Chapter 12

Driving in Adverse Conditions

12.1 Reduced Visibility
12.2 Reduced Traction
12.3 Other Adverse Weather Conditions

Reduced Visibility

When there is a situation where the driver is experiencing reduced visibility, they will need more time to use the IPDE Process.

You can maintain a safe intended path of travel by-

- Slowing down to give yourself more time
-Scanning in and around your path of travel to the target area to identify hazards early
-Predicting others will make maneuvers into your path of travel
-Deciding to position your vehicle ahead of time with an extra space cushion around it
-Executing driving actions gently to maintain control so others know what you are doing

DRIVING IN ADVERSE CONDITIONS

Your Vehicle Windows

Sun Glare

Dawn and Dusk

Night

Rain

Fog

Snow

HEADLIGHTS

- Required from sunset to sunrise or visibility is less than 500 feet.
- High beams under normal conditions. Low beams when meeting a car
- Avoid over driving your lights
- Use the night mirror to reduce glare from cars behind you
- If drivers don't dim lights:

  Flash your lights

  Look toward the side of the road

  Don't keep your bright lights on
- If others don't have their lights on, turn yours on and off to warn them.

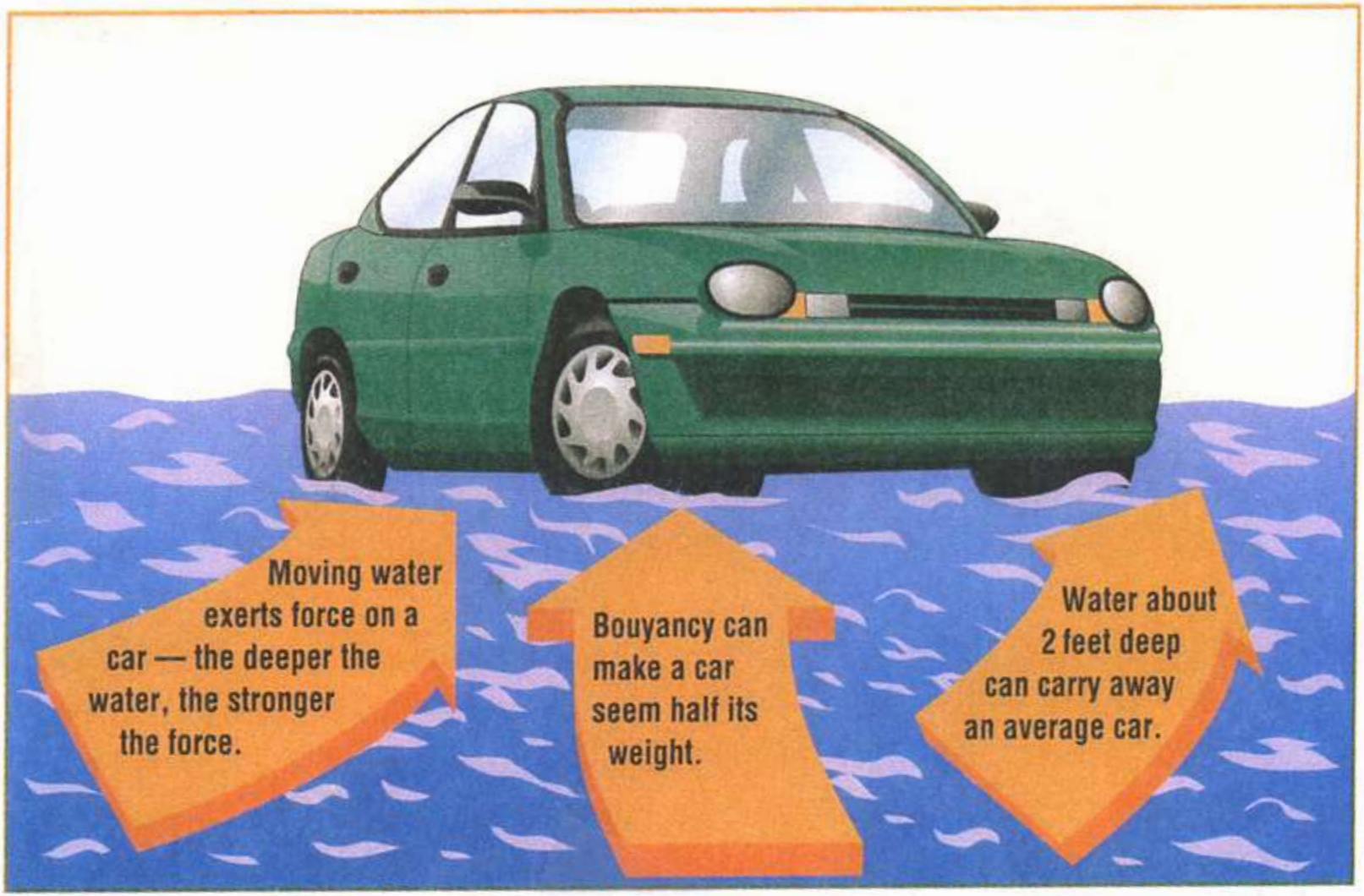
TRACTION

Hydroplaning

1. Water piles in front of tires. Tires ride on top of the water
2. Can happen as slow as 25 mph with almost total hydroplaning at 55 mph
3. Causes almost total loss of steering and braking ability
4. Stopping distance is increased by 40%
5. Caused by
   a) Standing water
   b) Car speed
   c) Poor tires

In addition to the possibility of hydroplaning, what other hazards might you encounter in this picture? Hint: two of them are not visible hazards you can see in the picture but are the result of the water.

THE CAR IN THE PICTURE GOING THROUGH THE WATER IS IN A DANGEROUS SITUATION. THE DRIVER HAS NOWHERE TO GO, HAS THE POSSIBILITY OF HYDROPLANING AND WILL HAVE THE STEERING WHEEL PULLED HARD TO THE RIGHT AS HE/SHE GOES THROUGH THE PUDDLE. PLUS THE RIGHT FRONT BRAKE WILL BE WET SO IF HE/SHE HITS THE BRAKE FOR A PROBLEM AFTER THE PUDDLE, THE CAR WILL PULL TO THE RIGHT. THIS DRIVER NEEDS TO SLOW DOWN, HANG ON TO THE STEERING WHEEL TIGHTLY AND WHEN HE/SHE IS PAST THE PUDDLE, LIGHTLY APPLY THE BRAKES FOR A FEW SECONDS TO DRY OUT THE BRAKE LININGS BE A SMART DRIVER. KNOW WHAT TO EXPECT ABOUT HOW YOUR CAR WILL BE AFFECTED **BEFORE** YOU DRIVE THROUGH WATER.



Deep water can be dangerous.

SNOW

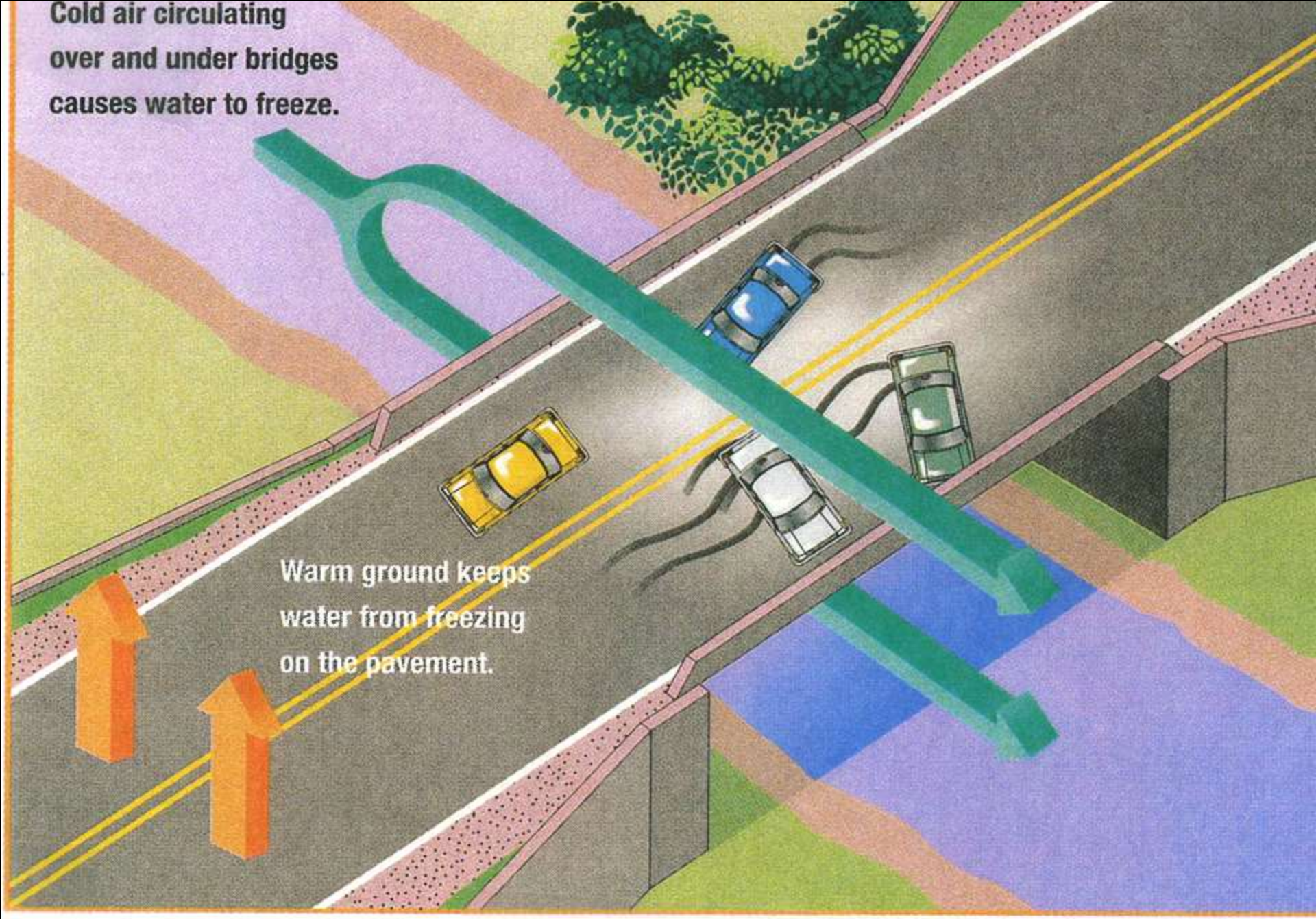
Two Factors that are greatly affected in snow

1. Visibility
2. Traction

- Windows need to be clear
- Wipers are free from snow and ice
- Signs and markings may have snow on them
- Headlights/taillights should be clear
- Look at the yellow and white lines
- Gradually change directions
- 4 second following distance
- Rock the car if stuck

ICE

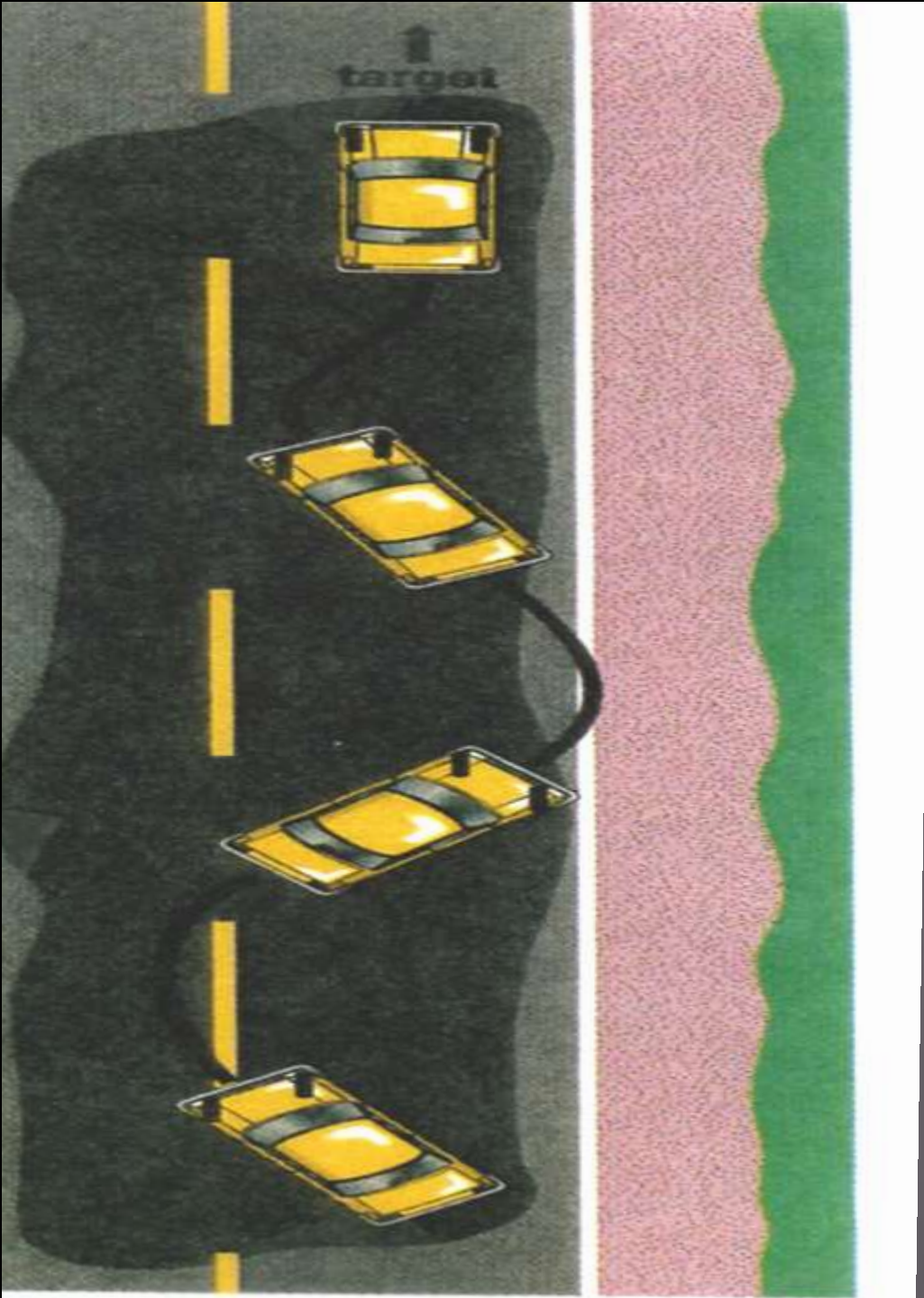
- Bridges and underpasses freeze first
- Traction varies (shaded/un-shaded)
- Pump brakes lightly to test the road
- Cautious around pedestrians
- If you have been in slush, don't use parking brake after
- Don't use cruise control



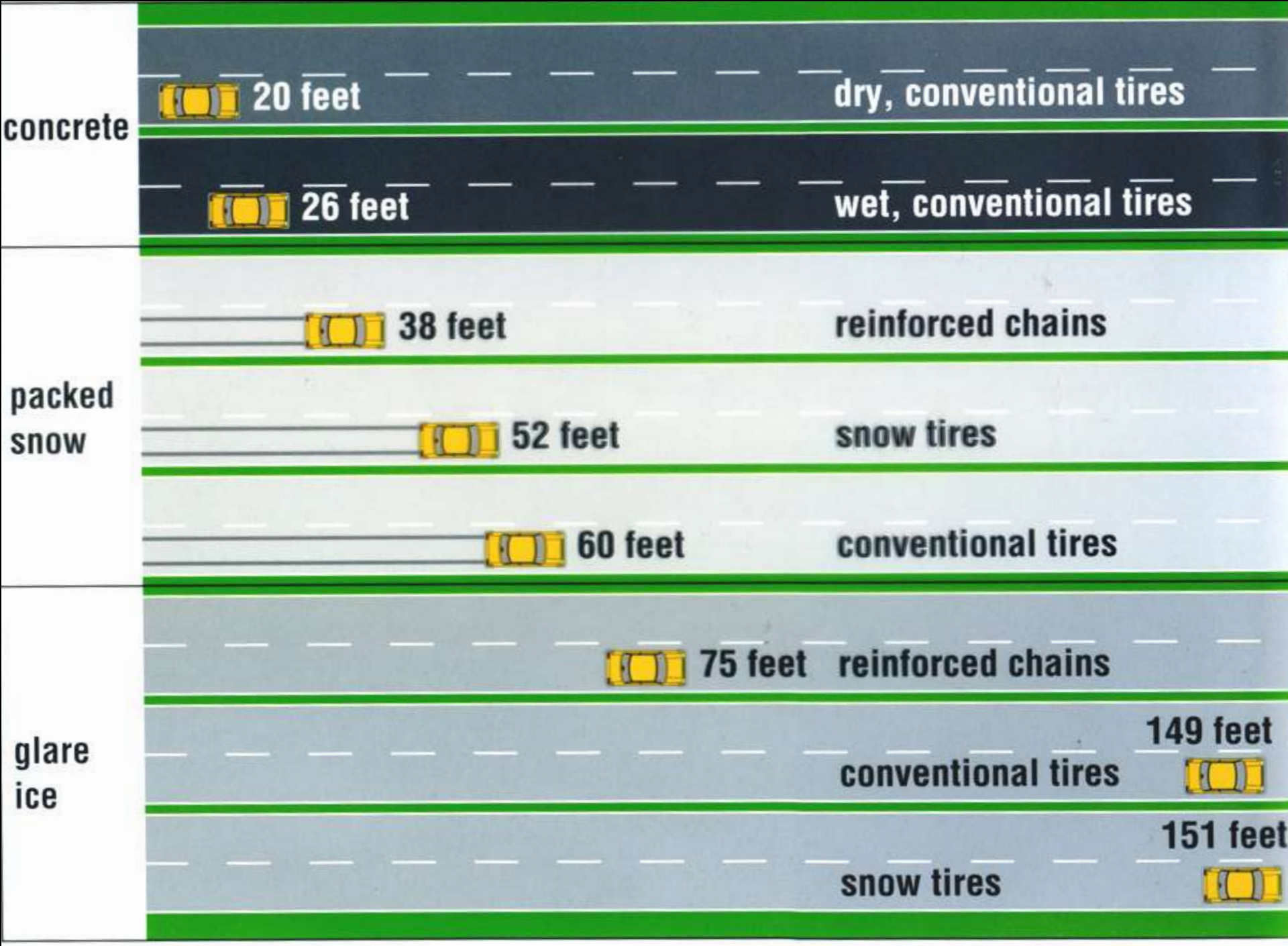
Ice forms on bridges first.

SKIDS

- Lock up skid- let off the brake and steer in direction you want to go.
- Avoid skids by braking early
- Move slowly around corners



Corrective Steering


concrete
20 feet
dry, conventional tires
26 feet
wet, conventional tires
packed snow
38 feet
reinforced chains
52 feet
snow tires
60 feet
conventional tires
glare ice
75 feet
reinforced chains
149 feet
conventional tires
151 feet
snow tires

WIND

- Firm grip
- Be careful driving by wind breaks

  EX: trees, bridges, houses

Be a smart driver
In a cross wind, be prepared for a blast of wind as you go past the front of the truck. Expect your car to be buffeted and blown around.

Expect the combination of a high cross wind and truck traffic to make driving tough.

- Usually found in low areas by water
- Caused by small water particles in the air
- Use low beam lights
- Slow down before entering fog. Many collisions occur due to fog.
- Increase your space cushion

- Stop as soon as it starts to hail.
- Pull over with hazard lights on.
- Hail speed is added to traveling speed. It has a greater chance of larger damage to your car.

- If you think you can drive away, drive at a right angle from it.
- If close, evacuate car and crouch in the lowest spot, usually a ditch.