

Turbulent skies

Air turbulence normally cannot be seen and often occurs unexpectedly. It is caused by different factors, including atmospheric pressure, jet streams, air around mountains, cold or warm weather fronts and thunderstorms. Turbulence can occur even when the sky is clear.

CLEAR AIR TURBULENCE (CAT)

CAT, also known as air pockets, is the erratic movement of air masses in the absence of any visible cues, such as clouds. It is caused when hot and cold air mix, or when wind currents travelling in different directions at very high speeds collide. This can happen around jet streams or near mountains.

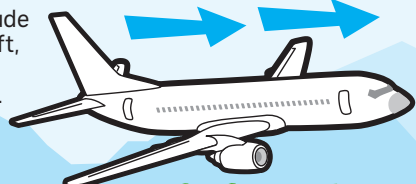
Characteristics

- Little or no warning.
- Occurs when there are no clouds.
- Common at high altitudes.

WHAT CAUSES IT

Jet streams

Fast, high-altitude air currents shift, disturbing the surrounding air.



Mountains
Air that passes over mountains (obstacles) and causes turbulence.

Thermals

Heat from the sun makes warm air masses rise and cold ones sink.



UNEQUAL HEATING

Turbulence can happen when the air outside the aircraft moves erratically when different air masses interact. This is caused mainly by weather patterns that occur at higher altitudes, jet streams and other atmospheric phenomena.

