



| ICAO

CAPACITY & EFFICIENCY

Civil/Military Cooperation MID Region

Elie El Khoury

RO ATM/SAR

ICAO MID Office

Civil/Military Workshop

(Algiers, Algeria, 26 – 28 March 2018)

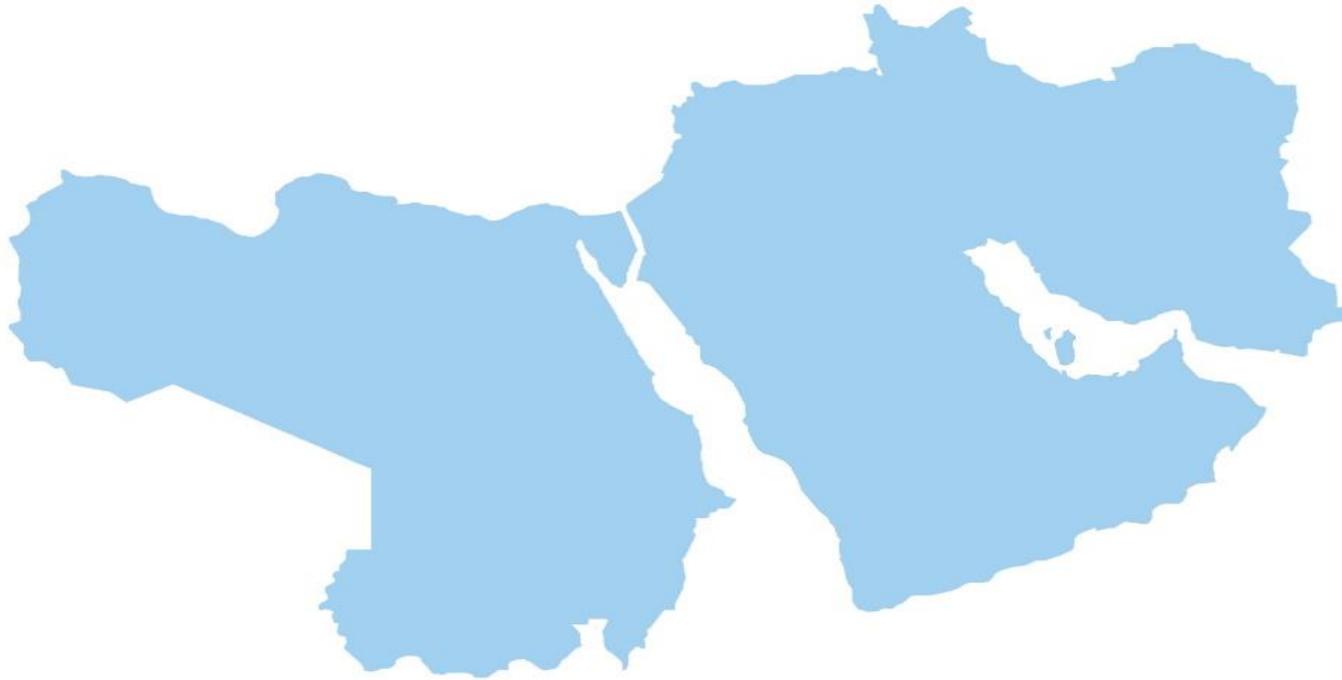


Presentation Outline

- **Highlight on the MID Region**
- **MID Region Interfaces**
- **ASM Challenges**
- **SAR Challenges**
- **FRTO**
- **MIDANPIRG Initiatives**
- **Quick wins and savings**
- **Conclusions**



The MID Region



The Middle East Region is composed of 15 States:

Bahrain, Egypt, I.R. Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Oman, Qatar, Saudi Arabia, Sudan, Syria, UAE and Yemen

ICAO MID Office is hosted by Egypt in Cairo since 1953.

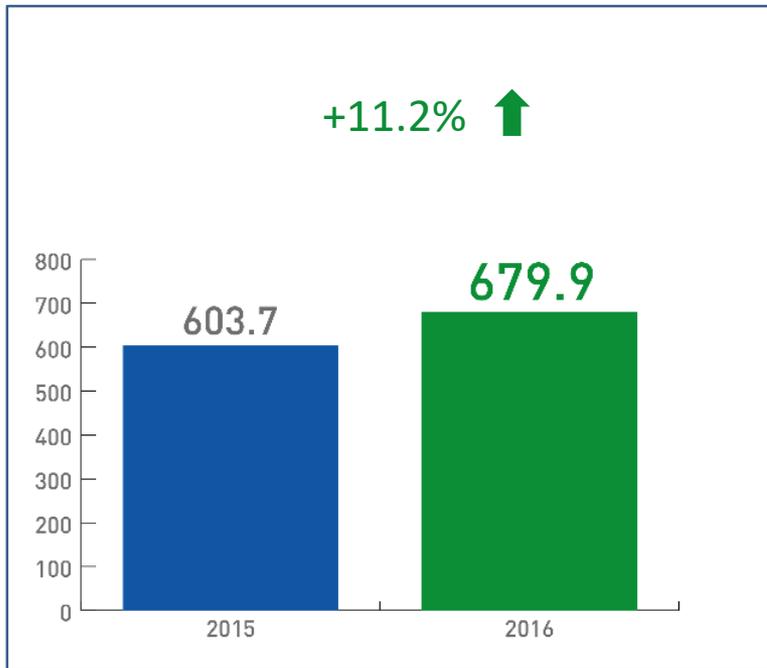


MID Region Interfaces



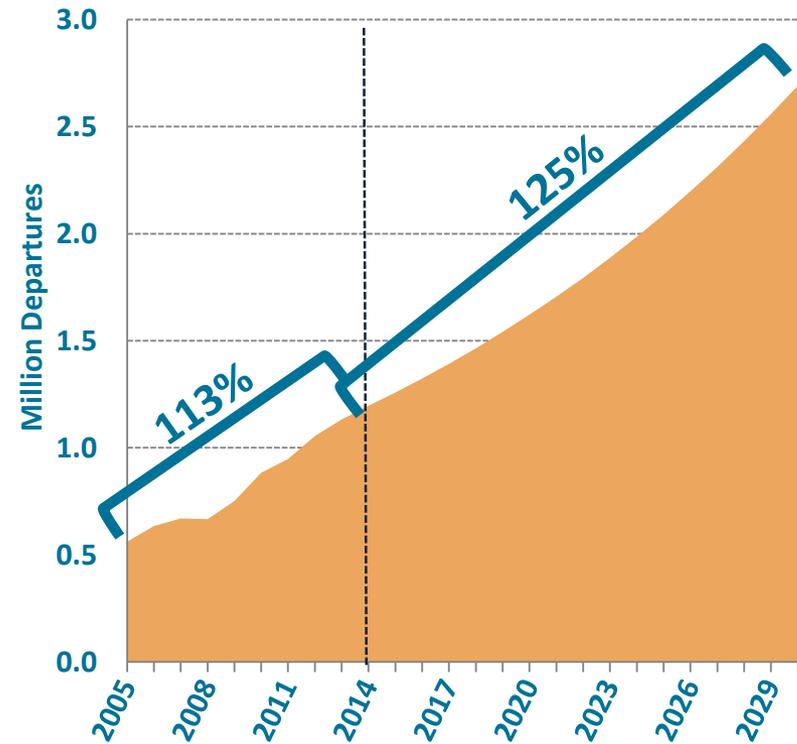
Key attributes about the Region & Aviation

International & Domestic Scheduled services



Revenue Passenger-Kilometers Per Billion

Middle East Aircraft Movements & Growth



Why civil/military cooperation is needed?



- The Region is Running Out of Airspace Capacity, which has impact on;
 - **Safety**
 - **Environmental Footprint of Aviation**
 - Risk on the Growth of Civil Aviation and Its **Contribution to National Economies**
- The need to **Enhance Inter-State Coordination** to Ensure **Seamless Operations** and Optimal use of the airspace by all users (CIV and MIL)



SAR deficiencies in the MID Region

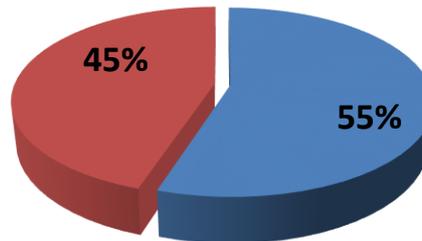
Signatures of SAR Agreements

■ Not Completed



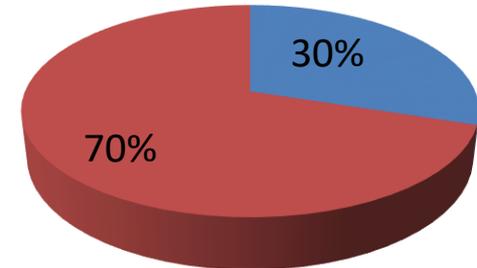
Lack of Provisions

■ Implemented ■ N/A



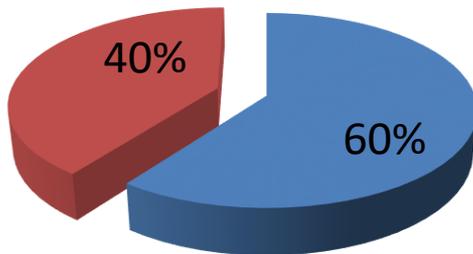
SAREX

■ Compliant ■ No SAREX



ELTs

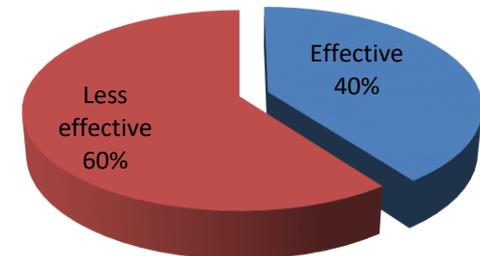
■ Compliant ■ Non compliance



SPOC



Effective SAR Oversight



Aviation System Block Upgrades (ASBU) Free-Route Operations (FRTO)

Benefits:

- ✓ Applicable to en-route and terminal airspace.
- ✓ Benefits can start locally.
- ✓ The larger the size of the concerned airspace the greater the benefits, in particular for flex track aspects.
- ✓ Benefits accrue to individual flights and flows.
- ✓ Application will naturally span over a long period as traffic develops.
- ✓ Its features can be introduced starting with the simplest ones.

Challenges

- ❖ Complicated Airspace Structure
- ❖ Large military airspaces
- ❖ Security/unrest political situation
- ❖ Identification of specific routes to be implemented through the segregated airspace

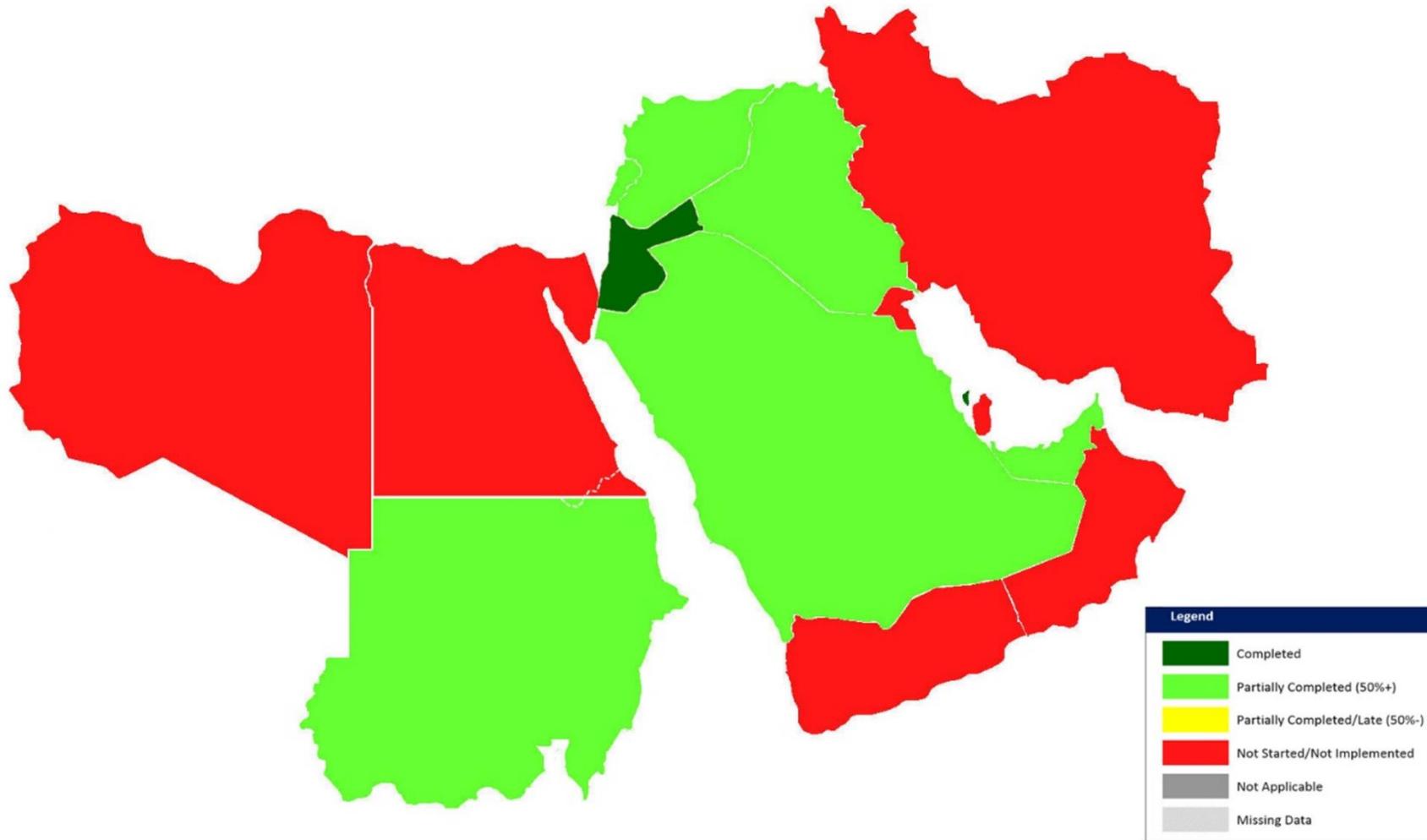


B0-FRTO (MID Region)

B0 – FRTO: Improved Operations through Enhanced En-Route Trajectories

Elements	Applicability	Performance Indicators/Supporting Metrics	Targets
Flexible use of airspace (FUA)	All States	<p>Indicator: % of States that have implemented FUA</p> <p>Supporting metric*: number of States that have implemented FUA</p>	40% by Dec. 2017
Flexible routing	All States	<p>Indicator: % of required Routes that are not implemented due military restrictions (segregated areas)</p> <p>Supporting metric 1: total number of ATS Routes in the Mid Region</p> <p>Supporting metric 2*: number of required Routes that are not implemented due military restrictions (segregated areas)</p>	60% by Dec. 2017

B0-FRTO-(FUA)-Status-of-implementation-in-the-MID-Region





Main MID Region Initiatives addressing ASM issues

- **ATS Route Network Optimization Project (ARNOP)**
- **MID Route Development Working Group (MID RDWG)**
- **Advanced Inter-regional ATS Route Development Task Force (AIRARD TF)/ APAC/EUR/MID**
- **Asia Pacific, AFI and MID and ATM Special Coordination meetings (AAMA)**
- **MID Region Civil/Military Support Team** to conduct Workshops on Civil/Military Cooperation and FUA at National level based on State request
- **Regional and inter-regional events addressing Civil/Military Cooperation**
- **MID Region Flight Procedure Programme (MID FPP)**
- **ATFM project**
- **MID Region ATM Contingency Plan**
- **MID Region SAR Plan**
- **MID Region PBN Implementation Plan**



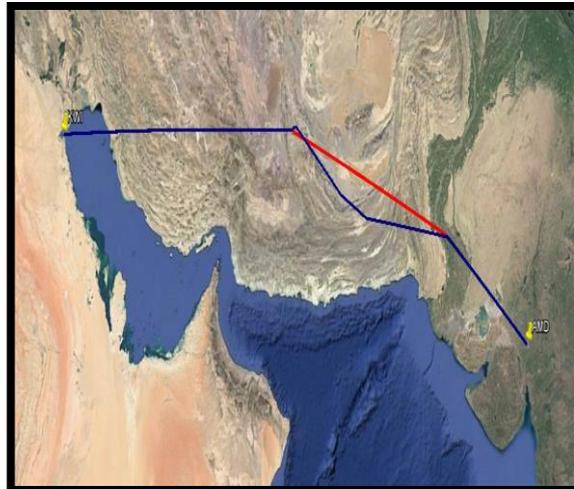
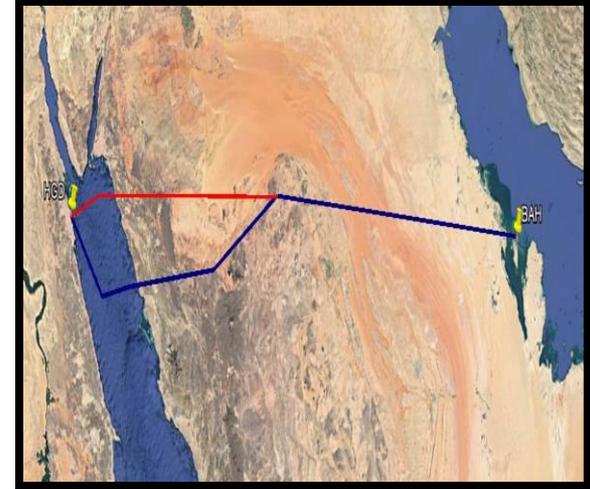
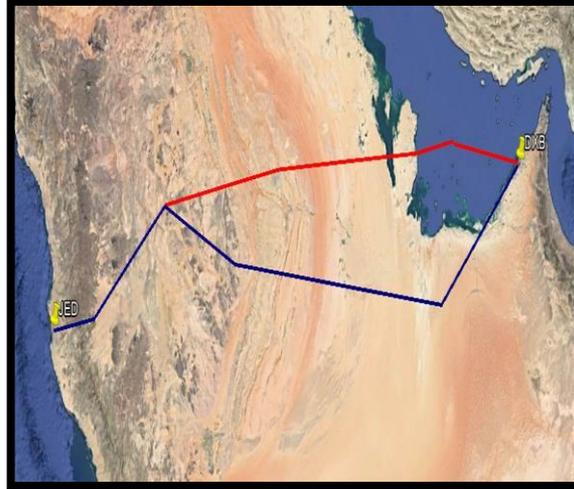
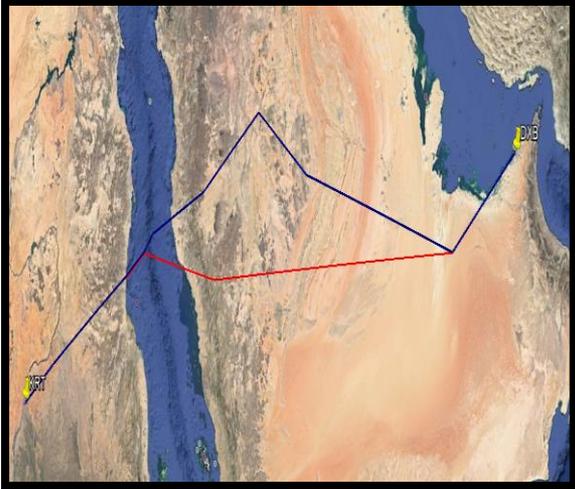
Main Objectives of the Initiatives

With the support of Civil-Military cooperation/FUA:

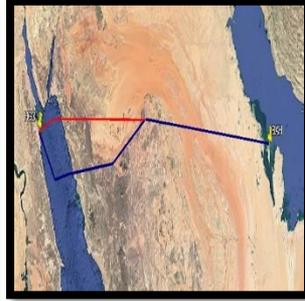
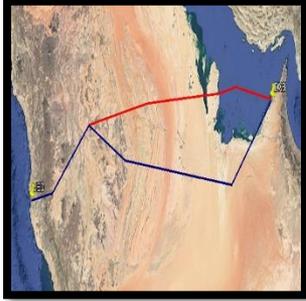
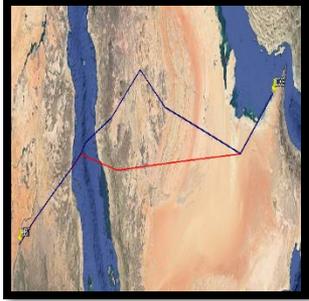
- Improve the Regional **ATS Route Network with the aim to:**
 - ✓ Enhance **Safety** and **Efficiency** and
 - ✓ Increase Airspace **Capacity**
- Foster Cooperation between States to Deliver a Seamless Air Traffic Management Provisions in the Region
- Respond to crisis and contingency situation in an effective manner

The implementation of the MID Region ATM Contingency Plan and in particular the coordination through the Contingency Coordination Teams (CCTs) has demonstrated its successfulness in accommodating safely the re-routed air traffic. Several contingency routes established in an effective manner in coordination with all relevant authorities.

Quick Wins & Savings



Savings



Estimated Savings Per Flight

- 47 Minutes of Flight Time
- 17 Tons of CO₂ Emissions



Estimated Savings Per YEAR

- 300,000 Minutes of Flight Time
- 137 Thousand Tons of CO₂ Emissions

Estimated Savings of ARNOP per YEAR Over Current Situation

- 2.7 Million Minutes of Flight Time
- 35 Million Tons of CO₂ Emissions

Conclusion



Together
Everyone
Achieves
More

$$1 + 1 > 1$$



ICAO

CAPACITY & EFFICIENCY



North American
Central American
and Caribbean
(NACC) Office
Mexico City

South American
(SAM) Office
Lima

ICAO
Headquarters
Montreal

Western and
Central African
(WACAF) Office
Dakar

European and
North Atlantic
(EUR/NAT) Office
Paris

Middle East
(MID) Office
Cairo

Eastern and
Southern African
(ESAF) Office
Nairobi

Asia and Pacific
(APAC) Office
Bangkok

Thank You