



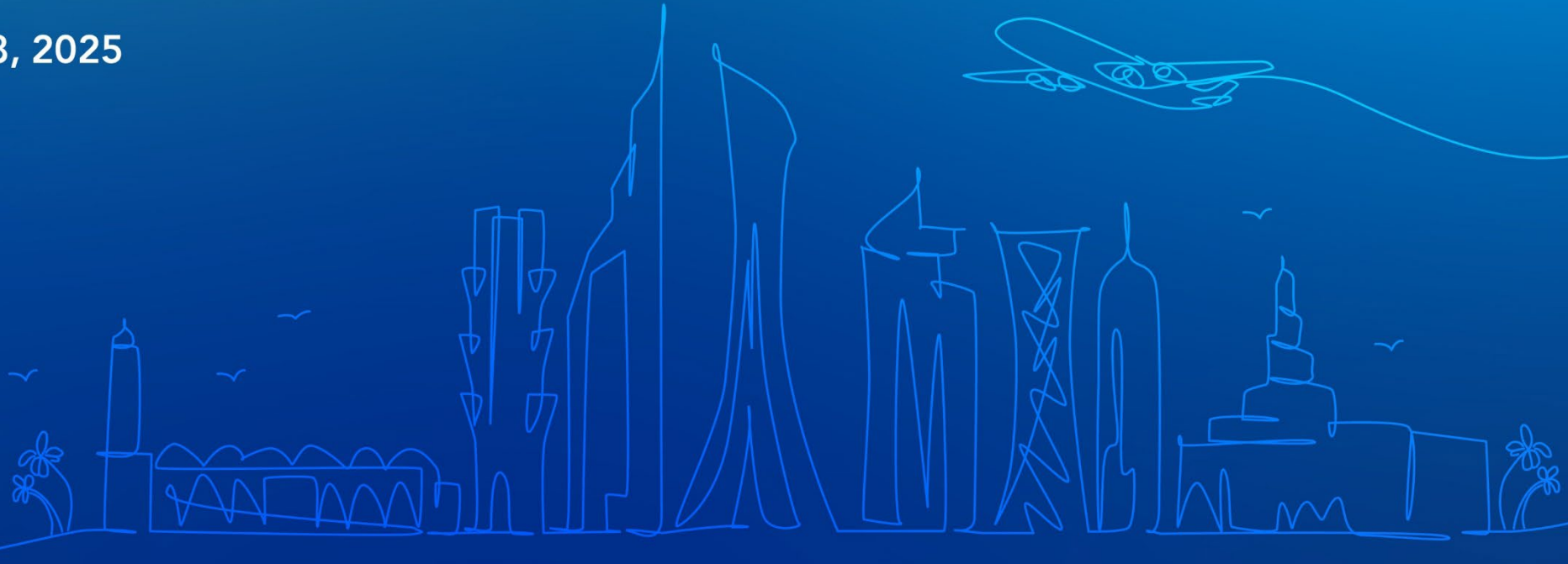
الهيئة العامة للطيران المدني
CIVIL AVIATION AUTHORITY
قطر QATAR



ICAO

MIDANPIRG/22 & RASG-MID/12

Doha, Qatar | May 4-8, 2025





وزارة الطيران المدني
Ministry of Civil Aviation



Egyptian Airspace Modernization

GENERAL OVERVIEW – PART (1)



- ✈ **Main objectives.**
- ✈ **Infrastructure upgrade (CNS).**
- ✈ **Infrastructure upgrade (NASMC Establishment).**
- ✈ **ATM System Upgrade.**
- ✈ **Short / Medium Term ATS network improvements.**
- ✈ **Egyptian Airspace Restructure Project.**



GENERAL OVERVIEW – PART (2)



- ✈ **Cairo FIR Overview.**
- ✈ **MID-Region Tension (Airspace Closure Information).**
- ✈ **Cairo FIR Optimization Plan.**





PART (1)



MAIN OBJECTIVES



Enhancing Safety

Improve Efficiency / Flight Trajectory Optimization

Environment / Sustainability

Increasing System Capacity

Cost-Effectiveness

INFRASTRUCTURE UPGRADE (CNS)

**C**

4 New VHF stations
15 Total VHF Stations

4 New VOR/DME stations
23 Total Stations

N**S**

24 New PSR/SSR Radar stations / ADS-B
30 Total Stations

Infrastructure Upgrade (NASMC Establishment)



**Airspace Design
(Enroute – Terminal – SSA)**

**Design Tools from ENAV/IDS
(Complete AIM Solution)**

**Airspace
Management**

**Dynamic Airspace Management
/Integrated Civil-Military ATM System**

**FUA
Implementation**

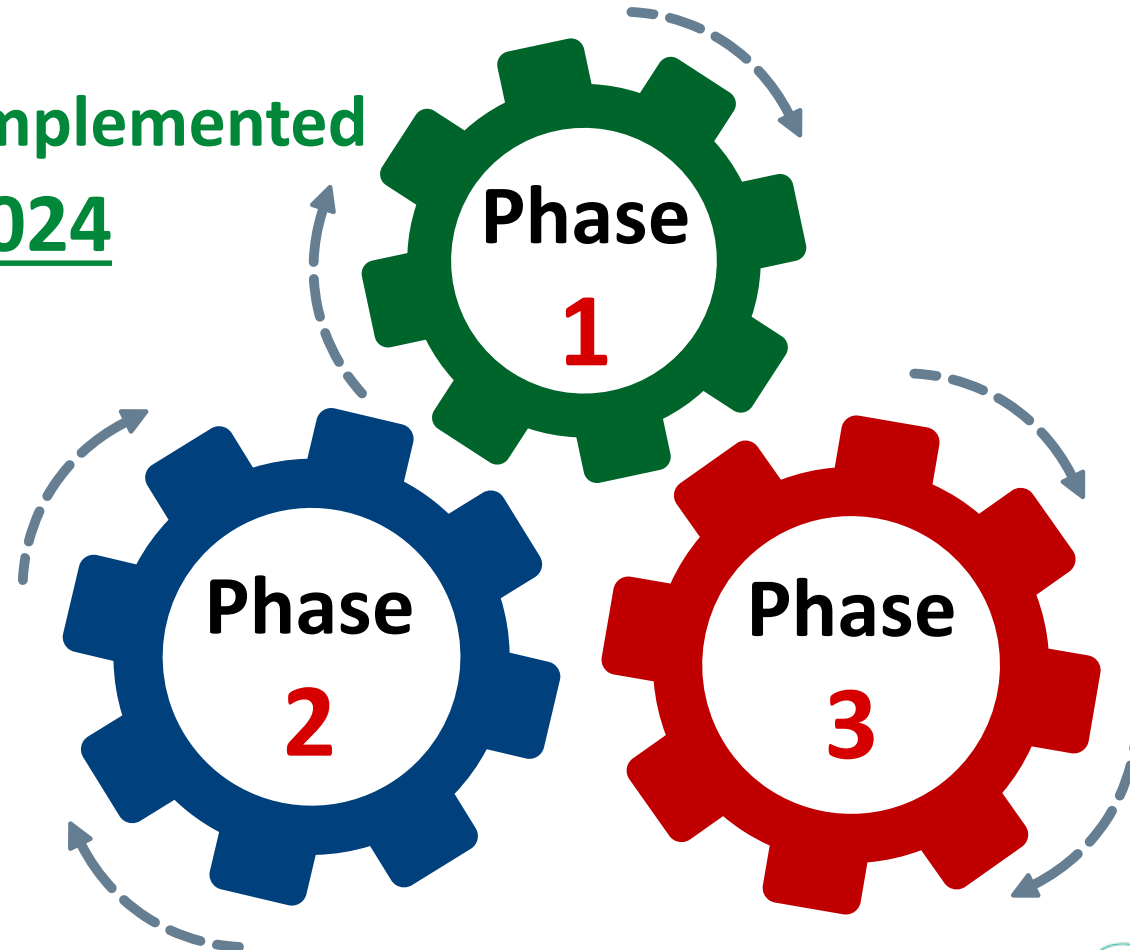
**EAC 172-2
(NASMC Accreditation-FUA Implementation)**

CDR 1, 2, 3 – AUP/UUP Generation

SHORT/MEDIUM-TERM ATS NETWORK IMPROVEMENTS



2 ATS Routes implemented
Mar 2024



5 ATS Routes
TBD

15 ATS Routes implemented
Apr 2025

Egyptian Airspace Restructure Project



Airspace planners, designers, ATCO APP & ACC,
MII, Airlines, ECAA

Implementation Phase Planned

Apr 2026

CONTROL,
during
the Users

NAV SPECs / ASM / ATFM / FUA / FRA

Assignin
In Coordir
With IC



PART (2)



Cairo FIR Overview



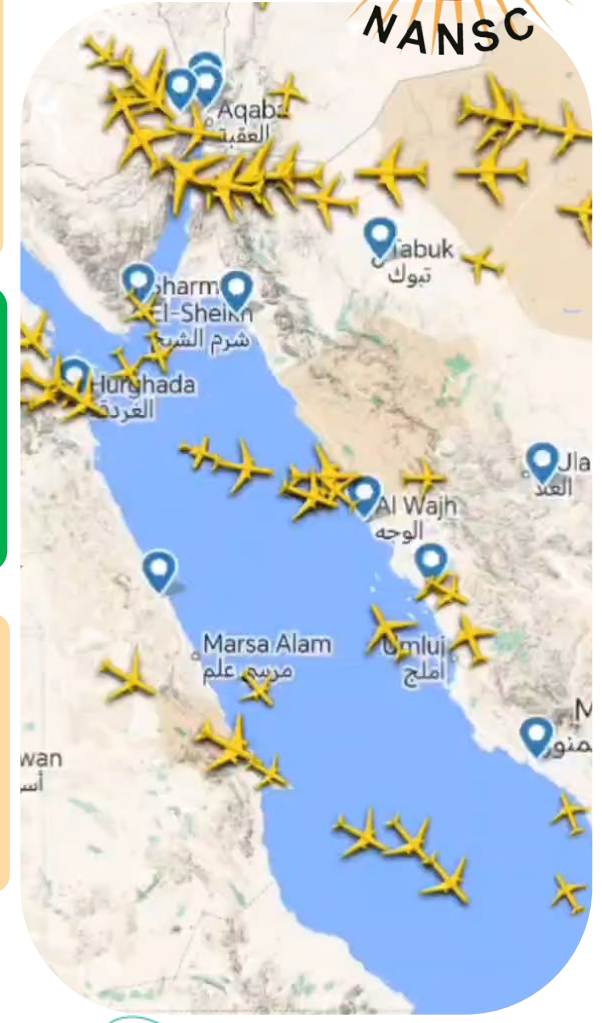
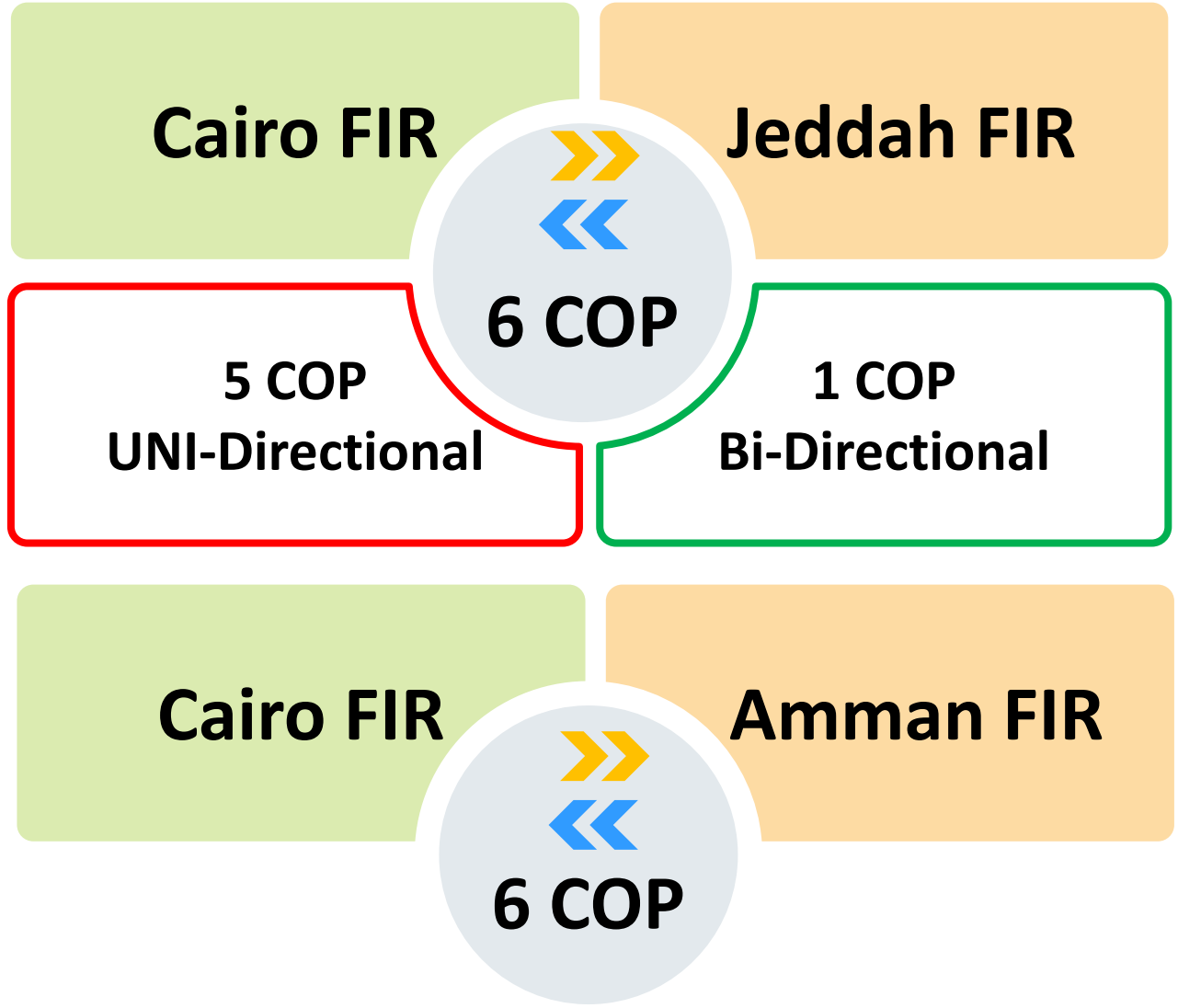
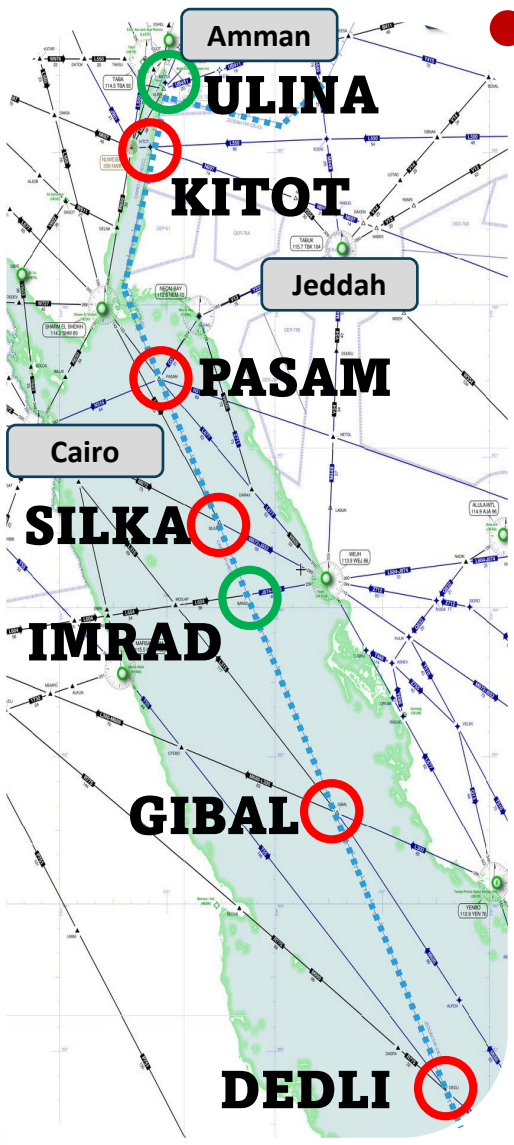
Cairo FIR

**Connecting Euro, AFI, and MID with
an average of over 2,500 flights daily**

Egypt

**Committed to support the regional
network to accommodate traffic
growth and regional challenges**

Cairo FIR Overview



MID-Region Tension



**13th of April NOTAM (A0127/24)
1st of October (A0367/24)**

✈ **Overflying traffic was increased by more
than 110%.**



Closure Information



BEFORE

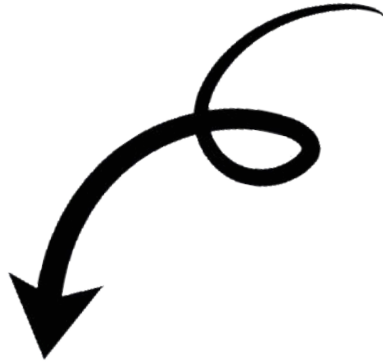


AFTER





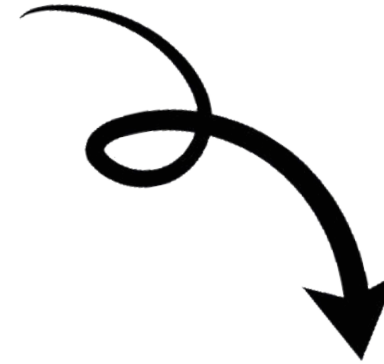
Cairo FIR Optimization Plan



**Enhancing
Safety**



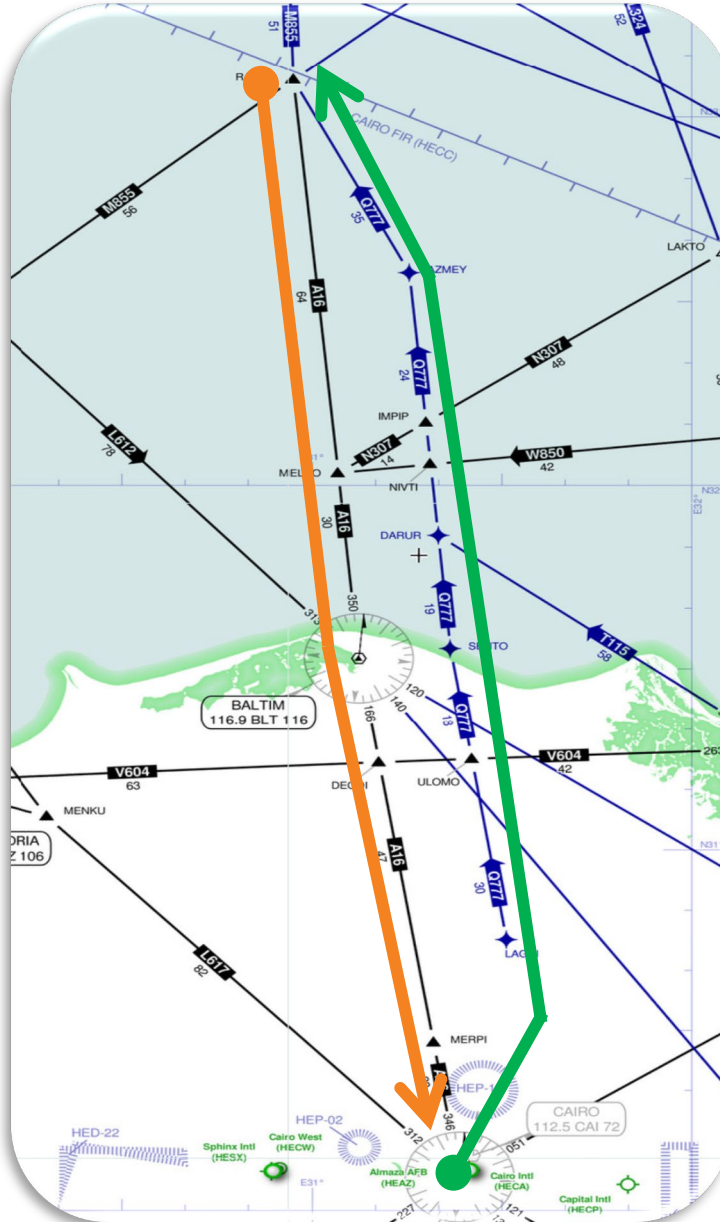
**Emissions
Reduction**



**Cost
Saving**



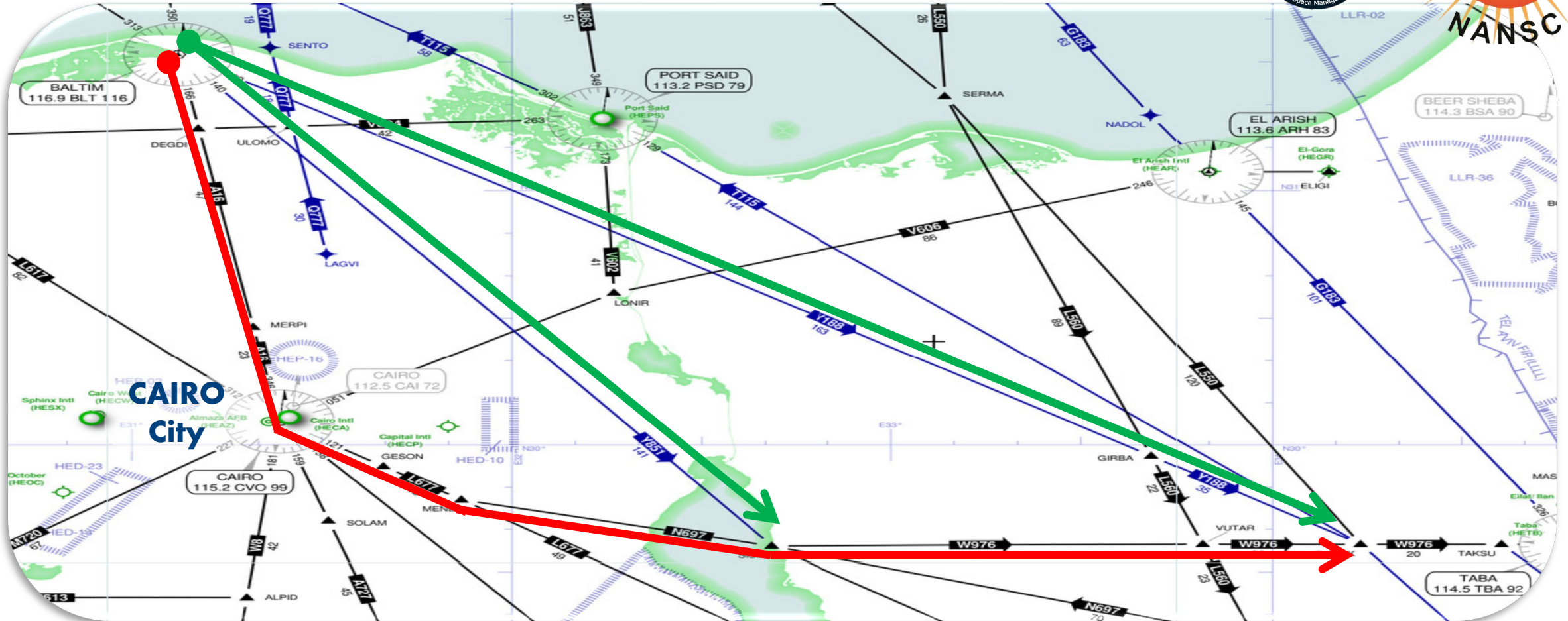
Enhancing Safety



The dualization of A16 into two separate routes, one for southbound and another for northbound traffic, offers several key advantages:

- ✈ Increased Airspace Capacity.
- ✈ Enhanced Safety.
- ✈ Reduced Controller Workload.

Emissions Reduction



One of the important goals is to reduce harmful emissions, especially over major cities such as the capital, Cairo City.

Cost Saving

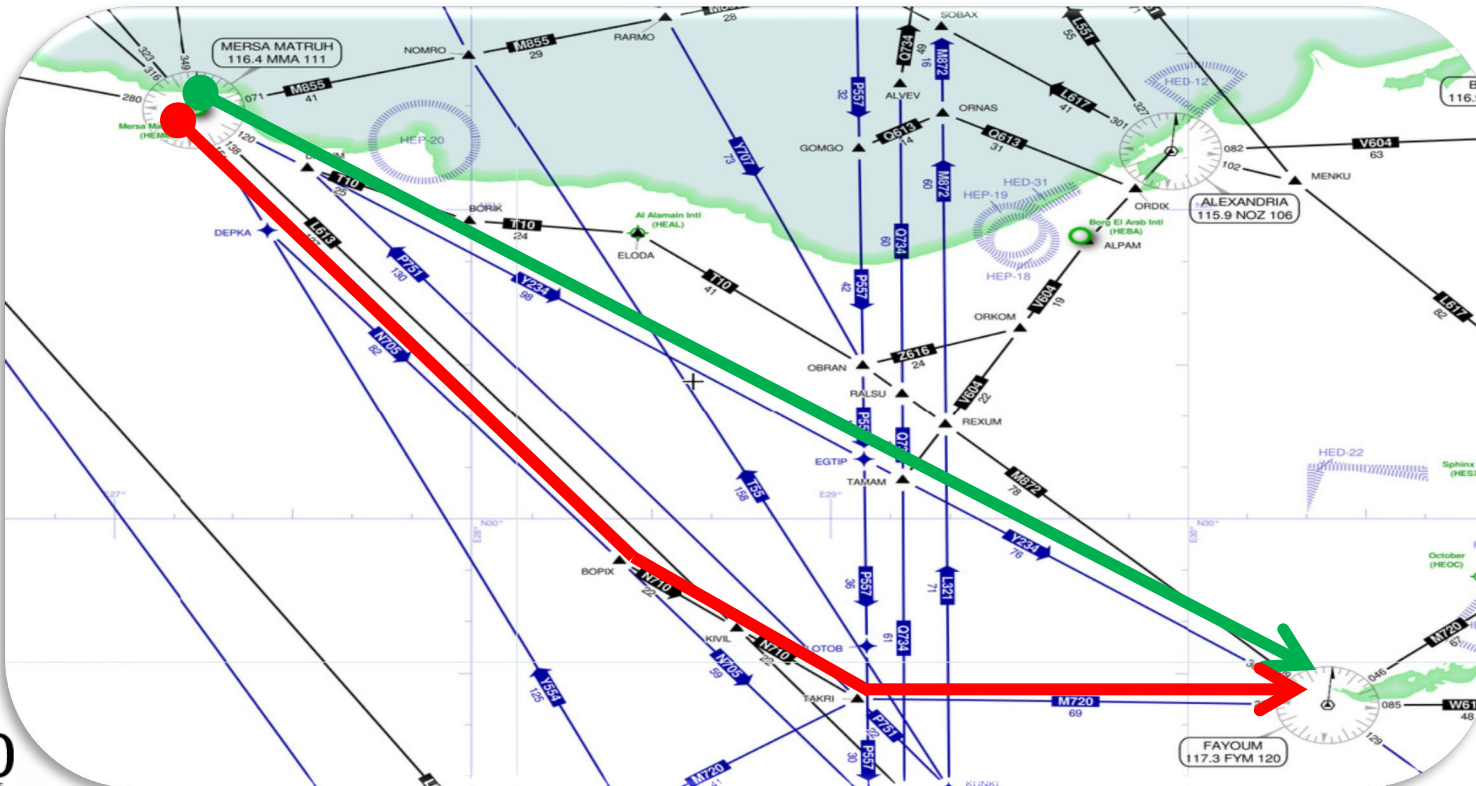


A direct route between (DASUM - FYM) would generally result in :

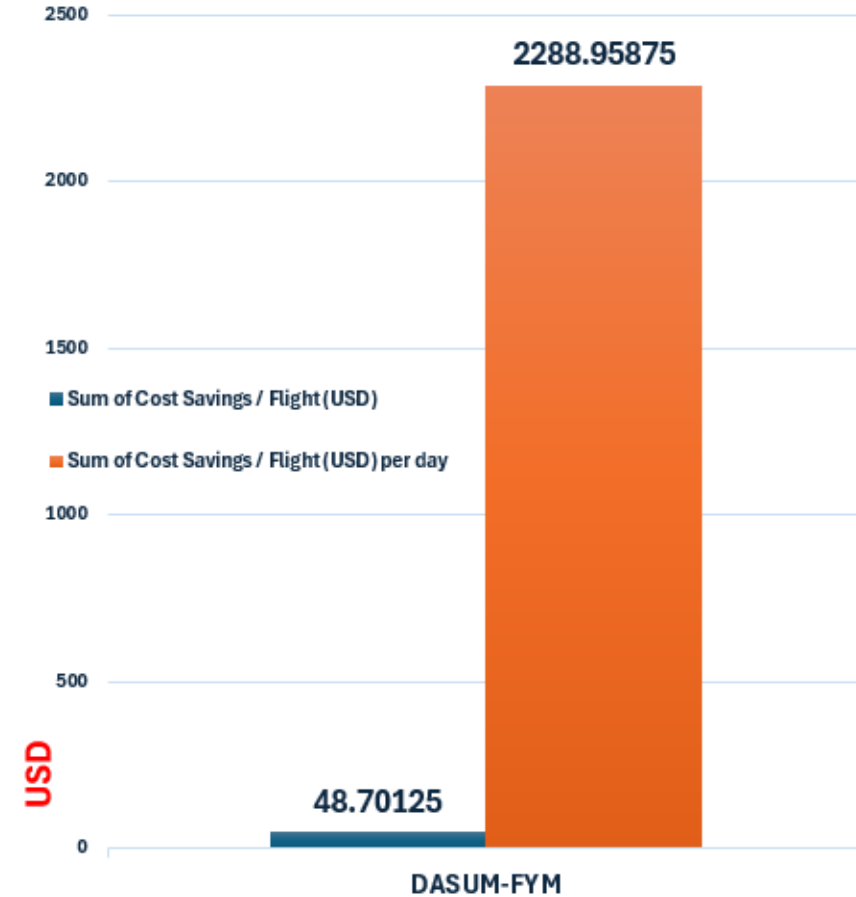
✈ Reduced flight time

✈ Reduced rate of turn: Direct routes often involve fewer course changes, leading to smoother flight profiles and lower fuel consumption.

✈ Shorter flight distance.

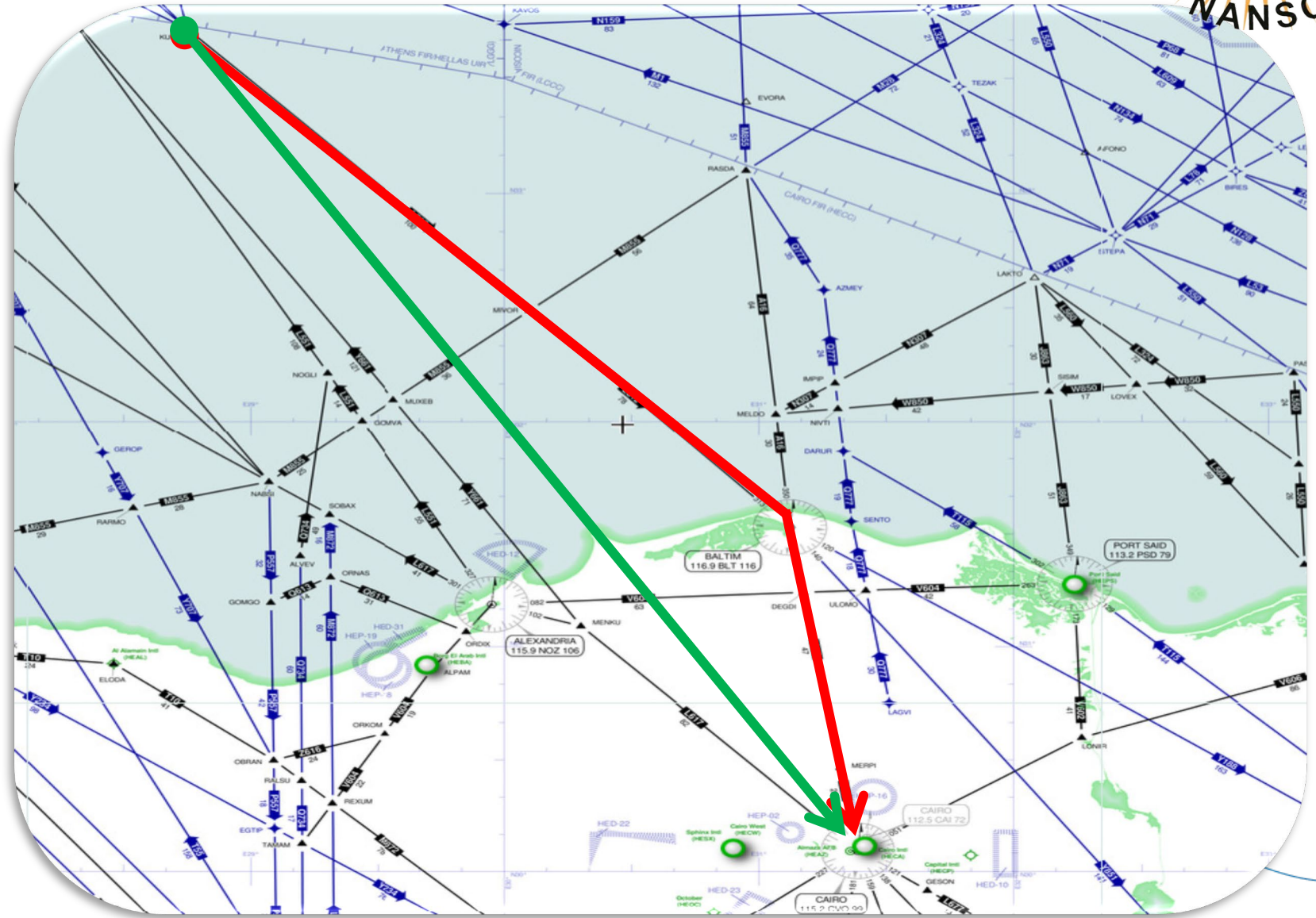


Cost saving per flight VS Cost saving for the route per day



Flexible use of Airspace (FUA)

The newly established direct night route between KUMBI and CVO serves as a Conditional Route (CDR1) under the principles of Flexible Use of Airspace.





Cairo FIR Optimization

Route	Current Distance (NM)	Proposed Distance (NM)	Distance Saving (NM)	Fuel Consumption (Current) (kg)	Fuel Consumption (Proposed) (kg)	Fuel Savings (kg)	Fuel Savings (%)	Carbon Emission Savings (kg)	Cost Savings per Flight (USD)
DATOK-PSD-MELDO-NEWPOINT	435.5	347.2	88.3	2300	1833.1	466.9	20.3	1475.4	391.45
BLT-DATOK	243.3	198	45.3	1300	1058.2	241.8	18.6	764.1	202.73
BLT-SISIK	162.3	141	21.3	800	695.2	104.8	13.1	331.2	87.87
KUMBI-CVO	264.8	255.3	9.5	1400	1349.6	50.4	3.6	159.3	42.26
KUNKI-TANSA	333.8	319.1	14.7	1700	1625.2	74.8	4.4	236.4	62.71
MENKU-ANTAR	197.2	192.3	4.9	1000	975	25	2.5	79	20.96
PAXIS-OBAN	233.1	225.2	7.9	1200	1159.2	40.8	3.4	128.9	34.21
DASUM-FYM	220.3	200.8	19.5	1100	1002.1	97.9	8.9	309.4	82.08
SALUN-CVO-SILKA	757	726.5	30.5	3900	3744	156	4	493	130.79
BRN-NUBAR	652.6	647.4	5.2	3400	3372.8	27.2	0.8	86	22.8
SML-DEPKA	596.4	585.8	10.6	3100	3044.2	55.8	1.8	176.3	46.78
SISID-KUNAK	236.9	229.6	7.3	1200	1162.8	37.2	3.1	117.6	31.19
LUGAV-AST	269.9	261	8.9	1400	1353.8	46.2	3.3	146	38.73
LXR-GINDI	183.5	163.9	19.6	1000	893	107	10.7	338.1	89.71

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Thank You

