TANZANIA CIVIL AVIATION AUTHORITY

GLOBAL AVIATION COOPERATION SYMPOSIUM

30th Sept to 3rd October 2014

IMPLEMENTING AIR NAVIGATION SOLUTIONS THROUGH COOPERATION - TANZANIA EXPERIENCE

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Outline

✈ Establishment and main functions of the Tanzania CAA

✈ Air Navigation Systems in Tanzania

➢ The Dar Es Salaam FIR

➢ ANS Organisation

➢ Human capital development

✈ Improvements Through Collaboration

✈ Conclusion

Establishment and main functions of the Tanzania Civil Aviation Authority

➤ TCAA is established under the Civil Aviation Act as an autonomous organisation and is responsible for:

- ➢ Safety Regulation of the aviation activities;
- ➢ Economic regulation of the air transport industry in Tanzania; and
- ➢ Provision of air navigation services (except for the aeronautical meteorological services)

➤ The Authority is structured to ensure distinct separation of functions between the regulatory and service function.

Air Navigation Systems in Tanzania

→ air navigation systems covers:
  ➢ Dar es Salaam Flight Information Region extending to 44^0 East in the Indian Ocean and the upper airspace of Burundi and Rwanda (from 24,500 ft above sea level to infinity)

→ The services are provided by the Area Control Centre at Julius Nyerere International Airport and 13 stations within the Tanzania boundary.

→ To facilitate expeditious flow of traffic communication and Navigational facilities which ensure full coverage are installed around the country

→ The airspace is currently managed under two structured TMAs (Dar and Kilimanjaro) and is being restructured to have a third TMA in Mwanza zone

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AIR NAVIGATION SYSTEMS IN TANZANIA

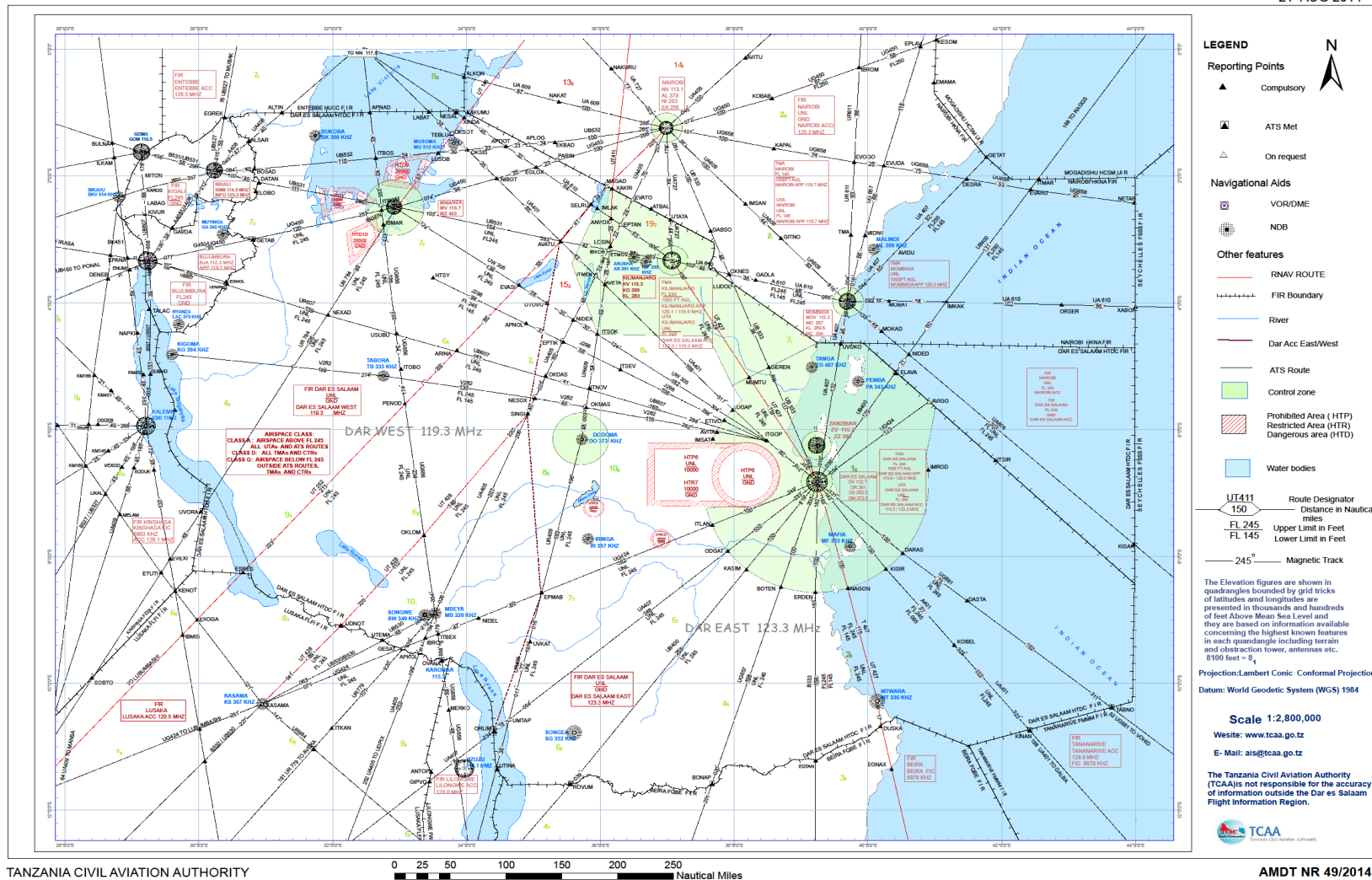## THE DAR ES SALAAM FLIGHT INFORMATION REGION

Air Navigation Systems in Tanzania
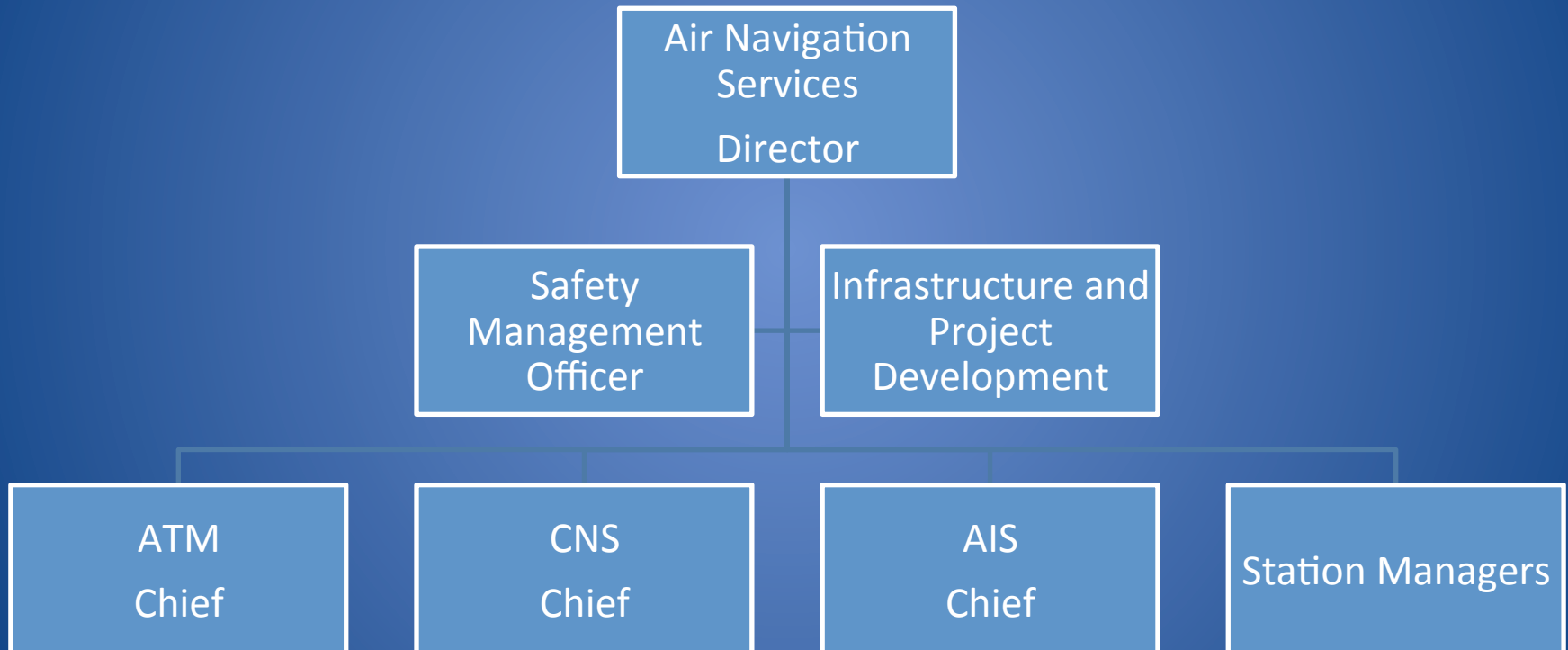# The Dar es Salaam Flight Information Region

Air Navigation Systems in Tanzania Organisation

Air Navigation Services Director

Safety Management Officer

Infrastructure and Project Development

ATM Chief

CNS Chief

AIS Chief

Station Managers

QMS is managed by a Quality Manager directly under the DG with all ANS sections having dedicated internal auditors

Human Capital Development

➤ Human capital is one of the key part in our recourses which require continuous nurturing and development

➤ TCAA operates a Civil Aviation Training Centre founded in 1985 with support of ICAO

➤ The Centre supports development of human capital in air navigation specialities including air traffic control aeronautical information services, radio and navigation aids maintenance, curriculum development

➤ It has a 3D ATC state-of-the-art aerodrome training simulator

➤ The Centre is an associate member of ICAO TrainAir Plus and also a member of Association of Africa Training Organisation (AATO)

➤ Tanzania is hosting the first general assembly of AATO from 1st to 3rd October 2014 in Zanzibar

Improvements Through Collaborations

✈ ANS provisions in Tanzania is continuously improved mainly supported by the autonomous status granted to TCAA by the Government of the United Republic of Tanzania

✈ Our Planned operational and development initiatives focus in harmonising and integrating our airspace management within the global plan

✈ The following few slides indicates what Tanzania has or is doing to achieve performance improvement and enhanced safety

Improvements Through Collaborations

➔ Regulatory/ Standardisation

  ➢ Tanzania and its partners within the East African Community (CASSOA) develops harmonised regulations and standards guiding the management, and operations of ANS

  ➢ The developed standards and regulations are based on ICAO standards, guidance and international best practices

➔ Communication Infrastructure

  ➢ SADC VSAT and NAFISAT – effective communication link SADC and North East Africa

  ➢ Dar - FIR fully covered with VHF communication system

  ➢ National ICT Broadband Backbone - NICTB - (Fibre optic) linking within and other countries (both voice and data)

Improvements Through Collaborations

➤ Towards Performance Based Navigation (PBN)
  ➢ In partnership with IATA GNSS procedures and Direct routes have been developed at our international airports and airspace
  ➢ Tanzania is an active member of the African Flight Procedures Programme championed by AFCAC
  ➢ Under the AFI WG development of direct routes is being done (4 routes in the Dar FIR)

➤ Towards Electronic Information System
  ➢ Implementing transition towards AIM – (AIRAC, QMS, and WGS at major airports done)
  ➢ Electronic AIP and Electronic Terrain obstacle data (ETOD) under implementation

Improvements Through Collaborations

✈ Surveillance
  ➢ The plan is to make all the Dar FIR to be fully covered for situational management
  ➢ Two surveillance radars to be installed this year (2014/15) and two in the following year (2015/16)
  ➢ Installation of ADS-B on-going, initially to cover the Eastern part and Indian ocean traffic flow

✈ Collaborative Airspace Design and Management
  ➢ Under East African Community Project for a common management of the upper area control ongoing

✈ Operational coordination with bordering States and Military
  ➢ Letters of Procedures signed with 11 States bordering the Dar FIR
  ➢ An existing and functional committee for coordinating military and civilian use of airspace

Conclusion

➢Facts:

✓Air Traffic is growing globally and in the Dar Flight Information region as well

✓Type of avionics equipment used by the airlines has improved so much

✓Reduction of fuel burn and carbon emission is a global concern

✓The public does not expect reduction of safety standards despite the air traffic increase

Conclusion

➤ These, point to the need for changes in managing the increase in terms of navigation facilities and operational improvement

➤ The improvement cannot be done individually in isolation but it should be coordinated and in collaborative

➤ Tanzania in cooperation with other partners and coordinated by ICAO and AFCAC takes its responsibilities to implement air navigation solutions within its entrusted airspace