

alerts when 1,000-foot vertical separation is applied above FL 290. Version 7.0 generally requires a software modification that is not a major system modification. The cost for this modification has been accounted for in the cost/benefit analysis.

Eligibility of Turbo-propeller Aircraft Operated Under Part 91 and Equipped with a Single RVSM Compliant Altimeter. In the NPRM, we proposed operational and airworthiness criteria for turbo-propeller aircraft operated under part 91 to conduct RVSM operations when equipped with a single RVSM compliant altimeter. In the SNPRM, we proposed withdrawing this option. After considering the SNPRM comments, we have not adopted the provision in this final rule. For the past six years, standards applied worldwide have called for aircraft to be equipped with two RVSM compliant altimeters. We have concluded that different criteria for turbo-propeller aircraft operated under part 91 to conduct RVSM operations should not be adopted. We have determined that adopting this provision would add unnecessary complications to air traffic control in the airspace that borders Canada and Mexico. Those countries have informed us that they will not adopt the provision. We also believe that it is in the best interests of U.S. operators and manufacturers to harmonize with global RVSM standards unless there is adequate justification for a difference. Since the proposal would affect only 0.3 percent of domestic operations, we have concluded that the minor benefit provided is not warranted when considering the major benefits provided by sharing common standards for RVSM operations and air traffic control with neighboring countries and of continued harmonization with global RVSM standards.

Amendment to VFR and IFR Cruising Altitudes At and Above FL 290. This rule revises part 91, Section 91.159 (VFR cruising altitude or flight level) and Section 91.179 (IFR cruising altitude or flight level). The revision to Section 91.159 eliminates reference to VFR flight levels above FL 180. Airspace above FL 180 is established as Positive Control Airspace where aircraft must maintain the altitude or flight level assigned by ATC.

The revision to Section 91.179 revises the altitudes or flight levels that are considered to be appropriate for IFR flight in uncontrolled airspace above FL 290 in airspace where RVSM is implemented. In accordance with RVSM regulations, this revision will provide flight levels that are separated by 1,000

feet vertically based on the direction of flight.

Revision to Deviation Authority Requirements. The rule revises part 91 Appendix G, Section 5 (Deviation Authority Approval). The revision deletes the requirement to submit requests 48 hours in advance in order to operate non-compliant aircraft under a deviation. The revision calls for the request to be submitted in a time and manner acceptable to the FAA. This revision allows us to publish in the Aeronautical Information Manual and appropriate FAA orders procedures and processes that are acceptable in different scenarios and circumstances. We intend to grant deviation authority only in limited circumstances because the presence of unapproved aircraft could affect traffic flow and increase controller workload.

Discussion of Comments

We received 79 comments during the NPRM comment period (67 FR 31920, May 10, 2002) and eight comments during the SNPRM comment period (68 FR 9818, February 28, 2003). The FAA response to comments received on both the NPRM and the SNPRM are provided in the discussion of comments below. During the SNPRM comment period, comments were received from Boeing and Viking Transport. Neither of these comments addressed the two specific issues raised in the SNPRM. Both addressed issues only in the underlying NPRM. The issues in these two comments were considered with similar comments received during the original NPRM period.

Some comments supported the proposed domestic RVSM program and implementation date. Included in the organizations that provided comments supporting the proposal or supporting with minor comments were the Air Transport Association (ATA), United Airlines, American Airlines, Federal Express, American Trans Air, The Boeing Company, Cessna Aircraft Company, the Department of Defense, the Air Traffic Control Association (ATCA), and the Port Authority of New York and New Jersey.

Some comments requested major changes in the domestic RVSM implementation program or expressed reservations. Many of these proposed to delay implementing RVSM for a year or more or to implement RVSM in vertical or geographical phases. Organizations making these proposals included the National Business Aviation Association (NBAA), the General Aviation Manufacturers Association (GAMA), the Aircraft Electronics Association (AEA),

and the Aircraft Owners and Pilots Association (AOPA).

Some commenters expressed opposition to implementing RVSM in the United States. These included a number of small operators.

Some commenters provided comments that expressed concerns about safety or what we would require operators to do before they could operate in RVSM airspace. These included organizations such as the Airline Pilots Association (ALPA), the Allied Pilots Association (APA), and the Coalition of Airline Pilots Association (CAPA).

No SNPRM commenters opposed adding Gulf of Mexico and Atlantic High Offshore and San Juan FIR airspace to the list of RVSM airspaces published in part 91, Appendix G, Section 8.

Most SNPRM comments supported the SNPRM proposal to withdraw the proposal made in the NPRM to allow turbo-propeller aircraft operated under part 91 to equip for RVSM operations with a single RVSM compliant altimeter. Two SNPRM comments opposed withdrawal of the NPRM proposal for part 91 turbo-propeller aircraft.

We also received comments from the National Transportation Safety Board (NTSB) and the Regional Airlines Association (RAA), among others.

Air Traffic Services Issues

1. A number of commenters recommended that the FAA should implement RVSM in the National Airspace System (NAS) in vertical phases. For example, one recommendation was to use one of the following two implementation plans:

a. Implement between FL 350–390 in December 2004; then implement in all RVSM flight levels (FL 290–410) in December 2005 or

b. Implement between FL 310–410 in December 2004; then implement between FL 290–410 in 2010

FAA Response: We discussed in the NPRM the option to implement RVSM in phases. The NPRM noted testing and simulation that caused us to decide against implementing RVSM in vertical phases. Extensive simulation testing of various phased implementation possibilities resulted in significantly increased controller workload and an increased level of operational complexity directly related to phase-in scenarios such as those recommended in the comments. These scenarios were shown to increase the potential for error for controllers. The “Final Report for Domestic Reduced Vertical Separation Minimum (DRVSM) Initial Simulation”