



MIDANPIRG CNS SG/8 Meeting

Cairo, 26-28 February 2018



**Egypt
Surveillance
plan**



Agenda Items

- Introduction.**
- Egypt Surveillance Current Situation.**
- Current En-Route coverage.**
- Egypt Surveillance Plan.**
- Coverage by 2020**



Introduction

□ Surveillance is the third side of the square CNS/ATM Communication Navigation Surveillance / Air Traffic Management the four sides named air space concept by ICAO and are mandatory to make air space system.

□ Surveillance is a key function of Air Traffic Control.

□ Surveillance systems are the “eyes” of air traffic controllers; they show

Who is in the sky,

Where they are

When they were there.



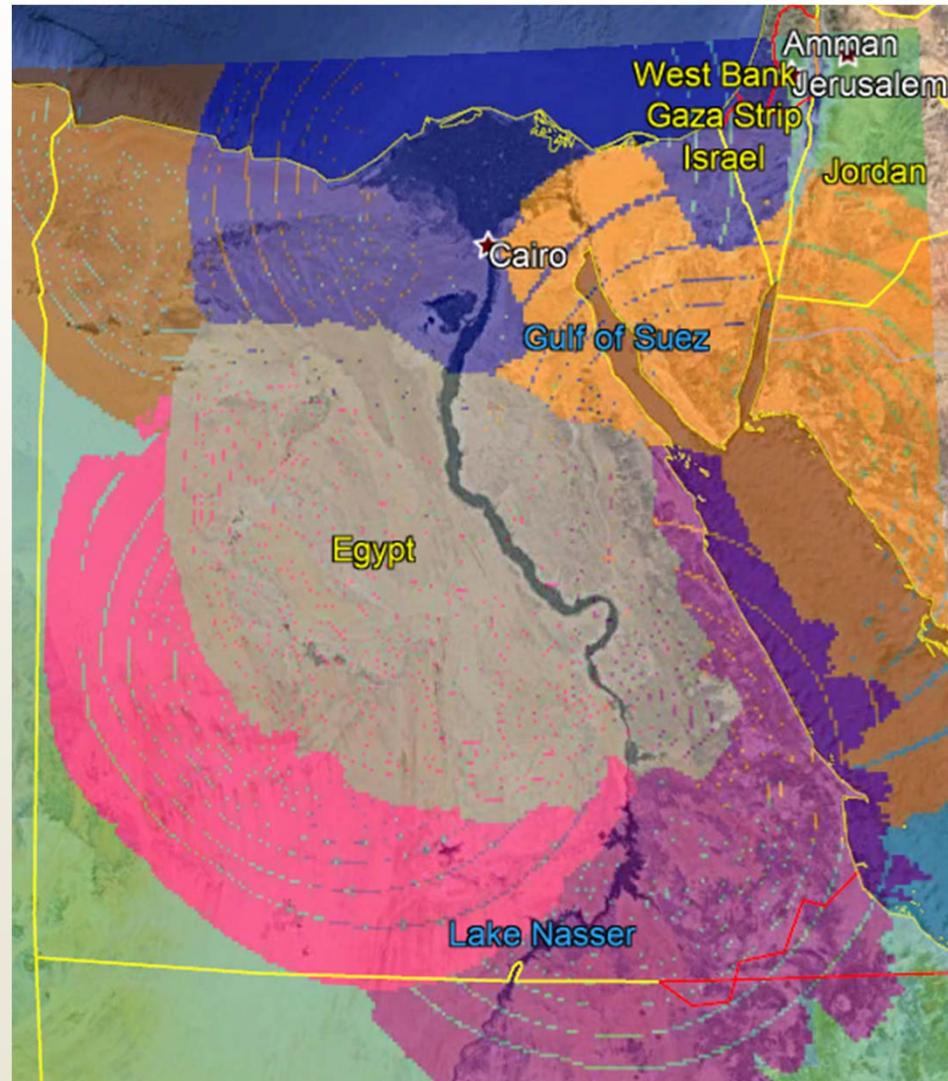
Egypt surveillance current situation

Egypt surveillance systems composed of :

- 6 En route (secondary) radars to cover FIR Air routes.
- 8 Approach Radars (primary + secondary) to serve 8 airports (Cairo , Hurghada, Sharm El sheekh, Aswan, Luxor, Borg Elarab, Elarish and Taba).
- A-SMGCS system at Cairo airport

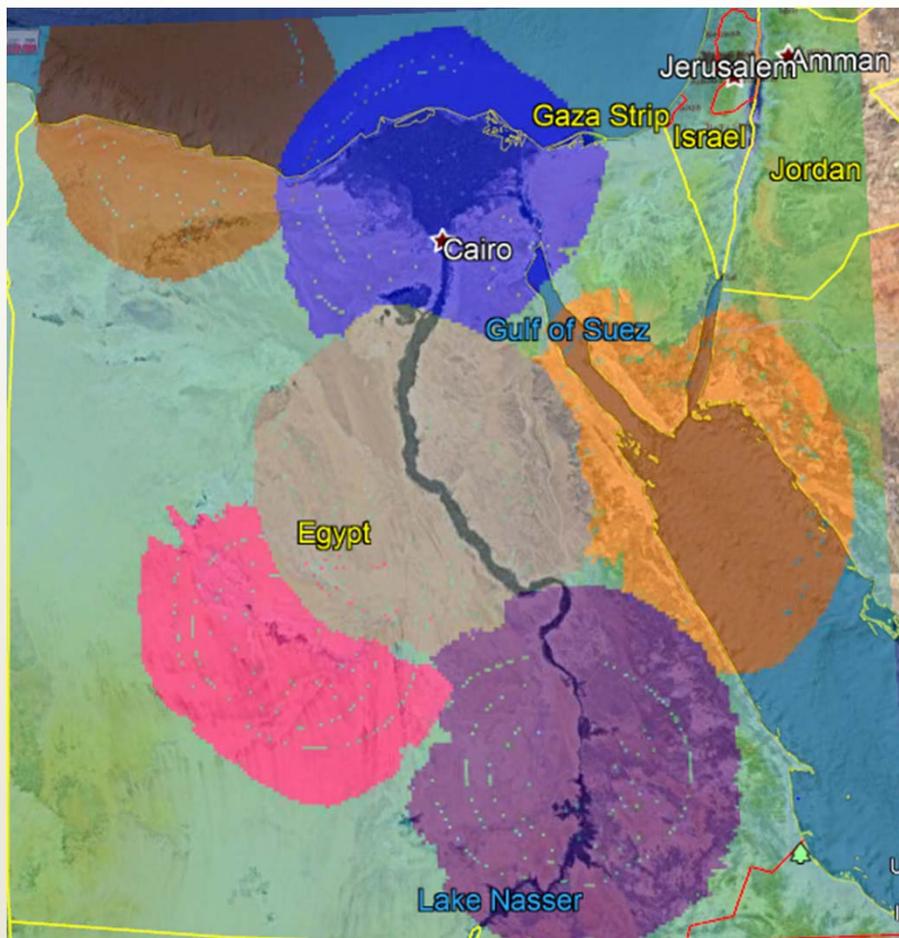
Current En-Route coverage

at 35000 ft altitude



Current En-Route coverage

at 10000 ft altitude





Current En-Route coverage

Although almost of FIR is Covered by secondary radars but :

- There is lack of double radar coverage, especially at the lower airspace high traffic density area.
- the single radar coverage and the lack of coverage at low altitude will not enable us to apply some concepts as Flexible use of air spaces and civil / military access requirements and consideration with respect to SUA.

To overcome the current drawbacks, Egypt started to implement a new surveillance plan



Egypt Surveillance Plan

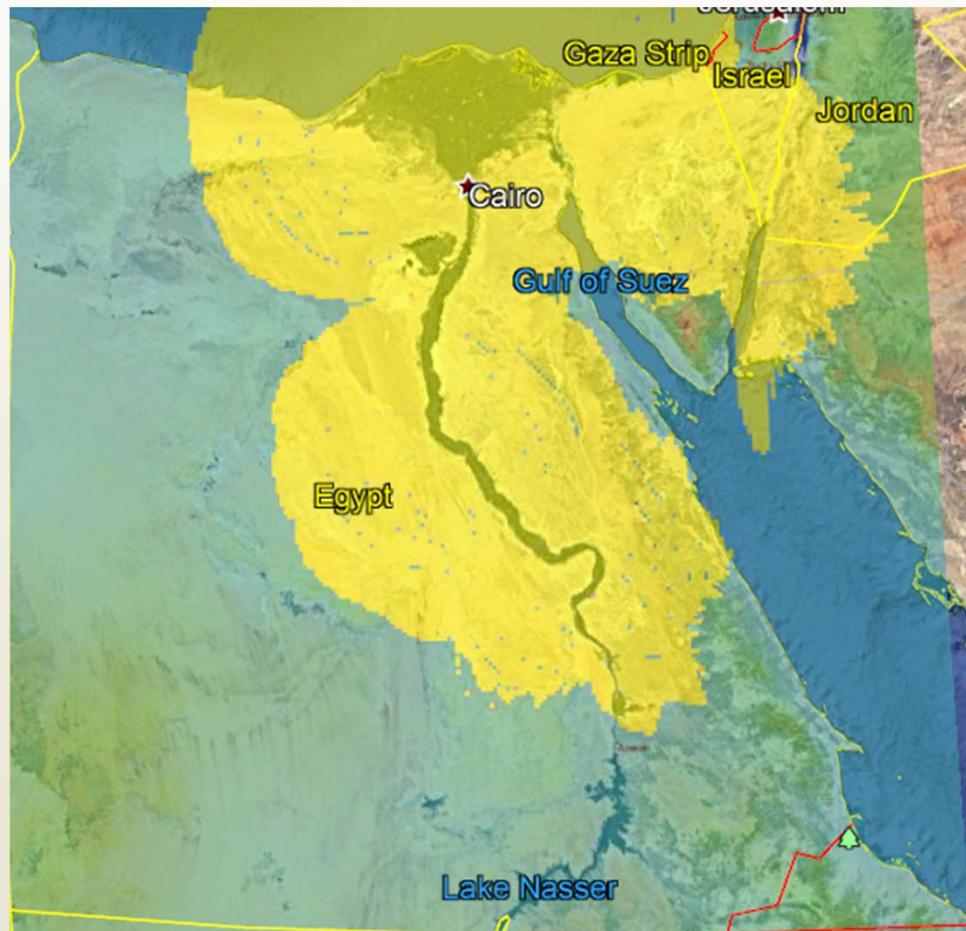
Phase 1 (2017 and 2018).

- Renew 4 RADAR Approach Systems (Primary + secondary).
- Renew 4 Automation centers.
- Install 3 new En-route RADARs (primary + secondary)
- Install 5 ADS-B Systems.

Egypt Surveillance Plan

Expected En-Route coverage after phase 1

at 10000 ft altitude





Egypt Surveillance Plan

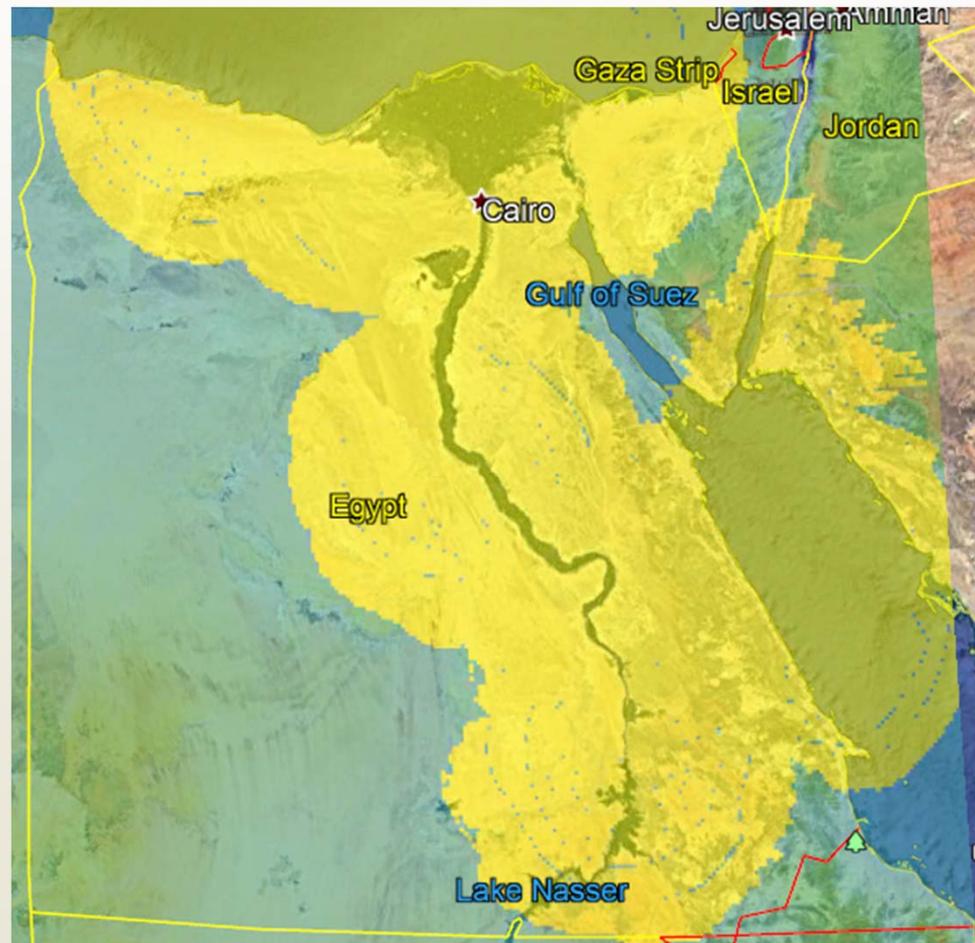
Phase 2 (2019)

- Renew 2 RADAR Approach System (Primary + secondary).
- Renew 2 Automation Centers
- Install 3 new en-route RADARs (primary + secondary)
- Install 5 ADS-B Systems.

Egypt Surveillance Plan

Expected En-Route coverage after phase 2

at 10000 ft altitude





Egypt Surveillance Plan

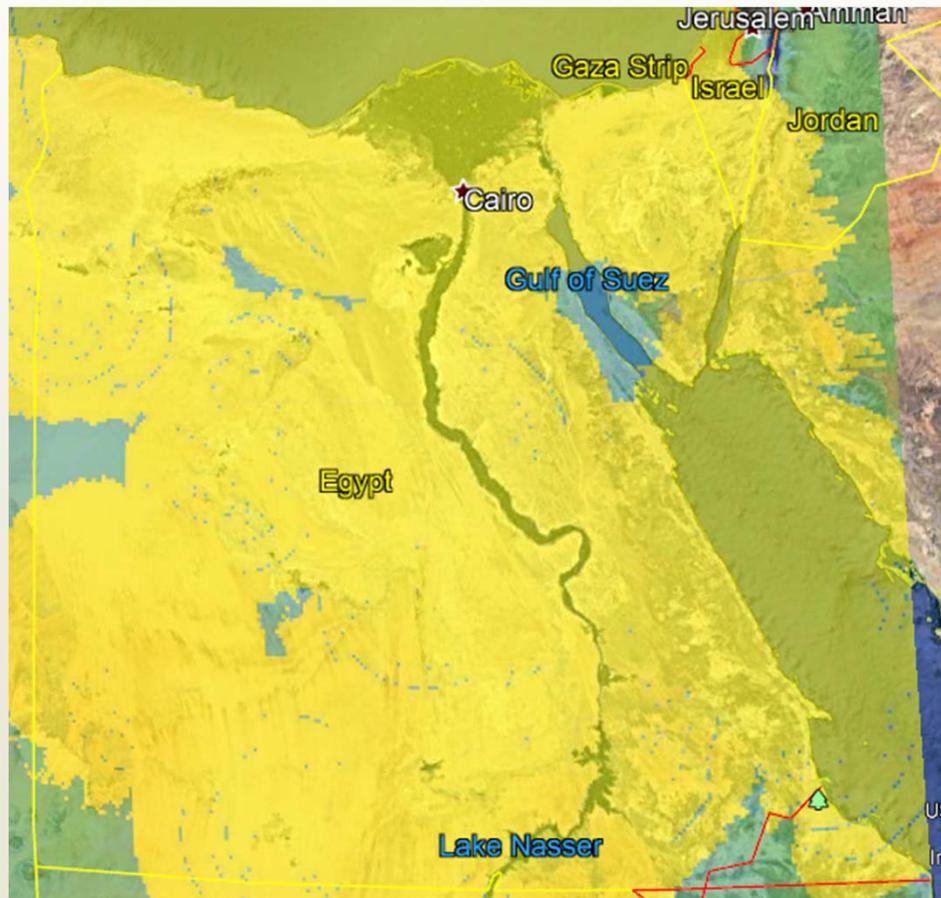
Phase 3 (2020)

- Renew 2 RADAR Approach Systems (Primary + secondary).
- Renew 2 Automation center
- Install 7 new en-route RADARs (primary + secondary)
- Install 9 ADS-B system.

Egypt Surveillance Plan

Expected En-Route coverage after phase 3

at 10000 ft altitude



Egypt Surveillance Plan

Expected En-Route coverage after phase 3

at 35000 ft altitude





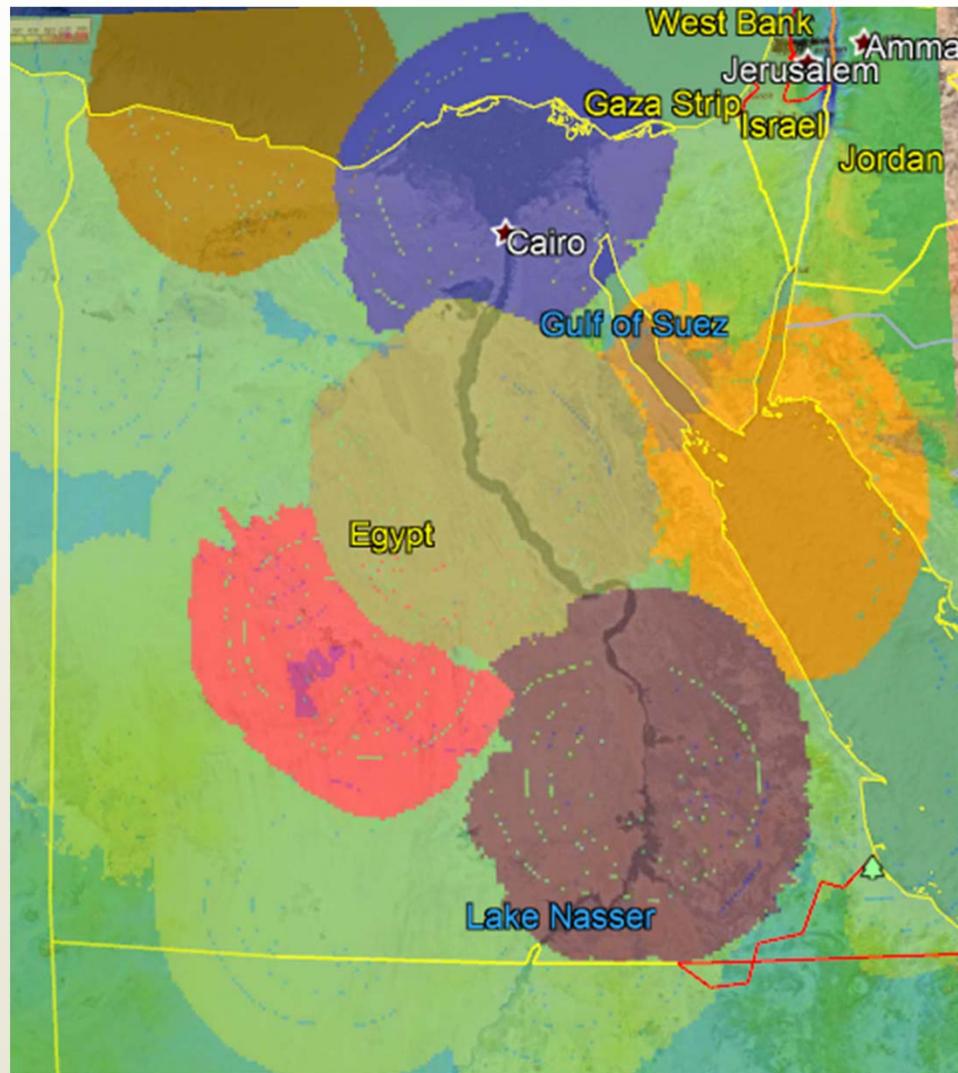
Egypt Surveillance Plan

By End of 2020

- Airways network will be covered by multi surveillance enablers (Primary RADAR , Secondary RADAR and ADSB).
- 100% high traffic density area will be multi covered at 35000ft altitude.**
- No gaps at 10000 ft altitude

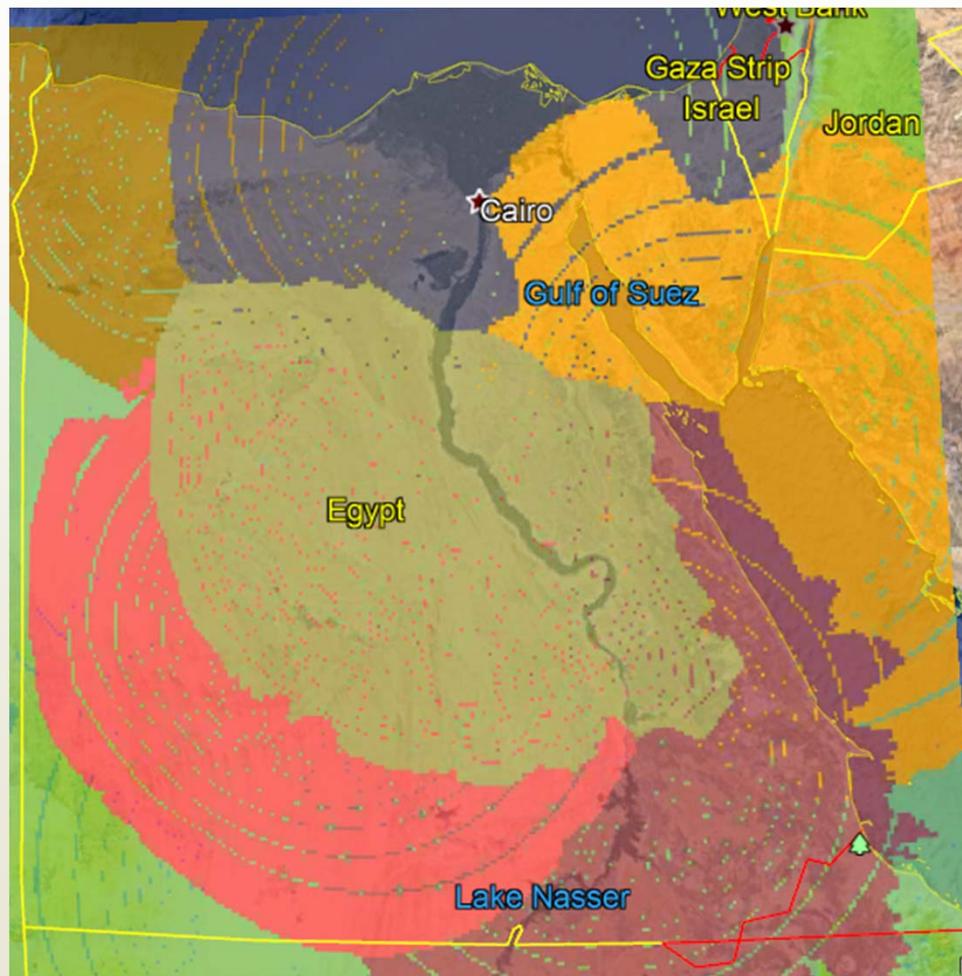
Coverage By 2020

at 10000 ft altitude



Coverage By 2020

at 35000 ft altitude





Thank You !



Eng. Amir Aly Mohamed Eid

engineer.amir.aly@gmail.com