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|   | ΑΙΤΗΣΗ ΓΙΑ ΠΙΣΤΟΠΟΙΗΣΗ PBN Application Form for PBN Operational Approval (Airworthiness & Operational Approval Conformance Document) |
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| REFERENCES | ISSUE DATE | TITLE |
| Reg. (EU) No 965/2012 (As Amended)  | 5 October 2012 |  |
| ICAO Doc 9613 |  2013 | Performance-Based Navigation (PBN) Manual.(As refered in GM1 SPA.PBN.100 PBN operations) |
| ICAO Doc 9997 | 2015 | Performance-Based Navigation (PBN) Operational Approval Manual.(As refered in GM1 SPA.PBN.100 PBN operations) |
| (EU) No 965/2012 (As Amended)  CAT.IDE.A.345  |  | Communication, navigation and surveillance equipment for operations under IFR or under VFR over routes not navigated by reference to visual landmarks |

 |
| ice_screenshot_20201114-080728 |
| **1. Applicant / Operator** |
| **Name** |  |
| **Address** |  |
| **Tel** |  | **e-mail** |  |
| **Contact person** |  |
| **Number of e-paravolo *(if applicable)*  :** |
| **Date of Submission :**  |
| **2. Aircraft** |
| **Aircraft Type** |  |
| **Aircraft S/N** |  | **Aircraft Registration** |  |
|  |
|  |
| **3. Applicant request for** |
| **RNAV 1; Yes** *[ ]*  |
| **RNP 4; Yes** *[ ]*  |
| **RNAV 10 (RNP10) Yes** *[ ]*  |
| **RNP 1/RNP 2 Yes** *[ ]*  |
| **RNP 1/RNP 2 Yes** *[ ]*  |
| **RNP APCH — LNAV minima Yes** *[ ]*  |
| **RNP APCH — LNAV/VNAV minima Yes** *[ ]*  |
| **RNP APCH — LPV minima Yes** *[ ]*  |
| **RNP 2 oceanic Yes** *[ ]*  |
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| **PART 1 Airworthiness****- GM1 SPA.PBN.100 PBN operations (d):**“Guidance material for the operational approval of PBN operations can be found in ICAO Doc 9997 Performance-Based Navigation (PBN) Operational Approval Manual”.**-ICAO Doc 9997:**2.3.7 The operational approval assessment must take account of the following:a) aircraft eligibility and airworthiness compliance (and any limitations, assumptions or specific proceduresconsidered in the framework of the airworthiness approval must be addressed)**;****-CAT.IDE.A.345****(**f) For PBN operations the aircraft shall meet the airworthiness certification requirements for the appropriate navigation specification. |
|  |
| 1. **Type Design Approval**
 |
| ***4.1 The PBN type design approval is reflected in: (\*)***  |
| **Type Certificate** | **Yes *[ ]***  | **No *[ ]***  |  |
| **Type Certificate Data sheet** | **Yes *[ ]***  | **No *[ ]***  |  |
| **AFM** | **Yes *[ ]***  | **No *[ ]***  |  |
| **Supplement Type Certificate**  | **Yes *[ ]***  | **No *[ ]***  |  |
| **AFM supplement**   | **Yes *[ ]***  | **No *[ ]***  |  |
| **Service Bulletin**   | **Yes *[ ]***  | **No *[ ]***  |  |
| **Service Letter**  | **Yes [ ]**  | **No *[ ]***  |  |
| **Other (specify)**  | **Yes *[ ]***  | **No *[ ]***  |  |
| **HCAA Note:** Applicant to attach the evidence |
| ***4.2 Reference listed in Par. 4.1 (\*)*** |
| **RNAV 1; Yes** *[ ]* **P-RNAV:****Yes** *[ ]* **RNP 4: Yes** *[ ]*  **RNAV 10: Yes** *[ ]*  **A-RNP: Yes** *[ ]*  |
| **RNP 1/RNP 2: Yes** *[ ]*  **RNP APCH — LNAV minima: Yes** *[ ]*  **RNP APCH — LNAV/VNAV minima : Yes** *[ ]*  |
| **RNP APCH — LPV minima: Yes** *[ ]*  **RNP 2 oceanic: Yes** *[ ]*  **RNP 10: Yes** *[ ]*  |
| **FAA AC 20-138 : Yes** *[ ]* **FAA AC90-100/FAA AC90-100:Yes** *[ ]* **JAA TGL 10: Yes** *[ ]*  |
| **AMC 20-4: Yes** *[ ]*  **JAA TGL 2: Yes** *[ ]*  **JAA TGL 3: Yes** *[ ]*  **JAA AMJ 20X2: Yes** *[ ]*  |
| **AC 20-130A : Yes** *[ ]*  **AC 90-96: Yes** *[ ]*  **AC20-129: Yes** *[ ]*  **AMC 20-27: Yes** *[ ]*  |
| **AMC 20-28: Yes** *[ ]*  **AC 90-107: Yes** *[ ]*  **RNP 10: Yes** *[ ]*  **AMC 20-12: Yes** *[ ]*  |
| **FAA 8400.12 : Yes** *[ ]*  **AC 20-138 B: Yes** *[ ]*  **FAA 8400.33: Yes** *[ ]*  **AC90-105: Yes** *[ ]*  |
|  **HCAA Note 1**:-Refer to CAT.IDE.A.345  **Note 2:** -Applicant to Attach the evidence |
| ***4.3 RNAV/RNP Navigation Systems on Aircraft (\*)*** |
|  |
|  | **P/N** |  **No installed** |  |
| **FMS/FMGS Type**HCAA Note: Is the RNAV/RNP equipment which enables the aircraft to be navigated in accordance with appropriate routing instructions along a path defined by waypoints held in an on-board navigation database. | **P/N:………………….** | **One:** **[ ]** **Two:**  *[ ]* **Three: [ ]** **HCAA Note**: Number refers to independent systems. |  |
| **GNSS stand alone** (for ex.GNS 530) | **P/N:………………….** | **One:** **[ ]** **Two:**  *[ ]*  |  |
| **FMS/FMGS/GNSS Type , Software Version** (for ex. U10…….Boeing 737 a/c) | **S/W version:****…………………………………….** |  |  |
| **Navigation Data Base Provider** | Navigation Database Type 2 LoA ?? | **Yes [ ] No [ ]** **HCAA Note:** Applicant to attach the evidence |  |
| **Sensors** | **P/N** |  **No installed** |  |
| **INS/IRS** (See HCAA Note 1) |  | **One: [ ]** **Two: [ ]** **Three:**  *[ ]*  |  |
| **VOR** (See HCAA Note 2 and 3) |  | **One: [ ]** **Two: [ ]**  |  |
| **DME** (See HCAA Note 3) |  | **One: [ ]** **Two: [ ]**  |  |
| **GPS** |  | **One: [ ]** **Two: [ ]**  |  |
| GPS in accordance with TSO C 129 |  | **Yes** [ ] **No** [ ]   |  |
| **HCAA Note:**1. Time limit may be applied in the event of unavailability or loss of radio sensor derived automatic position updating, it is permissible to use, for a short period of time, data from an inertial system as the only means of positioning. Period of time has to be agreed with HCAA. **Yes** [ ] **No** [ ]
2. Conforms to FM immunity performance standards: ICAO Annex 10, **Yes** [ ] **No** [ ]
3. If position determination is exclusively computed based on VOR-DME, the aircraft is not eligible for RNAV 1/RNAV 2 operations. **Applicable:** [ ] **Not Applicable:** [ ]
4. Aircraft having approval based on DME/DME cannot execute RNAV Procedures that are based on GNSS only, Annotated on the chart as “RNAV (GNSS)”.
5.
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|  |
| ***4.5 Maintenance program* (\*)*:*** |
| The operator should have an established maintenance program that contains all related maintenance requirements prescribed by the manufacturer for PBN related operations.**Yes** *[ ]*  **No** [ ]    |
| ***4.6 MEL* (\*)*:*** |
| The applicant MEL reflects system requirements appropriate for PBN approvals**Yes** *[ ]*  **No** *[ ]*  |
|  **HCAA Note 1 :** *Sections of Operator MEL regarding PBN items has to be submitted* |
| **HCAA Note 2:** It is highly advised to present such information in a summarised form together with the other approved RNP and RNAV specifications, as per the matrix below:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Requested Approval** | **LRN System** | **GPS** | **IRS** | **DME** | **VOR** |  |
| **RNAV 1** | **1** | **1** | **1** | **2** | **1** |  |
| **RNP 10** | **2** | **2** | **2** | **2** | **2** |  |
| **RNP APCH** | **2** | **2** | **2** | **2** | **2** |  |
|  |  |  |  |  |  |  |

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| **Part 2 Operation****GM1 SPA.PBN.100 PBN operations (d):**“Guidance material for the operational approval of PBN operations can be found in ICAO Doc 9997 Performance-Based Navigation (PBN) Operational Approval Manual”.**ICAO Doc 9997:**2.3.7 The operational approval assessment must take account of the following:b) operating procedures for the navigation systems used;c) control of operating procedures (documented in the operations manual);d) flight crew initial training and competency requirements and continuing competency requirements;e) dispatch training requirements; andf) control of navigation database procedures. Where a navigation database is required, operators needto have documented procedures for the management of such databases. These procedures will definethe sourcing of navigation data from approved suppliers, data validation procedures for navigationdatabases and the installation of updates to databases into aircraft so that the databases remaincurrent with the AIRAC cycle. |
| **6.1 Operation Manual**  |
| Does the Operation Manual mention the PBN in the introduction paragraph of the Operations Manual Part A (\*\*)? **Yes** *[ ]*  **No** *[ ]*  |
| Is the requested PBN specification listed in the list of applicable Ops Specs within the introduction of the OM-A? **Yes** *[ ]*  **No** *[ ]* **HCAA Note**: The applicable Ops Spec shall be linked to those aircraft registrations that are eligible for this type of operation.  |
| Does the Organisation established procedures for updating the NAV Database in line with the ARINC cycle (\*\*)? **Yes** *[ ]*  **No** *[ ]*  |
| Is there within OM-A 5.1. a description of the required licence, rating(s), qualification/competency (e.g. for routes and aerodromes), experience, training, checking and recent experience for operations personnel to conduct their duties has to be entered. **Yes** [ ]  **No [ ]**  |
| **6.2 Does the operating procedures specify:** |
| - the equipment to be carried, including its operating limitations and appropriate entries in the MEL(\*);**Yes** *[ ]*  **No** *[ ]*  |
| - flight planning (\*\*);**Yes** *[ ]*  **No** *[ ]*  |
| - pre-flight procedures (\*\*); **Yes** *[ ]*  **No** *[ ]*  |
| - procedures prior to airspace entry (\*\*);**Yes** *[ ]*  **No** *[ ]*  |
| - in-flight procedures (\*\*);**Yes** *[ ]*  **No** *[ ]*  |
| - post-flight procedures (\*\*);**Yes** *[ ]*  **No** *[ ]*  |
| - incident reporting (\*\*);**Yes** *[ ]*  **No** *[ ]*  |
| - specific regional operating procedures (\*\*).**Yes** *[ ]*  **No** *[ ]*  |
| Where applicable, a minimum equipment list (MEL), adapted from the master minimum equipment list (MMEL), should include items pertinent to operating in PBN operation (\*).**Yes** *[ ]*  **No** *[ ]*  |
| Does the Operation Manual refers to the Equipment: that must be checked “operational” prior entering -Airspace (\*\*) ?: **Yes** *[ ]*  **No** *[ ]*  |
| **6.3 Training** |
| Does the Organisation established a training programme for the flight crew members involved in these operations (\*\*) ?**Yes** [ ]  **No** [ ]  |
| Does the Organisation established a training syllabi for initial and recurrent training programmes together with other relevant material (\*\*)?**Yes** [ ]  **No** [ ]  |
| Does the PBN-Training correctly integrated (\*\*)?**Yes** *[ ]*  **No** *[ ]*  |
| The PBN-Training Module must contain comprehensive instruction of basic knowledge and operational procedures to get familiar with all aspects of operations within PBN-Airspace (\*\*).**Yes** *[ ]*  **No** *[ ]*  |
| The PBN Training must define Theoretical training and Practical items **Yes** [ ]  **No [ ]**  |
| **Yes** *[ ]*  **No** *[ ]*  |
| **6.4 Reporting** |
| **Yes** *[ ]*  **No** *[ ]*  |
|   |
|  **Documents to be submitted** |
|  | ***Appl.*** | ***Not Appl.*** |
| **Note 1** : (\*) Items marked with one asterisk the required evidence must be submitted for each aircraft applying for PBN approval .**Note 2 : (\*\*)** Items marked with two asterisks may not be submitted provided that the evidences required have been submitted to HCAA / D2 in a previous application for PBN operational approval of the same type and have not been modified. |  |  |
| **7. Applicant Compliance statement** |
| **I hereby declare that all documentation and information submitted have been verified and found in compliance with Regulation (EC) No 1139/2018 , its Implementing Rules and all other applicable requirements / procedures.**  |
| **Continuing Airworthiness Manager****(name)** |  | **(Signature)****Date** |
| **CAMO Quality Manager** **(name)** |  | **(Signature)****Date** |
| **Flight Operation Manager****(name)** |  | **(Signature)****Date**  |
|  |
| **Flight Training Manager****(name)** |  | **(Signature)****Date**  |

**VM Notes:**

1. *FOCA Operations Certification Leaflet P-RNAV*



1. ***Note: In the event that the RNAV SID/STAR is based on GNSS but the specific P-RNAV approval for the given aircraft is based on DME/DME or VOR/DME, the crew should not attempt to execute such a procedure.***
2. ***RAIM availability respectively the availability of sufficient Satellites for the time where the aircraft is planned to be operated within the P-RNAV covering +/- 15 Minutes of the estimated time where operation takes place therein. RAIM availability prediction services may be provided to users by the air navigation service provider (ANSP), an avionics manufacturer or other entities such as Eurocontrol AUGUR, or US Coastguard;***
3.

