



# South African ATFM & A-CDM - Progress and Integration Status

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# SCOPE

- Introduction
- ATFM Status
- CTOT Compliance - 2016
- ATFM Current Initiatives & Challenges
- A – CDM, AMC (Airport Management Center)
- A - CDM Initiatives To Improve Performance
- Conclusion



# INTRODUCTION

## Air Traffic & Navigation Services (ATNS)

### Services Provided

- Air traffic Management,
- Navigation and
- Associated services in South Africa

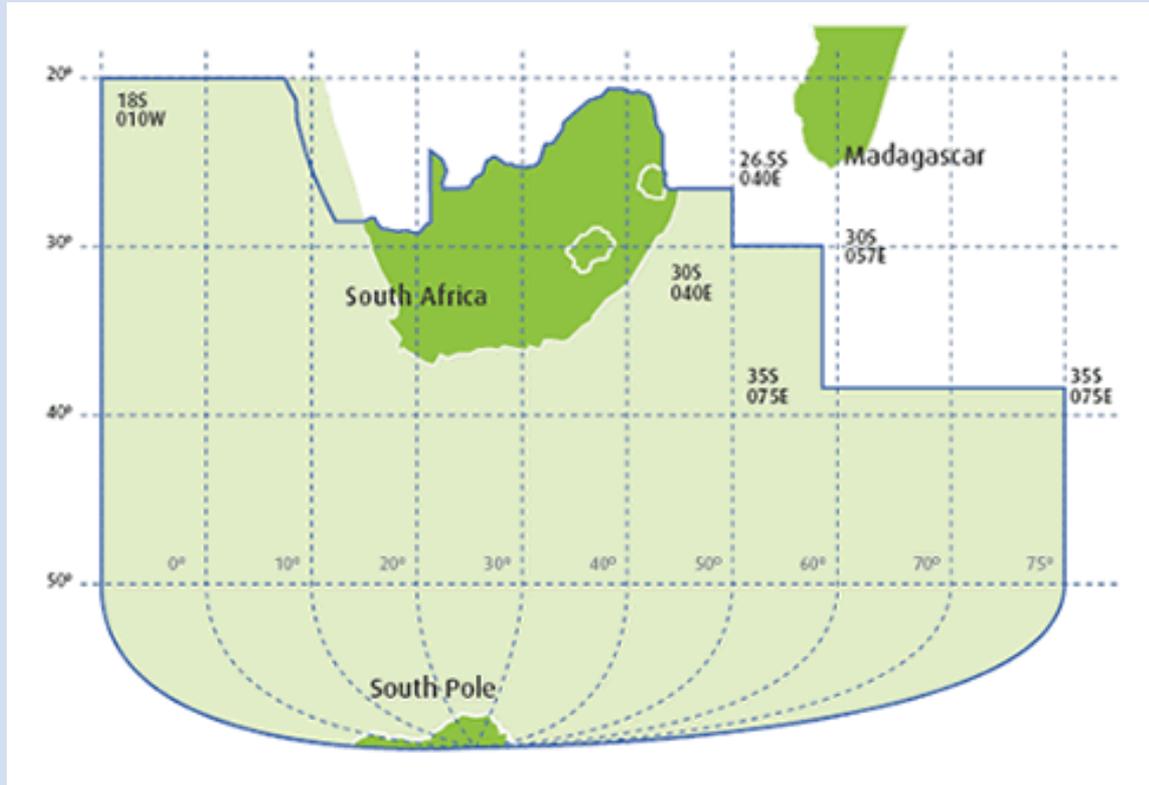
In addition to its services, ATNS provides vitally important aeronautical information, search and rescue coordination activities and maintenance of a reliable navigation infrastructure.

ATNS is responsible for air traffic management in approximately 10% of the world's airspace.



# INTRODUCTION (Cont....)

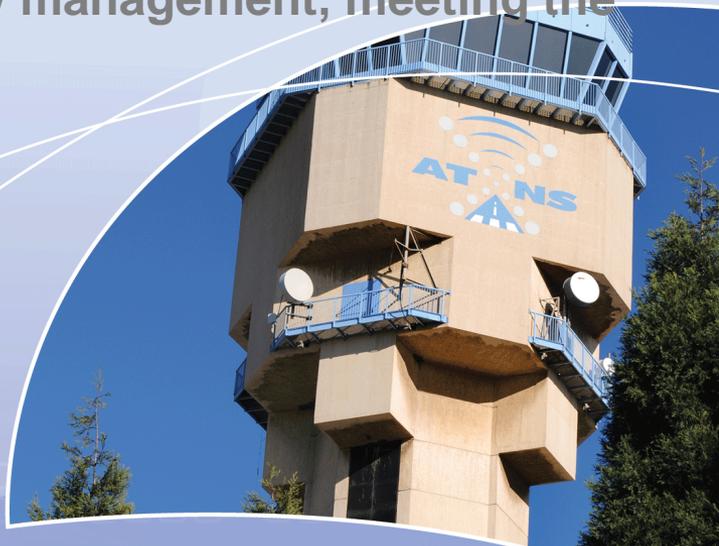
## ATNS Area of Responsibility



# INTRODUCTION (Cont....)

## Central Airspace Management Unit - CAMU

- Established in 2001, at the O R Tambo ATC Centre.
- Responsible for the management of air traffic flow and capacity management within South African sovereign and delegated airspace
- Provide safe and expeditious Air Traffic Flow management, meeting the reasonable requirements of the regional and national aviation community



# ATFM STATUS & SYSTEMS USED

## ATFM STATUS

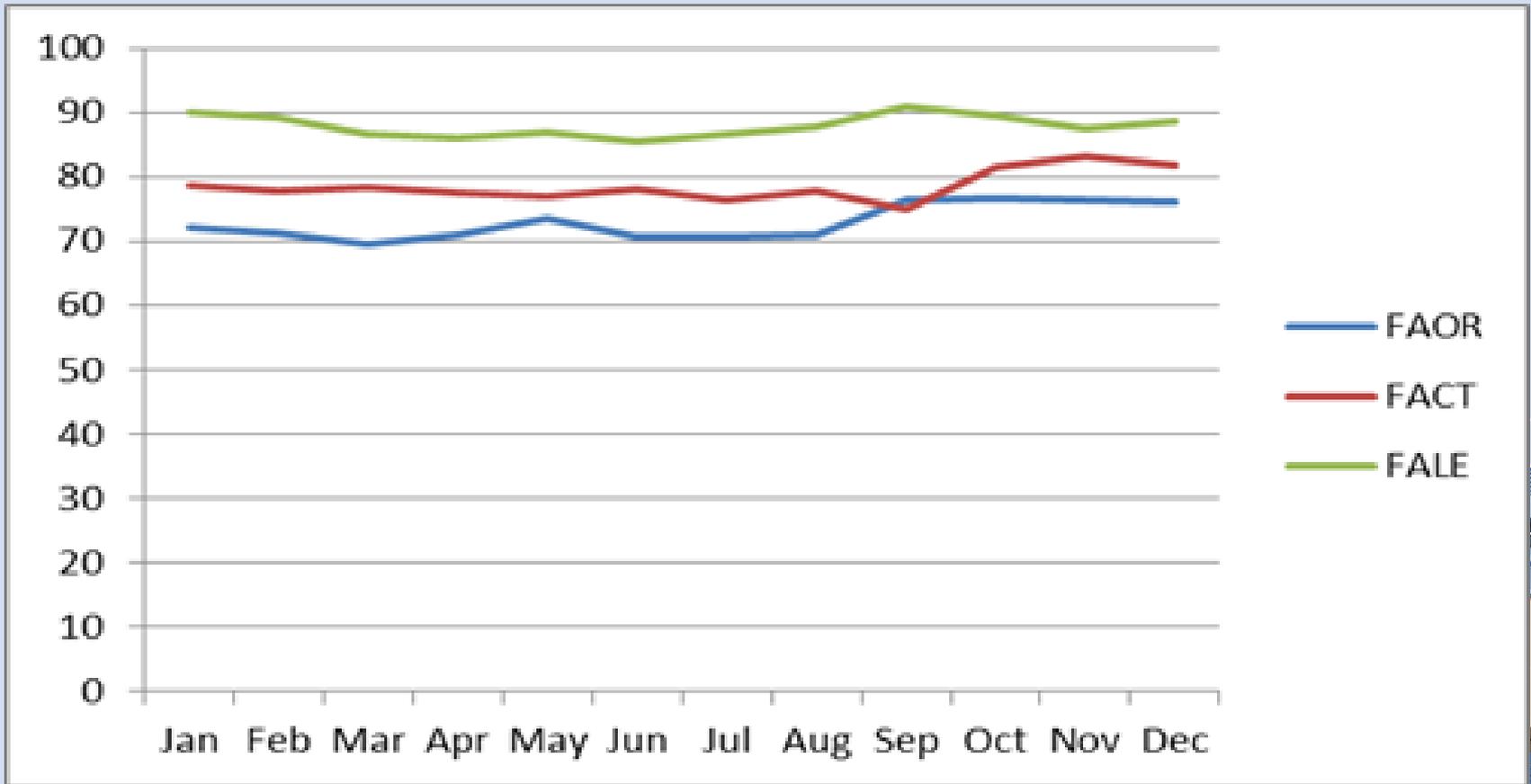
- ATFM capacity initiatives deployed daily in the main South African airports (the golden triangle)
- All inbound/outbound traffic comply with allocated CTOT
- Airline has ability to amend CTOT to suit current changes to operational plans – via CAMUweb - CDM Tool

## Systems Used

- AFT, JHMI, Anais,
- Eurocat
- SAWS Wx System &
- CAMUweb



# CTOT Compliance - 2016



# ATFM CURRENT INITIATIVES & CHALLENGES

Initiative title	Objective	Status	Expected outcome
<b>Ongoing CTOT compliance (ATSU &amp; Airline Ops) Monitoring</b>	To continue monitoring CTOT non compliances by ATSU and Airline and provide necessary training where required	<ul style="list-style-type: none"> <li>Continued lack of understanding from some operators and overall lack of discipline</li> <li>Investigating standardisation of CTOT training/recurrence to ATSU and Airline operators, including ACSA AMC reps</li> </ul>	<ul style="list-style-type: none"> <li>Enhanced knowledge on ATFM efficiency objectives</li> <li>Improved CTOT compliance</li> </ul>
<b>Systems Integration (ACSA AMC &amp; ATNS CAMU)</b>	Improve information sharing between systems	<ul style="list-style-type: none"> <li>Elements of the systems to be shared have been identified and System specialists from both parties are working on providing platforms for the exchange</li> </ul>	<ul style="list-style-type: none"> <li>Reliable system communications for improved data exchange/sharing</li> </ul>
<b>FQMA ATFM trials</b>	To improve predictability of traffic from neighbouring countries inbound into the three (3) coordinated airports within South Africa	<ul style="list-style-type: none"> <li>The trial has been running for over 2 years and FQMA CTOT compliance has improved from the unmonitored average of between 30% - 40% to 60% - 70%.</li> <li>Talks initiated with other neighbouring/bordering countries (FBSK &amp; FVHA) for similar trial</li> </ul>	<ul style="list-style-type: none"> <li>Improved traffic predictability</li> <li>Enhanced knowledge on ATFM efficiency objectives for neighbouring countries</li> </ul>

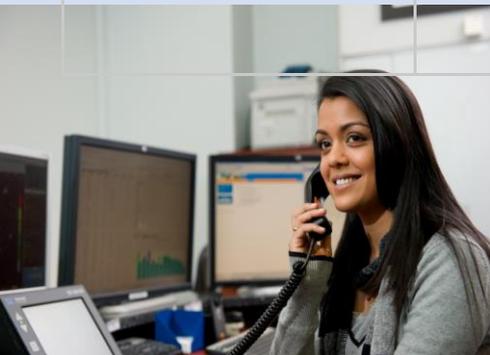
# A- CDM – AMC (Airport Management Center)

- Three (3) AMC Implemented for the Golden Triangle airports i.e. FAOR, FACT & FALE
- Provides A-CDM platform for the aviation community



# A- CDM INITIATIVES TO IMPROVE PERFORMANCE

Initiative title	Objective	Status	Expected outcome/Outcome	Data collaboration elements/Notes
<b>Flight prioritization during irregular operations</b>	Develop a transparent framework to allow for the prioritization of flights during or after irregular operations.	Delayed due to ongoing stakeholder engagements.	<ul style="list-style-type: none"> <li>a) Reduce the net impact of events that affects the performance of the airport</li> <li>b) Reduction in cancellations</li> <li>c) Reduction in 24hr delays for long haul traffic</li> </ul>	<ul style="list-style-type: none"> <li>a) Updated flight plans</li> <li>b) EOBT</li> <li>c) CTOT</li> <li>d) Ramp handler demand plan</li> <li>e) Crew location i.e. at hotel or already signed-on</li> <li>f) Airport curfews and curfew extension decisions</li> </ul>
<b>Performance recovery: Adverse weather</b>	To anticipate adverse weather a proactively work with key role-players to manage the pre; during and post phases of adverse weather.	Work in progress. The advancement of the RvRDP (delivered by SAWS) will see us conducting a trial period over this thunderstorm season.	<ul style="list-style-type: none"> <li>a) Jointly developed tactical plan</li> <li>b) Reduced safety incidents</li> <li>c) Reduction in airport delays</li> </ul>	<ul style="list-style-type: none"> <li>a) Now forecasting (short term weather forecast)</li> <li>b) Airside service provider demand plan</li> <li>c) Flight prioritization decisions</li> <li>d) CTOT</li> </ul>



# A- CDM INITIATIVES TO IMPROVE PERFORMANCE

Initiative title	Objective	Status	Expected outcome/Outcome	Data collaboration elements/Notes
<b>Performance recovery: TIR (Turnaround Initiative Request)</b>	To leverage off the ACSA airport network and three AMCs to reduce rotational delays on a flight by flight basis.	Trial period concluded in 2016. Learnings incorporated into a new approach that expands the performance recovery concept beyond just registrations with rotational operations in South Africa.	<ul style="list-style-type: none"> <li>a) Improved “end of day” performance</li> <li>b) Increased airport network and ATM collaboration.</li> </ul>	N.B. Initial focus was only on the aircraft however as the trial progressed passengers and baggage were considered which presented various decision making challenges.
<b>Delay management: Pushback delays</b>	Reduce delay occurrence “delayed pushback due to traffic in the lane”.	Completed in 2015. Due for review.	<ul style="list-style-type: none"> <li>a) Stand allocation approach revised to incorporate pushback conflict</li> </ul>	<ul style="list-style-type: none"> <li>a) Slot time</li> <li>b) Collaborate with service providers on next day parking bay plan</li> </ul>
<b>Performance improvement: 4 worst performing international airlines</b>	Improve the departure punctuality of the 4 lowest performing international airlines in 2015.	Completed in 2016. Learnings carried over to lowest performing international carriers in 2016.	End of 2016 results saw a collective improvement of 13%. One of the carriers improved by 103%.	<ul style="list-style-type: none"> <li>i. All turnaround milestones were studied and addressed.</li> <li>ii. Common reason for poor punctuality across the 4 airlines was late arrival with a short ground time.</li> </ul>

# CONCLUSION

- **ATFM/ACDM integration will promote timely and effective coordination and collaboration with all affected stakeholders;**
- **Systems integration will enhance or optimize resource utilisation and improve traffic predictability.**





# Thank You

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