



Flight Operations Standards Directorate
Commercial Air Transport Section - Special Approvals - PBN Approval / A-RNP
A-RNP Approval Application Attachments Compliance List

• Operator Name			
• Inspector Name			
• Airplane Type(s)			
• AOC Applicant/Holder Focal Point	Name	Phone No.	E-mail

No	A-RNP Operational Approval Application Attachments	ICAO Doc 9613	OMD	YES	NO	NA	Remarks
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A	Operations Manual Part D - Training Program						
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1	Training Program.						
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a	Commercial operators must have a training program addressing the operational practices, procedures and training items related to ARNP operations (e.g. initial, upgrade or recurrent training for flight crew, dispatchers or maintenance personnel)	4.3.2.6.2.1					
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2	Flight Crew Training Program. The training program should provide sufficient training (e.g. simulator, training device, or aircraft) on the aircraft's RNP system to the extent that the pilots are familiar with the following:						
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a	The meaning and proper use of aircraft equipment/navigation suffixes	4.3.6					
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b	Procedure characteristics as determined from chart depiction and textual description	4.3.6					
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(1)	Depiction of waypoint types (fly-over, fly-by, RF and FRT), altitude and speed restrictions and path terminators as well as associated aircraft flight paths; and	4.3.6					
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(2)	Required navigation equipment for operation on RNP routes, SIDs, and STARs	4.3.6					
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c	RNP system-specific information	4.3.6					
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(1)	Levels of automation, mode annunciations, changes, alerts, interactions, reversions, and degradation	4.3.6					
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(2)	Functional integration with other aircraft systems	4.3.6					
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(3)	The meaning and appropriateness of route discontinuities as well as related flight crew procedures	4.3.6					
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(4)	Monitoring procedures for each phase of flight (for example, monitor PROG or LEGS page)	4.3.6					
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(5)	Types of navigation sensors (GNSS) used by the RNP system and associated system prioritization/weighting/logic	4.3.6					
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(6)	Turn anticipation with consideration to speed and altitude effects	4.3.6					
(7)	Interpretation of electronic displays and symbols; and	4.3.6					
(8)	Automatic and/ or manual setting of the required navigation accuracy	4.3.6					
d	Understand the performance requirement to couple the autopilot/flight director to the navigation system's lateral guidance on RNP procedures, if required	4.3.6					
e	The equipment should not permit the flight crew to select a procedure or route that is not supported by the equipment, either manually or automatically (e.g. a procedure is not supported if it incorporates an RF leg and the equipment does not provide RF leg capability). The system should also restrict pilot access to procedures requiring RF leg capability or FRTs if the system can select the procedure, but the aircraft is not otherwise equipped (e.g. the aircraft does not have the required roll steering autopilot or flight director installed)	4.3.6					
f	RNP equipment operating procedures, as applicable, including how to perform the following:	4.3.6					
(1)	Verify currency and integrity of aircraft navigation data	4.3.6					
(2)	Verify successful completion of RNP system self-tests	4.3.6					
(3)	Initialize navigation system position	4.3.6					
(4)	Retrieve and fly a SID or a STAR with appropriate transition	4.3.6					
(5)	Adhere to speed and/or altitude constraints associated with a SID or STAR	4.3.6					
(6)	Select the appropriate STAR or SID for the active runway in use and be familiar with procedures to deal with a runway change	4.3.6					
(7)	Verify waypoints and flight plan programming	4.3.6					
(8)	Perform a manual or automatic runway update (with take-off point shift, if applicable)	4.3.6					
(9)	Fly direct to a waypoint	4.3.6					
(10)	Fly a course/track to a waypoint	4.3.6					
(11)	Intercept a course/track. (Fly vectors, and rejoin an RNP route/procedure from the "heading" mode)	4.3.6					
(12)	Determine cross-track error/deviation. More specifically, the maximum deviations allowed to support A-RNP must be understood and respected	4.3.6					
(13)	Where applicable, the importance of maintaining the published path and maximum airspeeds while performing RNP operations with RF legs or FRTs	4.3.6					



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(14)	Insert and delete route discontinuity	4.3.6					
(15)	Remove and reselect navigation sensor input	4.3.6					
(16)	When required, confirm exclusion of a specific NAVAID or NAVAID type	4.3.6					
(17)	When required by the authority, perform gross navigation error check using conventional NAVAIDs	4.3.6					
(18)	Change arrival airport and alternate airport	4.3.6					
(19)	Perform parallel offset function if capability exists. Pilots should know how offsets are applied, the functionality of their particular RNP system and the need to advise ATC if this functionality is not available	4.3.6					
(20)	Perform RNAV holding function	4.3.6					
(21)	Flight crew contingency procedures for a loss of RNP capability; and	4.3.6					
(22)	Manual setting of the required navigation accuracy	4.3.6					
g	Operator-recommended levels of automation for phase of flight and workload, including methods to minimize cross-track error to maintain route centre line; and	4.3.6					
h	R/T phraseology for RNAV/RNP applications	4.3.6					
3	Flight Dispatcher Training Program.						
a	Specific equipments	AC NO 13					
b	Flight plan	AC NO 13					
c	MEL requirements	AC NO 13					
d	Normal procedures	AC NO 13					
e	Contingency procedures	AC NO 13					



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B	Operations Manuals						
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1	Operations Manuals Part A						
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a	Preflight planning						
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(1)	Operators and pilots intending to conduct RNP operations requiring A-RNP capability should indicate the appropriate application in the flight plan	4.3.4.1.1					
(2)	The on-board navigation data must be current and appropriate to the route being flown and for potential diversions. Navigation databases are expected to be current for the duration of the flight. If the AIRAC cycle is due to change during flight, operators and pilots should establish procedures to ensure the accuracy of navigation data, including suitability of navigation facilities used to define the routes and procedures for flight	4.3.4.1.2					
(3)	Operators using GNSS equipment should confirm the availability of RAIM by using RAIM availability prediction software taking account of the latest GNSS NOTAMs. Operators using SBAS augmentation should also check the relevant SBAS NOTAMs to determine the availability of SBAS. Notwithstanding preflight analysis results, because of unplanned failure of some GNSS or DME elements (or local interference), pilots must realize that integrity availability (or GNSS/DME navigation altogether) may be lost while airborne which may require reversion to an alternate means of navigation. Therefore, pilots should assess their capability to navigate in case of failure of the primary sensor or the RNP system	4.3.4.1.3					

b	General operating procedures						
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(1)	Operators and pilots should not request or file RNP routes, SIDs, STARs or approaches unless they satisfy all the criteria in the relevant State documents. The pilot should comply with any instructions or procedures identified by the manufacturer, as necessary, to comply with the performance requirements	4.3.4.2.1					
(2)	At system initialization, pilots must confirm the navigation database is current and verify that the aircraft position has been entered correctly. Pilots must not fly an RNP route, SID, STAR or approach unless it is retrievable by name from the on-board navigation database and conforms to the chart. An RNP route, SID, STAR or approach should not be used if doubt exists as to the validity of the procedure in the navigation database	4.3.4.2.2					



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(3)	Cross-checking with conventional NAVAIDs is not required as the absence of integrity alert is considered sufficient to meet the integrity requirements. However, monitoring of navigation reasonableness is suggested, and any loss of RNP capability shall be reported to ATC. While operating on RNP Routes, SIDs STARs or approaches, pilots are encouraged to use flight director and/or autopilot in lateral navigation mode, if available. Flight crew should be aware of possible lateral deviations when using raw path steering data or Navigation Map Displays for lateral guidance in lieu of flight director. When the dispatch of a flight into RNP operations is predicated on use of the autopilot/flight director at the destination and/or alternate, the dispatcher/flight crew must determine that the autopilot/flight director is installed and operational	4.3.4.2.3					
c	Manual entry of RNP. If the navigation system does not automatically retrieve and set the navigation accuracy from the on-board navigation database for each leg segment of a route or procedure, the flight crew's operating procedures should ensure the smallest navigation accuracy for the route or procedure is manually entered into the RNP system	4.3.4.3					
d	SID specific requirements						
(1)	Prior to flight, pilots must verify their aircraft navigation system is operating correctly and the correct runway and departure procedure (including any applicable en-route transition) are entered and properly depicted. Pilots who are assigned an RNP departure procedure and subsequently receive a change of runway, procedure or transition must verify the appropriate changes are entered and available for navigation prior to take-off. A final check of proper runway entry and correct route depiction, shortly before take-off, is recommended	4.3.4.4.1					
(2)	Engagement altitude. The pilot must be able to use RNP equipment to follow flight guidance for lateral navigation no later than 153 m (500 ft) above the airport elevation. The altitude at which guidance begins on a given route may be higher (e.g. climb to 304 m (1 000 ft) then direct to ...)	4.3.4.4.2					
(3)	Pilots must use an authorized method (lateral deviation indicator/navigation map display/flight director/autopilot) to achieve an appropriate level of performance	4.3.4.4.3					



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(4)	GNSS aircraft. When using GNSS, the signal must be acquired before the take-off roll commences. For aircraft using FAA TSO-C129a equipment, the departure airport must be loaded into the flight plan in order to achieve the appropriate navigation system monitoring and sensitivity. For aircraft using FAA TSO-C145a/C146a equipment, if the departure begins at a runway waypoint, then the departure airport does not need to be in the flight plan to obtain appropriate monitoring and sensitivity	4.3.4.4.4					
e	STAR specific requirements						
(1)	Prior to the arrival phase, the flight crew should verify that the correct terminal route has been loaded. The active flight plan should be checked by comparing the charts with the map display (if applicable) and the MCDU. This includes confirmation of the waypoint sequence, reasonableness of tracks and distances, any altitude or speed constraints, and, where possible, which waypoints are fly-by and which are fly-over. If required by a route, a check will need to be made to confirm that updating will exclude a particular NAVAID. A route must not be used if doubt exists as to the validity of the route in the navigation database	4.3.4.5.1					
(2)	The creation of new waypoints by manual entry into the RNP system by the flight crew would invalidate the route and is not permitted	4.3.4.5.2					
(3)	Where the contingency procedure requires reversion to a conventional arrival route, necessary preparations must be completed before commencing the RNP route	4.3.4.5.3					
(4)	Route modifications in the terminal area may take the form of headings or “direct to” clearances and the flight crew must be capable of reacting in a timely fashion. This may include the insertion of tactical waypoints loaded from the database. Manual entry or modification by the flight crew of the loaded route, using temporary waypoints or fixes not provided in the database, is not permitted	4.3.4.5.4					
(5)	Pilots must verify their aircraft navigation system is operating correctly, and the correct arrival procedure and runway (including any applicable transition) are entered and properly depicted	4.3.4.5.5					
(6)	Although a particular method is not mandated, any published altitude and speed constraints must be observed. Approaches using temporary waypoints or fixes not provided in the navigation database are not permitted	4.3.4.5.6					

