

W63. What unique characteristics cause extreme weather, such as thunderstorms and tornados?
A. The warm moist air from the tropics meeting the cold air from the north.
B. Big flat plains gaining heat and releasing it when clouds come and moisture evaporates
C. The lack of mountains that take the moisture out of the air.
D. The clashing of sea breezes from the ocean hitting a high-pressure area and thrusting the air upward.

W64. Fog is formed under what two possible conditions?
A. Surface air cools to the dewpoint or moisture is added to the air close to the ground.
B. Upper air slows down causing an inversion on the ground or moisture is added to the air close to the ground.
C. The sun cools the air or the ground cools the air.
D. More moisture is added to the air near the ground or an inversion traps the moisture.

W65. What is common for all types of fog that can affect our ability to aviate?
A. The FAA has rules about flying when there is fog within three miles from your takeoff point.
B. Flying near fog can cause moderate to severe turbulence, especially where the fog starts.
C. Fog can restrict visibility with the ground.
D. Taking off in fog increases the climb rate because of the extra thick air.

Wind

W66. What is the best way to observe the surface winds before you take off?
A. Call the weather briefer right before you take off.
B. Watch the trees, water, and dust blowing.
C. Look at the windsock ahead of you in the middle of the runway.
D. Have your assistant, a friend, or any qualified pilot nearby hold up a wind meter and give you an exact reading.

W67. If you are on the ground or in the air and do not have a windsock available, what is the best way to measure the velocity of the air?
A. Call WX brief for a wind report.
B. Observe the trees, water, flags, or smoke using the wind speed criteria.
C. Radio the nearest airport for current weather conditions.
D. Have a qualified pilot estimate the velocity.

W68. If you have a wind indicator, or you are measuring the wind, where is the best place to measure to get an accurate measurement?
A. Near any large object to get the maximum value to base your decision.
B. In the wind shadow behind the object.
C. In a clear open area away from other objects.
D. It does not matter as long as you have an accurate wind-measuring device.

W69. What is wind gradient?
A. The amount the wind is predicted to vary over the day.
B. A type of report you get from a weather briefer.
C. The rapid reduction of the wind close to the ground from ground friction.
D. The amount the wind varies behind an object.

W70. What variations in wind velocity would produce bumpy conditions?
A. The wind varying from 0 to 15 in 5 minute intervals.
B. The wind varying from 10 to 20 in less than 3 second intervals.
C. Any wind over 15 MPH
D. In front or back of a mountain, building, or tree.