

STATEMENT OF THE HONORABLE T. ALLAN MCARTOR, FEDERAL AVIATION ADMINISTRATOR, BEFORE THE HOUSE COMMITTEE ON SCIENCE AND TECHNOLOGY, SUBCOMMITTEE ON TRANSPORTATION, AVIATION, AND MATERIALS, CONCERNING TERMINAL CONTROL AREAS AND THE TRAFFIC ALERT AND COLLISION AVOIDANCE SYSTEM. SEPTEMBER 9, 1987.

Mr. Chairman and Members of the Subcommittee:

I welcome the opportunity to appear before the Subcommittee today. This marks my first appearance as FAA Administrator before a Congressional Committee, and I am particularly pleased to have the opportunity to discuss with you the status of the FAA's efforts concerning Terminal Control Areas (TCA's) and the Traffic Alert and Collision Avoidance System (TCAS). These are key safety programs which have a high priority within the FAA.

The primary purpose of the FAA's air traffic control system is to separate air traffic. Both TCA's and TCAS are important means of achieving that safety objective. In a moment, I will describe the status of our efforts to implement the TCAS system. First, though, I would like to highlight the steps we have taken regarding Terminal Control Areas.

A TCA is an airspace configuration surrounding an airport which provides a high degree of protection to aircraft landing at or departing from that airport, by requiring all aircraft operating

within the TCA to carry specified equipment (such as altitude encoding transponders and radios) and to obtain approval to enter the TCA airspace. All aircraft within a TCA, whether operating under Instrument Flight Rules (IFR) or Visual Flight Rules (VFR), must follow the directions of air traffic controllers and remain in continuing contact with the control facility so that our controllers are aware of all aircraft within the TCA.

Generally, TCA's are circular in shape and have an inverted stair-step configuration of three or more levels. This enables general aviation aircraft to fly underneath the TCA airspace to reach small airports in the general vicinity of the TCA. A TCA extends from ground level up to as high as 12,500 feet. Each succeeding level of a TCA extends further out from the airport to provide aircraft landing or taking off with TCA protection until they reach the higher altitudes where fewer VFR aircraft operate.

TCA's were first implemented in the early 1970's and proved highly effective in stopping the spate of midair collisions involving air carrier aircraft which occurred prior to that time. Since then, experience clearly demonstrates that our 23 TCA's have provided a significant measure of protection to the travelling public, and have contributed substantially to an improved safety record in the congested airspace around our busiest airports. They are a key airspace management tool available to the FAA when traffic conditions warrant their implementation. We do recognize, though,

that the implementation of a TCA imposes additional requirements on airspace users and may add some degree of inconvenience to itinerant aircraft who may be denied clearance to transit a TCA during busy traffic periods. Consequently, it has been the FAA's practice to implement new TCA's only where justified by passenger enplanements and traffic conditions and with an opportunity for public participation in a rulemaking process.

After the tragic Cerritos midair collision last year, the FAA took steps to evaluate TCA's and to improve their effectiveness. As a follow-up to that effort, we have been developing documentation that will enable us to simplify the configurations of TCA's so that their outer boundaries are more recognizable to general aviation pilots; we have stiffened sanctions for violating TCA airspace; and, effective December 1, 1987, we have extended the altitude-reporting transponder carriage requirement to all TCA's, not just the busiest ones.

More recently we proposed a rule to extend the automatic altitude reporting transponder carriage requirement to an expanded zone around each TCA, and to establish a single class of TCA in which Group I TCA operating requirements will be applicable. This rule also proposes to: place specific requirements on student pilots who wish to fly in TCA airspace; prohibit student pilot operations at specific airports within the busiest TCA's; and require helicopters operating in TCA's to have the same equipment as is

required for fixed-wing aircraft. The docket for this rulemaking will be open for public comments until September 16. I intend to proceed expeditiously to a final rule, taking into account the comments we receive, with the goal of a December 1 effective date.

Additionally, we have announced plans to propose nine new TCA's. The proposed establishment of these new TCA's will follow the normal rulemaking procedures, and each proposed new TCA will be considered on its own merits. First, a notice of proposed rulemaking will be published in the Federal Register. For each individual TCA, a comment period will be established, a public hearing will be scheduled and held, and comments that are received will be analyzed and addressed in the final rule. There will be ample time for public comment both before and following the scheduled public hearing for each TCA. Because we have not made final decisions on these proposals, I am sure you will understand that I cannot discuss in greater detail today the specifics of the proposals.

I also took steps last month to increase the size of the TCA at Los Angeles International Airport. I did this by increasing the TCA ceiling from 7,000 to 12,500 feet. Because there was insufficient data to assess the safety consequences of increased traffic volumes in the VFR corridor, I also closed the corridor pending further safety analyses and receipt of public comments. I took these actions on an emergency basis because I did not believe

it advisable to delay issuing a rule pending the receipt and evaluation of comments from the public. This action has caused concern within some segments of the general aviation community, but it is my sincere conviction that as FAA Administrator I must be willing to take decisive--and sometimes unpopular--action when I conclude that the safety of the travelling public may be jeopardized. I can assure you that I am interested in public comment on the action I have taken, and I have asked for public comment on the emergency rule; that public comment will be evaluated and follow-on action taken if appropriate.

With respect to our Traffic Alert and Collision Avoidance System or TCAS, we have made considerable progress. TCAS is an airborne collision avoidance system, which provides information to the pilot without reliance on our ground-based air traffic control system. There are three versions of TCAS--TCAS I, TCAS II, and TCAS III. TCAS I is the simplest version, providing only traffic advisories to pilots. A traffic advisory alerts a pilot to the presence of a nearby airplane and the clock direction in which to look for that plane. TCAS II provides pilots with traffic advisories and, when it concludes that a converging aircraft represents a potential threat, provides a resolution advisory that instructs the pilots to maneuver either up or down to preserve

separation. TCAS III, which will take more time to develop, will provide pilots with left or right turn instructions as well as the other information already available from TCAS II.

Last month, the FAA issued a notice of proposed rulemaking that would require the carriage of TCAS II within three years of the effective date of a final rule by airlines operating airplanes with more than 30 passenger seats. Commuters and air taxis operating turbine-powered airplanes seating 20 passengers or more would have four years to install TCAS II; operators of turbine-powered planes with 10 to 19 passenger seats would be required to install TCAS I within five years. The FAA will continue to develop TCAS III, although we believe that the ability to produce operational TCAS III units is several years away. In that regard, I would note that I have asked my staff to accelerate the flight testing of TCAS III to assure that we are taking all reasonable steps to complete the program expeditiously. I would also add that the specifications to be developed for TCAS III will permit the upgrading of a TCAS II unit to TCAS III. Therefore, a carrier's total investment in a TCAS II unit will not be lost when a TCAS III unit is available for installation.

The development of TCAS and our proposal to require the carriage of TCAS units by the airlines represent the culmination of more

than three decades of FAA and industry efforts to produce a workable, effective collision avoidance system. Results that we have seen from the carriage of TCAS II units by Piedmont aircraft in revenue service are promising, and we are very optimistic about the safety benefits that TCAS will offer the travelling public. Simply stated, we believe that the proposed TCAS rules, if adopted, would significantly reduce the number of future midair collisions in the United States which would otherwise occur. For example, the FAA's TCAS notice of proposed rulemaking projects that 77% of future midair collisions involving Part 121 operators could be prevented by the adoption of our proposed TCAS rule. The availability of collision avoidance systems is particularly important given projections for continued air traffic growth. It is imperative that we continue to refine the air traffic control system and that we provide both controllers and pilots with the finest safety tools available.

In closing, Mr. Chairman, I would like to thank you for the support the FAA has received from this Subcommittee in our efforts to improve the safety of our national air transportation system. I am confident that the directions we are pursuing with respect to Terminal Control Areas and the Traffic Alert and Collision Avoidance System will assist us in enhancing aviation safety both

in the short and long-term. We look forward to your continued encouragement and support of the FAA in these important safety efforts.

That completes my prepared statement, Mr. Chairman. I would be pleased to respond to questions you may have at this time.