PBN IMPLEMENTATION TOOLS

_____ (State)

NATIONAL PERFORMANCE OBJECTIVES AND ACTION PLAN
OPTIMIZATION OF THE ATS ROUTE STRUCTURE IN TERMINAL AIRSPACE

PERIOD: Near Term (2008-2012)
APPLICATION: Terminal Phase

Benefits

Environment:

Efficiency :

Strategy

PROCESS	TASKS	INPUT SOURCE	OUTPUT	TARGET DATE	ACTION PERSON/GROUP	STATUS
Preliminary						
	• Review AFI PBN Implementation Plan Key Targets (Terminal)	***AFI PBN Implementation Plan*** Near Term: 2008-2012 [Ch. 10-14]				
	• Review State PBN Implementation Plan Key Targets (Terminal)	***State PBN Implementation Plan*** Near Term: 2008-2012 [Ch. 5.1.2-5.1.3]				

PROCESS	TASKS	INPUT SOURCE	OUTPUT	TARGET DATE	ACTION PERSON/GROUP	STATUS
Terminal Applications Implementation						
Process 1 **Determine Requirements**	**Step 1**- Formulate airspace concept	PBN Manual, Vol. 1B Ch. B 2.3.1 ➢ ATM needs (civil/military)				
	Step 2- Assessment of existing fleet capability and available navaid infrastructure	PBN Manual, Vol. 1B Ch. B 2.3.2 ➢ IATA Survey ➢ State Survey				
	Step 3- Assessment of existing ATS surveillance system and communications infrastructure and ATM system	PBN Manual, Vol. 1B Ch. B 2.3.3				
	Step 4- Identify necessary navigation performance and functional requirements	PBN Manual, Vol. 1B Ch. B 2.3.4	➢ **Navigation functional requirements** ➢ **Fleet capability** ➢ **CNS/ATM capabilities**			

Process 2 **Identifying ICAO navigation specification for implementation**	**Step 1**- Review ICAO navigation specifications	PBN Manual, Vol. 1B Ch. B 3.3.1 ➢ Navigation functional requirements ➢ Fleet capability ➢ CNS/ATM capabilities				
	Step 2- Identify appropriate ICAO navigation specification to apply in the specific CNS/ATM environment ➢ RNAV 5 ➢ RNAV 2 ➢ RNAV 1 ➢ New specification?	PBN Manual, Vol. 1B Ch. B 3.3.2				
	Step 3- Identify trade-offs with airspace concept and navigation functional requirements (if necessary)	PBN Manual, Vol. 1B Ch. B 3.3.3				
			➢ **Navigation specifications**			

Process 3 **Planning and implementation**	**Step 1**- Formulate safety plan	PBN Manual, Vol. 1B Ch. B 4.3.1 ➢ Navigation specifications				
	Step 2- Validate airspace concept for safety	PBN Manual, Vol. 1B Ch. B 4.3.2				
	Step 3- Procedure design	PBN Manual, Vol. 1B Ch. B 4.3.3				
	Step 4- Procedure ground validation	PBN Manual, Vol. 1B Ch. B 4.3.4				
	Step 5- Implementation decision	PBN Manual, Vol. 1B Ch. B 4.3.5				
	Step 6- Flight inspection and flight validation	PBN Manual, Vol. 1B Ch. B 4.3.6				
	Step 7- ATC system integration considerations	PBN Manual, Vol. 1B Ch. B 4.3.7				
	Step 8- Awareness and training material	PBN Manual, Vol. 1B Ch. B 4.3.8				
	Step 9- Establishing operational implementation date	PBN Manual, Vol. 1B Ch. B 4.3.9				
	Step 10- Post-implementation review	PBN Manual, Vol. 1B Ch. B 4.3.10	➢ **Training programmes** ➢ **RNAV STARs and SIDs**	**DEC 2012**		