

Checklist MNPS/NAT HLA approval

Operator ⁽¹⁾		
Aircraft type/variant		
Ref.		
Inspectors	(Name/signature) ⁽²⁾	Date
Flight OPS Dep. Manager		
Flight Operations Inspector (FOI)		
Airworthiness Operations Inspector (AWI)		

⁽²⁾ By signing this checklist, I hereby confirm that, at the time of performing this activity, I did not have any conflict of interest to declare regarding the above-mentioned operator ⁽¹⁾.

OM amendment information			
Rev. No		Date	

List of non-compliances identified			
No	Ref Non-compliance	Ref OM	Non-compliances

List of remarks	
Ref OM	Remarks

Additional notes/comments:

NA = Not Applicable; C = Compliant; NC = Not Compliant; R = Remark; N/R = Not Reviewed

Reference	Requirement	Specific requirements/expectations	Eval. operator	Eval. CA	Description
Application content					
SPA.MNPS.105	<u>Content of the MNPS/NAT-HLA application:</u> - Scope of the application - Description of the aircraft equipment - Training programmes for flight crew, - Flight crew composition policy - Normal and contingency procedures - MEL - Reporting procedure	- Check that the application contains all the required elements. - Check that scope specifies if an unrestricted MNPS/NAT-HLA is expected or an approval only for operations along notified special routes (with alleviations on equipment requirement). - Check that the operator already has the appropriate area of operations on its AOC or that it has also submitted an application for the extension of its currently approved area of operations.		☐ N/A ☐ C ☐ NC ☐ R ☐ N/R	
Aircraft eligibility					
AMC1 SPA.MNPS.105 AIPs CAT.IDE.A.345	Aircraft equipment for unrestricted operations	- For unrestricted operations in MNPS/NAT-HLA airspace, check that the aircraft is equipped with 2 independent LRNSs, which can be: - o Inertial navigation systems (INSs) - o Global navigation satellite systems (GNSSs); - o Navigation systems using the inputs from one or more inertial reference system (IRS) or any other sensor system complying with the MNPS requirement - o 2 independent long range communications systems (1 only if not crossing the Atlantic and in case alternative communication procedures are published for the airspace concerned) - In case of the GNSS is used as a stand-alone system for LRNS, check that integrity checks are carried out. - Check that each LRNS is capable of providing to the FC a continuous indication of the aircraft position relative to desired track. - For specified tracks and FLs within NAT OTS, check that CPDLC and ADS-C are fitted (see AIPs).		☐ N/A ☐ C ☐ NC ☐ R ☐ N/R	
AMC1 SPA.MNPS.105	Aircraft equipment for operations along notified special routes	- Check that the aircraft is equipped at least with one LRNS (see above).		☐ N/A ☐ C	

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		If this single LRNS is a GPS it must be approved in accordance with FAA TSO-C129 or later standard as Class A1, A2, B1, B2, C1 or C2, or with equivalent EASA documentation ETSO- C129a.		☐ NC ☐ R ☐ N/R	
NAT Doc 007 1.3.3	Navigation performance requirements for the 50 NM lateral separation to be used in NY OCEANIC EAST.	- The navigation system accuracy requirements for NAT MNPSA/HLA operation should only be based on the PBN specifications, RNP 10 (PBN application of RNAV 10) or RNP 4. - For RNP 10 approved aircraft: - the proportion of the total flight time spent by aircraft 46 km (25 NM) or more off the cleared track shall be less than 9.11×10^{-5}; and - the proportion of the total flight time spent by aircraft between 74 and 111 km (40 and 60 NM) off the cleared track shall be less than 1.68×10^{-5}. - For RNP 4 approved aircraft: - the proportion of the total flight time spent by aircraft 28 km (15 NM) or more off the cleared track shall be less than 5.44×10^{-5}; and - the proportion of the total flight time spent by aircraft between 44 and 67 km (24 and 36 NM) off the cleared track shall be less than 1.01×10^{-5}.		☐ N/A ☐ C ☐ NC ☐ R ☐ N/R	
PBCS (if applicable)					
NATS OPS Bulletin 2018-001 CAT.IDE.A.345(a) + AMC1	Equipment requirement for the use of PBCS tracks	- Check that aircraft: - Meets RNP 4 requirements; - Are fitted with and operating FANS 1/A CPDLC and ADS-C; and - Meets RCP 240 and RSP 180 requirements, as shown by AFM statement or equivalent.		☐ N/A ☐ C ☐ NC ☐ R ☐ N/R	
CAT.IDE.A.345(a) + AMC1	Continued airworthiness of the communication equipment and surveillance equipment	Check that the operator has established a process to ensure continued airworthiness of the communication equipment and surveillance equipment in accordance with the appropriate RCP and RSP specifications respectively.		☐ N/A ☐ C ☐ NC ☐ R ☐ N/R	

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Operating procedures					
SPA.MNPS.105(d)(3) ICAO Doc 7030 ICAO NAT Doc 007	Flight planning / Pre-flight procedures	- Check that the pre-flight procedures include a UTC time check and resynchronisation of the aircraft Master Clock (typically the FMS). - Check that the pre-flight procedures include: - o RNP approval status checking - o The aircraft equipment condition review (MEL) - o Alignment of inertial systems (if applicable) - o For GPS LRNS, use of a Satellite Navigation Availability Prediction Programme. - o Coordinated insertion of initial waypoints by both FC - o Flight plan check, including waypoints/tracks and required fields (MNPS, CPDLC, RNP, PBCS,...). - o Copy of OTS message to be carried on-board - o Route plotting policy.		☐ N/A ☐ C ☐ NC ☐ R ☐ N/R	
SPA.MNPS.105(d)(3) ICAO Doc 7030 ICAO NAT Doc 007 + AIPs CAT.IDE.A.345(a) + AMC1	In-flight procedures	- Check that the following practices are included into the FC procedures: - o Navigation cross-checking procedures aimed at identifying navigation errors in sufficient time to prevent the aircraft inadvertently deviating from the ATC-cleared route - o Communication procedure - o Mach number technique - o LRNSs accuracy monitoring/LRNSs update - o Use of transponder - o Position reporting policy - o Clearance management - o Monitoring of 121.5 MHz and 123.450 MHz frequencies - o Transmission of WAH reports - o Position plotting/monitoring.		☐ N/A ☐ C ☐ NC ☐ R ☐ N/R	
SPA.MNPS.105(d)(4) ICAO Doc 7030 ICAO NAT Doc 006 ICAO NAT Doc 007 + AIPs CAT.IDE.A.345(a) + AMC1	Contingency procedures/ reporting	- Check that contingency procedures have been established based on regional supplementary procedures, covering in particular: - o inability to comply with assigned clearance due to meteorological conditions; - o en-route diversion across the prevailing traffic flow; and - o loss of, or significant reduction in the required navigation capability when operating in an airspace where the navigation performance accuracy is a prerequisite to the safe conduct of flight operations, or		☐ N/A ☐ C ☐ NC ☐ R ☐ N/R	

Reference	Requirement	Specific requirements/expectations	Eval. operator	Eval. CA	Description
		pressurization failure ○ Air-ground communication failures. ○ ATC notification in case of reduced navigation performance. - Check that the contingency procedures are consistent with ICAO NAT Doc 007.			
PBCS (if applicable)					
CAT.IDE.A.345(a) AMC1	+ PBCS procedures	- Check that the operator has defined in its OM normal, abnormal and contingency procedures specifically for PBCS operations.		☐ N/A ☐ C ☐ NC ☐ R ☐ N/R	
CAT.IDE.A.345(a) AMC1	+ Contracted communication service provider (CSP)	- Check that the operator has established a process to ensure that the contracted communication service provider (CSP) for the airspace being flown complies with the required RCP and RSP specifications as well as with monitoring, recording and notification requirements.		☐ N/A ☐ C ☐ NC ☐ R ☐ N/R	
CAT.IDE.A.345(a) AMC1	+ Monitoring programmes	- Check that the operator participates to monitoring programmes established in the airspace being flown in order to: ○ submit the relevant reports of observed communication and surveillance performance respectively; and ○ establish a process for immediate corrective action in case non-compliance with the appropriate RCP or RSP specifications is detected.		☐ N/A ☐ C ☐ NC ☐ R ☐ N/R	
Incident reporting					
SPA.MNPS.105(d)(5) Reg. 376/2014	Incident reporting	- Check that the operator has defined a procedure for MNPS incident reporting. - Check that it includes in particular: ○ Unintentional deviation from intended or assigned track of the lowest of twice the required navigation performance or 10 nautical miles;		☐ N/A ☐ C ☐ NC ☐ R	

Reference	Requirement	Specific requirements/expectations	Eval. operator	Eval. CA	Description
		- ATC related issues (loss of communications, misinterpretation of a clearance,...) - Use of contingency procedures.		☐ N/R	
Flight Crew composition/training					
SPA.MNPS.105(d)(2)	Flight crew composition	- Check that the operator has defined the required FC experience and the FC composition for MNPS/NAT-HLA		☐ N/A ☐ C ☐ NC ☐ R ☐ N/R	
SPA.MNPS.105(c) ORO.FC.145	Flight crew training	- Check that an initial and a recurrent training programme have been defined and that it addresses all the defined MNPS/NAT-HLA procedures.		☐ N/A ☐ C ☐ NC ☐ R ☐ N/R	
ORO.FC.105	Route competence.	- Check that the route competence monitoring include flights in MNPS/NAT-HLA and that it foresees a minimum of 1 flight within 12M.		☐ N/A ☐ C ☐ NC ☐ R ☐ N/R	
PBCS (if applicable)					
CAT.IDE.A.345(a) AMC1	+ PBCS training	Check that the operator has established a training programme for relevant personnel consistent with the intended operations.		☐ N/A ☐ C ☐ NC ☐ R ☐ N/R	

Reference	Requirement	Specific requirements/expectations	Eval. operator	Eval. CA	Description
MEL					
SPA.MNPS.105(d)(1) CAT.IDE.A.345(a) + AMC1	MEL	- Check that the MEL reflects the required operative equipment for MNPS/NAT-HLA operations. - Check that the MEL addresses the use of PBCS tracks as well (if applicable) (RCP and RSP).		☐ N/A ☐ C ☐ NC ☐ R ☐ N/R	