

A Driver's Guide to Understanding Weather Conditions

Fact Sheet – Commercial Vehicle

As a driver, you usually cannot choose the weather you will be operating in; but, knowing conditions in advance of a trip can get you prepared and may give you the warning you need to avoid a dangerous situation. The following terms from various United States federal agencies should help you determine, when operating in the U.S., the severity of a bad weather report.

Cold Weather

Winter Weather Advisory. A mixture of precipitation is expected, such as snow, sleet, and freezing rain or drizzle.

Snow. Alerts are issued in the following categories:

Advisory. Over 2 in (5 cm) but not expected to accumulate more than 6 in (15 cm).

Heavy Snow Warning. 6 in (15 cm) or more in 12 hours or less; 8 in (20 cm) or more in 24 hours or less; light winds.

Winter Storm. Alerts are issued in the following categories:

- **Watch.** Conditions are favorable for the development of hazardous weather elements, such as heavy snow and/or blizzard conditions or significant accumulations of freezing rain or sleet. Conditions may occur singly or in combination. Usually issued 24 to 48 hours in advance of an event.
- **Warning.** Heavy snow and some windiness are imminent or very likely, perhaps in combination with sleet and/or freezing rain/drizzle. Usually issued for up to a 12-hour duration, but can be extended to 24 hours.

Blizzard Warning. Issued for winter storms with sustained winds or frequent gusts to 35 mph (56 kph) or greater, and considerable falling and/or blowing snow, reducing visibility to less than 1/4 mi (.4 km). These conditions are expected to last at least three hours.

Ice Storm Warning. Damaging accumulations expected during freezing rain conditions, making walking and driving extremely dangerous. Significant ice accumulations are usually 1/4 in (.64 cm) or greater.

Wind Chill. Alerts are issued in the following categories:

Advisory. Wind chills will be -35°F (-37°C) or colder for a sustained period of time. Winds are expected to be at least 10 mph (16 kph).

Warning. Wind chills are expected to reach -50°F (-46°C) and wind speeds are 10 mph (16 kph) or greater.

[Note: Some areas, due to the effects of humidity, give a warning when the wind chill is expected to reach -10°F (-23°C).]

Warm Weather

Excessive Heat. Alerts are issued in the following categories:

Advisory. Heat index above 105°F (41°C) is anticipated.

Watch. Conditions are favorable for the development of heat indices in excess of 105°F (41°C) during daytime hours in combination with nighttime low temperatures of 80°F (27°C) or higher, for 2 consecutive days.

Warning. Heat index equals or exceeds 120°F (49°C) for 3 hours or longer.

Rainy Weather

Severe Thunderstorm. Alerts are issued in the following categories:

Watch. Conditions are favorable for the development of severe thunderstorms in and close to the designated area; usually in effect for several hours, but not more than 6 hours.

A Driver's Guide to Understanding Weather Conditions

Fact Sheet – Commercial Vehicle

Warning. A thunderstorm producing hail 3/4-in (2 cm) or larger in diameter and/or winds equal to or exceeding 58 mph (93 kph).

Flooding

Flood. Floods usually take 12 hours or more to develop. Alerts are issued in the following categories:

- **Watch.** Flooding is possible in or near the designated area. Individuals should be alert and ready to take action.
- **Warning.** A flood is imminent or has been reported at a certain station or river basin.

Flash Flood. Flash floods take less than 6 hours to develop. Alerts are issued in the following categories:

- **Watch.** Flash flood conditions are possible in or near the designated area. Individuals should be alert and ready to take action.
- **Warning.** Flash flooding is imminent. Those in the affected area should take immediate action.

Fog

A Fog Advisory means dense fog covers a widespread area and reduces visibility to 1/4 mile (.40 km) or less.

Tornado

Alerts are issued in the following categories:

- **Watch.** Conditions are favorable for the development of tornados in and close to the designated area; usually in effect for several hours, with 6 hours being the most common.
- **Warning.** A tornado is indicated by radar or sighted by spotters. Issued by the National Weather Service.

Wind

A Wind Advisory means sustained winds of 30 mph (48 kph) or greater are expected to last for one hour or longer, or gusts to 45 mph (72 kph) or higher are expected for any duration.