

percentage of flights in the NAS by DoD fighter and bomber aircraft that are unable to meet RVSM standards is projected to be less than 1 percent.

The FAA recognizes the critical nature of the DoD mission to national defense, recognizes that some DoD aircraft types are unable to meet RVSM standards, and plans to accommodate non-compliant DoD aircraft by applying 2,000 foot vertical separation or the appropriate horizontal separation standard to those aircraft. The FAA and DoD already have agreed procedures to coordinate the operation of DoD aircraft on special operations such as formation flights and have developed similar agreements in a joint FAA/DoD Memorandum of Understanding for RVSM operations.

2. ALPA stated that the rule language should be amended to state that non-compliant military aircraft would be provided increased separation.

*FAA Response:* Part 91, Appendix G, Section 5 provides the basic standards for operation of non-compliant aircraft in RVSM airspace. Section 5 permits deviations for a specific flight if air traffic control determines that the aircraft may be provided “\* \* \* appropriate separation \* \* \*”. Controller handbooks define appropriate separation in these circumstances as 2,000 feet vertical separations or the applicable horizontal separation standard.

3. ALPA proposed that the word “civil” be removed from the proposed Section 91.180 to ensure the compliance of military aircraft with RVSM standards.

*FAA Response:* The FAA and DoD have entered into a Memorandum of Understanding that details DoD obligations in RVSM operations in the NAS. The military has used the standards of part 91, Appendix G to approve its aircraft for RVSM operations since the 1997 implementation of RVSM. The FAA/DoD MOU provides adequate assurance that this will continue to be the case.

#### Miscellaneous

1. One commenter proposed that vertical separation could be provided by GPS.

*FAA Response:* The geometric height above the earth provided by GPS is not compatible with the pressure flight level displays provided by pressure altimeters. The geometric height of pressure levels is not constant, but varies during the flight. Since aircraft altitude-keeping and performance are based on pressure levels world-wide, an evolution to altitude-keeping and

vertical separation based on GPS is not possible at this time.

#### Monitoring

1. ALPA raised concerns related to the adequacy of monitoring resources and requested more information on the location and schedule for ground-based Aircraft Geometric Height Measurement Element (AGHME) units.

*FAA Response:* We are planning for AGHME units to be deployed in September of 2003. The FAA Technical Center is conducting studies to establish the most effective location for the units and the number of units necessary to provide adequate coverage. We will inform the aviation community as these studies progress.

We now have 40 portable GPS-based Monitoring Units (GMU) available to conduct monitoring and will acquire 40 enhanced GMUs starting in 2003.

2. ALPA raised concerns that certain operator's may not participate in the monitoring program.

*FAA Response:* Each operator is required to participate in the monitoring program as a condition for obtaining RVSM authority. Since 1997, operators have recognized the importance of monitoring programs and have participated in the programs.

3. One commenter questioned the need for independent monitoring considering RVSM airworthiness standards.

*FAA Response:* The monitoring programs are designed to give authorities an independent assessment of aircraft altitude-keeping performance in a given airspace. The monitoring program has identified aircraft types and individual aircraft that were not performing to RVSM standards. Based on monitoring information, in a small number of cases, the FAA and other authorities have found it necessary to remove RVSM authority for an aircraft type, to revise the aircraft RVSM compliance package, or to require aircraft inspection and maintenance. We believe that monitoring is a valuable tool to confirm that RVSM operations are conducted to standards.

#### Operational Issues

1. A commenter suggested that there is a need for a separate Letter of Authorization (LOA) for domestic-only operators.

*FAA Response:* We believe that the current LOA format can be used to grant multiple authorities for operation in special areas of operation, including the domestic United States. We do not believe it is necessary to develop a separate LOA for domestic RVSM only. In addition, we have published

expanded guidance to explain the use of the LOA.

2. A commenter questioned the practice of engaging the autopilot during RVSM operations.

*FAA Response:* Since 1997, it has been standard practice to engage the autopilot during RVSM operations unless the pilot deems it necessary to do otherwise. Performance standards are established for autopilot systems used in RVSM operations. The purpose of these standards is to ensure acceptable altitude-keeping in RVSM airspace.

3. Several commenters expressed the concern that the FAA should take steps to enhance field inspector training and better standardize processes

*FAA Response:* We believe that an effort is necessary to enhance training, guidance, and standardization for Flight Standards District Offices (FSDOs). We are dedicating resources to accomplish this task.

4. NBAA proposed that operators be granted provisional authority to conduct RVSM operations for 90 days while FSDOs complete the evaluation of the operator's application.

*FAA Response:* We do not agree with this proposal. We believe that each operator's application must be thoroughly evaluated to ensure aircraft compliance and program compliance before the operator conducts RVSM operations.

5. One commenter suggested that the process for an operator acquiring a previously RVSM approved aircraft to obtain LOA should be simplified.

*FAA Response:* We will examine this situation and clarify and simplify the authorization process in this situation.

6. A commenter questioned the necessity to re-issue an LOA to part 91 operators every two years. The rationale was that RVSM would become the standard for daily operations after DRVSM implementation.

*FAA Response:* We believe that this requirement should be reviewed as part of a post implementation review. We will coordinate with industry to address this issue in the year following DRVSM implementation.

#### Safety Issues—General

1. Several commenters expressed the concern that the FAA must perform an adequate safety analysis before DRVSM implementation.

*FAA Response:* The ICAO Review of the General Concept of Separation Panel (RGCSPP), which included FAA representatives, conducted a safety analysis on U.S. domestic operations in the course of developing the worldwide requirements for aircraft altitude-keeping performance. The RGCSPP