



# Sheikh Zayed Air Navigation Centre

**Shaikh Zayed Air Navigation Centre**

**Safety View**

**SAFETY MANAGEMENT INTERNATIONAL  
COLLABORATION GROUP SM ICG**

***INDUSTRY DAY***

06 Nov 2017



# Executive Summary

- Shiekh Zayed Air Navigation Centre
- SMS at Sheikh Zayed Air Navigation Centre
- Early Stages of Implementation
- Working together with the Regulator
- SMS Effectiveness approach
- SZC Business Continuity Management Approach

# Air Navigation Services (ANS)

To plan and operate Safe, Orderly and Expeditious Air Traffic Services in UAE.

**ANS is located at the Sheikh Zayed Centre and comprises of Five Departments**

Air Traffic  
Management

ANSP Training

Communication,  
Navigation &  
Surveillance

Aeronautical  
Information  
Management

ANS Support

# Sheikh Zayed Air Navigation Centre

The background image shows the Sheikh Zayed Air Navigation Centre, a large, modern building with a distinctive curved roof. A tall, slender control tower is visible in the distance. The sky is overcast with grey clouds. In the foreground, there are palm trees and a paved area. The text is overlaid on the image in blue boxes with white borders.

On 6 June 2009 the GCAA shifted its Air Navigation Services to the newly commissioned AED 300 million Sheikh Zayed Centre.

The move was accomplished without any disruption or delay to air traffic.

The ACC building has a 600m<sup>2</sup> Operations Room equipped with the latest technology and with enough working positions to accommodate traffic growth for the next 20 years.

# Sheikh Zayed Air Navigation Centre

The Sheikh Zayed Air Navigation Centre  
comprises of 2 buildings





## Air Traffic Control

Responsible for the provision of an en-route service, an alerting service and flow control within the Emirates FIR.

Equipped with an Advanced Air Traffic Management System which incorporates automated coordination functionality, Safety net alarms, ADS-B Surveillance integration into a multi surveillance tracker and Arrival & Departure Slot Managers.

# ATM SYSTEM

The ATM System includes some of the following functionality:

- Stack manager
- Arrival Manager
- Departure Manager
- Traffic prediction tool
- Short term conflict alert
- Area proximity warning
- Minimum safe altitude warning
- Cleared Level Adherence Monitoring

# ANSP Training Section

Responsible for operational training of Controllers, ATC Assistants, Supervisors and Instructors. Classroom, Simulator and On the job training is conducted.

## **Responsibilities:**

- Training of newly recruited staff.
- Annual Competency Checks for operational staff.
- Design and conduct Ad-Hoc courses.
- Emergency Continuation Training for operational staff.





5:27 PM



# AERONAUTICAL INFORMATION MANAGEMENT ( AIM )

- Operating to ICAO Standard and Recommended Practices(SARPS),providing information regarding Air Traffic Management and Flight Operations within the UAE FIR.
- Maintaining an up-to-date electronic library containing AIPs of other significant states, ICAO manuals/documents and state letters.
- Production and maintenance of a Geographical Map of the UAE depicting major airspace and routes within the UAE.



# AERONAUTICAL INFORMATION MANAGEMENT ( AIM )

- Designing Instrument Approach Procedures, Air Routes and Airspace to ICAO Standard.
- Production of all aeronautical charts as required by ICAO including graphical displays of airspace, routes, flight procedures, aerodromes and obstacle charts.



# Communication, Navigation & Surveillance

Responsible for the maintenance of all Equipment relating to Air Navigation Services as well as facility maintenance.

- Display systems in Area Control Centre (ACC).
- Communication Equipment.
- Training Section Simulator.
- Communication links to all domestic, majority of the regional and some international airports.
- Facilities management includes, electrical, mechanical and general maintenance for the centre.
- Two off-site radars and ADS-B sensors.



# SMS within Sheikh Zayed Centre





# SMS at Sheikh Zayed Centre

1. Early Stages of Implementation
2. Working together with the Regulator
3. SMS Effectiveness approach
4. SZC Business Continuity Management (BCM) Approach

# SMS at Sheikh Zayed Centre

## 1. Early Stages of Implementation

- Pure compliance approach
- Identifying & filling the Gaps between previous and modern way to address and manage safety
- Creation of foundation & Documentation
- Culture Shock & Organizational behavior



# SMS at Sheikh Zayed Centre

## 2. Working together with the Regulator

- National ANS Safety Committee meeting
  - Lessons learnt from other ANSPs
  - group brainstorming sessions with Safety Purists
  - Setting Leading & Lagging Indicators to feed SSP
  - ANSPs performance overview & best practices



# SMS at Sheikh Zayed Centre

## 3. SMS Effectiveness approach

- **Safety Awareness & continuous training**
- **Awareness on Quality requirements & Compliance based approach**
  - Quality Assurance
    - falls under Certificate Post Holders
  - Quality Control
    - Under the custody of Quality Post Holder

# SMS at Sheikh Zayed Centre

- **Risk Based approach through automation**
  - SZC is in the process to adopt a new SMS automation tool
  - The tool will provide access to all Departments to enhance capturing safety reporting by various team members
  - Clear dashboards for senior management
  - Safety Analysis will be available in real time with display of analyzed Data as meaningful information enabling prioritization for improvement



# SMS at Sheikh Zayed Centre

## SMS Effectiveness approach (Cont.)

- Management of Change process will be automated clear view on planned and ongoing changes
- Automated Investigation tool is expected to provide alerts on trends and promote Safety recommendations to the concerned
- Vendor Management plays an integral part of our future plan  
Automated Audit system and Safety Grouping monitoring approach

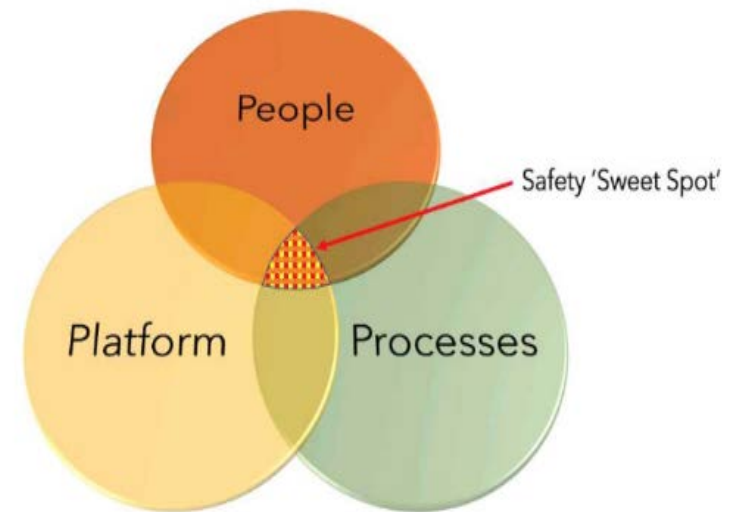
# SMS at Sheikh Zayed Centre

## 4. SZC Business Continuity Management Approach

- We are in process to obtain ISO 22301 Certification
- GAP Analysis has been completed
- Investment in BCM is expected to increase ANS resilience through balancing Business risks which may lead into Safety Risks

# Future Safety Dynamics

- The dynamics of Organizations , since there is no 1 size fits all in Safety and SMS, are different from one Organization to another
- Organizations themselves are evolving dynamically and behave differently based on internal & external factors that change continuously
- Despite all our efforts to manage Risks to ALARP as an ANSP, we believe that sharing of safety information and plans across the aviation community is the best way forward to exploit safety information for the benefit of our customers & stakeholders.





# Thank you