

Performance Framework for Air Navigation Systems



ATNS Strategy



National Airspace Master plan

ATNS ATM Roadmap

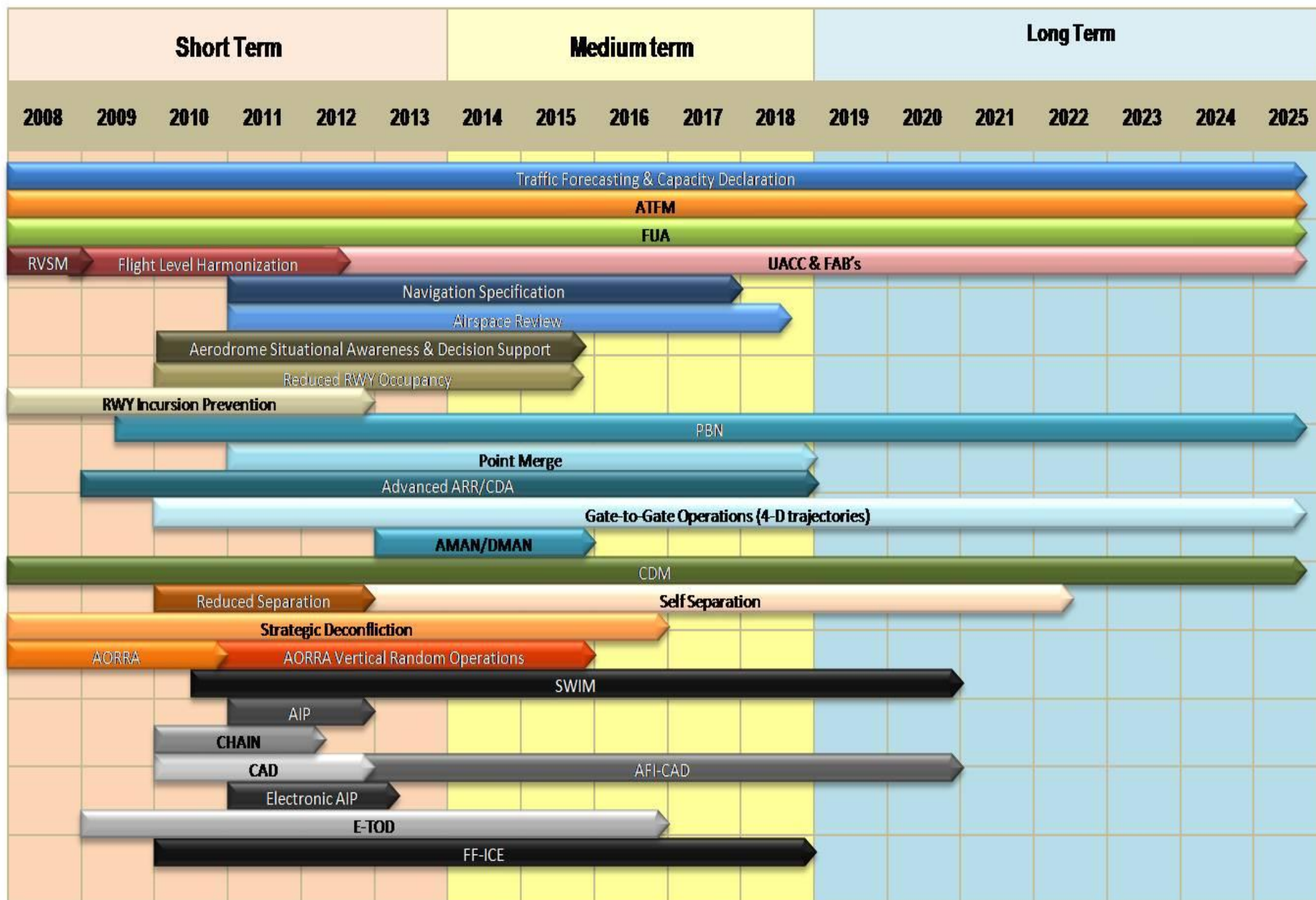
PBN Implementation Roadmap

ATNS Organizational Strategic Objectives

ATNS Business Plan



Initiatives and Projects



PERFORMANCE FRAMEWORK FORMS FOR EFFICINCY

STRATEGIC OPERATIONAL IMPROVEMENT/ NATIONAL PERFORMANCE OBJECTIVE – 1				
ENHANCE CAPACITY AND EFFICIENCY OF ENROUTE AIRSPACE				
Defined by ATNS ATM Roadmap. Characteristics of the industry The air navigation service provider Major stakeholders/partners Problem definition				
Defined by South African PBN Road Map: Performance based National Air Navigation Plan				
Performance Benefits				
Safety	1. Safety level maintained or improved			
Environment	1. Reduced emissions through shorter flights and use of optimum routes/trajectories			
Capacity	1. Increased capacity through better utilization airspace resources			
Cost effectiveness	1. Fuel cost reduction through availability of more optimized routes/trajectories; and 2. Ability of aircraft to conduct flight more closely to preferred trajectories			
Performance Measurement				
Metrics	1. Efficiency of optimal PBN routes implemented			
	2. Ability to accommodate declared capacity per hour in sectors			
	3. Reduction in fuel burn and carbon emissions per operation			
	4. Implementation of Road Map initiatives.			
Strategy Medium term (2010 - 2015)				
ATM Operational Concept Components	Projects/Tasks	Timeframe Start/End	Responsibility	Status (as of ...)
AOM, DCB, TS and CM and CDM	1. Air Traffic Flow Management already implemented within relevant airspaces		ANSP	In operation, with future expansion planned and documented.
	2. Traffic for casting and capacity declarations	Ongoing	ANSP	Under regular review
	3. Application of Flexible Use of Airspace	Ongoing	ANSP	Applied as required
	4. Formulate airspace concept and determine near term operational improvements	2011 to 2018	All Stakeholders	Gauteng Airspace review

	5. Implement ; CAD eToD SWIM Chain eAIP FF ICE	2010 - 2015	All Stake Holders	As per ATM Road Map
	6. Implement PBN initiatives	2010 Ongoing	ANSP/Regulator	In accordance with South African PBN Road Map
Risk Management	Risk factors: lack of funding; delay in aircraft equipage; Insufficient databases, lack of resources			
	Risk mitigation: identification different funding sources; involvement of aircraft operators in the decision making; access to commercial databases			
Linkage to GPIs	. All GPIs included as appropriate			

STRATEGIC OPERATIONAL IMPROVEMENT/ NATIONAL PERFORMANCE OBJECTIVE – 2	
ENHANCE CAPACITY AND EFFICIENCY OF AERODROMES	
Defined by ATNS ATM Roadmap:	
Characteristics of the industry	
The air navigation service provider	
Major stakeholders/partners	
Problem definition	
Defined by South African PBN Road Map:	
Performance based National Air Navigation Plan	
Performance Benefits	
Safety	1. Safety level maintained or improved
Environment	1. Reduced emissions through shorter runway occupancy time and taxi time
Capacity	1. Increased aerodrome capacity through better utilization airside infrastructure
Cost effectiveness	1. Potential cost reduction through shorter ground movements
Performance Measurement	
Metrics	1. Number of operations per hour
	2. Arrival/departure delay i.e. minutes per flight
	3. Number of aircraft entering a specified volume of airspace/hr
	4. Pounds of fuel burn per operations
Strategy	

Medium term (2010 - 2015)				
ATM Operational Concept Components	Projects/Tasks	Timeframe Start/End	Responsibility	Status (as of ...)
AO, DCB, TS CM and CDM	6. Situational Awareness improved by implementation of A-SMGC	2010 to 2015	ANSP/Airport Operator	Deployed at Cape Town and Johannesburg, pending for Durban
	7. Reduce Runway Incursions. By continuous review of procedures and research of appropriate tools.	Ongoing	ANSP/Regulator	Ongoing
	8. Improve Runway capacity	Ongoing	ANSP/Airport Operator/Operators	Ongoing
Supporting tools	1. Technology evaluation and gap analysis			
	2. Safety case and safety analysis			
	3. Business case and cost benefit analysis			
	4. Global, Regional and Domestic workshops and seminars			
ATM Community members	States, Aerodrome operators, Airspace providers, Airspace users, ATM service providers, ATM support industry, Regulatory authorities and ICAO			
ATM Community expectations	1. Right of access to ATM resources and equity for all users			
	2. Capacity to meet peak demands, while minimizing restrictions			
	3. Cost effective air navigation services			
	4. Minimize environmental impact			
	5. Flexibility in adapting flight trajectories			
	6. Technical and operational interoperability and harmonization			
	7. Consistent and dependable levels of service			
	8. Safety is highest priority			
Project Output	National performance plan for implementation of air navigation system elements that are operationally suitable, technically feasible and economically viable.			
Project Outcome	Enhanced capacity and efficiency of aerodrome operations.			
Risk Management	Risk factors: lack of funding; delay in aircraft equipage; insufficient data, lack of resources			
	Risk mitigation: identification different funding sources; involvement of aircraft operators in the decision making; access to commercial databases			
Linkage to GPIs	All GPIs included as appropriate.			