AMHS
Implementation in Zimbabwe
AFI AMHS/I/TF/2

By Erick Chavunduka

Civil Aviation Authority of Zimbabwe (CAAZ)

www.caaz.co.zw

Purpose of Presentation

- Discuss the overview of the AMHS-ZW supplied by Comsoft.
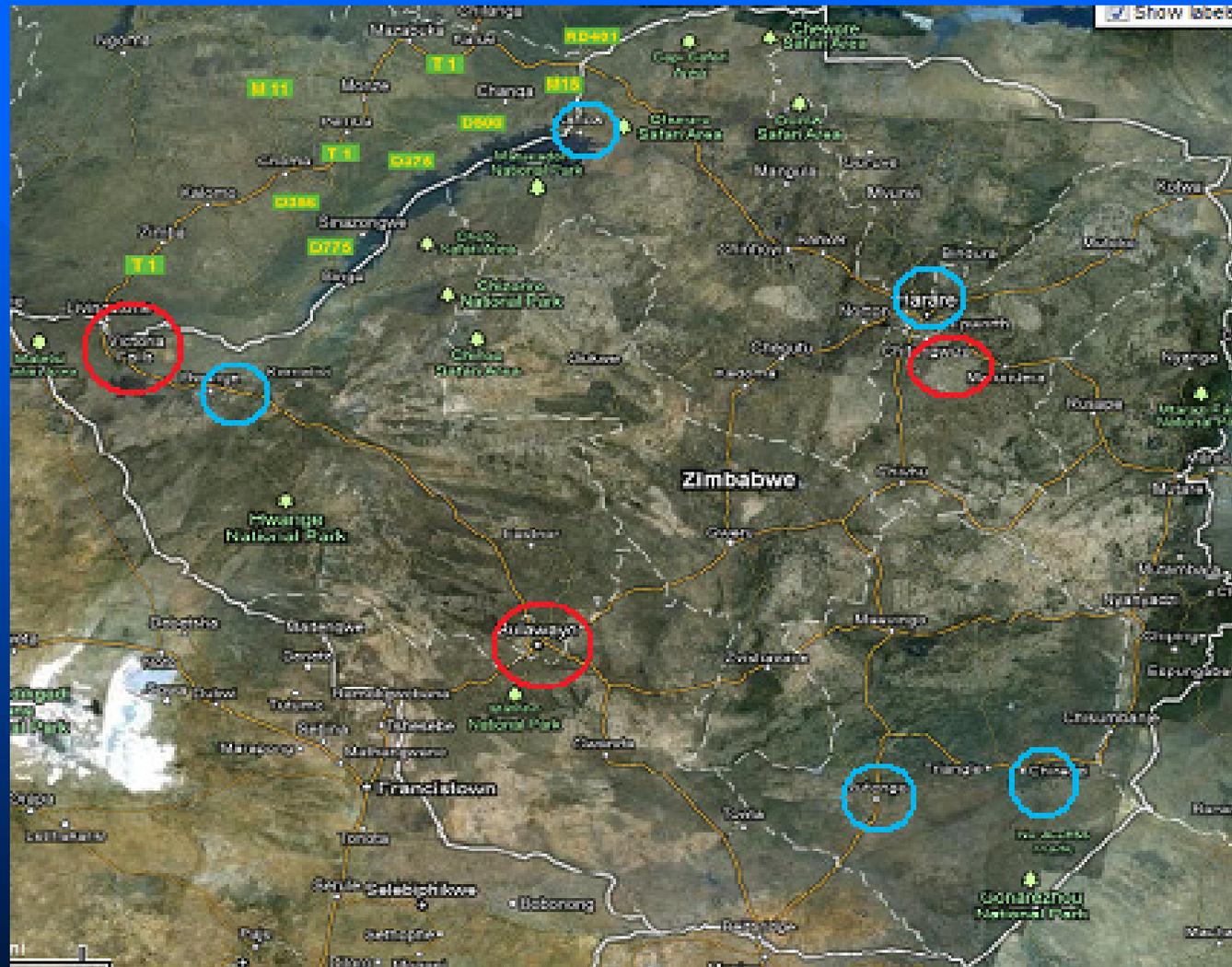
About Myself

- Maintenance Engineer

- 20 years experience in Communication, Navigation, Surveillance / Air Traffic Management CNS/ATM Systems:
    - Installation
    - Maintenance
    - Repair
    - Staff Training & Development

AMHS-ZW Project: Introduction

- Used a Comsoft AFTN Switch Since 1997.
- One of the First African Countries to Implement AMHS – April 2010.
- Purchased an upgrade to comply with FPL 2012 requirements.
- Domestic WAN Implemented Over TCP/IP VPN Tunnel Connections.
- Industry players are yet to be connected – Cisco Easy VPN
- Leased Line WAN Backup.
- Connectivity to Regional Hub is AFTN via SADC VSAT
- TCP/IP Backup for Regional (FAJS) Connectivity
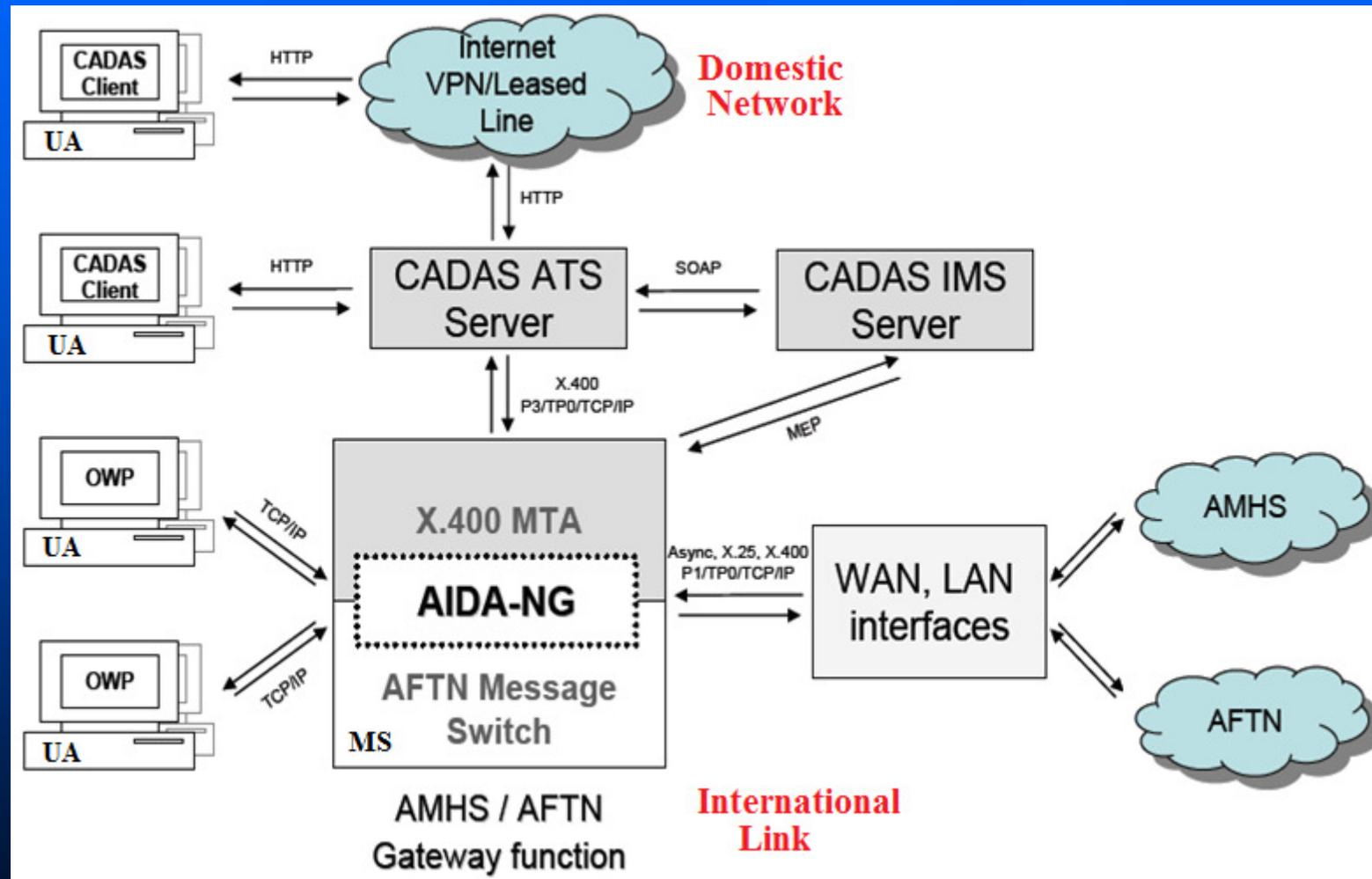- AFI ATN router specifications are yet to be specified by ICAO
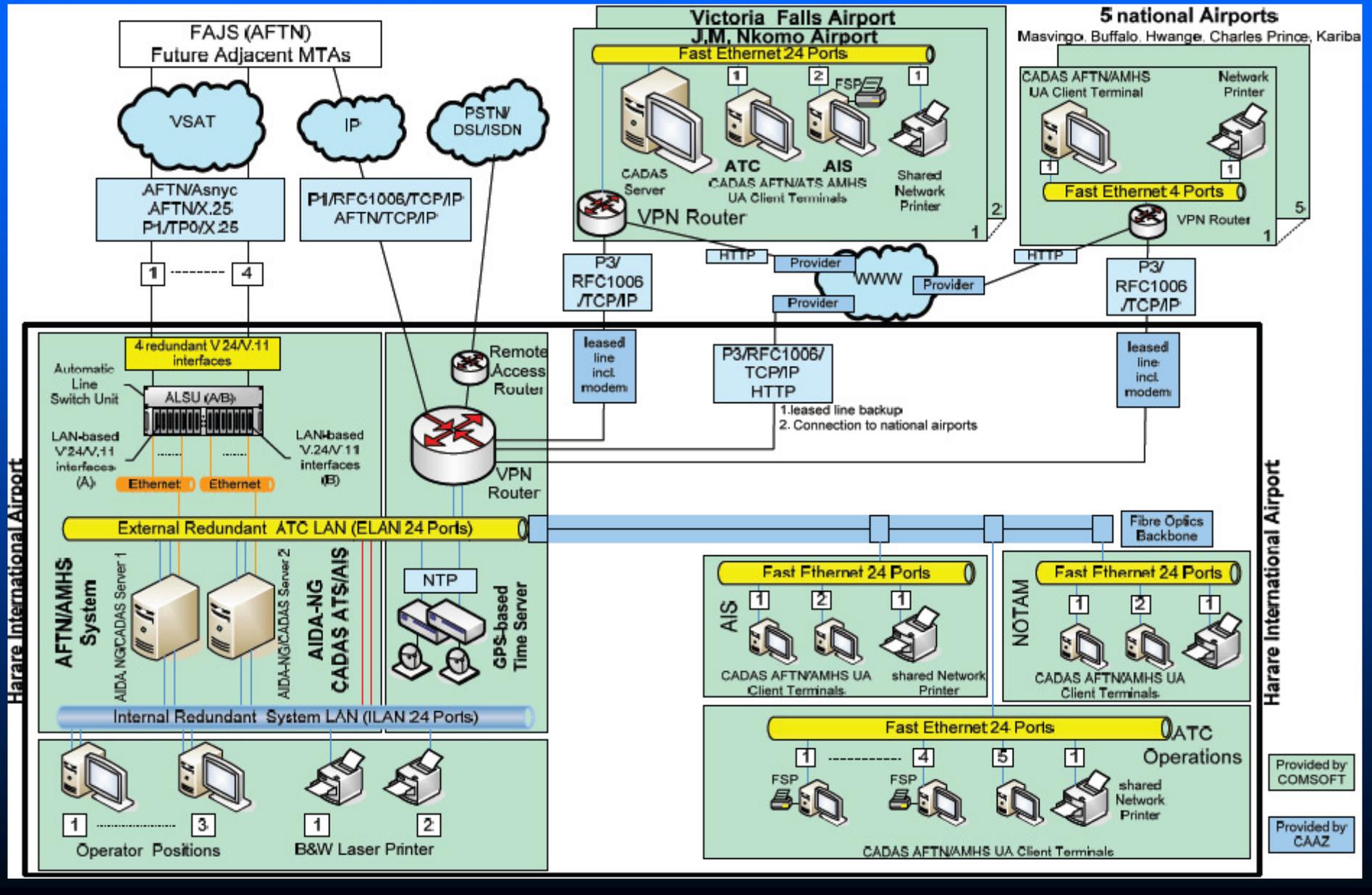
AMHS-ZW Project: Airports

3 Main Airports   **5 Smaller Airports**

AMHS-ZW Project: Overview

AMHS-ZW Project: Layout

AMHS-ZW: Components

- **The main components at Harare include:**
  - Two AIDA-NG / CADAS-ATS / CADAS-IMS Servers
  - Three Operator Working Positions
  - A Message Recording System PC-Based Server
  - Dual receiver GPS Time Synchronisation
  - Nine CADAS Client Terminals
  - Four Flight Strip printers and Five Laser Printers
  - Nine Layer 2 & 3 LAN Switches
  - A VPN firewall and a VPN remote access router
  - A 5KVA UPS Cabinet with 3 battery packs

AMHS-ZW: Components

- The main components at JM Nkomo / Victoria Falls Airports include:
  - A CADAS-ATS / CADAS-IMS Server
  - Three CADAS Client Terminals
  - A Flight Strip printer and a Laser Printers
  - A Layer 2 LAN Switch
  - AVPN firewall router
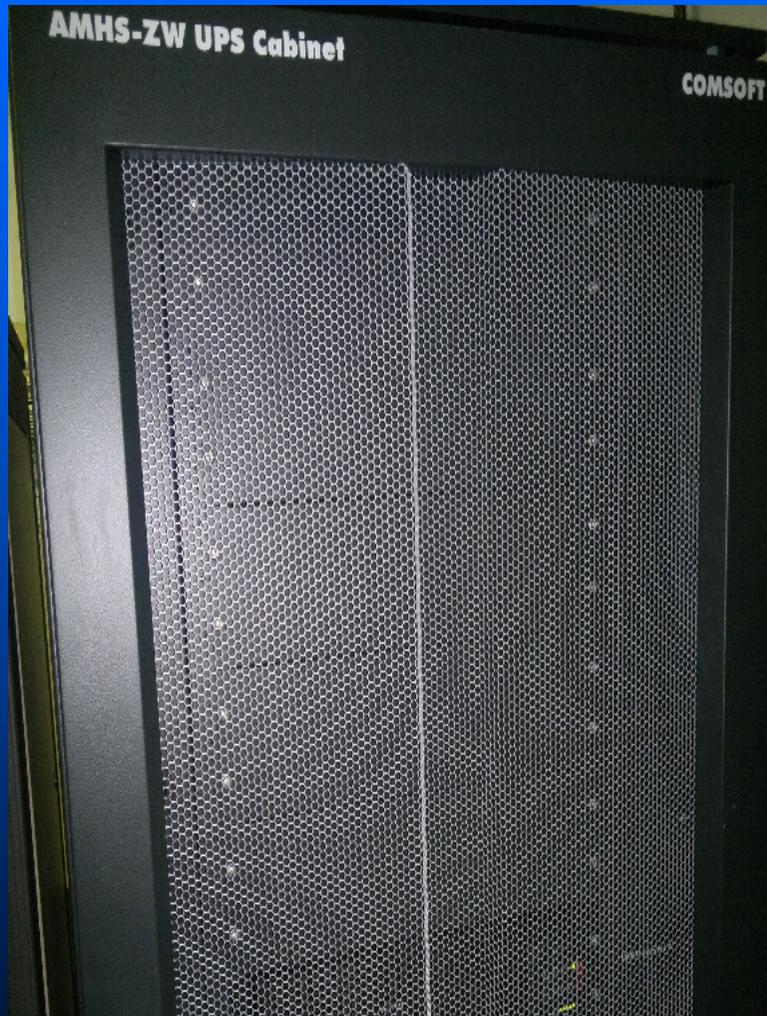 - A 3KVA UPS Cabinet with 3 battery packs

AMHS-ZW: Components

■ The main components at five smaller airports (Buffalo Range, Masvingo, Hwange, Charles Prince and Kariba) include:

- A CADAS Client Terminal.
- AVPN and firewall router with an Ethernet switching module.
- A 3KVA UPS

AMHS-ZW Project: Pictures

Main Equipment Cabinet at Harare Airport

AMHS-ZW Project: Pictures

5KVA UPS Equipment Cabinet at Harare Airport
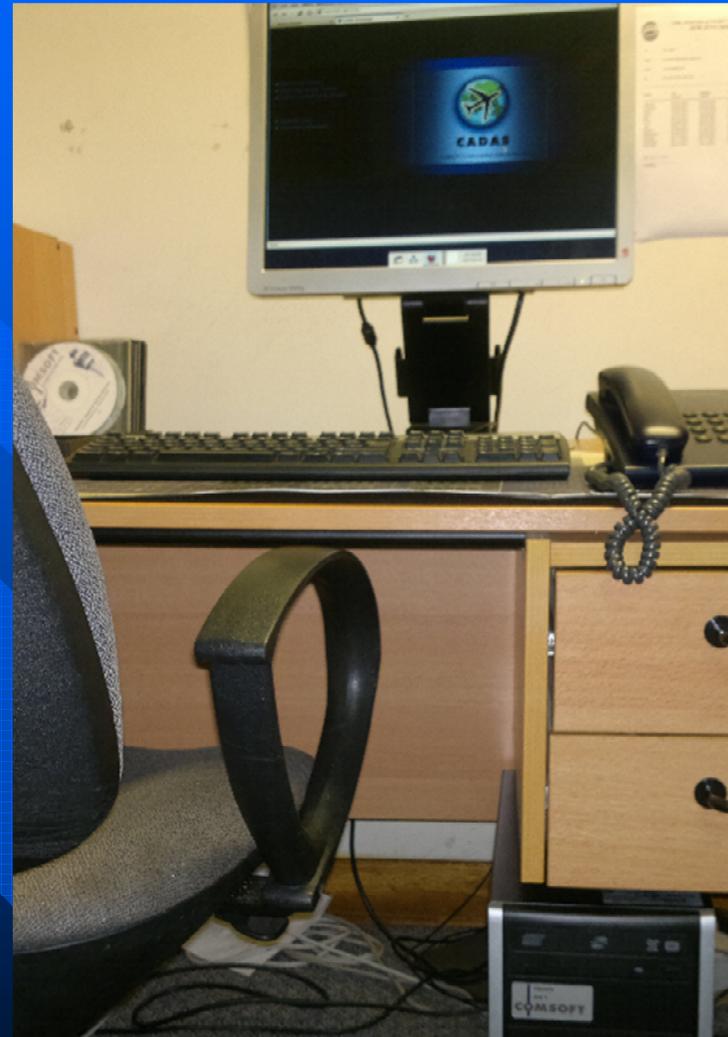
AMHS-ZW Project: Pictures

1 of 2 Tower Console CADAS Terminals at Harare Airport

AMHS-ZW Project: Pictures

1 of 2 NOTAM CADAS Terminals at Harare Airport

AMHS-ZW Project: Pictures

Typical AMHS Installation at V/Falls & JMN Airports

AMHS-ZW Project: Pictures

Typical CADAS Installation at Small Airports

Regional AMHS Initiatives

- AFI AMHS Implementation Task Force Meeting in 2011:
  - Facilitated by the ICAO Western & Central / Eastern & Southern African Offices.
  - Review the status of AMHS implementation within the region.
  - Assess compliance to ICAO guidance for standardisation, harmonisation of AMHS implementation.
  - Review the AFI AFTN Directory in line with the updating of AFI AMHS / ATN routing table
  - Zimbabwe, South Africa and Ethiopia are permanent members by virtue of having already implemented AMHS

ICAO AIS-AIM ROAD MAP

- Tender Awarded to Comsoft for the Supply and Installation of a fully integrated AIM Solution:
  - Aeronautical AIXM
  - eAIP
  - Automated Chart Production
- AIM Solution based on the unique AIXM 5.1 database:
  - Enables seamless integration between applications
  - Improved safety, efficiency and cost effectiveness
  - Supports future digital NOTAM applications

The End

Thank you for listening.

Any Questions?