PROCEDURE FOR APPROVAL OF MAINTENANCE REQUIREMENTS FOR OPERATION IN AIRSPACE WHERE REDUCED VERTICAL SEPARATION MINIMA IS APPLIED

1.0 PURPOSE

This Order is issued to provide guidance and information to airworthiness inspector when approving application to conduct flights in air space where Reduced Vertical Separation Minima (RVSM) is a requirement. It contains guidance on airworthiness, continuing airworthiness and operation programs for RVSM operations.

2.0 REFERENCES

2.1 Regulation. 16 of the Civil Aviation (Instruments and Equipment) Regulations as amended
2.2 Regulation 113 of the Civil Aviation (Operation of Aircraft) Regulations as amended
2.3 ICAO Doc. 9574 as amended

3.0 GUIDANCE AND PROCEDURES

3.1 General

Aircraft and operators will be approved by the Authority to conduct operations in RVSM airspace. The criteria used to issue this authorization consist of three basic elements as follows:
(a) An aircraft will have to comply with:

1) Regulations 12, 15, 16 of the Civil Aviation (Instruments and Equipments) Regulations. As amended

2) Regulation 113 of the Civil Aviation (Operation of Aircrafts) Regulations. As amended

(b) The operator’s maintenance programme will be required to comply with the applicable regulations.

3.2 Responsibilities

3.2.1 The evaluation of the aircraft, maintenance programme, and operator’s programme is coordinated between airworthiness and flight operations to enable issuance of OpSpecs authorizing the operator to conduct flight in RVSM airspace.

3.2.2 The Inspector shall submit the RVSM application and all aircraft eligibility documents, evidence of capability of operating and an RVSM maintenance programme for maintaining each aircraft or aircraft group to which the application relates for approval.

3.3 Aircraft Compliance

3.3.1 An aircraft may be authorized to conduct RVSM operations if the Authority finds that it complies with the RVSM requirements as set out in the paragraph 3.1. The operator shall ensure all relevant Service Bulletins (SB), Service Letters (SL), or Supplemental Type Certificates (STC), which apply to the specific aircraft type or group as applicable have been complied with.

3.3.2 Aircraft compliance review:

The Authorities airworthiness section will determine aircraft RVSM compliance after reviewing the aircraft RVSM documentation as follows.

(a) **In-Service Aircraft.** Ensures that the inspections and/or modifications required for aircraft compliance have been performed and documented;

(b) **Equipment.** Verify that the aircraft has the required equipment in accordance with Reg. 16 of the Civil Aviation (Instruments and Equipment) Regulations.

(c) **In-Production or New Production Aircraft.** Ensures that RVSM compliance is stated in the aircraft flight manual (AFM) or aircraft Type Certificate Data Sheet (TCDS).

3.3.3 The RVSM compliant aircraft equipment must include at least the following:

(i) Two independent altitude measurement systems. Each system should include:

a) Cross-coupled static source/system, with ice protection if located in areas subject to ice accretion.

b) Equipment for measuring static pressure sensed by static source, conveying it to pressure altitude and displaying the pressure altitude to the flight crew.
c) Equipment for providing a digitally encoded signal corresponding to the displayed pressure altitude, for automatic altitude reporting purposes.

d) Static source error correction (SSES).

e) Signals referenced to a pilot selected altitude for automatic control and alerting.

(ii) One secondary surveillance radar transponder with an altitude reporting
System that can be connected to the altitude measurement system in use for altitude keeping.

(iii) An altitude alerting system.

(iv) An automatic altitude control system.

3.4 RVSM Maintenance Programme

3.4.1 The RVSM maintenance programme must outline procedures to maintain aircraft in accordance with the requirements. The approved RVSM maintenance programme may be a stand alone or part of the standard aircraft maintenance programme.

3.4.2 RVSM maintenance programme elements are specific to the operator and aircraft for which they are approved and are not transferable.

3.4.3 Each RVSM maintenance programme must include the following:

(a) Identification of components considered to be RVSM critical, and identification of structural areas noted as RVSM critical areas;

(b) The name or title of the responsible person who will ensure that the aircraft is maintained in accordance with the approved programme;

(c) The method the operator will use to ensure that all personnel performing maintenance on the RVSM system are properly trained, qualified, and knowledgeable of that specific system;

(d) The method the operator will use to notify the crew if the aircraft has been restricted from RVSM but is airworthy for an intended flight;

(e) The method the operator will use to ensure conformance to the RVSM maintenance standards, including the use of calibrated and appropriate test equipment and a quality assurance programme for ensuring continuing accuracy and reliability of test equipment, especially when outsourced;

(f) The method the operator will use to verify that components and parts are eligible for installation in the RVSM system, as well as to prevent ineligible components or parts from being installed;

(g) The method the operator will use to return an aircraft to service after maintenance has been performed on an RVSM component/system or after the aircraft was determined to be non-compliant;
(h) Periodic inspections, functional flight tests, and maintenance and inspection procedures with acceptable maintenance practices for ensuring continued compliance with the RVSM aircraft requirements;

**Note 1:** These elements may be listed in detail or described by reference to an acceptable programme that is identified and controlled by revision or issue number

**Note 2:** The need for functional flight tests may be limited to only after repairs or modifications that are deemed to warrant such testing and may be accomplished through monitoring height-keeping performance

(i) The maintenance requirements listed in Instructions for Continued Airworthiness (ICA) associated with any RVSM associated component or modification;

(j) Any other maintenance requirement that needs to be incorporated to ensure continued compliance with RVSM requirements.

3.4.4 Upon establishing that an aircraft and the maintenance program are RVSM-compliant, airworthiness section will notify operation section.

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Civil Aviation Authority