

affect the TCAS-related Mode S transponder. It believes that incorporating those requirements into the collision avoidance transponder requirements would avoid future retrofitting. FedEx recommends a compliance date of December 31, 2004, for those reasons.

Several other air carriers suggest a 24-month compliance period to install collision avoidance. The Cargo Airline Association (CAA) and UPS recommend December 31, 2004, but UPS earmarks the extension to allow the certification and orderly installation of ADS-B. The CAA also suggests that the FAA consider a phase-in compliance period, with a certain percentage of airplanes equipped with collision avoidance by October 31, 2003, and 100 percent compliance by December 31, 2004. One individual recommends a compliance date of December 31, 2004, but gives no reason for the extension. The Aerospace Industries Association (AIA) recommends 3 years to coincide with reduced vertical separation minimum (RVSM) operations, and USA Jet Airlines, Inc., recommends a 5-year compliance period to coincide with TAWS and RVSM. Evergreen International Airlines, Inc., recommends that the compliance date coincide with any hijack-mode modifications to transponders.

FAA's Response

When Congress mandated the FAA to require collision avoidance systems for cargo airplanes by December 31, 2002, it also allowed an extension of the compliance date to December 31, 2004. That extension is marked for "a safe and orderly transition to the operation of a fleet of cargo aircraft equipped with collision avoidance equipment; or other safety or public interest." Based on public comments and FAA's rulemaking experience, we have determined that an extension is needed for orderly installation and training associated with this new equipment. This extension meets the intent of Congress. Any suggested compliance date beyond December 31, 2004, is not allowed in the Congressional mandate.

This final rule will require affected operators to install a collision avoidance system on affected airplanes by December 31, 2004. The compliance date is 1 year and 2 months later than the proposed date of October 31, 2003.

As CAA suggested, we did consider a phase-in approach for collision avoidance system compliance, which we have used with other rulemaking projects. We used a phase-in compliance period, for example, the original TCAS rule, and the digital flight

data recorder rule. We found that such a compliance mechanism is labor intensive and difficult to implement. The FAA believes that a phase-in approach is impractical in this case because this rule covers passenger-carrying and cargo airplanes. It is better to allow operators to schedule their own installations.

Grandfathering/Early Compliance

Proposed Rule

In the NPRM, we proposed to allow those operators that had installed TCAS II version 6.04A Enhanced before December 3, 2001 (which has been required for passenger-carrying airplanes for years), to continue operating with that system until it can no longer meet the TCAS II version 6.04A Enhanced technical standard order (TSO C-119a) ("grandfathering"). However, installation of TCAS II for the first time after December 3, 2001 (30 days after the publication date of the NPRM), would have to be TCAS II version 7.0 ("early compliance").

Comments

Some commenters disagree with using the NPRM publication date as a compliance date because it constitutes retroactive compliance. FedEx believes that it contradicts the spirit of due process and effectively reduces the rate of TCAS II installations. It states that some operators planning on installing TCAS II version 6.04A Enhanced on their aircraft may now have to defer installation based on the availability of version 7.0—working against the goal of early equipage. FedEx adds that this requirement would not affect them because they have been installing version 7.0 since December 1, 2001. The CAA also believes that requiring "early compliance" for version 7.0 goes against the interests of early equipage and enhanced safety. It adds that this requirement would cause TCAS II installations to stop or would cause version 6.04A Enhanced to become obsolete at a later date. It states that this compliance requirement would result in fewer TCAS-equipped airplanes in the short run and would disrupt carefully constructed industry compliance schedules.

Eurocontrol takes another point of view in its concern that TCAS II version 6.04A Enhanced units currently in service will not be upgraded on the compliance date or any defined schedule. Its position is that version 7.0 offers important safety and air traffic control (ATC) operational compatibility advantages. It also believes that all airplanes subject to the Congressional

mandate should be required to install version 7.0 and that we should encourage passenger-carrying operators with airplanes already fitted with version 6.04A Enhanced to upgrade to version 7.0.

The Airline Pilots Association (ALPA) strongly supports the proposal to require version 7.0 for first-time installations and to include the early compliance date, crediting the operational improvements gained between version 6.04A Enhanced and 7.0.

AIA interprets the proposal to mean that all airplanes delivered after the publication date of the NPRM must be operated with TCAS II version 7.0. It indicates that Boeing is still delivering TCAS II version 6.04A Enhanced units to domestic carriers that have opted not to upgrade to TCAS II version 7.0. AIA recommends we delete early compliance and encourage operators to convert to version 7.0 as soon as practicable.

FAA's Response

We drafted the proposal so that no operator—passenger or cargo—would be required to retrofit its TCAS II unit to version 7.0 if version 6.04A Enhanced was installed before December 3, 2001. We included the "grandfathering" provision in the proposal as a compromise to requiring a retrofit to version 7.0 for all airplanes requiring TCAS II and have maintained it in the final rule.

The FAA included the "early compliance" provision to prevent new installations of older TCAS equipment, *i.e.*, allow new installations of version 6.04A Enhanced, instead of version 7.0 after the NPRM was published. Although the FAA concerns had validity, commenters have convinced us that the proposed date for early compliance is inappropriate. Consequently, we have amended that provision in the final rule. We believe that realistically, most airplanes will be equipped with version 7.0 before the final compliance date of this rule, even though grandfathering continues to be allowed. This is because many flights are in countries that require TCAS II version 7.0. Operators may also elect to conduct RVSM operations, which requires version 7.0 if the airplane has TCAS II installed.

Some commenters were concerned that the FAA was in effect writing a final rule in the NPRM by using a retroactive installation date for TCAS II version 7.0. We feel that because a newer, improved version is available, all first-time installations should be version 7.0. TCAS II version 7.0 includes a