

A Glossary of Technical Terms Used in the Story

AAIB (Aircraft Accident Investigation Bureau)

India's civil aviation accident investigation agency, responsible for investigating the AI171 crash.

Air/ground logic

The aircraft's internal determination of whether it is airborne or on the ground. This status governs functions such as thrust reversers, braking and certain flight protections.

Autothrottle (A/T)

A system that automatically adjusts engine thrust to maintain a target speed or thrust setting based on inputs from the flight management and autopilot systems.

Cockpit voice recorder (CVR)

A crash-protected recorder that captures cockpit audio, including crew conversations, radio transmissions and warning sounds, typically covering the last two hours of flight.

Electrical bus

An electrical distribution network that supplies power to multiple aircraft systems. Failures affecting one or more buses can alter which systems remain operational.

Emergency Locator Transmitter (ELT)

A beacon that automatically transmits a distress signal after a crash, helping search-and-rescue teams locate the wreckage.

Engine flameout

The loss of combustion inside an engine, resulting in a loss of thrust. It can be caused by fuel interruption, airflow disturbances or system failures.

Engine N1 / N2

Measurements of engine rotational speed, expressed as a percentage of maximum. N1 refers to the fan speed, while N2 refers to the high-pressure core speed. Together, they indicate engine performance.

Enhanced Airborne Flight Recorder (EAFR)

A crash-protected recorder that combines the functions of the flight data recorder and cockpit voice recorder in a single unit. The Boeing 787 uses EAFRs.

FADEC (Full Authority Digital Engine Control)

The engine's primary computer. It manages fuel flow, ignition and engine operation while automatically enforcing operating limits and protective functions.

Federation of Indian Pilots (FIP)

An Indian pilots' association that has publicly questioned aspects of the AI171 preliminary report and conducted simulator tests related to the crash.

Flight data recorder (FDR)

A crash-protected recorder that logs hundreds of aircraft parameters—including speed, altitude, attitudes, system states and switch positions—over extended periods.

Flight-control computer

One of the aircraft's computers that interprets pilot inputs and sensor data to operate flight controls, manage automation and apply flight-envelope protections.

Foundation for Aviation Safety

An independent US-based aviation safety organisation whose experts have commented on aspects of the A1171 investigation.

Preliminary report

An initial factual report issued by an accident investigation authority based on early evidence. It is not intended to determine the cause of an accident or assign blame.

Ram Air Turbine (RAT)

A small turbine that automatically deploys into the airflow to generate emergency hydraulic and/or electrical power when the aircraft loses its primary power sources.

Satellite-transmitted fault messages

Automated diagnostic messages sent from an aircraft to ground stations via radio or satellite, often containing fault codes generated by onboard systems.

Thrust Control Malfunction Accommodation (TCMA)

A protective mode within certain FADEC systems that can automatically reduce or cut fuel flow if it detects an unsafe thrust-control condition.

Thrust lever

The pilot's primary control for engine power. Moving it forward increases thrust; pulling it back reduces thrust towards idle.

Thrust reverser lever

A secondary cockpit control used after landing to deploy reverse thrust, helping the aircraft decelerate.

TO/GA (Take-Off/Go-Around) switch

A cockpit button that commands take-off or go-around thrust and activates the associated flight director and autopilot modes.