

determined that this group of approximately 380 operators is significantly impacted by this rule.

The following reviews some of the factors associated with the costs of upgrading part 135 aircraft that the FAA considered in the Regulatory Flexibility Analysis (RFA):

- Table 1 of the Regulatory Impact Analysis (RIA) provides projected costs associated with upgrading individual aircraft types. The FAA recognizes that the costs may change. In some cases, the FAA has seen costs decrease as more upgrade options become available. The FAA also recognizes, however, that in the period before the RVSM implementation date competition for upgrade facilities may lead to an increase in costs. Therefore, the FAA concludes that this cost may vary and can only be estimated.

- For the purposes of estimating costs associated with upgrading part 135 aircraft to RVSM standards, the FAA used the conservative assumption in RIA Tables 2 and 3 that all operators will incur upgrade costs during the 15-year cost analysis period, 2002–2016. The FAA recognizes that some operators of high upgrade cost aircraft may elect to fly below flight level 290 for an indefinite period of time. The FAA conducted a study entitled “An Examination of Range and Fuel-Burn Penalties Associated with Operating Business Jet Type Aircraft Beneath Proposed U.S. Domestic Reduced Vertical Separation Minimum (DRVSM) Airspace”. The study is available in the rulemaking docket. The study provides costs for flight operation below 290 for such aircraft. The FAA concluded that the costs associated with flight below flight level 290 are less than that for upgrade. The FAA, therefore, believed that assuming all aircraft would incur upgrade costs was a conservative approach.

- RIA Table 5 provides an estimate of revenue lost to part 135 operators when their aircraft are in service centers undergoing RVSM upgrade. For the purpose of developing this table, the FAA assumed an average aircraft downtime of two weeks. The FAA recognizes that actual downtime can vary in individual situations, however, we believe two weeks to be a reasonable assumption for average downtime. These costs can be mitigated if upgrades occur during other scheduled maintenance.

- In the RFA Affordability Analysis, the FAA recognizes that the 380 part 135 operators will fund upgrade costs from company sources, lenders or through the issuance of equity capital.

- Although in January 2005 approximately 90 per cent of flights in domestic U.S. RVSM airspace are projected to be conducted by RVSM-compliant aircraft, approximately 10 percent of flights that now operate above FL 290 are projected to operate below that level. The FAA recognizes that some operators may not complete RVSM engineering work and FAA Flight Standards office processing by the RVSM implementation date. Such operators retain the option to fly below FL 290 until they receive RVSM authority. FAA flight simulations have shown that the approximate 10 percent increase in traffic below FL 290 can be accommodated without degrading safety.

- The FAA examined the fuel consumption penalties and range limitations associated with flight below FL 290. The study entitled “An Examination of Range and Fuel-Burn Penalties Associated with Operating Business Jet Type Aircraft Beneath Proposed U.S. Domestic Reduced Vertical Separation Minimum (DRVSM) Initial Simulation” is available for review in the docket. Using data from the FAA Enhanced Traffic Management System, the study examined the actual leg lengths and city-pairs that part 135 aircraft fly. The study concluded that part 135 aircraft would incur a fuel consumption penalty of approximately 7.15 percent. The penalty imposes an average annual cost of \$1,147 per airframe or \$3.1 million for the part 135 aircraft population that has not already been upgraded. In addition the study concluded that approximately 92 percent of flights would not require a fuel stop when flown beneath FL 290. The study can be found in the public docket at <http://dms.dot.gov> and searching docket number 12261.

- In the past 7 years of RVSM operations, maintenance costs have not been a significant factor in comparison to initial aircraft approval costs. RVSM required systems are already standard for most aircraft and maintenance is already a requirement for them. The FAA recognizes that RVSM requires additional maintenance measures for some aircraft. However, they have not been factored here because they have not been factors in previous RVSM implementations.

- In the “Costs” section of the “Discussion of Comments”, the FAA states that the residual value of aircraft was not a primary consideration in this rulemaking. The FAA believes that compliance with RVSM standards will actually increase the residual value of some aircraft. The FAA recognizes that aircraft that are not upgraded will

decrease in residual value, however, RVSM is a global program that has been implemented in a large portion of global airspace and operators must plan accordingly.

The analysis of the operators of large transport aircraft shows that of the 22 potential small entity operators identified in the traffic sample, none were determined to have upgrade costs resulting in their being significantly impacted by this rule. However, 380 Part 135 operators are significantly impacted by this rule. Therefore, the FAA has determined that this rule will impact a substantial number of small entities.

Regulatory Flexibility Analysis

Under section 603(b) of the RFA (as amended), each regulatory flexibility analysis is required to address the following points: (1) Reasons why the FAA is considering the rule, (2) the objectives and legal basis for the rule, (3) the kind and number of small entities to which the rule would apply, (4) the projected reporting, record-keeping, and other compliance requirements of the rule, and (5) all Federal rules that may duplicate, overlap, or conflict with the rule.

Reasons Why the FAA Is Implementing This Rule

This rulemaking action will increase the number of available flight levels, enhance airspace capacity, and permit operators to fly more fuel and time efficient tracks and altitudes. The rule will also enhance air traffic controller flexibility by increasing the number of available flight levels, while maintaining an equivalent level of safety.

The Objectives and Legal Basis for the Rule

The objective of this rule is to enhance operational efficiency and air traffic flexibility. Specifically, this rule aims to create flexibility and resultant benefits for operators and air traffic providers. The legal basis for this rule is found in 49 U.S.C. 106(g), 1155, 40103, 40113, 40120, 44101, 44111, 44701, 44709, 44711, 44712, 44715, 44716, 44717, 44722, 46306, 46315, 46316, 46504, 46506–46507, 47122, 47508, 47528–47531, and articles 12 and 29 of the Convention on International Civil Aviation (61 stat. 1180).

The Kind and Number of Small Entities to Which the Rule Will Apply

This rule applies to 70 scheduled airlines operating large transport aircraft under Part 121 of which 22 are small