

**APPENDIX D-2**

**BASIC-RNP 1 JOB AID**

**REQUEST TO CONDUCT BASIC-RNP 1 OPERATIONS**

## BASIC-RNP 1 JOB AID

### REQUEST TO CONDUCT BASIC-RNP 1 OPERATIONS

#### 1. Introduction

This Job Aid was developed by the Latin American Regional Safety Oversight Cooperation System (SRVSOP) to provide States, operators, and inspectors with guidance on the process to be followed by an operator in order to obtain a Basic-RNP1 approval.

#### 2. Purpose of the Job Aid

- 2.1 To give operators and inspectors information on the main reference documents of Basic-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 Basic-RNP 1 elements are mentioned and columns for inspector comments and follow-up on the status of various elements of Basic-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 Basic-RNP 1 approval process ”described in Part 1 of this Job Aid, 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 Basic-RNP 1 approval application.
- 3.3 The operator uses this Job Aid as a guide to collect the documents/annexes of the Basic-RNP 1 application.
- 3.4 The operator inserts in the Job Aid references showing in what part of its documents are the Basic-RNP 1 programme elements located.
- 3.5 The operator submits the Job Aid and the application to the inspector (documents/annexes).
- 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 operational specifications (OpSpecs) or a letter of authorisation (LOA), as applicable, when the tasks and documents have been completed.

#### 4. Structure of the Job Aid

Parts	Topics	Page
Part 1	General information	3
Part 2	Information on aircraft and operator identification	5
Part 3	Operator application (Annexes and documents)	7
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#### 5. Main sources of documents, information, and contacts

To access the Basic RNP 1 Job Aid, enter to the Web page of the ICAO/SAM Regional Office ([www.lima.icao.int](http://www.lima.icao.int)) under the SRVSOP link.

#### 6. Main reference documents

Reference Document	Title
Annex 6	Operation of aircraft
ICAO Doc 9613	Performance based navigation (PBN) manual
FAA AC 90-105 Appendix 2	Qualification criteria for RNP 1 (terminal) operations
AMC 20-5	Acceptable means of compliance for 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-C115b	Airborne area navigation equipment using multi-sensor inputs
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 Basic-RNP 1 approval process**

	<b>Action by the Operator</b>	<b>Action by the CAA</b>
1	Establish the need to obtain approval for Basic-RNP 1 operations.	
2	Review the AFM, AFM supplement or Type Certificate Data Sheet (TCDS), or other appropriate documents (e.g., service bulletins (SB), service letters (SL), etc.) to determine the eligibility of the aircraft for Basic-RNP 1 operations. The operator contacts the aircraft or avionics manufacturer, if necessary, to confirm Basic-RNP 1 or higher eligibility of the aircraft.	
3	Contact the CAA to schedule a pre-application meeting to discuss the operational approval requirements.	
4		During the pre-application meeting, establish: <ul style="list-style-type: none"> <li>• the form and contents of the application;</li> <li>• the documents that support Basic-RNP 1 approval</li> <li>• the date in which the application will be submitted for evaluation</li> <li>• if necessary, conduct a validation flight observed by the CAA.</li> </ul>
5	Send the application at least 60 days before start-up of Basic-RNP 1 operations.	
6		Review the request of the operator.
7	Once the amendments to manuals, programmes, and documents have been approved, provide training to flight crews, flight dispatchers, and maintenance personnel, and conduct a validation flight, if required by the CAA.	Only if required, participate in the validation flight.
8		Once the operational and airworthiness requirements have been met, issue the operational approval in the form of OpSpecs for LAR 121 or 135 or equivalent operators, or an LOA for LAR 91 or equivalent operators, as appropriate.

**Notes related to the approval process****1. Responsible authority**

- a. **Commercial air transport (LAR 121 and/or 135 regulations or equivalent).**- The **State of Registry** determines that the aircraft meets the airworthiness requirements. The **State of the Operator** issues the Basic-RNP 1 approval (e.g., OpSpecs).
- b. **General Aviation (LAR 91 regulations or equivalent).**- The **State of Registry** determines that the aircraft meets the airworthiness requirements and issues the operational approval (e.g., an LOA).

2. The CAA does not need to issue an LOA or equivalent document for each individual area of operation in the case of LAR 91 operators.

3. LAR 121 and/or 135 operators with Basic-RNP 1 approval must list this approval in the OpSpecs.

4. Related sections of the Latin American Aeronautical Regulations (LAR) or equivalent regulations

- a. LAR 91        Sections 91.1015 and 91.1640 or equivalents
- b. LAR 121     Section 121.995 (b) or equivalent
- c. LAR 135     Section 135.565 (c) or equivalent

5. Related ICAO Documents

- a. Annex 6 to the Convention on International Civil Aviation – Operation of Aircraft
- b. Annex 10 to the Convention on International Civil Aviation – Aeronautical telecommunications
- c. Annex 15 to the Convention on International Civil Aviation – Aeronautical information services
- d. ICAO Doc 9613 – Performance-based navigation (PBN) manual
- e. ICAO Doc 4444 – Procedures for air navigation services – Air traffic management

**PART 2: INFORMATION ON THE IDENTIFICATION OF AIRCRAFT AND OPERATORS****NAME OF THE OPERATOR:** \_\_\_\_\_

Aircraft manufacturer, model, and series	Registration numbers	Serial numbers	Basic-RNP 1 system Number, manufacturer, and model	RNP specification

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

DATE ON WHICH THE APPLICATION WAS RECEIVED \_\_\_\_\_

DATE ON WHICH THE OPERATOR INTENDS TO BEGIN BASIC-RNP 1 OPERATIONS \_\_\_\_\_

IS THE CAA NOTIFICATION DATE APPROPRIATE? YES \_\_\_\_\_ NO \_\_\_\_\_

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**PART 3 – OPERATOR APPLICATION (ANNEXES AND DOCUMENTS)**

Annex	Title of Annex/Document	Indication of inclusion by the operator	Comments by the Inspector
A	<b>Application for Basic-RNP 1 approval</b>		
B	<p><b>Airworthiness documents showing aircraft eligibility for Basic-RNP 1.</b></p> <p>AFM, AFM revision, AFM supplement, or Type certificate data sheet (TCDS) showing RNP system eligibility for Basic-RNP 1 or less.</p> <p>Statement by the manufacturer.- Aircraft that have a statement by the manufacturer documenting compliance with SRVSOP CA 91-006 criteria or equivalent, meet the performance and functional requirements of said document.</p>		
C	<p><b>Aircraft modified to meet Basic-RNP 1 standards. Documentation on aircraft inspection and/or modification, if applicable.</b> Maintenance records documenting the installation or modification of aircraft systems (e.g., FAA Form 337 – major repairs and alterations).</p>		
D	<p><b>Maintenance programme</b></p> <ul style="list-style-type: none"> <li>• For aircraft with established Basic-RNP 1 system maintenance practices, the list of references of the document or programme.</li> <li>• For recently installed Basic-RNP1 systems, the maintenance practices for their review.</li> </ul>		
F	<p><b>Minimum equipment list (MEL) (only for operators conducting operations based on a MEL):</b></p> <p>MEL showing provisions for Basic-RNP 1 systems.</p>		
G	<p><b>Training</b></p> <p><b>1. LAR 91 operators or equivalent: Training method:</b> Training at home, LAR 142 training centres, or other training courses, course completion records.</p>		

Annex	Title of Annex/Document	Indication of inclusion by the operator	Comments by the Inspector
	<b>2. LAR 121 and/or 135 operators or equivalent:</b> Training programmes (training curricula) for flight crews, flight dispatchers, and maintenance personnel.		
H	<b>Operating policies and procedures</b> <b>1. LAR 91 operators or equivalent:</b> Operations manual (OM) or sections to be attached to the application, corresponding to Basic-RNP 1 operating procedures and policies. <b>2. LAR 121 and/or 135 operators or equivalent:</b> Operations manual and checklists.		
I	<b>Navigation database</b> <b>Details of the navigation data validation programme.</b>		
J	<b>Withdrawal of Basic-RNP 1 approval</b> Indication of the need to follow up on navigation error reports submitted and the possibility of withdrawal of Basic-RNP 1 approval.		
K	<b>Validation flight plan:</b> Only if required by the CAA.		

#### CONTENTS OF THE APPLICATION TO BE SUBMITTED BY THE OPERATOR

\_\_\_ **BASIC-RNP 1 COMPLIANCE DOCUMENTATION OF THE AIRCRAFT/NAVIGATION SYSTEMS**

\_\_\_ **OPERATING PROCEDURES AND POLICIES**

\_\_\_ **SECTIONS OF THE MAINTENANCE MANUAL RELATED TO THE BASIC-RNP 1 SYSTEM (if not previously reviewed)**

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

## PART 4: CONTENTS OF THE OPERATOR APPLICATION FOR BASIC-RNP 1 OPERATIONS

#	Contents of the Basic-RNP 1 application by the operator	Reference paragraphs CA 91-006	In what Annexes/Documents of the operator can the application contents be located  Note: The operator must update this column to reflect the contents of the application	Comments and/or recommendations by the inspector	Follow-up by the inspector: Item status and date
1	<b>Letter of application of the operator</b> Statement of the intention to obtain Basic-RNP 1 approval.	Paragraph 9.1.1 b) 1) Appendix 3, Paragraph e)	Annex A		
2	<b>Description of aircraft equipment.</b>	Paragraph 9.1.1 b) 2)			
3	<b>Eligibility of Basic-RNP 1 systems.</b> Airworthiness documents establishing the eligibility of the Basic-RNP 1 navigation system, its approval status, and a list of the aircraft for which the approval is being requested.	Paragraph 9.1.1 b) 3) Paragraph 8.3	Annex B Annex C		
4	<b>Training programme</b> <b>1. LAR 121 or 135 operators or equivalent: Training programmes:</b> Operators will develop an initial and periodic training programme for flight crews, flight dispatchers, if applicable, and maintenance personnel.	Paragraph 9.1.1 b) 4) (a) Paragraph 11 For maintenance, paragraph 9.1.1 b) 8)	Annex F		

#	Contents of the Basic-RNP 1 application by the operator	Reference paragraphs CA 91-006	In what Annexes/Documents of the operator can the application contents be located  Note: The operator must update this column to reflect the contents of the application	Comments and/or recommendations by the inspector	Follow-up by the inspector: Item status and date
	<p><b>2. LAR 91 operators or equivalent: Training methods:</b> The following methods are acceptable for these operators: Training at home, LAR 142 training centres, or other training courses.</p>	<p>Paragraph 9.1.1 b) 4) (b) Paragraph 11</p>			
5	<p><b>Operating procedures</b></p> <p><b>1. LAR 121 and/or 135 operators or equivalent:</b> Operations manual and checklists.</p> <p><b>2. LAR 91 operators or equivalent:</b> Operations manual or section of the operator application documenting Basic-RNP 1 policies and procedures.</p>	<p>Paragraph 9.1.1 b) 5) (a) Paragraph 10</p> <p>Paragraph 9.1.1 b) 5) (b) Paragraph 10</p>	Annex G		
6	<p><b>Maintenance practices</b></p> <ul style="list-style-type: none"> <li>• For aircraft with established maintenance practices for Basic-RNP 1 navigation systems, the operator will provide document references.</li> <li>• For newly installed Basic-RNP 1 systems, the operator will provide maintenance practices for their review.</li> </ul>	<p>Paragraph 8.5 b) Paragraph 9.1.1 b) 7)</p>	Annex D		

#	Contents of the Basic-RNP 1 application by the operator	Reference paragraphs CA 91-006	In what Annexes/Documents of the operator can the application contents be located  Note: The operator must update this column to reflect the contents of the application	Comments and/or recommendations by the inspector	Follow-up by the inspector: Item status and date
7	<b>Update of the minimum equipment list (MEL)</b> Applicable to operators conducting operations according to a MEL.	Paragraphs 8.5 a) and 9.1.1 b) 6)	Annex E		
8	<b>Navigation data validation programme</b>	Paragraph 9.1.1 b) 9)	Annex F		
9	<b>Withdrawal of Basic-RNP 1 approval</b> Indication of the need for follow-up on the navigation error reports and the possibility of withdrawal of the Basic-RNP 1 approval.	Paragraph 13	Annex H		
10	<b>Validation flight plan, only if required</b> The validation flight plan will be presented only if required.	Paragraph 9.1.1 d)	Annex I		

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## PART 5 – GUIDE TO DETERMINE THE ELIGIBILITY OF BASIC-RNP 1 AIRCRAFT

#	Topics	Reference paragraphs  CA 91-006	Location in the Annexes of the operator	Comments and/or recommendations by the inspector	Follow-up by the inspector: Item status and date
1	<p><b>Aircraft eligibility requirements for Basic-RNP 1 operations in terminal area RNP systems that use GNSS data input.</b></p> <p>The following systems installed in the aircraft meet the requirements defined in AC 91-006. This equipment requires evaluation by the manufacturer and operator against all the functional and performance requirement established in that AC:</p>	Paragraph 8.1.3	Annex B		
1a	Aircraft with E/TSO-C129a Class A1 system or E/TSO-C146 () system installed for use of IFR according to FAA AC 20-138 or AC 20-138A	Paragraph 8.1.3 a)			
1b	Aircraft with E/TSO-C129a sensor (Class B or C) installed in a flight management system (FMS) that meets TSO-C115b requirements and is installed for use of IFR according to FAA AC 20-130A	Paragraph 8.1.3 b)			
1c	Aircraft with E/TSO-C145 () sensor installed in an FMS that meets TSO-C115b requirements and is installed for use of IFR according to FAA AC 20-130A or AC 20-138A	Paragraph 8.1.3 c)			

#	Topics	Reference paragraphs <b>CA 91-006</b>	Location in the Annexes of the operator	Comments and/or recommendations by the inspector	Follow-up by the inspector: Item status and date
1d	Aircraft with RNP capability certified or approved with equivalent standards.	Paragraph 8.1.3 d)			
2	<b>Performance, control, and alerting requirements</b>	Paragraph 8.1.2	Annex B		
3	<b>Aircraft and systems eligibility for Basic-RNP 1 operations in terminal area</b> <ol style="list-style-type: none"> <li>1. Aircraft with a statement of compliance with SRVSOP CA 91-006 requirements or equivalent document</li> <li>2. Aircraft with a statement by the manufacturer</li> <li>3. Modified aircraft.</li> <li>4. Stand-alone GNSS systems must be approved according to E/TSO-C129a Class A1 or E/TSO-C146 and operational Class 1, 2 or 3 (with no deviation from the functional requirements described in the AC 91-006), and installed for IFR use in accordance with AC 20-138A.</li> <li>5. Aircraft with E/TSO-C129a sensor(s) Class B or C or E/TSO-C145 sensor(s) and FMS that meet E/TSO-C115b requirements and are installed for IFR use according to FAA AC 20-130A</li> <li>6. Aircraft/equipment approved under SRVSOP CA 91-003 or equivalent</li> </ol>	Paragraph 8.3  Paragraph 8.3.1  Paragraph 8.3.2  Paragraph 8.3.3  Paragraph 8.3.4  Paragraph 8.3.5  Paragraph 8.3.6	Annex B		

#	Topics	Reference paragraphs <b>CA 91-006</b>	Location in the Annexes of the operator	Comments and/or recommendations by the inspector	Follow-up by the inspector: Item status and date
	<p>(e.g., FAA AC 90-100A) for use of GNSS, are approved for Basic-RNP 1 operations under this CA.</p> <p>7. RNP aircraft with P-RNAV approval based on GNSS capability meet the functional requirements of this AC for Basic-RNP 1 operations, such as SIDs y STARs. The GNSS system approved according to E/TSO-C129 and satisfying the step-detection and health word checking contained in E/TSO-C129A, meets P-RNAV performance requirements.</p> <p><i>Note.- Basic-RNP 1 operations are based on GNSS positioning. Positioning data from other types of navigation sensors can be integrated with GNSS data, provided they do not cause position errors that exceed the total system error (TSE). Otherwise, means must be provided to annul or cancel the other types of navigation sensors.</i></p>	Paragraph 8.3.7			
5	<b>Functional requirements and their explanation</b>	Paragraph 8.4 Appendix 1	Annex B		
6	<b>Maintenance requirements</b>	Paragraph 8.5	Annex B		
7	<b>Navigation database</b> Details of the navigation data validation programme	Paragraph 12 Appendix 2	Annex B		

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## PART 6 - BASIC PILOT PROCEDURES FOR BASIC-RNP 1 OPERATIONS

Topics		Reference paragraphs CA 91-006	Location in the Annexes of the operator	Comments and/or recommendations by the CAA	Follow-up by the Inspector: Item status and date
Operating procedures		Paragraph 10	Annex G		
1	Pre-flight planning	Paragraph 10.1 a)			
	Operators and pilots intending to conduct Basic-RNP 1 SIDs and STARs must fill out the appropriate boxes in the ICAO flight plan.	Paragraph 10.1 a) 1)			
	On-board navigation data must be current and include appropriate procedures.  <i>Note.- It is expected that the navigation database will be up to date during the operation. If the AIRAC cycle expires during the flight, operators and pilots shall establish procedures to ensure the precision of navigation data, including the suitability of navigation facilities used to determine the routes and procedures for the flight. Normally, this is done comparing electronic data with written documents. An acceptable means of compliance is to compare aeronautical charts (new and old) to check navigation reference points before dispatch. If an amended chart is published for the procedure, the database must not be used to conduct the operation.</i>	Paragraph 10.1 a) 2)			
	The availability of the NAVAID infrastructure required for the intended routes, including any	Paragraph 10.1 a) 3)			

Topics	Reference paragraphs CA 91-006	Location in the Annexes of the operator	Comments and/or recommendations by the CAA	Follow-up by the Inspector: Item status and date
<p>non-RNP contingency, must be confirmed for the period of intended operations, using all available information. Since Annex 10 Volume I requires GNSS integrity (RAIM or SBAS), it is also necessary to confirm appropriate availability of these devices. For aircraft that navigate with SBAS receivers [all TSO-C145 () / C146 () receivers], operators shall confirm appropriate availability of the GNSS RAIM in areas where the SBAS signal is not available.</p>				
<p>RAIM (ABAS) availability</p>	<p>Paragraph 10.1 a) 4)</p>			
<p><b>2 General operating procedures</b></p>	<p>Paragraph 10.1 b)</p>			
<p>The pilot shall comply with any instruction or procedure identified by the manufacturer, as necessary, to meet the performance requirements of this section.</p> <p><i>Note.- Pilots must adhere to any AFM limitation or operating procedure required to maintain Basic-RNP 1 performance.</i></p>	<p>Paragraph 10.1 b) 1)</p>			
<p>Operators and pilots shall not request or file Basic-RNP 1 routes, SIDs or STARs, unless they meet all the criteria set forth in this AC. If an aircraft that does not meet</p>	<p>Paragraph 10.1 b) 2)</p>			

Topics	Reference paragraphs CA 91-006	Location in the Annexes of the operator	Comments and/or recommendations by the CAA	Follow-up by the Inspector: Item status and date
<p>these criteria and is cleared by the ATC to conduct a Basic-RNP 1 procedure, the pilot will notify the ATC that it cannot accept such clearance and will request alternate instructions;</p>				
<p>At system initialization, pilots must:</p> <ul style="list-style-type: none"> <li>(a) confirm that the navigation database is current;</li> <li>(b) verify that the aircraft position has been entered correctly;</li> <li>(c) verify the appropriate entry of the assigned ATC route once they receive the initial clearance, and of any subsequent change in route; and</li> <li>(d) ensure that the sequence of WPTs as depicted in their navigation system matches the route drawn in the appropriate charts and the assigned route.</li> </ul>	Paragraph 10.1 b) 3)			
<p>Pilots shall not fly a Basic-RNP 1 procedure, unless it can be retrievable from the on-board navigation database by its name, and conforms with the procedure in the chart. However, the</p>	Paragraph 10.1 b) 4)			

Topics	Reference paragraphs CA 91-006	Location in the Annexes of the operator	Comments and/or recommendations by the CAA	Follow-up by the Inspector: Item status and date
<p>procedure can be modified afterwards by inserting or deleting specific WPTs in response to ATC clearance. Manual entry or the creation of new WPTs through manual insertion of latitude and longitude or rho/theta values is not permitted. Likewise, pilots must not change any type of WPT from a fly-by WPT to a flyover WPT or <i>vice versa</i>.</p>				
<p>Flight crews shall cross-check the cleared flight plan by comparing charts or other applicable resources to the navigation system text displays and aircraft map displays, as applicable. If required, the exclusion of specific NAVAIDs must be confirmed. A procedure shall not be used if there are any doubts about the validity of the procedure in the navigation database.</p> <p><i>Note.- Pilots may note a small difference between the navigation information described in the chart and the primary navigation display. Differences of 3° or less may result from applying the magnetic variation to the equipment of the manufacturer, and these are operationally acceptable.</i></p>	Paragraph 10.1 b) 5)			
<p>A cross-check is not required for conventional NAVAIDs, since the</p>	Paragraph 10.1 b) 6)			

Topics	Reference paragraphs CA 91-006	Location in the Annexes of the operator	Comments and/or recommendations by the CAA	Follow-up by the Inspector: Item status and date
absence of integrity alert is considered sufficient to meet integrity requirements. However, it is suggested that the navigation reasonableness be checked, and any loss of RNP capability must be reported to the ATC.				
For Basic-RNP 1 procedures, pilots must use a lateral deviation indicator, an FD or an AP in lateral navigation mode (LNAV). Pilots of aircraft with a lateral deviation display must make sure that the lateral deviation scale is appropriate for the navigation precision associated to the route/procedure (e.g., full-scale deflection: $\pm 1$ NM for Basic-RNP 1).	Paragraph 10.1 b) 7)			
All pilots are expected to follow the route centreline, as represented on the on-board lateral deviation indicators and/or flight guidance, during all Basic-RNP 1 operations, unless cleared by the ATC to deviate or due to an emergency. For normal operations, the cross-track error/deviation (the difference between the path estimated by the RNP system and the position of the aircraft relative to the path,	Paragraph 10.1 b) 8)			

Topics	Reference paragraphs CA 91-006	Location in the Annexes of the operator	Comments and/or recommendations by the CAA	Follow-up by the Inspector: Item status and date
<p>e.g. FTE) must be limited to <math>\pm \frac{1}{2}</math> the navigation precision associated with the procedure (e.g., 0.5 NM for basic RNP 1). Small lateral deviations from this requirement are allowed (e.g., overshooting or undershooting the path) during or immediately after a turn, up to a maximum of 1 times the navigation precision (1xRNP) (e.g., 1 NM for basic RNP 1).</p> <p><i>Note.- Some aircraft do not display or do not estimate a path during turns. Pilots of such aircraft may not be capable of meeting the <math>\pm \frac{1}{2}</math> precision requirement during en-route turns; however, they are expected to meet interception requirements after the turn or in straight segments.</i></p>				
<p>If the ATC issues a course assignment that places the aircraft out of the route, the pilot shall not modify the flight plan in the RNP system until a new clearance is received allowing the aircraft to return to the route or until the controller confirms a new route clearance. When the aircraft is not on the published Basic-RNP 1 route, the specified precision requirements do not apply.</p>	Paragraph 10.1 b) 9)			

Topics	Reference paragraphs CA 91-006	Location in the Annexes of the operator	Comments and/or recommendations by the CAA	Follow-up by the Inspector: Item status and date
<p>Manual selection of functions that limit the banking angle of the aircraft can reduce the ability of the aircraft to maintain its desired track and is not recommended. Pilots should acknowledge that manual selection of functions that limit the banking angle of the aircraft could reduce their ability to meet ATC path expectations, especially when turns with large banking angles are performed. This cannot be construed as a requirement to deviate from AFM procedures. Pilots must be encouraged to select such functions only within accepted procedures.</p>	Paragraph 10.1 b) 10)			
<p>Pilots operating aircraft that have a barometric vertical navigation system (baro-VNAV) can continue using said system while conducting Basic-RNP 1 SID and STAR procedures. Operators must ensure compliance with all altitude limitations, as published in the procedure, using the barometric altimeter as reference. Use of the barometric vertical navigation capability of the aircraft will be subject to the level of familiarisation and training of the</p>	Paragraph 10.1 b) 11)			

	<b>Topics</b>	<b>Reference paragraphs CA 91-006</b>	<b>Location in the Annexes of the operator</b>	<b>Comments and/or recommendations by the CAA</b>	<b>Follow-up by the Inspector: Item status and date</b>
	flight crew, and on any other operational approval requirement.				
	<p>Before starting a Basic-RNP 1 procedure, flight crews must:</p> <p>a) confirm that the correct procedure has been selected. This process includes checking WPT sequence, the reasonableness of track angles, distances, and any other parameter that can be modified by the pilot, such as altitude or speed limitations; and</p> <p>b) for multi-sensor systems, check that the correct sensor is being used for position computation.</p>	Paragraph 10.1 b) 12)			
3	<p><b>Aircraft with RNP selection capability</b></p> <p>Pilots of aircraft capable of selecting RNP input must select RNP 1 or lower for Basic-RNP 1 SIDs, STARs or procedures.</p>	Paragraph 10.1 c)			
4	<p><b>Basic-RNP 1 SID specific requirements</b></p>	Paragraph 10.1 d)			
	Before beginning take-off, the pilot must verify that the airborne Basic-	Paragraph 10.1 d) 1)			

Topics	Reference paragraphs CA 91-006	Location in the Annexes of the operator	Comments and/or recommendations by the CAA	Follow-up by the Inspector: Item status and date
<p>RNP 1 system is available and operating correctly, and that the appropriate aerodrome and runway data have been loaded. Before the flight, pilots must verify that the airborne navigation system is operating correctly and that the appropriate runway and departure procedure (including any applicable en-route transition) have been loaded and are properly displayed. Pilots assigned to a Basic-RNP 1 departure procedure and subsequently receive a change of runway, procedure or transition, must verify that the appropriate changes have been entered and are available for navigation before take-off. A final check of proper runway entry and correct route depiction, shortly before take-off, is recommended.</p>				
<p><i>Altitude for engagement the RNAV equipment.</i>- The pilot must be capable of connecting the RNP equipment in order to follow the flight guidance in the RNP lateral navigation mode before reaching 153 m (500 ft) above the aerodrome elevation.</p>	Paragraph 10.1 d) 2)			

Topics	Reference paragraphs CA 91-006	Location in the Annexes of the operator	Comments and/or recommendations by the CAA	Follow-up by the Inspector: Item status and date
Pilots must use an authorised method (lateral deviation indicator/navigation map display/FD/AP) to achieve an appropriate level of performance for Basic-RNP 1.	Paragraph 10.1 d) 3)			
<p><i>GNSS aircraft.</i>- When a GNSS is used, the signal must be obtained before starting the take-off roll. For aircraft using E/TSO-C129a equipment, the take-off aerodrome must be loaded into the flight plan in order to achieve the appropriate navigation system monitoring and sensitivity. For aircraft using E/TSO-C145 ()/C146 () equipment, if the departure starts at a runway waypoint (WPT), then the departure aerodrome does not need to be in the flight plan in order to obtain the appropriate monitoring and sensitivity mentioned above. If a Basic-RNP 1 SID extends beyond 30 NM from the aerodrome and a lateral deviation indicator is used, its full-scale sensitivity must be set to a value not greater than 1 NM between 30 NM from the aerodrome and the termination of the Basic-RNP 1 SID.</p>	Paragraph 10.1 d) 4)			

	Topics	Reference paragraphs CA 91-006	Location in the Annexes of the operator	Comments and/or recommendations by the CAA	Follow-up by the Inspector: Item status and date
	For aircraft using a lateral deviation display (e.g., a navigation map display), the scale must be adjusted for the Basic-RNP 1 SID and FD or AP must be used.	Paragraph 10.1 d) 5)			
5	<b>Basic-RNP 1 STAR specific requirements</b>	Paragraph 10.1 e)			
	<p>Before the arrival phase, the flight crew shall verify that the correct terminal route has been loaded. The active flight plan shall be checked, comparing the charts to the map display (if applicable) and the multi-function control display unit (MCDU). This includes confirmation of WPT sequence, the reasonableness of track angles and distances, any altitude or speed constraints, and, whenever possible, which are fly-by WPTs and which are flyover WPTs. If required by a route, a check will need to be made to confirm that updating will exclude a particular NAVAID. A route will not be used if there are doubts about its validity in the navigation database.</p> <p><i>Note.- As a minimum, verifications in the arrival phase could consist of a simple</i></p>	Paragraph 10.1 e) 1)			

Topics	Reference paragraphs CA 91-006	Location in the Annexes of the operator	Comments and/or recommendations by the CAA	Follow-up by the Inspector: Item status and date
<i>inspection of a suitable map display that will meet the objectives of this paragraph.</i>				
The creation of new WPTs by the flight crew through manual entries into the Basic-RNP 1 system will invalidate any route, and is not permitted.	Paragraph 10.1 e) 2)			
When contingency procedures require reverting to a conventional arrival route, the flight crew must make the necessary preparations before starting the Basic-RNP 1 procedure.	Paragraph 10.1 e) 3)			
Modification made to a route in the terminal area may take the form of radar headings or "direct to" clearances. In this sense, the flight crew must be capable of reacting in time. This may include the insertion of tactical WPTs loaded from the database. The flight crew is not allowed to make manual entries or to modify a loaded route, using temporary WPT or fixes not provided in the database.	Paragraph 10.1 e) 4)			
Pilots must verify that the aircraft navigation system is operating properly and that the correct arrival procedure and runway are	Paragraph 10.1 e) 5)			

	<b>Topics</b>	<b>Reference paragraphs CA 91-006</b>	<b>Location in the Annexes of the operator</b>	<b>Comments and/or recommendations by the CAA</b>	<b>Follow-up by the Inspector: Item status and date</b>
	properly entered and displayed.				
	Although a particular method is not mandated, any published altitude and speed constraints must be observed.	Paragraph 10.1 e) 6)			
	Aircraft with E/TSO-C129a GNSS RNP systems: If a Basic-RNP 1 STAR begins beyond 30 NM from the aerodrome and a lateral deviation indicator is used, its full-scale sensitivity must be set to a value not greater than 1 NM before commencing the STAR. For aircraft that use a lateral deviation display (e.g., a navigation map display), the scale must be adjusted to the Basic-RNP 1 STAR and the FD or AP must be used.	Paragraph 10.1 e) 7)			
<b>6</b>	<b>Contingency procedures</b>	Paragraph 10.1 f)			
	The pilot must notify the ATC of any loss of RNP capability (integrity alerts or loss of navigation), together with the proposed course of action. If, for any reason, it is not possible to meet the requirements of a Basic-RNP 1 SID or STAR, pilots must notify the ATS as soon as	Paragraph 10.1 f) 1)			

Topics	Reference paragraphs CA 91-006	Location in the Annexes of the operator	Comments and/or recommendations by the CAA	Follow-up by the Inspector: Item status and date
possible. Loss of RNP capability includes any failure or event that causes the aircraft to be unable to meet the Basic-RNP 1 requirements of the route.				
In case of a communication failure, the flight crew must continue with the established procedure for loss of communication.	Paragraph 10.1 f) 2)			

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