



# The Buffalo News

Wednesday, February 18, 2009

Make us your homepage!

Home



**“The FAA sees things a little differently than we do,” said Steven R. Chealander, leader of the NTSB investigation.**

Charles Lewis/Buffalo News

Updated: 02/18/09 07:40 AM

## THE TRAGEDY OF FLIGHT 3407

# Use of autopilot questioned in icy conditions

*Amid probe of crash, no federal consensus for deadly problem*

By Jerry Zremski  
NEWS WASHINGTON BUREAU CHIEF


Story tools:

Related Content

- **COMMENT** on this story at the Inside the News blog, "Autopilot guidance at center of crash probe"

Share this story:





**WASHINGTON—The nation’s airline regulator says it’s safe to fly some planes on autopilot in light to moderate icing.**

**But the nation’s transportation safety watchdog warns that even “thin amounts of ice . . . can be deadly” — and advises pilots to turn off the autopilot system when ice starts to gather.**

**So pilots have to choose which of two federal masters to serve to combat a potentially deadly problem: the accumulation of ice on an airplane.**

**The disagreement between the Federal Aviation Administration and the National Transportation Safety Board is one of several they have regarding icing on aircraft.**

**Given that the crew of Continental Connection Flight 3407 reported icing in the minutes before the plane crashed Thursday night in Clarence, killing 50, the crew’s use of autopilot could end up being central to the safety board’s investigation of the crash.**

**Pilot experience and actions also are expected to be probed, but the icing issue is key because of what aviation experts know about what happens when a plane on autopilot experiences icing.**

**The ice on the wings would normally cause the plane to drag, but the autopilot compensates for the drag until the system reaches a breaking point and shuts off, said Michael B. Bragg, an engineering professor who heads the University of Illinois Aircraft Icing Research Group.**

**Once that happens, the pilot is suddenly flying a plane that’s heavier and less aerodynamic than the one that left the ground — one that may veer out of control the minute the autopilot is disengaged.**

**“Then the pilot becomes a test pilot,” Bragg said.**

**The NTSB warned of that danger in a safety alert for pilots last December.**

**“Using the autopilot can hide changes in the handling qualities of the airplane that may be a precursor to premature stall or loss of control,” the safety board said. “Turn off or limit the use of the autopilot in order to better ‘feel’ changes in the handling qualities of the airplane.”**

**Steven R. Chealander, the agency commissioner who is investigating the crash in Clarence, said this week that this doesn’t mean pilots should always fly manually when icing conditions occur, or that the crew of Flight 3407 was wrong to be flying on autopilot.**

**It just means that flying manually can help the pilot “stay ahead of changes as a result of icing,” said Chealander, who added: “The FAA sees things a little differently than we do.”**

**Indeed, in a 2006 alert, the FAA did not specify so clearly that the autopilot should be used sparingly in icy conditions.**

**“Pilots should follow approved guidance for use of the autopilot,” the FAA said. “If not closely monitored, the autopilot may mask dangerous airspeed losses. When ice is accumulating on the airplane, the autopilot should be disconnected at least once every five minutes.”**

**Laura Brown, an FAA spokeswoman, said the two agencies are really not that far apart on the autopilot issue.**

**“Our guidance is to periodically turn off the autopilot,” she said, stressing that the decision on how to fly may well vary from one aircraft to another.**

**“It may, in fact, be safer to fly with the autopilot,” she added.**

**That’s not the only issue on which the safety board and the FAA don’t see eye to eye.**

**The safety board's alert last December says: "Thin amounts of ice, as little as one-quarter inch, can be deadly."**

**But the FAA has long certified individual planes—including the Bombardier Dash 8 Q400 that crashed in Clarence—to fly in "light to moderate icing" conditions. An FAA memo describes light icing as a quarter- inch to an inch accumulation per hour on the outer wing, while moderate icing is accumulation of 1 to 3 inches per hour.**

**Moreover, the FAA has not acted on several of the safety board's "most wanted transportation safety improvements" regarding aircraft icing.**

**Icing narrows the range of speed at which a plane can safely fly, Bragg explained. The increased drag produced by the ice both increases the minimum speed the aircraft needs to fly in order to avoid stalling out and decreases the plane's maximum speed.**

**The addition of other elements that increase drag—such as the raising of the flaps or the lowering of the landing gear—can make matters worse, he said. The flaps were raised and the landing gear went down on the plane that crashed in Clarence.**

**If the icing is severe enough, a plane will stall—and it will be up to a suddenly surprised pilot to right a plane that's suddenly tumbling through the sky.**

**Not all pilots can handle it, said Jim Hall, a partner in the Nolan Law Group of Chicago and former chairman of the federal safety board.**

**"Many times, without the proper training, their normal instincts may put the plane in an even more difficult situation from which to recover," Hall said.**

**The safety board and the FAA disagree on the use of autopilot for the same reason that the two agencies have been at odds on other icing issues, Hall said: Industry interest groups lobby to stand in the way of a tougher approach.**

**But that may change now, said Justin T. Green, a pilot who is a partner in the aviation law firm Kreindler & Kreindler.**

**"This accident," Green said, "may prompt the FAA to restrict the use of autopilots in icing even further and hopefully will cause them to act on the NTSB's safety recommendations on icing."**

**News Staff Reporters Mary B. Pasciak and Aaron Besecker contributed to this report.  
jzremski@buffnews.com**

---

© 2009 The Buffalo News. The information you receive online from The Buffalo News is protected by the copyright laws of the United States.

The copyright laws prohibit any copying, redistributing, re-transmitting, or re-purposing of any copyright-protected material.