

Use of ADS-B Out to Support RVSM Operations

RVSM ADS-B Rulemaking

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**Federal Aviation
Administration**

Background

- **Recognizes the maturity of the RVSM aircraft fleet and operators.**
- **Utilizes enhancements in aircraft monitoring using ADS-B Out.**
- **Recognizes the burden and expense of the current RVSM application process.**
- **Focuses on a robust aircraft RVSM performance monitoring program.**



Proposed Change

- **Revises the RVSM authorization process for U.S. registered operators:**
 - Amends 14 CFR part 91, Appendix G by adding a new section 9 (*Aircraft Equipped with ADS-B Out*).
 - There are no changes proposed to 14 CFR §§ 91.180 or 91.706 requiring RVSM authorization.
- **Eliminates the requirement for operators to make application to the FAA when:**
 - The aircraft is RVSM compliant.
 - Equipped with a qualified Automatic Dependent Surveillance – Broadcast (ADS-B) Out system.
 - Meets height-keeping performance requirements for operations in RVSM airspace.
 - Pilots are knowledgeable of RVSM requirements, policies and procedures, iaw Section 4 (*RVSM Operations*) of Appendix G



ADS-B Out

- **Aircraft must be equipped with ADS-B Out:**
 - Meeting the requirements of 14 CFR § 91.227 (ver.2).
- **Use ADS-B Out to conduct height-keeping performance monitoring:**
 - Utilize the geometric altitude and other information transmitted by ADS-B Out in Altimetry System Error (ASE) calculations.
 - Height monitor qualified aircraft on a continual basis whenever operating at RVSM altitudes.
- **RVSM performance requirement:**
 - The ASE of the aircraft does not exceed 200 feet when operating in RVSM Airspace (Appendix G, section 9b).



ADS-B Section 9 Height Monitoring

- **RVSM aircraft must participate in height-keeping performance monitoring programs:**
 - ADS-B Out aircraft will be monitored during normal operations whenever operating at RVSM altitudes in ADS-B airspace.
 - All aircraft in an operator's section 9 fleet must have been monitored within the previous 24 months and found to be in compliance.
 - U.S.-registered operators may obtain monitoring performance from the FAA height-keeping performance website at https://www.faa.gov/air_traffic/separation_standards/naarmo/.



Section 3 Operator Authorization

- **Specific approval may be obtained via Operation Specifications (OpSpecs), Management Specifications (Mspeccs), or Letters of Authorization (LOAs) for:**
 - Operators of airplanes not routinely operating in airspace where sufficient ADS-B data is available to the FAA to determine RVSM performance; or
 - When a foreign country requires a specific approval.
- **The FAA will develop a plan to transition from specific approvals when it is appropriate to do so:**
 - The FAA will not terminate a B046 authorization without coordinating with the operator.



Questions ?



RVSM Compliant Aircraft

- **An aircraft is an “RVSM-Compliant Aircraft” when:**
 - The aircraft design ensures the aircraft will meet RVSM performance requirements, and
 - The aircraft has been properly maintained on an on-going basis to conduct such operations.
- **Aircraft may be:**
 - Manufactured RVSM-compliant
 - Brought into compliance through the application of appropriate Service Bulletins (SB), Service Letters (SL), Engineering Change Orders (ECO), or Supplemental Type Certificates (STCs).



RVSM Authorizations

- **11,437 RVSM Authorizations Issued**
 - 10,774 Part 91
 - 58 Part 121
 - 635 Part 135, 125, 125M, 91K
- **22,000+ Aircraft**

