

## CHAPTER 5. EVALUATE OPERATOR'S APPLICATION TO CONDUCT FLIGHT IN AIRSPACE WHERE REDUCED VERTICAL SEPARATION MINIMUMS ARE APPLIED

### SECTION 1. BACKGROUND

#### 1. PROGRAM TRACKING AND REPORTING SUBSYSTEM (PTRS) ACTIVITY CODES.

- A. Operations:* 1411, 1413
- B. Maintenance:* 3411, 3413
- C. Avionics:* 5411, 5413
- D. ATOS Element:* 5.1.9

**3. OBJECTIVE.** This chapter provides guidance for evaluating applications for an operator to conduct flight in airspace where Reduced Vertical Separation Minimums (RVSM) is applied, evaluating and approving RVSM maintenance programs associated with an application, and issuing operations specifications (OpSpecs) or a Letter of Authorization (LOA), as appropriate.

#### 5. GENERAL.

*A. Requirements.* The current regulation in Title 14 of the Code of Federal Regulations (14 CFR) part 91, appendix G, states the requirements an operator and the operator's aircraft must comply with for a person to operate a civil aircraft of U.S. registry in RVSM airspace.

*B. Authorization.* Aircraft and operators must be authorized by the Administrator to conduct operations in RVSM airspace. The criteria evaluated to issue this authorization consists of three basic elements:

- An aircraft must be determined to comply with the requirements of part 91, appendix G, section 2
- The operator's maintenance program must be found to comply with the requirements of part 91, appendix G, section 3
- The operator must be found to have adopted RVSM operating policies and procedures for pilots and, if applicable, dispatchers, that are acceptable to the Federal Aviation Administration (FAA)

#### *C. Responsibilities.*

(1) The evaluation of the aircraft, maintenance program, and operator's program should be coordinated between Avionics/Maintenance airworthiness safety inspectors (ASI), and operations ASIs. Either the principal avionics inspector (PAI) or principal maintenance inspector (PMI) will make the determination of an aircraft's compliance. Either the PAI or PMI will evaluate the operator's maintenance program for approval by the Administrator. The principal operations inspector (POI) will evaluate and accept the required program operational elements. The Flight Standards District Office (FSDO) or certificate management office (CMO) manager will issue an OpSpecs or LOA, as appropriate, to authorize an operator to conduct flight in RVSM airspace.

(2) The applicant will obtain and submit all documents that establish the eligibility of its aircraft. The applicant will submit to the FAA evidence that it is capable of operating and maintaining each aircraft or aircraft group for which it applies, and an RVSM maintenance program for approval. The applicant will establish that each pilot has an adequate knowledge of RVSM requirements and procedures. The applicant may also be required to submit for acceptance RVSM policy and procedures, and its initial and recurring pilot training requirements.

#### 7. AIRCRAFT COMPLIANCE.

*A.* Aircraft may be authorized to conduct RVSM operations if the Administrator finds that it complies with the requirements of part 91, appendix G, section 2. Aircraft may be produced RVSM-compliant or brought into compliance through the application of FAA-approved Service Bulletins (SB), Service Letters (SL), or Supplemental Type Certificates (STC),

which apply to the specific aircraft type or group and, if applicable, the specific aircraft serial number.

B. The PAI or PMI makes the determination of aircraft RVSM compliance after reviewing the aircraft RVSM documentation.

(1) *In-Service Aircraft.* The PAI/PMI ensures that the inspections and/or modifications required for aircraft compliance have been performed and documented.

(2) *In-Production or New Production Aircraft.* The PAI/PMI ensures that RVSM compliance is stated in the aircraft flight manual (AFM) or aircraft Type Certificate Data Sheet (TCDS).

**NOTE: The determination that an aircraft is RVSM-compliant may be accomplished entirely through the examination of documents and/or data. Physical inspection of an airframe may not be required if the submitted documentation is sufficient.**

C. Upon determination that an aircraft is RVSM-compliant, the PAI/PMI will make the appropriate PTRS entry and notify the applicant in writing. Aircraft found to be RVSM-compliant are listed in the U.S. RVSM Approvals Database (as a result of the inspector's PTRS entry).

## 9. MAINTENANCE PROGRAM.

A. The application for authorization to operate within RVSM airspace must include an approved RVSM maintenance program. This program must outline procedures to maintain aircraft in accordance with the requirements of part 91, appendix G.

B. Operators without an approved aircraft maintenance program are required to develop and obtain approval of an RVSM maintenance program. The approved RVSM maintenance program is *not* required to include elements not related to RVSM maintenance. Inspection programs such as an Approved Aircraft Inspection Program (AAIP) or manufacturer's recommended inspection program do *not* satisfy the RVSM requirements because they do not contain procedures to maintain RVSM aircraft. Operators who maintain their aircraft under a continuous airworthiness maintenance program (CAMP) may choose to incorporate the RVSM maintenance requirements into the program. Part 121 operators currently under Air (ATOS) should develop

RVSM maintenance programs using the Safety Attribute Inspection (SAI) Job Aid 5.1.9.

C. The ASI will indicate approval of the RVSM maintenance program. The approved RVSM maintenance program elements are specific to the operator and aircraft for which they are approved and are not transferable.

D. Each RVSM maintenance program must include the following:

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

(2) The name or title of the responsible person who will ensure that the aircraft is maintained in accordance with the approved program.

(3) 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.

(4) 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.

(5) 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 program for ensuring continuing accuracy and reliability of test equipment, especially when outsourced.

(6) 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.

(7) 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.

(8) Periodic inspections, functional flight tests, and maintenance and inspection procedures with acceptable maintenance practices for ensuring continued compliance with the RVSM aircraft requirements.

- These elements may be listed in detail or described by reference to an acceptable program that is identified and controlled by revision or issue number

- 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

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

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

*E.* Operators using the services of FAA part 145 certificated repair stations must include provisions to ensure that the requirements of their RVSM programs are being met.

## **11. OPERATOR EVALUATION.**

*A.* To obtain authorization from the Administrator to conduct operations in RVSM airspace, the operator

must be found to have adopted RVSM operating policies and procedures for pilots and, if applicable, dispatchers, and ensure each pilot has adequate knowledge of RVSM requirements, policies, and procedures. The Minimum Equipment List (MEL), if used, must incorporate the required changes stated in Master Minimum Equipment List (MMEL) GC-59 (formerly policy letter PL-84), dated August 15, 1997.

*B.* The appropriate FSDO or CMO manager, in coordination with the PAI, PMI, and POI, will issue the OpSpecs or LOA after determination of aircraft compliance, approval of the RVSM maintenance program, and acceptance of operator policies and procedures. Upon issuance, the POI will make the appropriate PTRS entry. Operators issued authorizations are listed in the U.S. RVSM Approvals Database (as a result of the inspector's PTRS entry).

*C.* An applicant who operates under 14 CFR part 121 or 135 must submit for approval the initial and recurrent pilot training requirements and RVSM policies and procedures that will enable it to conduct RVSM operations safely.

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## SECTION 2. PROCEDURES

### 1. PREREQUISITES AND COORDINATION REQUIREMENTS.

#### A. Prerequisites:

- Knowledge of the regulatory requirements of 14 CFR part 91, appendix G, as applicable
- Successful completion of the General/Air Carrier Airworthiness Safety Inspectors Indoctrination course, or equivalent

B. *Coordination.* This task requires coordination between Airworthiness and Operations ASIs.

### 3. REFERENCES, FORMS, AND JOB AIDS.

#### A. References:

- 14 CFR parts 43, 91, 145, 121, 125, 135
- Interim Guidance (IG) 91-RVSM, Interim Guidance Material on the Approval of Operators/Aircraft for RVSM Operations, Change 1
- HBAAT 99-11A/HBGA 99-17A, Approval of Aircraft and Operators for Flight in Airspace Above Flight Level (FL) 290 Where a 1,000 Foot Vertical Separation is Applied

B. *Forms.* None.

C. *Job Aids.* SAI Job Aid 5.1.9.

### 5. PROCEDURES.

#### A. *Determination of Aircraft Compliance.*

(1) Determine if the aircraft meets the requirements of part 91, appendix G, section 2 and is RVSM-compliant.

(2) Review the aircraft documentation to identify references to RVSM capability. For in-service aircraft, ensure that all required elements of the Aircraft Certification Office (ACO) approved data package through which RVSM airworthiness approval is sought have been applied. This data package may consist of SBs, SLs, or STCs. For in-production or new-production aircraft, either the aircraft TCDS or flight manual will state RVSM compliance.

(3) If sufficient documentation is available, a determination of compliance may be made entirely through the examination of documents and/or data.

Physical inspection of an airframe may not be required.

B. *Evaluation and Approval of Operator's RVSM Maintenance Program.* Review the RVSM maintenance program to ensure that it contains the following:

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

(2) The name or title of the responsible person who will ensure that the aircraft is maintained in accordance with the approved program.

(3) 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.

(4) 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.

(5) 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 program for ensuring continuing accuracy and reliability of test equipment, especially when outsourced.

(6) 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.

(7) 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.

(8) Periodic inspections, functional flight tests, and maintenance and inspection procedures with acceptable maintenance practices for ensuring continued compliance with the RVSM aircraft requirements.

**NOTE: The need for functional flight tests may be limited to only after repairs or modifications that are deemed to warrant such testing.**

(9) The maintenance requirements listed in ICA's associated with any RVSM associated component or modification.

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

*C. Operator Authorization.* Provide assistance to the Operations ASI as required.

## 7. TASK OUTCOMES.

### *A. Determine Aircraft RVSM Compliance.*

(1) If it is determined that an aircraft is RVSM-compliant, the PAI or PMI will make an entry in the PTRS with date of modification or RVSM compliance date in comment field, and notify the applicant in writing. The activity code for this work function will be 3411 (Maintenance) or 5411 (Avionics) for initial airframe acceptance (determination of compliance). Either PTRS entry will result in the aircraft being listed as RVSM-compliant in the U.S. RVSM Approvals Database.

(2) If it is determined that an aircraft is not RVSM-compliant, advise the operator/applicant by letter of the determination with an explanation.

### *B. Approve or Reject Aircraft Maintenance Program/Revision.*

(1) Upon approval or rejection of the applicant's RVSM program, the PAI or PMI will make an entry in the PTRS and notify the applicant. The

activity code for this work function will be 3413 (Maintenance) or 5413 (Avionics).

(2) If it is determined that the RVSM maintenance program or revision meets all of the regulatory requirements, the approval process is as follows:

(a) Approved maintenance programs shall include a list of effective pages and a revision log as future revisions are incorporated.

(b) Indicate approval of RVSM maintenance program elements that will be incorporated into an existing accepted or approved program for each element or group of elements by the inspector's signature, date of approval, office name, number, and location.

(c) Indicate approval of RVSM maintenance programs submitted as stand-alone on the cover page of the program together with the date of approval, inspector's signature, office name, number and location. Stamp each succeeding page with the district office stamp, and date and initial it.

(d) Other approval controls may be used.

(3) If it is determined that the aircraft maintenance program/revision is not acceptable, advise the operator/applicant by letter that the program is rejected. Return it to the operator/applicant with the reasons for the rejection.

**9. FUTURE ACTIVITIES.** None.