

airplanes of more than 33,000 lbs. (15,000 kg.) MCTOW operated under part 121, 125, or 129 would be required to be equipped with TCAS II, or equivalent. Turbine-powered airplanes of 33,000 lbs. or less MCTOW operated under part 121, 125, or 129 would be required to be equipped with at least TCAS I, or equivalent. All piston-powered airplanes, regardless of weight, conducting operations under part 121 or 125 would be required to be equipped with at least TCAS I, or equivalent.

Discussion of Comments

The comment period for notice No. 01-12 ended on December 31, 2001. In response to that notice we received 465 comments. The overwhelming majority of commenters were strongly in support of the proposal. Cargo pilots from United Parcel Service (UPS) comprised the largest group of commenters, accounting for 238 comments in favor of the proposal. Other air cargo pilots from DHL, Fed Ex, Kittyhawk Aircargo, and Polar Air Cargo added approximately 100 more comments in favor of the proposal. Passenger carrier pilots, military pilots, and general aviation pilots also commented in favor. Other commenters represent pilot labor unions, pilot associations, air carriers, air carrier associations, an avionics manufacturer, a civil aviation authority, the NTSB, and many nonaffiliated individuals. The FAA reviewed and considered all comments during deliberations of this final rule.

We received approximately 280 comments, half of which were nearly identical in content, expressing very general support of the proposal. Most of these comments did not address specific issues except indicating that the rule would enhance safety for cargo pilots, for persons on the ground, and in the national airspace system. One person in this group of commenters states that there should be no distinction between cargo and passenger aircraft regarding the collision avoidance systems installed. Another commenter feels there is no equipment that exceeds the value of TCAS. One commenter adds that requiring consistent TCAS rules across all fleets just makes good sense. Several commenters echoed that sentiment citing the need for "one level of safety" for passenger and cargo airplanes, regardless of how many occupants are carried. Many of these commenters urge the FAA to issue the final rule as soon as possible and indicate that this rule is long overdue.

Nearly all commenters were supportive of the general concepts of the proposal; however, some included specific concerns related to: (1) The

compliance period, (2) the requirement for TCAS II, version 7.0, (3) alternative systems to TCAS, (4) transponder requirements, (5) aircraft performance capability to respond to resolution alerts (RAs), and (6) the cost of the rule. The strongest criticism of the proposed rule came from four supporters of automatic dependent surveillance-broadcast (ADS-B) and from those who believe the rule is not necessary for some piston-powered airplanes. Some commenters urge us to seriously consider the capabilities of ADS-B as an alternative to TCAS. One commenter states the proposal would not improve safety in the national airspace system because the rule's restrictive nature could prevent the development of new and improved systems.

Below is the summary of the more specific comments. We introduce each topic with what the NPRM proposed, followed by a discussion of the comments and our response to those comments. Our response includes the FAA's decision to leave the rule as proposed or to change it.

Compliance Date

Proposed Rule

In notice No. 01-12, the FAA proposed that all airplanes without TCAS and weighing over 33,000 lbs. MCTOW install a collision avoidance system by October 31, 2003. Section 44716(g) of 49 U.S.C. directs the FAA to require collision avoidance equipment that has a margin of safety of at least the same level as provided by TCAS II by December 31, 2002, and allows a 2-year extension for public interest or safety. In the proposal, we felt that a compliance date of October 31, 2003, would provide adequate time for air carriers to schedule the installation of collision avoidance during a major C or D check.

Comments

Several commenters, all representing cargo carriers, disapproved of the compliance period and recommended that we extend it. We received an equivalent number of comments requesting that we not extend it. For example, the FedEx Pilots Association (FPA) recommended adopting Congress's earlier compliance date of December 31, 2002, and the NTSB, and various pilots requested that we not extend the compliance date beyond the proposed October 31, 2003. The NTSB strongly encourages the FAA to adhere to the equipment requirements and schedule contained in the proposed regulatory amendments and to expedite the implementation of these important rules.

Nearly 140 commenters (submitting similar form letters), representing the Coalition of Airline Pilots and primarily UPS pilots, believe the earlier Congressionally mandated date—December 31, 2002—is reasonable. They state that the December 2002 date coincides with ICAO recommendations, the hardware is readily available, most aircraft have approved installation procedures for TCAS, and many are prewired for TCAS. They suggest an extension to October 1, 2003, only in extenuating circumstances.

However, we heard from many air carriers indicating that the compliance schedule we proposed would be too difficult to comply with. Among the reasons cited were the schedules of individual carriers' C and D maintenance checks and various proposed Mode S modifications. FedEx Express, Supplemental Air Operations states that it would not complete a C or D check on its entire fleet before October 31, 2003, even without the collision avoidance rule. It states that the short compliance period does not allow time for operators to bid, select, engineer, schedule, and perform the work required for the installation of collision avoidance. It suggests a compliance date of March 29, 2005, to coincide with the terrain awareness warning system/enhanced ground proximity warning system (TAWS/EGPWS) compliance date and minimize disruptions to operations.

The Air Transport Association (ATA) recommends that we establish a compliance date when we issue the final rule to ensure the date coordinates with other regulatory initiatives, namely domestic and international transponder modifications. Its recommendation, echoed by Airborne Express and Northern Air Cargo, Inc., is to allow 24 months after the publication date of the rule for installation of collision avoidance. According to Airborne Express, the percentage of aircraft without collision avoidance during the last year of the compliance period would be small, which would have an insignificant effect on safety. Airborne Express also supports its request to extend the compliance date because it will have to install Mode S transponders on many of its airplanes.

FedEx Express, Air Operations Division (FedEx) also commented on the compliance date, stating that the short period would impose special down time with considerable operational impact to install collision avoidance on an estimated 41 airplanes that do not already have TCAS. Also, FedEx notes that security-related requirements for transponder system modifications will