

What is a Black Box?

June 13, 2025 • vajiramandravi.com



Black Box

Black Box Latest News

After a Gatwick-bound Air India plane(AI171) crash, the search for the flight's black box continues, which is crucial equipment to find out what happened moments before the disaster.

About Black Box

- It is a small machine that records **information about an aircraft during its flight**.
- This bright orange or yellow rectangular box is crafted to withstand explosions, fire, water pressure, and high-speed crashes.
- It was discovered by Australian **scientist David Warren**, it is used to discover the cause of a plane crash.
- Most aircraft are required to be equipped with **two black boxes — the cockpit voice recorder (CVR) and the flight data recorder (FDR)** — that record the information about a flight and help reconstruct the events leading to an aircraft accident.
 - The CVR **records radio transmissions** and other sounds in the cockpit, such as conversations between the pilots and engine noises.

- The **flight data recorder** records more than **80 different types of information**, such as **altitude, airspeed, flight heading, vertical acceleration**, pitch, roll, autopilot status, etc.
- The recording devices are stored inside a unit that is generally made out of strong substances such as **steel or titanium** and are also insulated from factors such as extreme heat, cold or wetness.
- To protect these black boxes, they are equipped towards the tail end of the aircraft, where the impact of a crash is usually the least.

Source: HT

Source: <https://vajiramandravi.com/current-affairs/what-is-a-black-boxflight-recorder/>

© Vajiram & Ravi. For personal use only.