

**DEPARTMENT OF CIVIL AVIATION  
MALAYSIA  
AIRWORTHINESS NOTICE**

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Date: 15 May 2005

**REQUIREMENTS AND PROCEDURES FOR GRANT OF AIRWORTHINESS APPROVALS FOR REDUCED VERTICAL SEPARATION MINIMUM (RVSM), REQUIRED NAVIGATION PERFORMANCE (RNP) AND EUROPE BASIC AREA NAVIGATION (BRNAV)**

**1. Applicability**

This notice is applicable to Malaysian civil aircraft, operating international flights into areas designated for Reduced Vertical Separation Minimum (RVSM), Required Navigation Performance (RNP) and Europe Basic Area Navigation (BRNAV).

**2. Definitions:**

- 2.1 Reduced Vertical Separation Minimum (RVSM) means vertical separation between aircraft of 300m (1000ft) between FL 290 and FL 410 both inclusive.
- 2.2 Required Navigation Performance (RNP) means the required navigation performance accuracy necessary for operation within a defined airspace. The accuracy is expressed as a single parameter – the containment value. The containment value is the distance from the intended position within which, flights would be found for at least 95% of the time. For example, if the accuracy of an RNP type is 10nm (RNP-10) it is assumed that, for 95% of the total flying time, an aircraft would maintain a lateral position within 10nm of its air traffic control (ATC) cleared position
- 2.3 Basic Area Navigation (BRNAV) is basically the European airspace requirement where aircraft built or modified with the approved navigation systems with the capability of position updating from traditional radio aids will have an RNP-4 capability.

**3. Approval Process**

It is an ICAO requirement that the state of registry of the aircraft to maintain an approval process for grant of each operational approval prior to flights into the designated regions. The approval process consists of 2 steps i.e. airworthiness approval and operational approval. This notice specifically addresses the airworthiness approval process only, and is a prerequisite for operational approval. The operational approval is the responsibility of the Flight and Licensing Division and the Airworthiness Division will make a recommendation for operational approval after all the airworthiness requirements are satisfied.

**Note 1:** An airworthiness approval in itself does not qualify an aircraft to fully operational, and the Airworthiness Division does not issue a separate certificate for each qualified aircraft.

**4. Requirements**

In consistent with the intent of Airworthiness Notices No. 1, approval will be granted based on the minimum aircraft system performance specification (MASPS) from the authority of type design of the aircraft. The following are the acceptable document references required for each approval and as applicable, compliance to the requirements specified in each referenced document must be satisfied.

- 4.1 **RVSM**  
Aircraft made to FAR requirements need to comply with the airworthiness requirements specified in FAA Doc. 91-RVSM, Interim Guidance Material for RVSM. The equivalent guidance material from JAA (Temporary Guidance Leaflet No. 6) will need to be complied with for aircraft made under JAA. The basic technical criteria of this leaflet will be identical to that previously published in JAA Information Leaflet No 23, which it replaces.
- 4.2 **RNP-10**  
Aircraft made to FAR requirements need to comply with the airworthiness requirements specified in FAA Order: 8400-12A, Required Navigation Performance 10 (RNP-10), Operational Approval. The equivalent guidance material from JAA, as applicable, will need to be complied with for aircraft made under JAA.
- 4.3 **BRNAV**  
Aircraft shall comply with JAA Administrative and Guidance Material, Leaflet No. 2, Rev 1: AMJ 20X2.

**Note 2:** As applicable to paragraph 4.1 to 4.3 above, aircraft made to EASA rules shall comply with the applicable airworthiness requirements of EASA for that particular type of aircraft.

Application for approvals for aircraft originating from other than FAA and JAA will require further detailed investigation by the DCA, and will be reviewed on a case by case basis.

Aircraft that requires modification to qualify for any of the above approvals must be modified in accordance with manufacturer's approved data package. This data package will be subjected to review and acceptance by the DCA. Approval of modification shall be in accordance with Airworthiness Notice No 78.

**Note 3:** It is encouraged that operators request for a pre-application meeting with the DCA before applying for any of the above approvals.

## **5. Continuing Airworthiness**

In order to maintain the integrity of the design features and to ensure that the aircraft systems continue to meet the specified standards, operator are required to review its maintenance procedures and address all aspects of continuing airworthiness. As part of the application for airworthiness approval, the operator should submit an amendment to the aircraft Maintenance Schedule (MS). The MS amendment must be traceable to the Maintenance Planning Document (MPD), or any equivalent document issued by the aircraft manufacturer. The basis for certification should be stated in the aircraft flight manual (AFM), together with any system limitations. The AFM shall also provide the appropriate system operating and emergency procedures applicable to the equipment installed.

Operator should demonstrate that adequate maintenance facilities are available to ensure continued compliance with the RVSM maintenance requirements.

Operator should ensure that all appropriately licensed engineers and/or approval holders are adequately trained. Emphasis on the training shall be on the differences and additional maintenance requirements for each approval.

For operators who engage maintenance contractors for maintenance of their aircraft must ensure that the maintenance contractors are capable and their personnel appropriately trained.

## **6. Documents**

The following documents shall be reviewed as appropriate for airworthiness approval.

- 6.1 Maintenance Manual
- 6.2 Structural Repair Manual
- 6.3 Standard Practices Manual
- 6.4 Illustrated Parts Catalog
- 6.5 Maintenance Schedule
- 6.6 MMEL / MEL
- 6.7 Flight Manual / Flight Manual Supplement

The above documents must be revised and/or updated and available for each aircraft type.

## **7. Tools and Test Equipment**

Operator shall have at their disposal the tools and test equipment required to maintain aircraft to the approval standards. Test equipment shall be calibrated utilizing reference standard whose calibration is certified as being traceable to the national standards, or standards acceptable by the DCA. Calibration shall be carried out at periodic intervals and up to required accuracy.

## **8. Application**

Application for airworthiness approval shall be made in writing to Director of Airworthiness, DCA. An engineering declaration shall accompany the application for each approval sought (see Appendix 1 of this notice). The declaration shall include, but not limited to, the following information;

- 8.1 documentary evidence that indicate that the aircraft is equipped and has complied with the requirements specified.
- 8.2 documentary evidence be shown that items specified in the Appendix 1 have been complied with.
- 8.3 continuing airworthiness requirements (maintenance procedures, tooling and training) have been met if not already shown in paragraph 8.2.

## **9. Cancellation**

This notice cancels Airworthiness Notice No. 77 Issue 2, dated 1 October 2002.

DIRECTOR GENERAL  
DEPARTMENT OF CIVIL AVIATION  
MALAYSIA