

RNP 4 OPERATIONS 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 124. The applicant may also use the ICAO PBN Manual (DOC9613) for guidance as required.

2. Purposes of the Job Aid

- 2.1 To provide operators and inspectors information on the main reference documents on RNP 4.
- 2.2 To provide tables showing the contents of the application, the related reference paragraphs, the place in the application of the operator where RNP 4 elements are mentioned, and columns for inspector comments and follow-up on the status of various elements of RNP 4.

3. Recommended actions for the inspector and operator

Some recommendations on how the Job Aid can be used follow:

- 3.1 At the pre-application meeting with the operator, the inspector reviews the “basic events of the RNP 4 approval process” described in Part 1 of this Job Aid, in order to provide an overview of approval process events.
- 3.2 The inspector reviews this Job Aid with the operator in order to establish the form and content of the RNP 4 approval application.
- 3.3 The operator uses this Job Aid as a guide to compile the documents/annexes of the RNP 4 application.
- 3.4 The operator inserts in the Job Aid references showing in what part of its documents can the elements of the RNP 4 programme be found.
- 3.5 The operator sends the Job Aid and the application (documents/annexes) to the inspector.
- 3.6 The inspector indicates in the Job Aid whether an item is in compliance or needs corrective action.
- 3.7 The inspector informs the operator as soon as possible when a corrective action by the operator is required.
- 3.8 The operator provides the inspector with the revised material when so requested.
- 3.9 The CAA provides the operator with the operation specifications (OpSpecs) or a letter of authorisation (LOA), as applicable, when the tasks and documents have been completed.

4. **Main reference documents**

Reference document	Title
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 124	RNP 4 Operations Approval Process
<i>Other Documents</i>	
ICAO Doc 9613	Performance-based navigation (PBN) manual
EASA AMC 20-5	Acceptable means of compliance for airworthiness approval and operational criteria for the use of the NAVSTAR Global positioning system (GPS)
FAA Order 8400.33	Procedures for obtaining authorization for required navigation performance 4 (RNP-4) oceanic and remote area operations
TSO-C145, TSO- C146 and TSO-C129	Global Positioning System TSOs

PART 2: INFORMATION ON THE IDENTIFICATION OF AIRCRAFT AND OPERATORS

NAME OF THE OPERATOR: _____ is applying for RNP 4 approval

Aircraft manufacturer, model, and series	Registration numbers	Aircraft Serial numbers	Area navigation system and manufacturer,	Model serial number

DATE OF PRE-APPLICATION MEETING _____

DATE APPLICATION WAS RECEIVED _____

DATE OPERATOR INTENDS TO BEGIN RNP 4 OPERATIONS _____

SIGNATURE BY RESPONSIBLE POST HOLDER _____

NAME OF RESPONSIBLE POST HOLDER _____

CAA: NOTIFICATION DATE APPROPRIATE? YES _____ NO _____

PART 3 – OPERATOR APPLICATION ITEMS AND DOCUMENTS

Item No.	Document or attachment title	Indication of inclusion by the Operator	Inspector comments
1.	Requesting for authorisation to conduct RNP 4 operations		
2.	Aircraft eligibility group Statement by the operator indicating the RNP 4 eligibility group or groups into which the aircraft/long-range navigation system (LRNS) combinations fall.		
3.	Airworthiness documents showing RNP 4 eligibility of aircraft AFM, AFM revision, AFM supplement or type certificate data sheet (TCDS) showing LRNS eligibility for RNP 4.		
4.	Aircraft modified to meet RNP 4 standards. Aircraft inspection and/or modification documentation, if applicable. Maintenance records documenting the installation or modification of aircraft systems.		
5.	Maintenance programme <ul style="list-style-type: none"> • For aircraft with established LRNS maintenance practices, provide the list of document or programme reference. • For newly installed LRNS systems, provide the LRNS maintenance practices for review. 		
6.	Minimum equipment list (MEL) (only for operators conducting operations based on an MEL): MEL showing provisions concerning LRNS systems.		

Item No.	Document or attachment title	Indication of inclusion by the Operator	Inspector comments
7.	<p>Training</p> <p>1. PART 91 operators or equivalent: Training course completion records.</p> <p>2. PART 121 and/or 135 operators or equivalents: Training programmes (curricula) for flight crews, flight dispatchers and maintenance personnel.</p>		
8.	<p>Operating policies and procedures</p> <p>1. PART 91 operators or equivalent: Operations manual (OM) or sections of operator's application documenting RNP 4 operational policies and procedures.</p> <p>2. PART 121 and/or 135 operators or equivalent: Operations manual and checklists.</p>		
9.	<p>Performance history. Previous problems, incidents, path-keeping errors, corrective action, if any, will be included.</p>		
10	<p>Navigation data validation programme. Details of the navigation data validation programme.</p>		
11	<p>Withdrawal of RNP 4 approval. Indication of the need to follow up on navigation error reports submitted, and the possibility of withdrawal of RNP 4 approval.</p>		
12	<p>Validation flight plan: Only if required by the Authority.</p>		

APPLICATION CONTENT TO BE SUBMITTED BY THE OPERATOR

- ___ AIRCRAFT/ RNP 4 NAVIGATION SYSTEM COMPLIANCE DOCUMENTATION
- ___ OPERATIONAL POLICIES AND PROCEDURES
- ___ MAINTENANCE MANUAL SECTIONS RELATED TO LRNS (if not previously reviewed)

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

PART 4 – GUIDE FOR DETERMINING AIRCRAFT ELIGIBILITY FOR RNP 4 OPERATIONS

#	Topics	Reference paragraphs FSS-AOC-AP 124	Location in the Annexes of the operator	Comments and/or recommendations by the inspector	Inspector tracking: Item status and date
1	Eligibility group(s) to which the operator aircraft belong	8.2.2			
2	Dual long-range navigation system (LRNS) requirement	8.1.1			
3	GNSS equipment requirement for RNP 4 operations	8.1.1, 10.2			
4	Eligibility Group 1 - Aircraft eligibility through RNP certification (RNP compliance documented in the AFM).	8.2.2 a)			
5	Eligibility Group 2 – Previous certification of the navigation system - Aircraft eligibility through previous certification of the navigation system.	8.2.2 b) and c)			
5a	GNSS as primary means of long-range navigation Approved dispatch fault detection and exclusion (FDE) availability prediction programme				
5b	Multi-sensor systems that incorporate GNSS with RAIM integrity				
5c	Multi-sensor systems that incorporate GNSS with AAIM integrity				

#	Topics	Reference paragraphs FSS-AOC-AP 124	Location in the Annexes of the operator	Comments and/or recommendations by the inspector	Inspector tracking: Item status and date
6	Eligibility Group 3 – New technology	8.2.2 c)			
7	Aircraft requirements	8.1, 8.3			
7a	Navigation systems				
7b	System performance, monitoring and alert				
7c	Required functions				
7d	Explanation of required functions				
8	Controller-pilot data link communication (CPDLC) and automatic dependent surveillance - contract (ADS-C) systems. CPDLC and ADS-C systems are required when the lateral and/or longitudinal separation standard is 30 NM in oceanic/remote regions.	10.3			
9	Navigation database	13			

PART 5 - BASIC PILOT PROCEDURES FOR RNP 4 OPERATIONS

Topics		Reference paragraphs FSS-AOC-AP 120	Location in the operator documents	Comments and/or recommendations by the Inspector	Inspector tracking: Item status and date
Operating procedures		Paragraph 11			
1	Flight planning	11.1 a)			
	Verification that the aircraft is approved for RNP 4 operations in oceanic or remote airspace.				
	Verification that the operator is authorised to conduct RNP 4 operations in oceanic or remote operations.				
	Verification of the letter "R" has been entered in field 10 (equipment) of the ICAO flight plan and PBN/L1 in field 18.				
	Verification of GNSS requirements, such as FDE availability.				
	Verification of any operational restriction related to the RNP 4 approval has been taken into account, if so required.				
	GNSS availability - Ensuring that GNSS availability requirements on will be met throughout the flight.				
2	Pre-flight procedures	11.1 b)			
	Reviewing the flight technical records (maintenance logs) and the forms to determine the condition of the equipment required to fly in RNP 4 airspace or routes.				
	Ensuring that maintenance action has been taken to correct defects in the required navigation equipment.				
3	En route procedures	11.1 d)			

Topics	Reference paragraphs FSS-AOC-AP 120	Location in the operator documents	Comments and/or recommendations by the Inspector	Inspector tracking: Item status and date
Ensuring that at least two LRNS are RNP 4 capable at the oceanic/remote point of entry.				
Mandatory cross-check procedures to identify navigation errors sufficiently in advance.				
Following of route centre line to within 2 NM.				
4 Contingency procedures	11.1 e)			
Inability to comply with ATC clearances due to meteorological conditions, aircraft performance or pressurisation failure.				
Notification of ATC if unable to comply with the navigation requirements for RNP 4 or any deviation required for a contingency.				
Weather deviations.				
Measures to be taken if a revised ATC clearance cannot be obtained.				
Air ground communication failures.				
5 RNP 4 relevant Training Procedures	12			

PART 7 – IN-FLIGHT CONTINGENCIES, DEVIATIONS DUE TO WEATHER CONDITIONS AND STRATEGIC LATERAL OFFSET PROCEDURES

Subject		Reference Documents	Operator's documents reference	Comments by the Inspector	Inspector tracking: Item status and date
		FSS-AOC-AP 124 ICAO Doc 4444 Reference	Insert N/A where not applicable		
Procedures					
1	Special procedures for in-flight contingencies in oceanic airspace	AP 124 Para 11.1 e) Doc 4444 Para 15.2			
	Introduction				
	General procedures				
	Extended range operations by twin-engine aeroplanes (ETOPS)				
2	Procedures for deviating due to weather conditions	AP 124 Para 11.1 e) Doc 4444 Para 15.2			
	General				
	Measures to be taken when controller-pilot communications are established.				
	Measures to be taken if a revised ATC clearance cannot be obtained.				

	Subject	Reference Documents FSS-AOC-AP 124 ICAO Doc 4444 Reference	Operator's documents reference Insert N/A where not applicable	Comments by the Inspector	Inspector tracking: Item status and date
3	Procedures for strategic lateral displacement in oceanic airspaces and remote continental areas	AP 124 Para 11.1 e) Doc 4444 Para 15.2			

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Recommendation/observation (FOPS):

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AIR Inspector's Name & ASI Stamp

Signature

Date

FOPS Inspector's Name & ASI Stamp

Signature

Date

SUBDIVISION CHIEF'S REMARKS:

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

Chief Inspector's Name & ASI Stamp

Signature

Date