

operators with 1,500 or fewer employees. In addition, this rule also applies to 380 operators operating under Part 135 with all considered to be small entities. The FAA estimates that 1,900 corporations also operate non-approved turbojet aircraft under Part 91 that will be upgraded for this rule. These aircraft are primarily used for private non-revenue transportation and were considered in the Benefit/Cost analysis.

The Projected Reporting, Recordkeeping, and Other Compliance Requirements of the Rule

Information collection requirements in the final rule have been previously approved by the Office of Management and Budget (OMB) under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)) and have been assigned OMB Control Number: 2120-0679.

The following paperwork costs would be imposed on aircraft operators:

Section 14 CFR part 91, Section 91.180 would require aircraft operators seeking operational approval to conduct RVSM operations within the 48 contiguous States of the United States (U.S.), Alaska, the portion of the Gulf of Mexico where the FAA provides air traffic services, the Miami-San Juan corridor and the San Juan flight information region (FIR), to submit their application to their CHDO. This submission by the estimated 2,275 respondents would require each organization to spend 30 hours on the paperwork at a cost of approximately \$950 for each operator.

All Federal Rules That May Duplicate, Overlap, or Conflict With the Rule

We are unaware of any Federal rules that duplicate, overlap, or conflict with the rule.

Other Considerations:

Affordability Analysis¹

For the purpose of this analysis, the degree to which small entities can afford the cost of compliance is based on the availability of financial resources. Initial

upgrade costs can be funded from company funds, lenders, or through the issuance of equity capital. These compliance costs can be accommodated by accepting reduced profits, increasing ticket prices or charter rates, or through other cost-savings measures to offset costs.

The cost of compliance for the 380 impacted small entity operators is \$211.4 million, or \$556,000.00 per small entity for upgrade costs and \$74.1 million in downtime costs. Small entity operators are expected to enjoy smaller benefits than large transport operators due to their disproportionate cost-benefit ratio of upgrade costs to forecasted benefits. FAA analysis has determined that the average operator will realize a 1.86% fuel saving. However, part 135 operators electing not to upgrade or delay their aircraft upgrade plans would incur on average a 7.15 percent fuel penalty from conducting operations beneath FL290. Although we recognize these upgrade costs have a significant impact on these operators, the operational penalties associated with not upgrading or delaying aircraft upgrade plans do not prevent the operators from continuing to operate.

Disproportionality Analysis²

On average, the 380 small entities will be disadvantaged relative to operators of large transport aircraft due to disproportionate cost impacts. Operators of large transport aircraft enjoy greater revenues than the small entities and typically operate larger fleets. Due to their fleet sizes, large transport aircraft operators enjoy more flexibility to rotate their fleet through the RVSM approval process without a disruption in service while many of the small entities operate only one aircraft. Further, operators of large transport aircraft enjoy having their own maintenance facilities.

² The FAA examined alternatives for operators that do not elect to modify their aircraft to RVSM standards and reached the conclusions discussed below:

Allowing Un-approved Aircraft to Operate Unconditionally in RVSM Airspace. The FAA concluded that it would not be feasible or safe to allow large numbers of un-approved aircraft to operate in RVSM airspace with RVSM approved aircraft. A mix of approved and un-approved aircraft increases ATC complexity, controller work load and the potential for error.

Delaying DRVSM Implementation. It is in the best interest of the majority of the operators and to the overall enhancement of NAS operations to proceed with DRVSM implementation in January 2005. Each year that implementation is delayed will result in the loss of \$394 million dollars in operator benefits and delay enhancements to NAS operations.

Competitiveness Analysis

The 380 small-entity operators do not compete with large transport operators but could experience significant costs through upgrading their aircraft for RVSM operations. However, FAA analysis has shown that aircraft operated under part 135 experience on average a 7.15% reduction in fuel efficiency if they were operated beneath the RVSM stratum. Further, FAA RVSM readiness projections for the January 2005 DRVSM implementation timeframe indicate that the aircraft generating approximately 90% of the operations in the NAS will be approved for RVSM operations. The estimated annual increase in fuel-burn for the projected 10% of non-approved NAS traffic would result in \$103.7 million in total fuel penalties for these operators based on \$18.2 billion in annual fuel consumption for all operations.

Description of Alternatives

We have considered a number of alternatives to the rule. We find that this rule achieves the desired airspace enhancements and delivers the maximum benefits to operators and air traffic providers while maintaining system safety.

The following alternatives to the rule have been considered:

- Status Quo
- Not enforce the rule for small entities
- Delay the rule
- Phased RVSM implementation

Alternative One—Status Quo

This alternative would maintain the current 2,000-foot vertical separation minimum above FL290 thereby avoiding the \$869.2 million (\$764.9 million, discounted) in costs between 2002 and 2004 for the aviation industry and the FAA. However, maintaining the status quo does not provide the desired airspace enhancements for operators and air traffic providers. As noted earlier, the cost savings and NAS operational enhancements are estimated to be \$5.3 billion (\$3.0 billion, discounted) over the 15-year period. Under this alternative, the foregone cost-savings would be more than seven times the cost of this rule. Therefore, we reject this alternative in favor of the rule.

Alternative Two—Not Enforce the Rule for Small Entities

This alternative would permit small operators to operate in RVSM airspace without upgrading their aircraft for such operations. Under this scenario, small operators would avoid \$285.5 million (\$211.4 million in upgrade costs and

¹ Small entity operators have the following options. They may elect to:

- Modify their aircraft to RVSM standards,
- Operate at and below FL 280 for a period of time until they either modify their aircraft or purchase RVSM compliant aircraft,
- Operate at and below FL 280 indefinitely.

In past RVSM implementation programs, some operators have modified their aircraft despite the costs involved. They have taken this decision because they do not wish to operate with a restriction. Instead, they wish to have access to all flight levels up to FL 410 in order to retain all available options to avoid weather, to be accommodated in prevailing traffic flows and to operate at the most fuel efficient FL's and on preferred routes.