

The Seconds Leading To the Air India Crash

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Much is still unknown about what caused an Air India flight on June 12 to crash, killing at least 260 people. The London-bound plane crashed shortly after taking off from an airport in the city of Ahmedabad and ripped through the dining hall of a nearby medical college.

It was India's worst aviation disaster in decades: All but one of the 242 people on board were killed, as were many others on the ground.

It may take investigators many months to reach conclusive answers. But a preliminary report released on Saturday by India's Aircraft Accident Investigation Bureau offered the most detailed account yet of the crash.

Here's a timeline, according to the report.

11:17 A.M. LOCAL TIME: The plane, a Boeing 787-8 operated by Air India, touches down at the Sardar Vallabhbhai Patel International Airport in Ahmedabad after its previous flight, a domestic hop from New Delhi.

The crew of the previous flight reported a defect, which seemed related to a sensor measuring a stabilizer on the plane.

11:55 A.M.: The crew for Air India flight 171 — two pilots and 10 cabin crew members — arrive at the airport. They are given routine preflight breath analyzer tests, which are typically given for alcohol, and pass.

12:10 P.M.: The aircraft is released for flight after an on-duty aircraft engineer investigates the defect report.

1:18 P.M.: The plane leaves its bay, a bit behind schedule. It is bound for London Gatwick Airport, carrying 230 passengers and the 12 crew members.

1:26 P.M.: Air traffic controllers clear the plane to taxi, and the plane heads to the airport's single runway.

1:37 P.M.: Air traffic controllers clear the plane for takeoff, and the plane starts rolling.

1:38 P.M., 35 SECONDS: The plane reaches 155 knots or about 178 miles per hour, the speed required for takeoff.

1:38 P.M., 39 SECONDS: The plane lifts off.

1:38 P.M., 42 SECONDS: The plane reaches 180 knots, or about 207 miles per hour, the highest speed it records on its brief flight.

Fuel switches for both engines then move from the "RUN" position to "CUTOFF" one after the other. The fuel supply stops.

The report does not say why the switches moved. Aviation safety experts say it's unlikely that the switches, which have a locking mechanism, moved without human intervention, whether intentional or accidental.

A cockpit voice recording captures a confused interaction between the pilots.

In the report's words: "One of the pilots is heard asking the other why did he cutoff. The other pilot responded that he did not do it."

1:38 P.M., 47 SECONDS: With both engines decelerating, and the plane losing altitude, the main air turbine is deployed. The turbine is an emergency power source that can run hydraulic systems, like the plane's wings and flaps.

1:38 P.M., 52 SECONDS: The fuel cutoff switch for the first engine moves back from "CUTOFF" to "RUN."

1:38 P.M., 56 SECONDS: The second engine's fuel cutoff switch also moves from "CUTOFF" to "RUN."

Both engines attempt to relight and introduce fuel. The first engine succeeds and starts to recover. The second relights but cannot stop its "core speed deceleration."

1:39 P.M., 5 SECONDS: One of the pilots transmits "MAYDAY MAYDAY MAYDAY." An air traffic controller inquires, and receives no response.

The plane is seen crashing outside the airport boundary and the air traffic controller activates an emergency response.

1:39 P.M., 11 SECONDS: The flight recorder stops recording.

1:44 P.M., 44 SECONDS: Rescue and firefighting teams leave the airport and head for the crash site.