



U.S. Department  
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**Federal Aviation  
Administration**

# InFO

Information for Operators

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Flight Standards Service  
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*An InFO contains valuable information for operators that should help them meet certain administrative, regulatory, or operational requirements with relatively low urgency or impact on safety.*

**Subject:** Responding to a TCAS resolution advisory (RA) – Fly the RA

**Purpose:** To emphasize to managers, trainers, and pilots of airplanes equipped with TCAS II that a pilot should respond to an RA promptly as directed by the TCAS system, despite any contradictory visual cue or air traffic control (ATC) instruction, as required under ICAO PANS-OPS.

**Discussion:** This InFO stems in part from a mid-air collision of two airplanes over Uberlingen, Germany, that resulted when at least one of the pilots failed to respond promptly as directed by a TCAS RA. Fortunately, the importance of a prompt, appropriate response to a TCAS RA seems to be well understood among U.S. pilots. FAA guidance in AC 120-55, Air Carrier Operational Approval and Use of TCAS II, as revised, has contained the following since the early 1990s:

1) “Delayed crew response or reluctance of a flightcrew to adjust the aircraft’s flight path as advised by TCAS due to Air Traffic Control (ATC) clearance provisions, fear of later FAA scrutiny, or other factors could significantly decrease or negate the protection afforded by TCAS. Flightcrews are expected to respond to TCAS in accordance with the following guidelines when responding to alerts:

...

2) When an RA occurs, the PF [pilot flying] should respond immediately by direct attention to RA displays and maneuver as indicated ...”

However, even among the most experienced pilots there are at least latent tendencies to believe what one sees with the naked eye and to follow an ATC instructions. These are dangerous human tendencies when flying in close proximity with other traffic. Those tendencies should be continually addressed in training in order to condition the desirable response in pilots, which is to fly the RA as first priority. In addition, to avoid confusion and workload permitting, a pilot should advise ATC when responding to a TCAS RA. When so advised, the controller will stop issuing instructions and allow the pilot to complete the TCAS maneuver. When the RA has been resolved, the pilot should inform ATC that the flight is returning to the last altitude/clearance issued by ATC.

**Recommended Action:** Managers, trainers, and pilots of airplanes equipped with TCAS II should collaborate to implement a sustained training message that is reinforced in all phases of pilot training and operations, including initial training, supervised operating experience, recurrent training, and line checks: **Fly an RA promptly as directed by the TCAS system.** That message is particularly effective when delivered in a flight simulator or in a flight training device, as recommended in FAA Advisory Circular 120-55B, in a scenario in which an ATC instruction conflicts with a TCAS RA.