

## RNP 1 OPERATIONS

### FSS-OPS- FORM 125: APPLICATION AND JOB AID

#### 1. Introduction

This Job Aid was developed to provide operators and inspectors with guidance on the process to be followed by an operator in order to obtain an RNP approval. It shall be used for application by the operator and as an aid for the approval process by the inspector. Reference should be made to advisory pamphlets FSS-AOC-AP 120 and FSS-AOC-AP 125. The applicant may also use the ICAO PBN Manual (DOC9613) for guidance as required.

#### 2. Purpose of the Job Aid

- 2.1 To give operators and inspectors information on the main reference documents of RNP 1.
- 2.2 To provide tables showing the contents of the application, the associated reference paragraphs, the place in the application of the operator where RNP 1 elements are mentioned and columns for inspector comments and follow-up on the status of various elements of RNP 1.

#### 3. Actions Recommended for the Inspector and Operator

Some recommendations for use of the Job Aid follow:

- 3.1 At the pre-application meeting with the operator, the inspector reviews the “basic events of the RNP 1 approval process in order to provide an overview of the approval process events.
- 3.2 The inspector reviews this Job Aid with the operator in order to establish the form and content of the application.
- 3.3 The operator collects the documents/annexes required for the application and completes the Job Aid references.
- 3.4 The operator submits the Job Aid and the application package to the inspector.
- 3.5 The inspector indicates in the Job Aid whether an item is in compliance or needs corrective action.
- 3.6 The inspector informs the operator as soon as possible when a corrective action by the operator is required.
- 3.7 The operator provides the inspector with the revised material when so requested.
- 3.8 The CAA provides the operator with the operational specifications (OpSpecs) or a letter of authorisation (LOA), as applicable, when the tasks and documents have been completed.

4. **Main reference documents**

<b>Reference Document</b>	<b>Title</b>
Namibia DCA-005/2014	Operational Directive – Performance Based Navigation for Air Operators
Namibia FSS-AOC-AP 120	PBN Approval General Information
Namibia FSS-AOC-AP 125	RNP 1 Operations Approval Process
<b><i>Other Documents</i></b>	
ICAO Doc 9613	Performance based navigation (PBN) manual
ICAO Doc 9997	PBN Operational Approval Manual
FAA AC 90-105 Appendix 2	Qualification criteria for RNP 1 (terminal) operations
EASA AMC 20-5	Airworthiness approval and operational criteria for the use of the NAVSTAR Global positioning system (GPS)
AC 20-130A	Airworthiness approval of navigation or flight management systems integrating multiple navigation sensors
AC 20-138A	Airworthiness approval of Global navigation satellite system (GNSS) equipment
TSO-C129a	Airborne supplemental navigation equipment using the global positioning system (GPS)
TSO-C145a	Airborne navigation sensors using the global positioning system (GPS) augmented by the wide area augmentation system (WAAS)
TSO-C146a	Stand-Alone airborne navigation equipment using the global positioning system (GPS) augmented by the wide area augmentation system (WAAS)

**PART 1. GENERAL INFORMATION BASIC EVENTS OF THE APPROVAL PROCESS**

	<b>Action by Operator</b>	<b>Action by Inspector</b>
1	Establish the need for the authorization	
2	Review the AFM, AFM supplement, TC data sheet, other appropriate documents (e.g. STCs, SBs, SLs) to determine aircraft eligibility. If necessary contact the aircraft and/or avionics OEM to confirm eligibility <sup>1</sup> .	
3	Schedule a pre-application meeting with the inspector.	
4		<p>During the pre-application meeting establish:</p> <ul style="list-style-type: none"> <li>✓ form and contents of the application;</li> <li>✓ documents required to support the application;</li> <li>✓ target date for the application submission;</li> <li>✓ requirement for flight validation.</li> </ul>
5	Submit the application at least 90 days prior to startup of the planned operations.	
6		Review submission.
7	Ensure that amendments to manuals, programmes and other relevant documents are complete; provide training to flight crews, flight dispatchers and maintenance personnel; if required, conduct a validation flight.	If required, participate in the validation flight.
8		Once the requirements have been met, issue operational approval.

**PART 2: INFORMATION ON THE IDENTIFICATION OF AIRCRAFT AND OPERATORS**

**NAME OF THE OPERATOR:** \_\_\_\_\_ is applying for **RNP 1** approval

<b>Aircraft manufacturer, model, and series</b>	<b>Registration numbers</b>	<b>Aircraft Serial numbers</b>	<b>Area navigation (LRNS) system and manufacturer</b>	<b>Model and serial number</b>

DATE OF PRE-APPLICATION MEETING \_\_\_\_\_

DATE APPLICATION WAS RECEIVED \_\_\_\_\_

DATE OPERATOR INTENDS TO BEGIN RNP 1 OPERATIONS \_\_\_\_\_

SIGNATURE BY RESPONSIBLE POST HOLDER \_\_\_\_\_

NAME OF RESPONSIBLE POST HOLDER \_\_\_\_\_

*Note: Application should be made 90 days before date of intended commencement of operations*

**PART 3 – OPERATOR APPLICATION DOCUMENTS**

Item No.	Title of Annex/Document	Indication of inclusion by the operator	Comments by the Inspector
1.	<b>Operator letter requesting RNP 1 authorization</b>		
2.	<p><b>Airworthiness documents showing aircraft eligibility for RNP 1.</b></p> <p>AFM, AFM revision, AFM supplement, or Type certificate data sheet (TCDS) showing RNP 1 system eligibility , or</p> <p>Statement by the manufacturer, or</p> <p>Aircraft modification documentation</p>		
3.	<p><b>Maintenance practices</b></p> <ul style="list-style-type: none"> <li>• The list of references of the document or programme.</li> <li>•</li> </ul>		
4.	<p><b>Minimum equipment list (MEL) (only for operators conducting operations based on a MEL):</b></p> <p>Updated MEL showing provisions for required RNP 1 systems.</p>		
5.	<p><b>Training</b></p> <p><b>1. Part 91 operators or equivalent: Training method:</b> Details of Course completion.</p> <p><b>2. Part 121 and/or 135 operators or equivalent:</b> Details of Training programmes (training curricula) for flight crews, flight dispatchers and maintenance personnel as applicable.</p>		
6.	<p><b>Operating policies and procedures</b></p> <p><b>1. Part 91 operators or equivalent:</b> Applicable extracts from Operations manual (OM) or other documentation corresponding to RNP 1 operating procedures and policies.</p> <p><b>2. Part 121 and/or 135 operators or equivalent:</b> Operations manual and checklists.</p>		
7.	<p><b>Navigation database</b></p> <p>Details of the navigation data validation and installation of new databases</p>		

**Note 1:** Documents may be grouped in a single folder or may be sent as individual documents.

**PART 4 – RNP 1 OPERATING PROCEDURES**

Item	Operating Procedures	Advisory Pamphlet Reference FSS-AOC-AP 125	Operator's documents reference Insert N/A where not applicable	Comments by the Inspector (Include follow-up and dates)
	<b>Flight Planning</b>	9 a)		
1.	Verification that aircraft has been approved for RNP 1 operations.			
2.	Verification of RAIM availability			
3.	Verification navigation database is current and appropriate for the region.			
4.	Verification requirement to insert the letter "R" in item 10 and PBN/O1 to O4 as appropriate in item 18 of the ICAO flight plan.			
5.	Verification of any operational restriction related to RNP 1 approval as appropriate.			
	<b>General Operating Procedures</b>	9 b)		
6.	Reviewing of maintenance logs/status and MEL dispatch-ability (for operators approved to use MEL).			
7.	Confirming that the navigation database is up to date (if appropriate).			
8.	Procedures for cross-checking of charts with the navigation system display.			
9.	Procedures to ensure RNP 1 SID/STARs are retrieved from the navigation database using the procedure name, consistent with published charts and only modified following procedures.			
10.	Operator procedures to confirm reasonableness of navigation (using			

Item	Operating Procedures	Advisory Pamphlet Reference FSS-AOC-AP 125	Operator's documents reference Insert N/A where not applicable	Comments by the Inspector (Include follow-up and dates)
	conventional Nav aids)			
11.	Operator procedures for re-joining route following ATC course assignment			
12.	Using of appropriate displays and scaling.			
13.	Operator procedures for use of a lateral deviation indicator, an FD or an AP in lateral navigation mode.			
14.	Operator procedures for following route centreline within 0.5 NM (limiting FTE to +/- ½ nav accuracy			
15.	Requirement for advising ATC if unable to comply with instructions.			
16.	If RNP input is required selecting RNP 1 or lower.			
	<b>RNP SID requirements</b>	9 d)		
17.	Procedures for system initialization to ensure database validity, current position, proper entry of the assigned ATC runway, route and correct WPT sequencing.			
18.	Operator procedures to ensure proper retrieval and modification of correct RNP 1 SID/STAR in response to ATC instructions.			
19.	Procedures for engagement of Autopilot and navigation mode after take-off (engage lateral nav mode no later than 500 ft).			
	<b>RNP Star requirements</b>	9 e)		
20.	Verification that the correct STAR is loaded and			

Item	Operating Procedures	Advisory Pamphlet Reference FSS-AOC-AP 125	Operator's documents reference Insert N/A where not applicable	Comments by the Inspector (Include follow-up and dates)
	displayed.			
21.	Verify the correct operation of the navigation system and that the correct procedure, transition and runway are loaded.			
22.	Contingency preparations.			
23.	Procedures for modifications in response to ATC instructions e.g. accepting radar headings or "direct to" tracking			
24.	Procedures for observing altitude and speed constraints.			
25.	Requirements for equipment setup/flight planning to ensure basic RNP 1 lateral deviation display scale sensitivity particularly when more than 30 nm from airport			
	<b>Contingency Procedures</b>	9 e)		
26.	Operator contingency procedures for loss of navigation capability including reverting to a conventional departure or arrival route.			
27.	Advising ATC if unable to comply with the requirements for RNP 1 procedures.			
28.	<b>Training Programmes that meet RNP 1 requirements</b>	10		
29.	<b>Navigation Database Procedures</b>	FSS-OPS-AP 120 Para 11; FSS-AOC-AP 120 Appendix 2		

Item	Operating Procedures	Advisory Pamphlet Reference FSS-AOC-AP 125	Operator's documents reference Insert N/A where not applicable	Comments by the Inspector (Include follow-up and dates)
	Documented procedures (in maintenance manual) for management of Nav data including procedures for maintaining AIRAC cycle currency, checking for errors and reporting errors to the navigation database supplier;			

**FOR OFFICIAL USE ONLY**

**Recommendation/observation (FOPS):**

.....

.....

.....

.....

---

**AIR Inspector's Name & ASI Stamp**

**Signature**

**Date**

---

**FOPS Inspector's Name & ASI Stamp**

**Signature**

**Date**

**SUBDIVISION CHIEF'S REMARKS:**

.....

.....

.....

.....

The above requirements have been evaluated against the operator submissions and is hereby **approved / not approved** for RNAV 5 operations.

---

**Chief Inspector's Name & ASI Stamp**

**Signature**

**Date**