ATNS ADS-C/CPDLC
IMPLEMENATION
Challenges

Introduction

❑ ATM Planning's goal is to achieve a performance based interoperable national air traffic management system for all users during all phases of flight that meets agreed to levels of safety, provides for optimum economic operations, is environmentally sustainable and meets national security requirements.
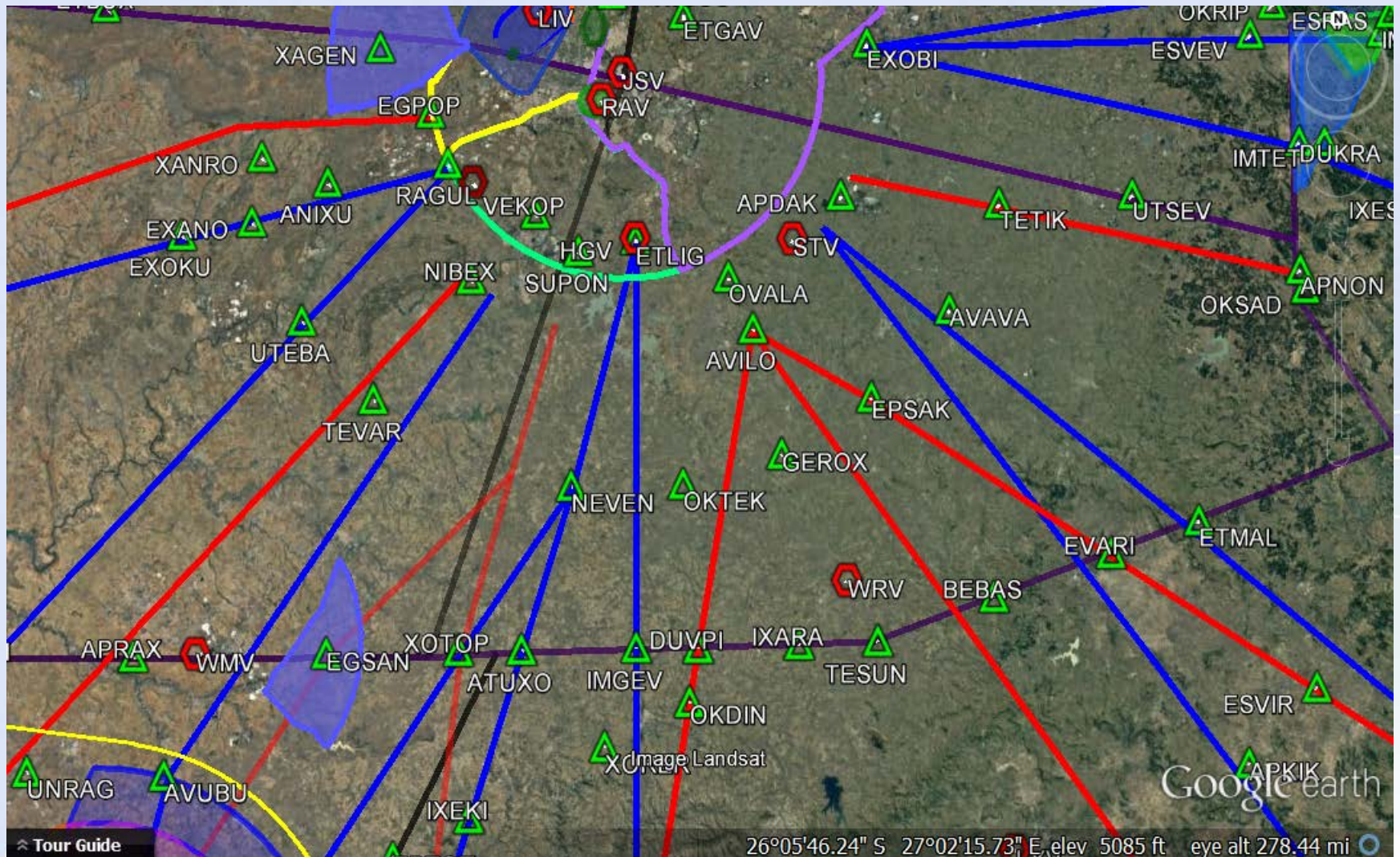
ATM Planning R & D Mandate

PBN

- ❑ RNP APCH at 9 ACSA Airports – 31/03/16

- ❑ RNAV 1 SID STAR at 6 International ACSA Airports

- ❑ RNAV 1 SID STAR at busy domestic Airport

- ❑ Achieve CDO and CCO thereby reducing noise and CO2 emissions

GAPP

IMPROVEMENTS IN THE OCEANIC AIRPACE

❑ South Africa was one of the first ANSPs to implement the ADS-C/CPDLC in both the AORRA and IORRA.

❑ We successfully implemented the UPR zone in the IORRA which has benefitted a lot of users in that area in terms of flexibility and efficiency.

❑ We are currently conducting assessments for the implementation of RNP 4 in the AORRA/IORRA in accordance with EUR SAM Corridor Airspace Concept.

REMOVAL Of ILDIR:

❑ South Africa continues to encourage member states involved in the removal of ILDIR ,that has not yet published in their AIPs the changes about the removal of ILDIR ,to Finalize the required Documents and Publish the changes in their respective AIPs

OPERATIONAL:

❑ **LOG ON**

- Requests from operators outside of our area of jurisdiction
- Operators Logged off too soon (DAL)

❑ **INCORRECT FPL**

- Many Operators did not include the letter J in their FPL

OPERATIONAL:

❑ USE OF FREE TEXT MESSAGES
❑ Both ATCs and Pilots were using a lot of free text messages

❑ TRAFFIC MIX OPERATIONS
❑ We had to operate both the HF and ADS-C/ CPDLC systems which increased the ATCs workload

❑CELCAL
❑Due to some technical challenges sometimes we would loose a connection but would find out that crew is not monitoring SELCAL

OPERATIONAL:

❑ END SERVICE

❑ Many times ATCs would forget to END Service when transferring traffic to another FIR and that FIR would be unable to establish contact with that Aircraft

❑ **TECHNICAL**

❑ **Current Capability:**

  ❑ ATS provision to Oceanic traffic:
    ▪ SAT
    ▪ Indian Ocean
  ❑ Availability and Quality of Service monitoring (historical) through SITA and ATM automated system

❑ **<u>CHALLENGES</u>**:

❑ Performance monitoring not real-time

❑ ADS-CPDLC application on ATM system   reaching life-span. It's in the process of being replaced

❑ National Telecommunications service provider link availability (Internetworking with CSP/DSP)

CHALLENGES IN IMPLEMENTING ADS-C/CPDLC

❑ **Short-Medium Term Future:**

❑ Replacement of ATM system in progress and will solve system lifecycle issues.

❑ Discussions in progress with relevant ANSP's to provide other Data link services e.g. AIDC

❑ Discussions in progress with SITA to test Continental CPDLC within RSA terrestrial airspace (infrastructure already in place), targeting 4 initial applications as with the Link2000+:

CHALLENGES IN IMPLEMENTING ADS-C/CPDLC

i. DLIC-Data Link initiation Capability (Logon Management)

ii. ACM- ATC Communications Management (Frequency Management)

iii. ACL- ATC Clearances (Routine Clearance Management)

iv. AMC- ATC Microphone Check (Stuck microphone)

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Thank you