

ATTACHMENT 1 TO APPENDIX E

SHORT-TERM TMA PBN ACTION PLAN (RNAV-1) (GPIs 1, 4, 5, 7, 8, 10, 11, 12, 16, 21, 23)

1. Airspace concept	Start	End	Responsible party	Remarks
1.1 Establish and prioritize strategic objectives (safety, capacity, environment, etc.)			States	
1.2 Collect traffic data in order to understand traffic flows in TMA airspace			States	
1.3 Analyze the navigation capacity of the aircraft fleet in the TMA			States	
1.4 Analyze ground-based means of communication, navigation (VOR, DME) and surveillance to meet navigation specifications and navigation reversal mode			States	
1.5 Optimize airspace structure, reorganizing the network or implementing new routes based on the strategic objectives of the airspace concept, taking into account airspace modelling, ATC simulations (fast time and/or real time), live tests, etc.			States	
2. Develop a performance measurement plan	Start	End	Responsible party	Remarks
2.1 Draft a plan to measure performance, including gas emissions, safety, efficiency, etc.			States	
2.2 Implement the performance measurement plan			States	
3 Safety assessment	Start	End	Responsible party	Remarks
3.1 Determine the methodology to be used to assess airspace safety and route spacing, based on the navigation specification, taking into account airspace modelling, ATC simulations (fast time and/or real time), live tests, etc.			States	
3.2 Develop a data collection programme to assess airspace safety			States	
3.3 Prepare the preliminary airspace safety assessment			States	

3	Safety assessment	Start	End	Responsible party	Remarks
3.4	Prepare the final airspace safety assessment			States	
4	Establish a collaborative decision-making process (CDM)	Start	End	Responsible party	Remarks
4.1	Coordinate planning and implementation requirements with air navigation service providers, regulators, users, aircraft operators and military authorities			States	
4.2	Establish the implementation date			States	
4.3	Establish the documentation format in the SAM PBN website			States	
4.4	Report planning and implementation developments to the corresponding Regional Office			States	
5	ATC automated systems	Start	End	Responsible party	Remarks
5.1	Assess PBN implementation in ATC automated systems, taking into account amendment 1 to the PANS/ATM (FPLSG).			States	
5.2	Implement the necessary changes in ATC automated systems			States	

6. Aircraft and operator approval	Start	End	Responsible party	Remarks
6.1 Analyze aircraft and operator approval requirements (pilots, dispatchers and maintenance personnel), in keeping with the PBN manual, and develop the necessary documentation.			States	
6.2 Publish national regulations for the implementation of the RNAV-1 navigation specification			States	
6.3 Begin the approval of aircraft and operators			States	
6.4 Establish and keep up to date a registry of approved aircraft and operators			States	
6.5 Verify the operation of the continuous monitoring programme (aircraft and procedures)			States	

7. Standards and procedures	Start	End	Responsible party	Remarks
7.1 Assess and, if applicable, publish the regulations on the use of GNSS.			States	
7.2 Finalize WGS-84 implementation			States	
7.3 Ground validation and in-flight inspection of SIDs and/or STARs			States	
7.4 Establishment of navigation database validation requirements and procedures			States	
7.5 Develop an AIC model to report PBN implementation plans			States	
7.6 Publish the AIC reporting PBN implementation plans			States	
7.7 Develop an AIP Supplement model containing applicable standards and procedures, including the corresponding in-flight contingencies			States	
7.8 Publish the AIP Supplement containing applicable standards and procedures, including the corresponding in-flight contingencies			States	
7.9 Review the Procedural Handbook of the ATS units involved			States	
7.10 Update the letters of agreement between ATS units			States	

7. Standards and procedures	Start	End	Responsible party	Remarks
7.11 Review practices and procedures to improve fuel consumption management and environmental protection			States	
8. Training	Start	End	Responsible party	Remarks
8.1 Develop a training and documentation programme for operators (pilots, dispatchers and maintenance personnel)			States	
8.2 Develop a training and documentation programme for air traffic controllers and AIS operators			States	
8.3 Develop a training programme for regulators (aviation safety inspectors)			States	
8.4 Conduct training programmes			States	
8.5 Conduct seminars for operators, explaining plans and expected operational and economic benefits			States	
9. Implementation decision	Start	End	Responsible party	Remarks
9.1 Assess the available operational documentation (ATS, OPS/AIR)			States	
9.2 Assess the percentage of approved aircraft and operators (non-exclusionary airspace)			States	
9.3 Analyze the results of the safety assessment			States	
9.4 Publish trigger NOTAM			States	

10. Performance monitoring system	Start	End	Responsible party	Remarks
10.1 Develop a post-implementation monitoring programme for TMA operations			States	
10.2 Implement a post-implementation monitoring programme for TMA operations			States	
Pre-operational implementation date			States	
Definitive implementation date			States	
