

## **Data: Flight 587 pitched to the left seconds before crash after encountering turbulence**

**Candace Chellew - Wires CNN**

NEW YORK (CNN) -- The flight data recorder aboard Flight 587 reveals the plane pitched to the left in the seconds before it crashed after twice encountering turbulence, apparently from a plane that took off less than two minutes before, investigators said Thursday.

Acceleration data from the flight data recorder was "consistent with a wake encounter" about 28 seconds before the crash, and again 20 seconds later, said National Transportation Safety Board Chairwoman Marion Blakey.

During the first part of the last eight seconds recorded by the flight data recorder, Blakey said, the pilots had control of the Airbus A300, but before those eight seconds ended, "rudder position data became unreliable," and the pilots had lost control.

American Airlines Flight 587 slammed into the Rockaway community of the New York borough of Queens Monday, killing all 260 people aboard the plane. Five people on the ground also are presumed dead.

NTSB investigators said Thursday that wake turbulence from the earlier plane could have snapped the tail from the doomed airliner, leaving the pilots unable to control the aircraft.

"There were no marks on the fin section or the rudder," NTSB member George Black told CNN. "We haven't found any other evidence of any impact with any foreign object. It appears to be some sort of aerodynamic effect."

Black also said investigators are "looking very closely to make sure there was no sabotage" involved in the crash, "but at this time there is no indication there was."

A Japan Air Lines 747 was cleared for takeoff "about 2 minutes and 20 seconds" before the American Airlines flight, but actually took off 1 minute and 45 seconds ahead of Flight 587, Blakey said Wednesday. Federal Aviation Administration regulations require 4 nautical miles of separation between departing flights -- which translates to less than two minutes of flight time during takeoff.

NTSB investigators said the the planes were at the required distance at takeoff, although there had been some confusion about that earlier. But the two flew closer and closer together -- as close as 90 seconds apart -- above JFK as the American Airlines flight took a sharp turn to the left off the runway.

Flight 587's engines also appear to have broken off before the impact -- but most likely after the tail sailed off into the bay.

The crash happened in a matter of seconds -- the first sign of trouble was a rattling in the aircraft's frame 107 seconds into the flight; the jet hit the ground at 144 seconds. In that interval, a second shudder wracked the plane, the copilot -- who was at the controls -- called for maximum power and crew conversation suggested they had lost control.

That information came from the plane's cockpit voice recorder, which operated on a battery and recorded 20 seconds longer than the flight data recorder, Blakey said.

Meanwhile, the FAA is expected to order inspections of Airbus A300s because of the crash.

The agency "expects to mandate fleetwide inspections of the affected A300 structure (Thursday)," FAA spokesman Les Dorr said, explaining that the inspections will include close looks at the tail sections.

"We are working closely with Airbus, the French authorities and the U.S. operators of the A300 to determine precisely what the inspection procedures should be."

American Airlines said it has already begun inspections on the A300s in its fleet. No other U.S. passenger airline flies A300s.

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