

Boeing & Aerospace

The Seattle Times

Unlike other airlines, FAA won't let Horizon fly without anti-collision system

April 19, 2023 at 5:51 pm



With the Olympic Mountains as a backdrop, an Embraer 175, operated by Alaska's Horizon Airlines, takes off from Everett's Paine Field. (Mike Siegel / The Seattle Times, 2019)

By **Dominic Gates** *Seattle Times aerospace reporter*

A lone safety inspector for the Federal Aviation Administration who oversees flight operations at Horizon Air has stuck his neck out to insist that the airline's jets cannot take off with passengers aboard if a critical safety system is inoperative.

Internal FAA memos, copies of which were obtained by The Seattle Times, show the matter has been the subject of debate and contention within the safety agency.

Especially in light of [the recent spate of aviation near misses](#) in the U.S. aviation system, some within the FAA support the inspector's contention that there's unacceptable risk in a longstanding agency policy that allows exceptions so that jets can take off with the system not working.

Yet negative feedback from major airlines seems to have swayed the agency to reverse an initial ruling that could have applied the inspector's stance to other carriers.

The system in question is one on commercial airliners and other smaller planes called the Traffic Alert and Collision Avoidance System, or TCAS.

It shows the pilots air traffic in their vicinity in a display on the instrument panel. More urgently, if an approaching airplane appears on a collision course, it alerts the pilots verbally and tells them what action they must take to avoid it.

FAA policy has long allowed airlines up to three days' leeway during which they can continue to fly a plane with an inoperative system.

But Clint Laurie, the FAA's principal operations inspector at Horizon, supported by his team that oversees the airline, is enforcing a strict interpretation of the TCAS regulation.

If TCAS isn't working on one of Horizon's Embraer E175 jets, the plane is not permitted to fly passengers. Period.

In early February, according to a document viewed by The Seattle Times, Horizon sent a memo to flight maintenance crews informing them of this. The jets can fly to another base for repair, but not with passengers aboard. This notice was "effective immediately."

That makes the Seattle-based regional carrier unique among U.S. airlines.

Even Alaska Airlines, the major carrier that Horizon shares a livery with as part of the Alaska Air Group, doesn't follow that practice.

Like all other U.S. airlines except for Horizon, Alaska Airlines takes advantage of the policy that allows scheduled flights to continue without TCAS during the three-day period.

The FAA, in an emailed statement, said that "FAA policy for decades has allowed airlines, in limited circumstances and for a short period of time, to operate an aircraft without a functioning TCAS system or components of the system."

Alaska Airlines in a statement said "Alaska and Horizon will continue to follow FAA guidance" and added that "Alaska Airlines TCAS policy and procedure is aligned with all other airlines."

An Alaska Airlines veteran captain, who asked not to be named because he spoke without company authorization, said providing the three days' relief is "just the practical thing to do."

Otherwise, passengers could potentially be left stranded if a replacement airplane isn't immediately available.

Yet recent near misses and air traffic control lapses in the U.S. have convinced one senior FAA safety engineer — who also asked for anonymity because he spoke without agency authorization — that giving airlines this leeway "is a policy that should not exist."

The engineer said he felt impelled to speak out and provide the internal documents because "the safety of the public outweighs the inconvenience to the airlines to make money."

"There have been numerous cases of near midair collisions that were averted due to TCAS warning the flight crews of the approaching aircraft," he wrote in an email. "In these times of increased hazards, resulting from aircraft collision (air or ground), this is not the time for the agency to be ambiguous."

At least at Horizon, the ambiguity is gone: No TCAS, no flight.

Vacillation within the FAA

Laurie declined to speak about his position, referring a reporter to FAA communications staff. The FAA communications department turned down interview requests and provided only emailed statements that failed to address direct questions.

But recent internal FAA documents obtained by The Seattle Times reveal the agency vacillating on the TCAS issue.

In October, Laurie wrote to the FAA's Air Transportation Division expressing concern about the risks from airlines not fully complying with the TCAS regulation and asked for clarification on its enforcement.

In a Dec. 1 memo, the FAA backed his interpretation. The memo rules that "TCAS must be installed and operated at all times."

It states the FAA had initiated publication of a notice that "reinforces the statutory and regulatory requirements" and would give airlines 90 days to revise any policies that ease the TCAS requirement contrary to the regulation.

That spurred the February memo to Horizon flight crews telling them the three-day relief options were "no longer usable."

But on Feb. 24, the FAA issued another memo declaring the December memo "rescinded effective immediately."

"Flight Standard Service received additional information regarding this topic," the February memo states. "As a result, internal

deliberations are ongoing.”

According to the FAA safety engineer with knowledge of what happened, this reversal came after airlines, including Alaska, contacted the FAA opposing Laurie's position.

How TCAS works

TCAS uses the same radar transponders installed on aircraft that allow ground-based air traffic control to know the location and trajectory of aircraft in the airspace.

On big airliners, TCAS provides the flight crew with “traffic advisories” to enhance their awareness of what aircraft are around them.

Pilots glance at the TCAS display routinely to know what is in the air nearby.

More urgently, if the trajectories suggest two aircraft are headed too close to one another, the system will announce an escape maneuver to avoid collision, which pilots are required to act upon immediately.

For example, the system might tell the crew to “descend” or “level off” or “climb” as appropriate.

On Feb. 22, the system annunciated an avoidance maneuver [when two regional jets came too close together at a Burbank, Calif., airport](#).

A Mesa Airlines CRJ-900 operating for American Eagle from Phoenix was forced to go around as it came in to land when the pilot spotted a SkyWest Embraer E175 taking off from the same runway.

The SkyWest plane continued its takeoff and the two aircraft were briefly in proximity.

In the recorded air traffic control exchange, the controller asks the SkyWest pilot if he can see the Mesa jet. The pilot responds “negative,” quickly adding that he has received a verbal TCAS instruction to avoid collision and is following it.

The two aircraft separated safely. The National Transportation Safety Board is investigating the incident.

The system is neither perfect nor is it the only protection against collisions.

The veteran Alaska Airlines captain said TCAS is part of a “belt-and-suspenders” approach to keeping air traffic safe.

He said that air traffic controllers on the ground who direct traffic through radio communication with the pilots bear the primary responsibility for separating aircraft.

Yet recent near misses have shown air traffic controllers make mistakes.

In February, [a FedEx 767 cargo jet came within a few hundred feet of landing on top of a Southwest Airlines 737](#) passenger plane taking off in Austin, Texas.

The FedEx pilot saw the 737 on the runway and requested confirmation that the 767 was cleared to land. Not realizing the 737 had delayed beginning its takeoff roll and was still in the way, the controller on the ground gave the confirmation.

The FedEx crew pulled out and did a go-around at the last minute as the 737 rose into its path.

The NTSB is investigating the incident and there's no indication that TCAS played a role in narrowly avoiding a catastrophe.

The TCAS computers were removed from both airplanes and sent to their respective manufacturers for a download of data.

For now, Horizon is keeping to Laurie's strict interpretation of the TCAS regulation while all other U.S. airlines are able to take the three-day exception.

The airlines have received no update from the FAA since the late February memo cited ongoing “internal deliberations.”

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