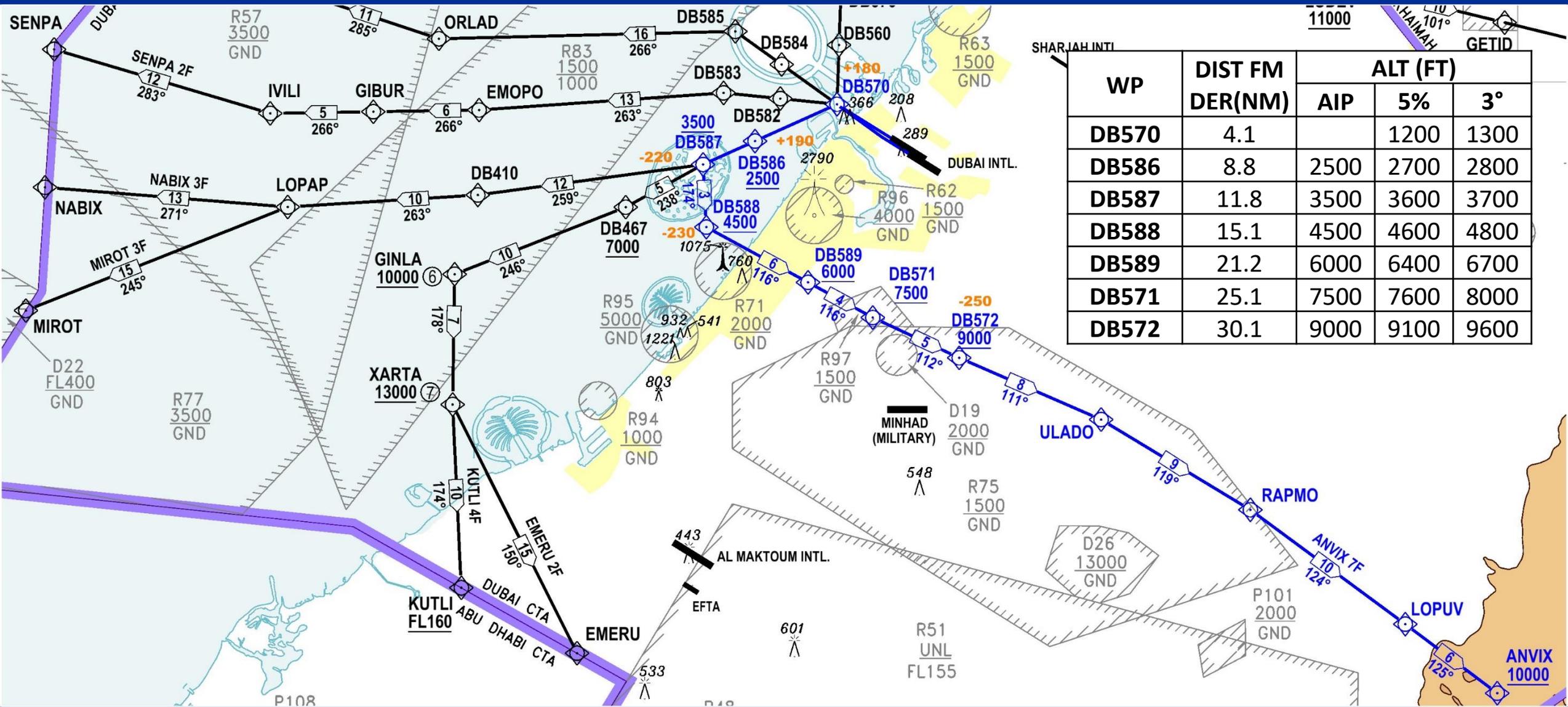
Speeds to optimize sequencing and management of departure flows, and avoid the risk of reduced capacity and efficiency



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WP	DIST FM DER(NM)	ALT (FT)		
		AIP	5%	3°
DB570	4.1		1200	1300
DB586	8.8	2500	2700	2800
DB587	11.8	3500	3600	3700
DB588	15.1	4500	4600	4800
DB589	21.2	6000	6400	6700
DB571	25.1	7500	7600	8000
DB572	30.1	9000	9100	9600



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CCO advantages
More fuel efficient operations
Reduction in both flight crew and controller workload through the design of procedures, requiring less ATC intervention
Reduction in the number of required radio transmissions
Cost savings and environmental benefits through reduced fuel burn and potential aircraft noise mitigation through thrust and height optimization;
Potential authorization of operations where noise limitations would otherwise result in operations being curtailed or restricted.

- ✓
- ✓
- ✓
- ✓
- N/A

Strategic Airspace concepts
Safety
Capacity
Efficiency
Access
Environment

- ✓
- ✓
- ✓
- ✓
- ✓



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THANK YOU

