

E. Winter Weather Road Hazards

1. Not all winter road hazards are a direct result of occurring precipitation. For example, non-precipitation events include:

- a. Frost
 - i. Occurs when the pavement temperature is below freezing and less than the dew point temperature of the air just above the pavement
 - ii. Frost is a light, feathery deposit and is more likely to occur when the following three factors are present:
 - a) the wind is calm,
 - b) the sky is clear (few, if any clouds)
 - c) the pavement temperature is at or below freezing and dips below the dew point
- b. Black ice
 - i. Occurs when water droplets (those larger than frost) are deposited on the pavement and have time to spread out in to a thin layer before freezing
 - ii. Black ice can also occur with freezing rain or frozen pooled water
- c. Freezing fog
 - i. Will greatly reduce visibility and immediately freeze upon contact to any surface that is below freezing
- d. Blowing snow
 - i. When strong winds blow snow across the roadway
- e. Storm runoff
 - i. Will freeze and refreeze throughout the winter season
- f. Compacted snow
 - i. May bond tightly to the road if simply crushed under auto tires (very difficult to melt or plow off)
- g. Slush
 - i. A mixture of water and snow that can be easily plowed off
 - ii. Can pose significant driving hazard if not removed

- iii. Because slush is very heavy, exercise care when plowing to not damage property and equipment

Exercise: Winter Weather Road Hazards

1. True or False? All winter road hazards require the occurrence of rain or snow.