

What You Learn About Flying in Thunderstorms at Flight Training School

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During [flight training](#), you will learn why it is important to avoid thunderstorms during flight. There are several dangers involved, each of which can have a different effect on aircrafts. [Flight training](#) will educate you about the dangers of thunderstorms, as well as teach you precautionary maneuvers.

Thunderstorm dangers

[Thunderstorms](#) are common, noticeable, and dangerous. They are a part of our atmosphere all over the globe. With deadly lightning, hurricanes, and high winds that can even result in tornadoes, thunderstorms can be the biggest weather-related danger known to mankind. So what dangers do pilots know to avoid when flying aircrafts during thunderstorms?

Here are a few of the known dangers that accompany thunderstorms.

Updrafts and Downdrafts

[Updrafts and Downdrafts](#) are the vertical movements of air due to difference in temperature. If a pocket of air is warmer than the surrounding air, it will move up to find air warmer or less dense. Cold air will move down to find balance as well. Movement of large volumes of air can create large thunderstorm causing clouds.

Turbulence

Turbulence can be invisible, so pilots must use their instruments, radars, and intuition to be able to detect levels of turbulence. By using their radars, they can detect the levels of moisture in the air. Generally, pilots choose to go for the gap in between storm clouds. It is even more dangerous at night because you can't see clouds at all.

Wind shear

Wind shear is defined as short quick changes in wind direction. This phenomenon can significantly affect take-off and landing of an aircraft by causing loss of control of the aircraft. Wind shear has caused many accidents involving fatalities in the US.

Hailstones

Hailstones can heavily damage airplanes. Hailstones are capable of breaking windshields and damaging turbine blades in jet engines.

On April 4, 1977, a Southern Airways DC-9 crashed in New Hope, GA. Both engines of the plane ingested hail and lost thrust (forward movement powered by the engine). The plane crashed into a road and caught on fire. 62 of 85 people on board were killed as well as eight people on the ground.

Rain

Rain has been known to be heavy enough to drown jet engines. Once an engine fails, pilots have been trained during flight training on how to make an emergency landing. The plane will glide for miles before the pilot is forced to touch ground.

Lightning

Lightning can temporarily blind pilots, or even hit airplanes. However, aircrafts are mostly protected from electrical damage because the majority of aircrafts are made of aluminum, which can be a good electrical conductor.

The only crash in the last 50 years known to happen because of lightning was on December 8, 1963. A lightning bolt hit the [Pan Am Flight 214](#), a Boeing 707 that was holding over Elkton, Md. The lightning caused a spark that ignited fuel vapor, causing an explosion that caused the plane to crash, killing all 81 people aboard.

In addition to all your aviation curriculum, you will learn basic weather formations and aeronautics. This is important information you will carry with you for the rest of your life. This is what makes [flight training school](#) an experience you'll never forget.

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