AIM RBIS Project – Workshop on Go-team methodology

Experience sharing on AIXM implementation

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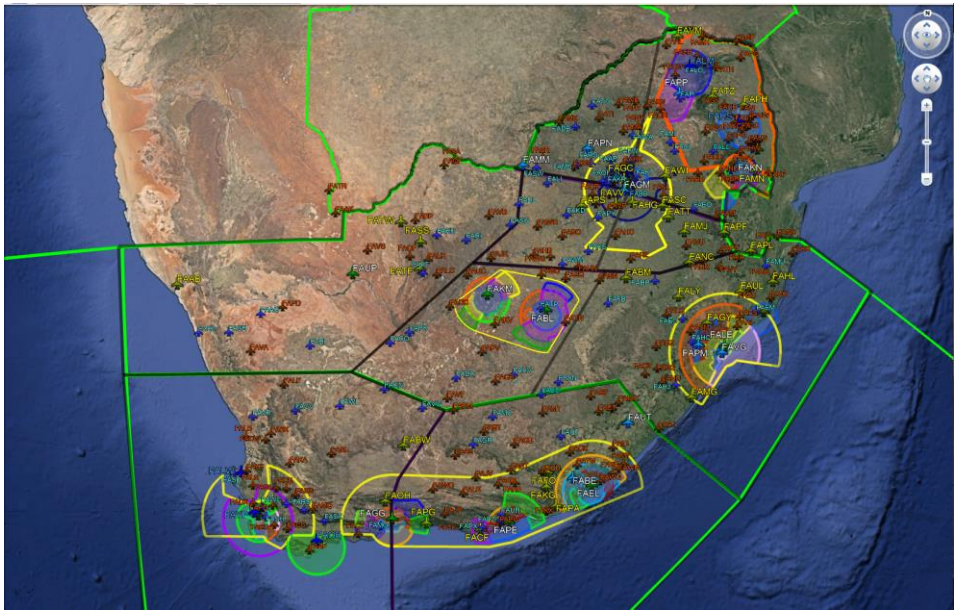
Outline

- Introduction
- Description of the implementation process
- Challenges encountered
- Lessons & recommendations

Introduction



- Airspace (2 FIR, 1 Oceanic FIR) – 6% of global airspace
- 20 Aerodromes (9 ACSA / 12 Municipal/Regional/Private)
- 124 Licensed Aerodromes/Airfields (Published in RSA AIP/AIC)
- 160 Unlicensed Airfields (Not Published in RSA AIP)
- VSAT/NAFISAT, Flight Procedure Design, Charting,
- Obstacle Evaluation, Aeronautical Information Management,
- WGS-84 Surveys, Technical Services, etc
- Aviation Training Academy - ATA

Introduction

*Started 2011 – Procurement of AIXM database

*Static Data Operations (SDO) SAT passed 2011

*AIP/Charting SAT Passed 2013

*AIP Services Transferred from SACAA to ATNS in 2014 (MOA signed between Regulator and ATNS June 2012)

*ATNS Certified in terms of Part 175 South African Civil Aviation Regulations

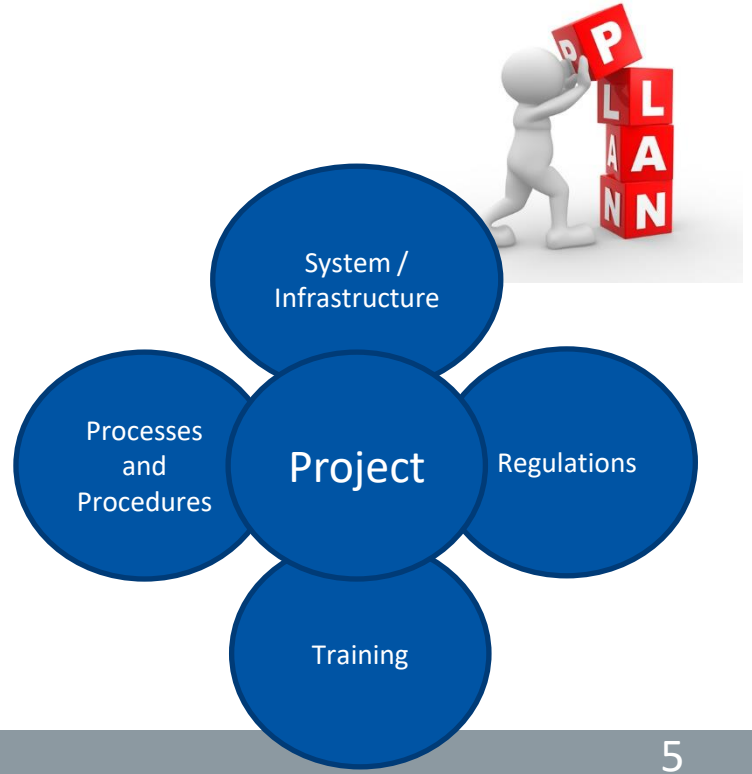
*Current projects – Charting Services and Obstacle Evaluations Transfer from SACAA to ATNS

*Aeronautical Information Product Quality assurance

*Alignment of Civil Aviation Regulations to Annex 15 AMDT 40 and ICAO Doc 10066 requirements (Started 2019 – Published in 2021)

Description of the implementation process

- Develop Strategy (Regional, National, Organisational)
- Business case/Feasibility Study
- User Requirements Specification (URS) development
- Tender
- Procurement / Contract negotiations
- Project plan / Implementation plan
- Training
- Establishment of Processes and Procedures
- Factory Acceptance Testing/Site Acceptance Testing
- System integration
- Regulatory review and amendments
- Data loading & Operational use



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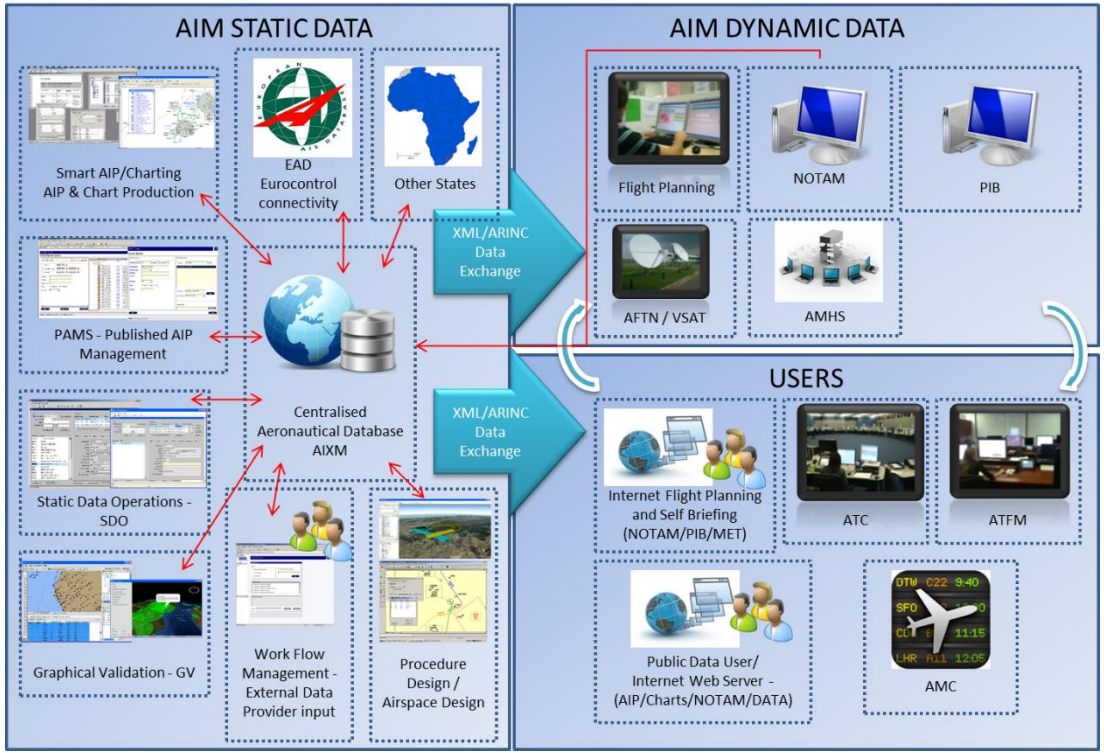
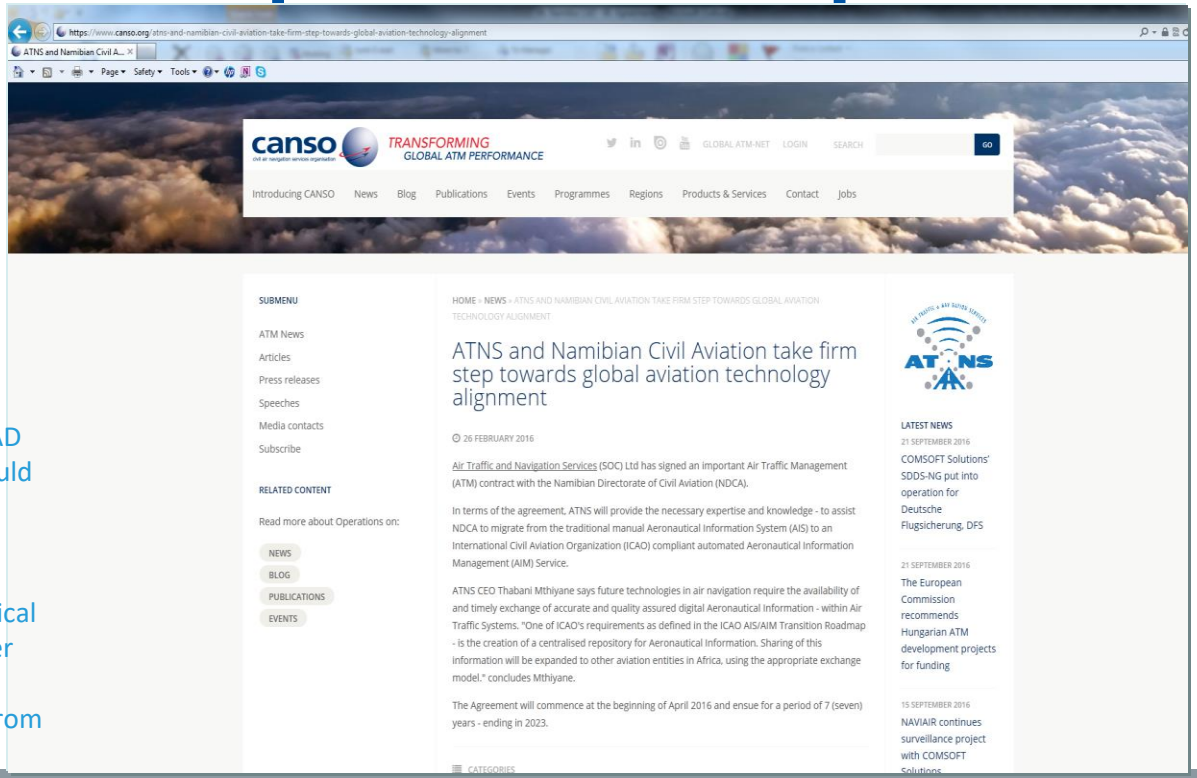


Description of the implementation process

ANC 12 Rec.3/8 (c):
That States:
engage in intra-regional and interregional cooperation for an expeditious transition from aeronautical information service (AIS) to aeronautical information management (AIM) in a harmonized manner and to using digital data exchange and consider the regional or sub regional AIS databases as an enabler for the transition from AIS to AIM

APIRG 20 - Conclusion: 20/33: Implementation of AN-Conf/12 Rec. 3/8 (c)
That States which have taken the initiative of the AFI-CAD concept of implementing Centralized AIS databases should ensure compliance with the provisions of AN-Conf/12 Recommendation 3/S(c) calling for intraregional and interregional cooperation for an expeditious transition from aeronautical information service (AIS) to aeronautical information management (AIM) in a harmonized manner and use of digital data exchange and regional or sub regional AIS databases as an enabler for the transition from AIS to AIM.



Challenges encountered

- *Inadequate Regulatory Framework (National)*
- *Misinterpretation of ICAO SARP's (Annex 14 & Annex 15, etc)*
- *Reluctance to change (Aviation Community – New processes, procedures. regualtions)*
- *Legacy Data Issues (Coordinates, Obstacles, WGS-84, e-TOD, etc)*
- *Staff competency and training*
- *Interoperability between systems (Oracle, SQL, 3rd Party Software)*
- *Standardised exchange formats (Raster, Vector, Grid formats, .ort, .bil, etc)*

Recommendations

Successful implementation of AIXM requires:

The system procured and implemented is only as good as the data that is loaded into the system, and capable of creating ICAO compliant digital dataset and products such as eAIP, and therefore it requires:

- *Adequate regulations to support ADQ through-out the data chain from originator to next intended user.*
- *Agreements with data originators*
- *Accredited Training & Skills development plan*
- *Well defined processes and procedures*

Recommendations

- *Redundancy / Disaster Recovery for system*
- *Adequate infrastructure*
- *Data migration plan*
- *Automation of processes*
- *Integration with other systems*

ICAO

THANK YOU