

Automatic Dependent Surveillance – Broadcast (ADS-B) Out in Support of Reduced Vertical Separation Minimum (RVSM) Operations

Frequently Asked Questions

Is ADS-B Out used in lieu of meeting RVSM requirements?

ADS-B Out provides position information to facilitate monitoring the aircraft's altitude-keeping performance. The ADS-B Out system does not affect the ability of the aircraft to meet RVSM altimetry system performance requirements. Any discussions that reflect the suggestion that the rule change is about using ADS-B Out in lieu of RVSM performance standards should be wholly rejected. Adding ADS-B Out to a non-RVSM compliant aircraft will not make it an RVSM compliant aircraft, nor will ADS-B Out alone ensure vertical separation from other aircraft.

Can you operate in RVSM airspace outside U.S. airspace under the provisions of part 91, Appendix G, section 9?

No. When intending to conduct RVSM operations in international airspace or where a foreign State authority requires RVSM specific operational approval the operator must obtain an OpSpec/MSpec/LOA (specific authorization) even if meeting the provisions in Appendix G, section 9. (14 CFR 91.703, 91.706)

Can an operator, in an experimental aircraft, operate in RVSM airspace (1000' separation standard) if equipped with ADS-B Out.

An operator may file a "w" in field 10 of the ICAO flight plan and operate in U.S. RVSM airspace with 1000' separation if they meet the appropriate provisions of Part 91 Appendix G including Section 9, regardless of the airworthiness certificate they hold (Standard or Special such as for experimental operations). The limitations section of the permit/certificate must not preclude operation in RVSM airspace.

Appendix G, section 3 authorizes specific operators to operate aircraft with FAA certified designs that meet the specifications of Appendix G section 2 to operate filing /W. Appendix G section 9 authorizes operators of aircraft equipped with ADS-B OUT systems capable of maintaining an altimetry system error performance standard of not to exceed 200' to operate filing "w". It is important to note that ADS-B out provides continual ASE monitoring of an aircraft but does nothing to assure required ASE performance.

An operator of a properly equipped and maintained aircraft with a certified RVSM design has reasonable assurance their aircraft ASE will not exceed 200'. An operator of a properly equipped and maintained aircraft that does not hold a RVSM certified

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design will need to complete appropriate engineering analysis and testing to assure their aircraft ASE will not exceed 200'. An aircraft operated as RVSM compliant (filing /W) under section 9 that exceeds 200' ASE will be out-of-compliance with the rule and could also lead to investigation for reckless and or unsafe operations.

Do not include “w” in field 10 of the ICAO flight plan when not meeting the provisions of 14 CFR part 91, Appendix G, including operating outside U.S. airspace, if not specifically authorized. See 14 CFR part 91, Appendix G 4(b).

Does an aircraft operating with an OpSpec/MSpec/LOA but equipped with ADS-B Out need to fly over an AGHME, or other ground based station, for RVSM height monitoring?

No. Operators equipped with ADS-B Out (v2) may have their aircraft altitude-keeping performance evaluated using ADS-B Out data from normal RVSM operations in FAA ADS-B monitored airspace. See:

https://www.faa.gov/air_traffic/separation_standards/naarmo/naarmo_documents/AD_SB_Height_Monitoring_Request_Form.pdf

Should an operator file “/w” when the intent is to operate internationally?

1. An operator may operate in RVSM airspace under the provisions of part 91, appendix G, Section 9, without specific authorization and should file /w when doing so.
2. An operator must get an OpSpec/MSpec/LOA when intending to operate RVSM outside U.S. airspace. Once issued that operator can file /w. (14 CFR 91.703 and 91.706)
3. An operator should not file /w when intending to operate in RVSM airspace outside of the U.S., if they do not hold a valid OpSpec/MSpec/LOA.

Note: There is currently no normal procedure for changing your RVSM authorization status in flight. The best option for the operator is to get an RVSM OpSpec/MSpec/LOA prior to operating internationally.