

Doha FIR Contingency Plan

2024 ICAO APAC/MID ATM CONTINGENCY
PLANNING WORKSHOP (25 - 27 JUNE 2024)



Qatar ANSP Services

- Doha Aerodrome Control Service (ADC)
- Hamad Aerodrome Control Service (ADC)
- Approach RADAR Control Service (APP)
- Area RADAR Control Service (ACC)
- Aeronautical Information Management (AIM)



01

Human Resources, Automation and Systems

Human Resources

- Led by well versed ANSP employees.
- Employees are trained operationally, technically and administratively.
- Each focused on his area of expertise.
- All are under the umbrella of Qatar Civil Aviation Authority.
- Regulated by the Air Safety Department team of inspectors.
- QCARs are designed to meet the ICAO SARPS and EASA Rules and regulations.



Automation and Systems

- ANSP Operational Teams are supported in their decision making by a state-of-the-art Automation System
- The Automation system is enhanced and supported by other systems which are well maintained by the Technical Team
- Allows the provision of high standard services accommodating the national and international demands
- Focused on safety, efficiency, and security with Minimum Operational Interruptions at all times.



Automation and Systems

Leadinsky Automation integrated with:

- ASMGCS fed by 4 eSMRs and over 60 MLAT units (OTHH)
- Advanced AGL system (OTHH)
- ACDM
- Virtual Tower (Apron 6 OTHH)
- AMAN/DMAN
- ATFM

And procedures:

- SID's and STAR's to/from all runways
- RNP approaches to all runways
- IPO



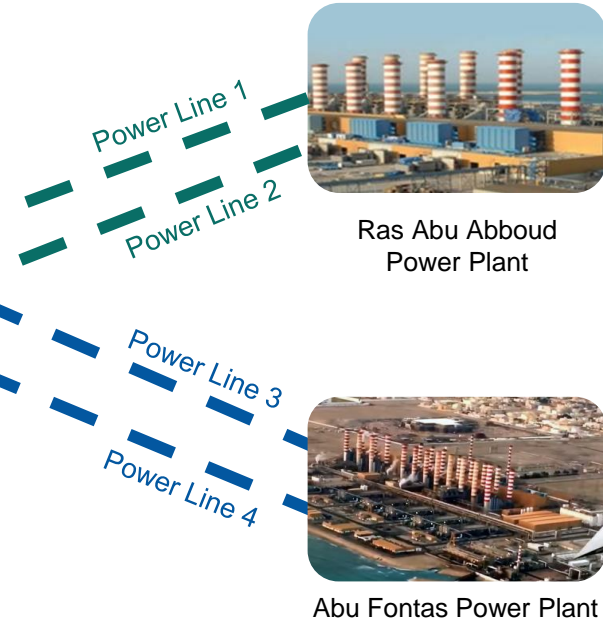
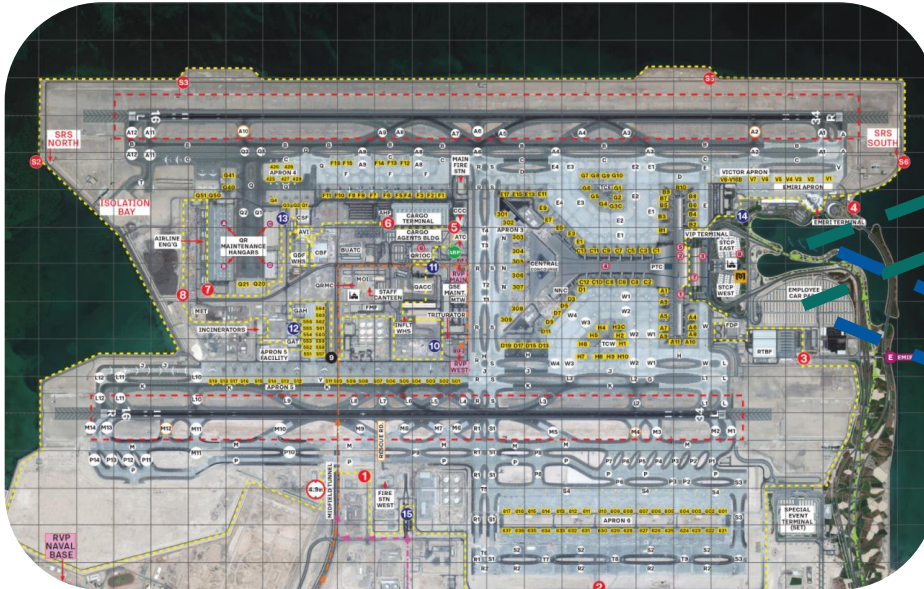
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Doha FIR Contingency Plan

- **Technical Contingency**
- **Operational Contingency**

Technical Contingency

- ANSP Equipment is fed by 4 separate and independent electric power supplies
- The 4 separate and independent power supplies are fed from two separate power plants.



Technical Contingency

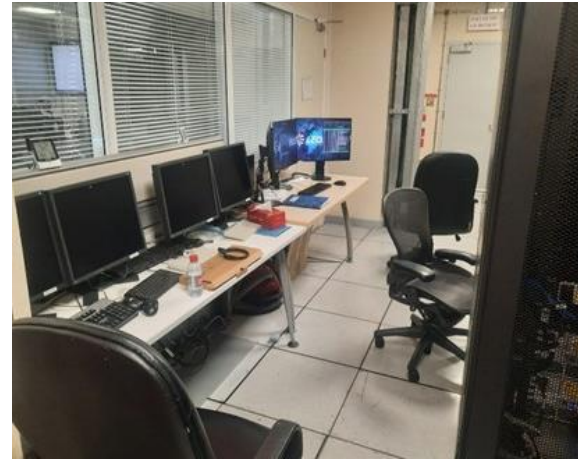
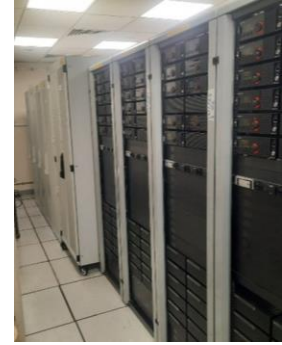
Followed by the receiving power station, the electrical power is managed by power management systems like:

- Smart UPSs
- Smart Generators
- Automatic transfer switches



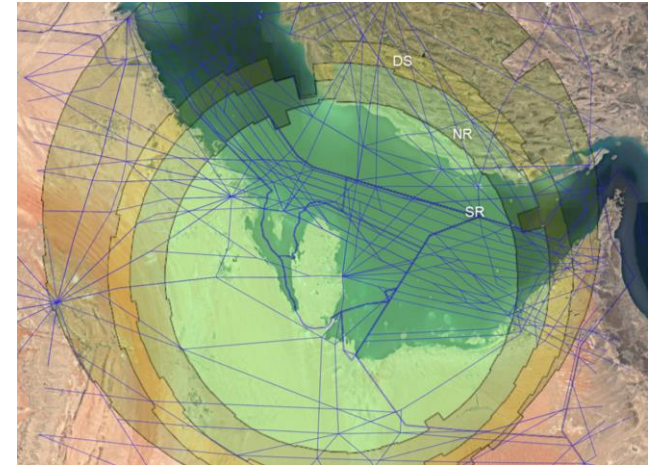
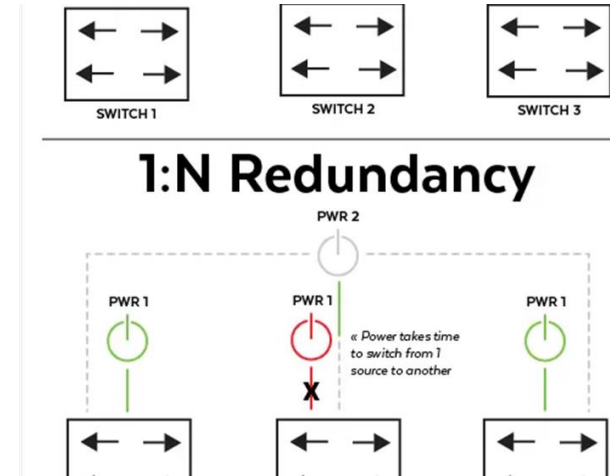
Technical Contingency

- ANSP has a Main Equipment Room (MER) and an Emergency Equipment Room (EER).
- The redundant server and network components of the individual ATC systems are installed in MER and EER.
- For additional level of redundancy, a second Main Equipment Room is planned at a different location and the work is in progress.



Technical Contingency

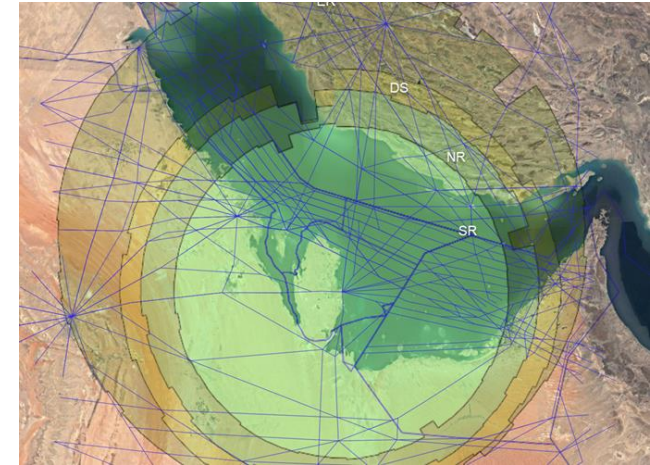
- All equipment and systems are designed to accommodate their own contingency and redundancy.
- All IT systems supporting the ANSPs and AGLs have been designed with redundancy and with failover Planning for the recovery of IT systems after a major incident. (Mirrored servers, data centres, and network systems to ensure data integrity and availability).



Technical Contingency

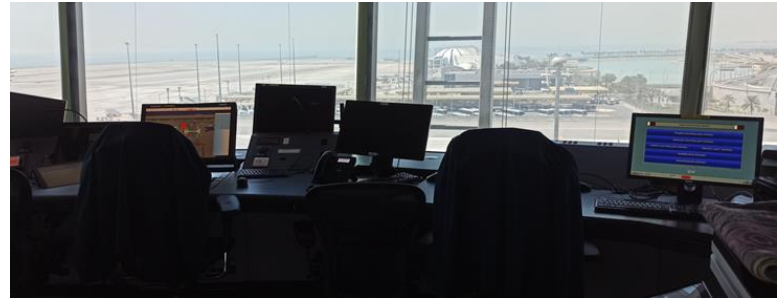
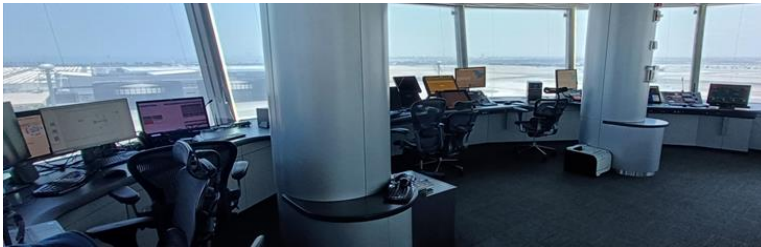
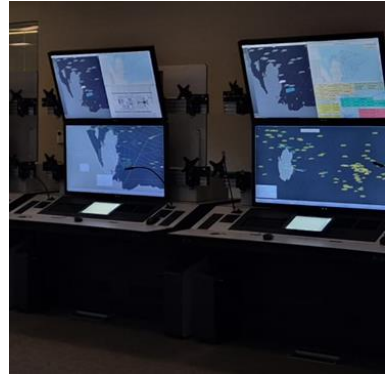
- To accommodate the regional contingency (AMHS, OLDI, AIM, MSSR/SSR, ADS-B,...), the CNS systems are connected to the adjacent states like Kingdom of Bahrain, Kingdom of Saudi Arabia, Kuwait, Sultanate of Oman, United Arab Emirates etc.
- Efforts are ongoing for new/improved system connectivity, and we are at the last stage of establishing additional AFTN connections with Cyprus/Nicosia (by end of July) in addition to the one with Bahrain.

AMHS	UAE	Operational
	KSA	Operational
	Bahrain	Operational
OLDI	UAE	Operational
	Bahrain	Operational
	KSA	Ongoing
AIDC		
AIM	N/A	N/A
SSR/SSR		



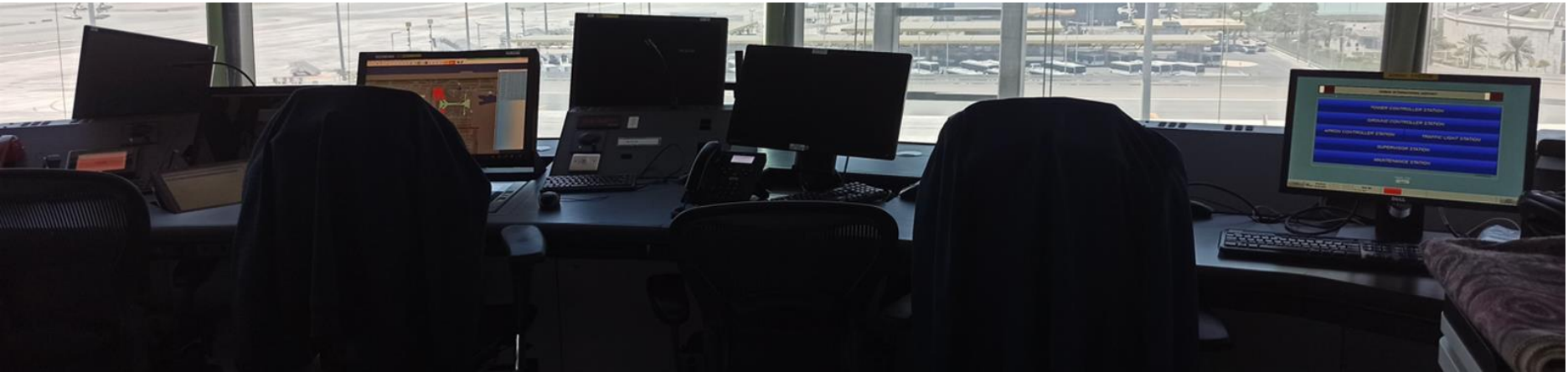
Operational Contingency

- Fully equipped and well-maintained Contingency Operation rooms:
 - Tower
 - Approach
 - Area
- Ready to accommodate 75 - 100% operation in case of failure of the main operational rooms.
- The contingency room is situated within 20 minutes driving from the main location.
- Vehicles are on standby 24/7 at the main location to transport the staff to the contingency location if needed.



Operational Contingency

- The equipment and communications in the contingency room is being checked regularly and at least twice a year exercises are being conducted to simulate the activation of the contingency room.
- Gradually, within one-hour, full capacity can be restored, and operations can continue from the contingency location as long as required.
- The contingency procedures are described in detail in the LATCI.



Operational Contingency

- All controllers, assistants and other systems operators are well trained to ensure a smooth transfer from the Main to the Contingency Operation rooms
- The entire team is trained to handle standard and exceptional operational situations in accordance with local procedures



Operational Contingency

- Up to date mutual agreements (LOAs) underlining Procedures accommodating the adjacent states contingency plans in addition to the local contingency plans.

#	State	Contingency LOA
1	Kingdom of Bahrain	✓
2	Kingdom of Saudia Arabia	In progress
3	United Arab Emirates	✓
4	Islamic Republic of Iran	In progress

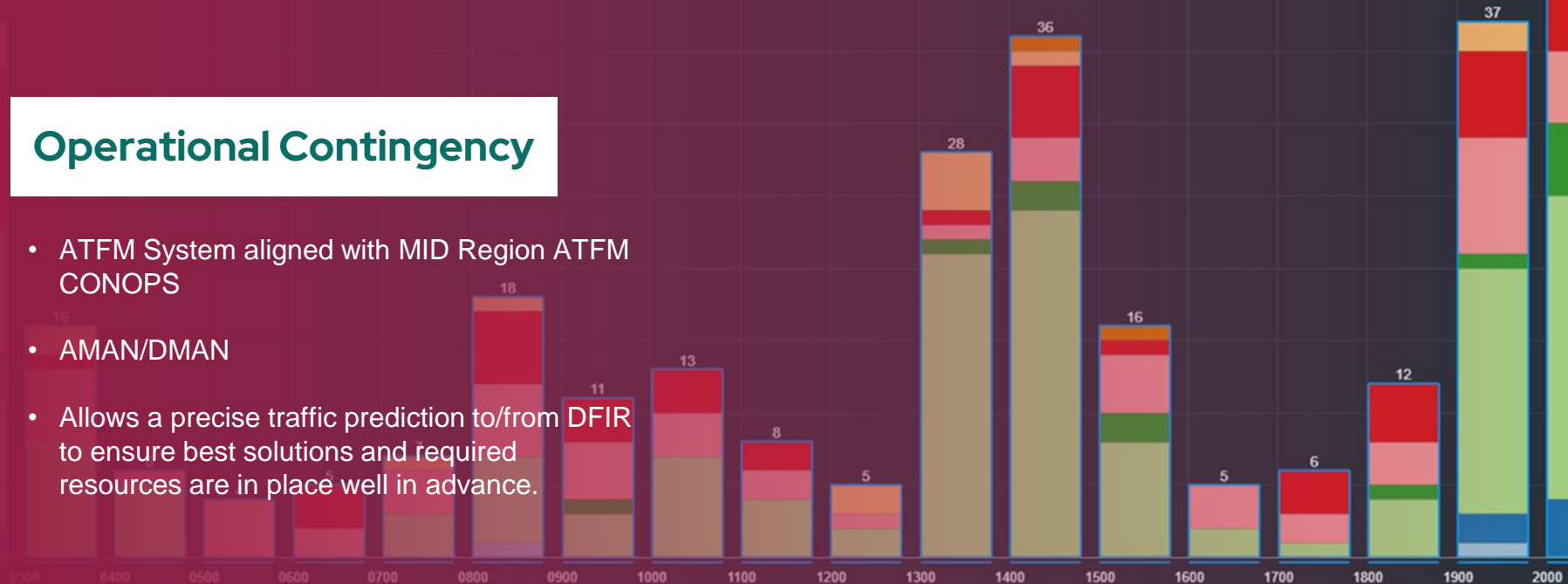


System Set Capacity: ARR DEP Count: ARR DEP

ALQAN BATHA HAYYA SALWA TOSNA TOVOX VEDED Others

Operational Contingency

- ATFM System aligned with MID Region ATFM CONOPS
- AMAN/DMAN
- Allows a precise traffic prediction to/from DFIR to ensure best solutions and required resources are in place well in advance.



Time (UTC):



Reset

Thank You

| **Questions**