PBN NavSpecs and Route Spacing (PBN Manual Doc 9613 Volume II, Attachment B & PANS-OPS Doc 8168 Volume II, Part III)

Nav Specs	Flight Phase								Supporting Nav. Infrastructure	Route Spacing (NM)	Additional Functionality (Repuired or Optional)					Operational Requirements			
	En-route Remote	En-route Continental	Arrival	Approach				Departure			RF	FRT	TOAC[2]	Baro VNAV	Nav DB	Communication	Navigation	Surveillance	Others
				Initial	Intermediate	Final	Missed[1]												
RNAV 10	10								Not require ground-based Naviad Dual LRNS (INS, IRS FMS, GNSS)	50			TBD[2]		O	Voice com through 3rd party, DCPC in some areas	RNAV 10 (RNP 10) Approval, lateral deviation less than 7NM (same direction)/6NM (opposite direction)	Procedureal pilot position reports	System safety must be monitored, TLS $5X10^{-9}$ accident per flight hour
RNAV 5		5	5[3]						VOR/DME DME/DME INS or IRS GNSS	16.5 - straight unidirectional racks (same direction route-ECAC) 18 - straight bidirectional tracks (opposite direction route- ECAC) 10 - ATC intervention capability (ECAC) 30 - No ATS Surveillance in high traffic density (ECAC)			TBD		O	DCPC- VHF	RNAV 5/RNP 5 OPS Approval (BRNAV)	Procedureal pilot position report (RNP 5) Radar surveillance (RNAV 5)	
RNAV 2		2	2					2	GNSS DME/DME DME/DME/IRU	8 to 9 - straight tracks in high traffic density (en-route) (FAA)			TBD		R	DCPC- VHF	RNAV 2 OPS Approval (PRNAV, US RNAV AC 90-100)	Radar surveillance	
RNAV 1		1	1	1	1		1	1	GNSS DME/DME DME/DMe/IRU	8 - straight tracks in high density (terminal, Eurocontrol) 7 for SIDs/STARs (PANS-ATM)			TBD	O	R	DCPC- VHF	RNAV 1 OPS Approval (PRNAV, US RNAV AC 90-100)	Radar surveillance	
RNP 4	4								Not require ground-based Naviad GNSS	30 (part of the Pacific airspace) 50 or 30* (PANS-ATM) *23NM proposed by SASP (applicable date : 10 November 2016)		O	TBD		R	DCPC or CPDLC	RNP 4 OPS Approval	ADS with a lateral deviation contract having 5NM	Sytem verification assuring lateral deviation less than 15NM
RNP 2	2	2							GNSS	50, 30 or 15 (PANS-ATM) 7 for climb/descend through other aircraft with VHF DCPC 20 for climb/descend through other aircraft with other type of com.		O	TBD		R	Depend on operational considerations (route spacing, traffic density, complexity, contingency procedures)	RNP 2 OPS Approval (Oceanic/Remote/continental)	Not required except reduced route spacing	
RNP 1			1	1	1		1	1	GNSS	5 for SIDs/STARs (PANS-ATM)	O		TBD	O	R	DCPC (RNP 1 SIDs/STARs)	RNP 1 OPS Approval	Not required except reduced route spacing	
A RNP[4]	2	2 or 1	1 - 0.3	1 - 0.3	1 - 0.3	0.3	1 - 0.3	1 - 0.3	GNSS Multi-DME may be provided	7 - straight and turning tracks (<90˚) in high traffic density (en-route, Terminal, Eurocontrol) 6 to 7 NM with an RNP 0.5 (terminal, Eurocontrol)	R	O	TBD	O	R	DCPC- VHF	A-RNP OPS Approval (Navigation accuracy at least ±1NM, 95% of the flght time)	Radar surveillance (may not be required to certain navigation application)	
RNP APCH (Part A)[5]				1	1	0.3	1		GNSS (Missed App - RNAV or Conv.)	5 for SIDs/STARs (PANS-ATM)	O		TBD	O	R	Not required	RNP APCH OPS Approval	Not required	
RNP APCH (Part B)[5]				1	1	Angular	1 or 0.3 (Initial Straight MISAP)		GNSS	5 for SIDs/STARs (PANS-ATM)	O		TBD		R	Not required	RNP APCH OPS Approval	Not required	
RNP AR APCH				1 - 0.1	1 - 0.1	0.3 - 0.1	1 - 0.1		GNSS (DME/DME may be authorized	5 for SIDs/STARs (PANS-ATM)	R[6]		TBD	R[6]	R	Not required	RNP AR APCH OPS Approval	Not required	
RNP 0.3		0.3	0.3	0.3	0.3		0.3	0.3	GNSS		O		TBD	O	R	Not required	RNP 0.3 OPS Approval	Not required	

1) RNP requirements do not apply to initial and intermediate missed approach segments.
2) TOAC (Time of Arrival Control), TBD (To Be Determined)
3) RNAV 5 may be used for initial parts of STARs outside 30 NM from the ARP.
4) Advanced RNP core requirements are limited to RNP 1 in all flight phases except final approach (RNP 0.3) and RNP 2 in oceanic/remote and en-route continental. A scaleability option will allow accuracy values between 0.3 and 1.0, in 0.1 NM increments, in all flight phases except oceanic/remote/en-route continental (RNP 1 and RNP 2) and final approach (RNP 0.3).

5) Part A and B refer to the Performance-based Navigation (PBN) Manual (Doc 9613), Volume II, Part C, Chapter 5, Part A — RNP APCH operations down to LNAV and LNAV/VNAV minima and Part B — RNP APCH operations down to LP and LPV minima, respectively.
6) Specific requirement for RF and VNAV