

## Chapter 12

# Driving in Adverse Conditions



### You Are the Driver!

Driving in traffic during good weather is difficult enough—but imagine driving in these snowy conditions! The unpredictable nature of other drivers makes this a high-risk situation. What will you predict others might do? How can you control your vehicle? Can you prepare for this ahead of time?

**Extreme situations will raise many questions on how to drive safely. This chapter will help you answer those questions and show you how to better manage risk in these situations.**

### 12.1

## Reduced Visibility

### 12.2

## Reduced Traction

### 12.3

## Other Adverse Weather Conditions



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## 12.1

# Reduced Visibility

### Objectives

1. Tell how to use the IPDE Process to manage risks in bad weather.
2. Explain what you can do to help others see you at dawn and dusk.
3. Describe the special techniques you can use for night driving.
4. Explain the procedure to use at night when an oncoming driver fails to use low-beam headlights.

**W**henver visibility is reduced drivers 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 intended 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

### Your Vehicle Windows

The most important rule for your vehicle's glass is "keep it clean!" If dirty windows become a line-of-

sight restriction, you will have a much harder time using the IPDE Process effectively.

A simple thing like moisture forming on the inside of your windshield can make the difference between safe, low-risk driving and colliding with another vehicle. Take these steps when the slightest amount of moisture builds up:

- Turn on your front-window defroster.
- Switch on your rear defogger.
- Use air conditioning and/or heater if it will help.
- Open windows as needed.

Clean all windows and lights ahead of time in bad weather. Keep a close check on any ice, snow, or dirt buildup, especially on headlights and taillights. Stop to clear them by hand.



Imagine what important things you don't see in the night.

Even in good weather, clean windows can be a problem. The plastics used in many vehicle interiors can give off vapors that coat the inside of windows over time. Cigarette smoke also can create a dirty-window problem. By keeping windows clear, you improve your ability to identify, especially at night.

## Sun Glare

At times the sun can create severe and blinding glare conditions. Sun glasses and a sun visor can help, but try to avoid looking toward the sun.

By driving with low-beam headlights on all the time, you help other drivers see you. The brightest day will create the darkest shadows. With severe-glare situations and the sun behind you, be prepared for other drivers to miss seeing your signal or even seeing your vehicle.

## Dawn and Dusk

Dawn and dusk driving situations can be very dangerous. The low visual contrast between moving vehicles and the driving scene can be deceiving. Again, by always driving with your headlights on low beam, you can help others to see you. How would you defend yourself if the oncoming driver in the top picture did not have headlights on?

## Night

Low levels of light at night severely limit your ability to use the IPDE Process. Look at the picture on the left. Even with street lights, how do these nighttime conditions make driving more difficult? Would day-



Dawn driving without headlights on can set many traps.

light make it easier? What things might you see during day-time driving that you would miss while driving at night?

**Headlights** Keep these points in mind when driving with your headlights on at night:

- Use high-beam headlights to see further down the road. Also, look beyond your headlights for important information. Only use your high-beam headlights when vehicles are more than one-half mile in front of you. Switch to low-beam headlights the instant you see the headlights of an oncoming vehicle, the taillights of a vehicle you are approaching, or the taillights of a vehicle that has just passed you. This prevents you from



Be ready to adjust to a new situation beyond the headlights.



## SAFE DRIVING

To give yourself more time for the IPDE Process at night, look beyond the range of your headlights.

blinding the other driver with your headlights.

- Use low-beam lights in bad weather. In snow, heavy rain, or fog, high-beam headlights will reflect more light back into your eyes; as a result, you will see less.

**Meeting Other Vehicles** Take these actions if an oncoming driver fails to use low-beam headlights after you switch to low-beam headlights:

1. Is the oncoming driver far enough away to respond to you? Briefly flick your headlights from low to high to low to remind the oncoming driver to switch to low-beam headlights. Most new vehicles make this easy by having a flash-to-pass position on their high-beam control switch.
2. Is the oncoming driver still using high-beam headlights? Slow, move to lane position 3, and glance at the right edge of the road as shown here.

3. Could you be blinded by bright oncoming headlights? Look ahead with frequent quick glances to check oncoming traffic. *Do not stare directly into oncoming high-beam headlights.*
4. Is it possible you will encounter a hazard to the right after the oncoming vehicle? Be ready to adjust to a new situation beyond the oncoming headlights.

**Overdriving Headlights** The term **overdriving headlights** means driving at a speed that makes your stopping distance longer than the distance lighted by your headlights. Make sure you do not overdrive your headlights, especially in bad weather or on a slick road.

In normal driving conditions, use this 4-second stopping distance rule to see if you are driving within the range of your headlights.

1. Pick a fixed-checkpoint ahead the instant the checkpoint

appears in the area lit by your headlights as shown here.

2. Count off four seconds: “one-thousand-one, one-thousand-two, one-thousand-three, one-thousand-four.”

3. Check your vehicle’s position.

When you have just reached your fixed checkpoint, you can assume your stopping distance on dry pavement is within the range of your headlights.



The stop sign is five seconds away. Are you overdriving your headlights?

Thick fog, and in some situations heavy industrial smoke, can be very dangerous. Before entering fog, be prepared to slow or even park safely off the side of the road. Better yet, park in a rest area or parking lot.

## Fog

When your headlights shine into fog, light is reflected back by water particles in the fog. This makes it harder for you to see. If you use high-beam headlights, your ability to see is reduced even further. Always use low-beam headlights in fog as shown below.

Fog also can reduce your ability to judge distances. Oncoming vehicles may be closer than you think. Avoid trouble by slowing and increasing the space cushion around your vehicle.



In fog, oncoming traffic may be closer than the driver perceives.

If you stop at the side of the roadway, use your hazard lights to warn others that you are stopped.

## Rain

Heavy rain reduces your ability to see and be seen. Keep your windshield clear by using your wipers and defroster on high. Make sure your low-beam headlights are already on as shown in the picture. Many states require low-beam headlights to be on when wipers are on. Reduce your speed. As with fog, if the rain is so heavy that you cannot see well, be prepared to pull off the road and sit out the storm in a safe

location. Don't forget to use your hazard flashers.

## Snow

Wind-driven snow can reduce your vision, cover roadway markings, and make steering more difficult. Be prepared to slow and steer carefully. Heavy snow can block your rear window, reducing visibility. Slush or ice also can build up on your windshield wipers. If snow, slush, or ice builds up, pull off the roadway and clean it off. Also clear your headlights, taillights, and other parts of your vehicle that need it.



By using headlights all the time, you won't have to remember to turn them on in the rain.



**You Are the Driver!**  
What special actions should you be prepared to take in this heavy snow situation?

In blizzard conditions, the last thing you want is to be stranded in the middle of nowhere. If the weather is that bad, try to delay travel until roads and weather improve.

Use low-beam headlights when it snows, day or night. Reduce your speed to maintain control and to give others time to respond to you. If snow covers the road, closing your right-front zone, do not crowd the center of the road by moving to lane position 2. This action has the effect of narrowing the road and could lead to a head-on collision.

## Review It

1. What actions should you take when using the IPDE Process in limited-visibility situations?
2. What steps can you take to help others see you at dawn and dusk?
3. When should you use low-beam headlights at night?
4. What steps should you take when an oncoming driver fails to use low-beam headlights?

## Objectives

1. Describe what happens to traction during rain and snow.
2. List the steps you can take to avoid hydroplaning.
3. Describe how to correct a rear-wheel skid.
4. Tell how to use the controlled-braking technique.

**A**s discussed in Chapter 5, traction allows your tires to grip the road so that you can control your vehicle. Rain, snow, ice, sand, and other materials can limit your traction. Reduced traction can create high-risk driving situations.

### Wet Roadways

Rain-slick roads can create a problem for any driver. You can avoid trouble by knowing the right actions to take ahead of time.

**When Rain Starts** When rain starts to fall, it mixes with dust and oil on the road. This mix can make the road very slippery, until more rain washes it away.

Reduce speed to make better use of your limited traction on wet roads. You can get a little better traction by following the tire tracks left by the driver ahead.

**Hydroplaning** When a tire loses road contact by rising up on top of water and no longer has contact with the road, **hydroplaning** occurs. Hydroplaning is caused by a combination of standing water, speed, and tire condition. The deep tread of new, properly inflated tires will cut through the water and grip the road. But even with good tires, hydroplaning can occur at speeds of 35 mph, in water as little as 1/12-inch deep. Tires that are bald or underinflated can start to lose their grip and hydroplane at less than 35 mph. Slushy snow in standing water also increases the risk of hydroplaning.

If you must drive through standing water, take these steps to avoid hydroplaning:

- Reduce speed—especially if the water is deep enough to have raindrops “splash” on the water’s surface.

**You Are the Driver!**  
What action should be taken to avoid hydroplaning before driving through the water?







Moving water exerts force on a car — the deeper the water, the stronger the force.

Bouyancy can make a car seem half its weight.

Water about 2 feet deep can carry away an average car.

Deep water can be dangerous.

- Use properly inflated tires with good tread.

**Deep Water** When you don't know how deep the water ahead is, do not drive through it. Floods cause more deaths than any other weather condition, and 60 percent are vehicle related. If you must drive through deep water, use the following steps:

1. Estimate water depth by watching other vehicles and looking at objects such as fire hydrants, fence posts, and parked vehicles. *If there is even a possibility of the water coming up to the bottom of your vehicle—do not enter the water.*
2. If the water is just over the rims of your tires, drive slowly in low gear. Avoid driving on a soft shoulder. Try to drive on the higher, center of the road.
3. When driving at a low speed through water, apply a light brake pressure with your left foot

to build friction and create heat on your brake pads. This heat will help dry your brakes and keep them working.

4. After leaving the water, squeeze your brake pedal lightly to see if your brakes are working normally. If your vehicle pulls to one side or does not slow, drive for a short distance while applying a light brake-pedal pressure with your left foot to help dry your brakes.

## Snow

Different types of snow can produce different levels of traction. When fresh snow falls at low temperatures, traction can be fairly good. When traffic packs the snow at places like intersections, traction can be reduced. In subzero weather, even the moisture from vehicle exhaust can freeze into dangerous ice on the pavement.



Use gentle control actions to rock your vehicle.

Temperatures at or just below the freezing point (32°F or 0°C) can create dangerous traction situations. The combination of snow, slushy water, and ice can make for extremely slippery surfaces.

#### Driving Techniques for Snow

Gentle acceleration, steering, and braking are the keys to vehicle control in snow. Put your vehicle in motion by gently squeezing the accelerator.

If your drive wheels slip, release your accelerator and start again.

To improve traction on snow, use all-season tires. To improve traction even more, many states allow the use of tire chains at certain times. Chains are placed over the tread on the tires to increase traction.

**Rocking a Vehicle** Often you can move your vehicle out of deep snow, mud, or sand by driving forward a little and then back a little. By repeating this sequence, you can work your way out. This technique is called **rocking a vehicle**. Check your owner's manual to make sure this procedure will not hurt your transmission. If it is okay, follow these steps:

1. Straighten front wheels as the driver in the picture above has done.
2. Gently accelerate forward. *Do not spin your wheels.*
3. Let up on your accelerator. Pause just long enough to let the engine slow. Shift to REVERSE and gently move backwards. Let up on your

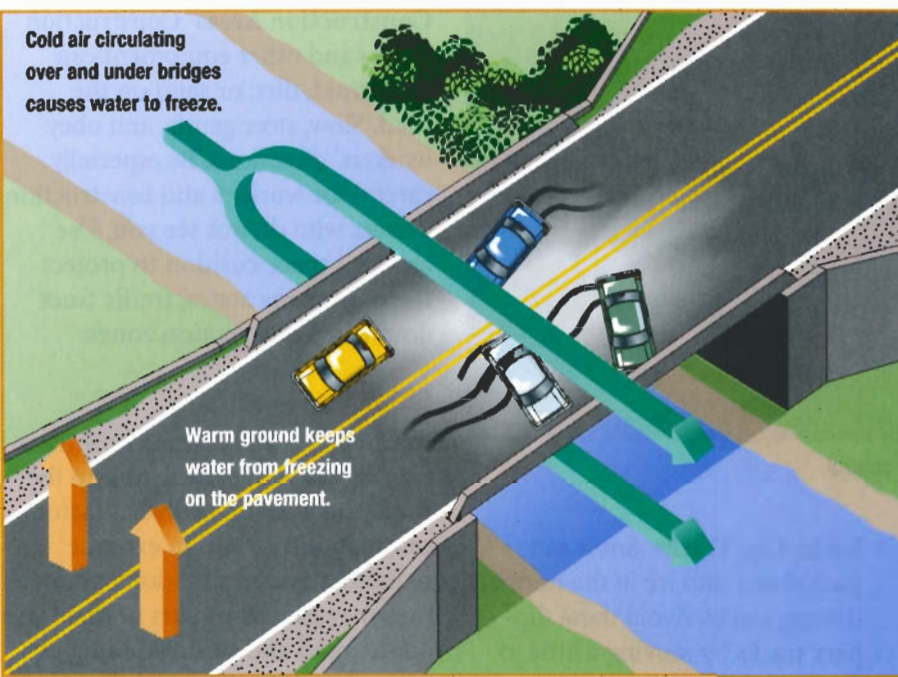
### DRIVE RIGHT DID YOU KNOW?

**SALTING ROADS** Using salt on roadways is a big operation in most states and cities that experience cold weather. Thousands of tons of salt are used on roads in northern-tier states across the country. Because salt is also harmful to the vehicle's paint and underbody, you should always wash it off as soon as possible. Remember, salt only works down to about 18 degrees Fahrenheit.



Cold air circulating over and under bridges causes water to freeze.

Warm ground keeps water from freezing on the pavement.



Ice forms on bridges first.

accelerator and shift to DRIVE to move forward.

4. Continue this backward-and-forward movement until your vehicle has cleared tracks that are long enough to drive out.

## Ice

Be especially alert if temperatures drop below freezing and it is raining. These conditions are just right for snow, ice, and sleet. Predict the worst when ice begins to form.

Temperatures will change the amount of traction you will have on ice. If the temperature of ice warms from 0 degrees to 32 degrees Fahrenheit, your traction will be cut in half.

Squeeze your brakes lightly to check your traction in icy areas. Only do this at low speeds away

from traffic. Slow gradually if your vehicle starts to slide.

Windows and windshield wipers can also ice up in severe weather. If your defroster cannot keep your windshield clear, pull out of traffic and clear it manually. It might be best not to drive at all.

If you must drive, be extra alert for these icy situations:

- **Ice on Bridges** Bridge roadways tend to freeze before other roadway surfaces. Cold air circulates above and below the roadway on bridges and overpasses as shown in the picture.
- **Black Ice** Be alert for “black ice” that forms in thin sheets. This can be extremely hard to see. Be extra careful for this type of ice in winter mountain situations.



Gravel on the road will affect your control.

- **Ice in Tire Tracks** Snow can pack down into ice in the normal driving tracks. Avoid these slippery tracks by moving a little to the right in lane position 3 to use the unpacked, less-slick portion of your lane.

### Other Reduced-Traction Situations

Braking distance will always increase in low-traction situations. Slow early and then be ready to slow even more.

**Gravel Roads** Loose gravel on roads can act like marbles under your tires and cause skids. Well-packed wheel paths usually form on heavily traveled gravel roads. Drive in these paths for better traction and control. If you need to move out of the wheel paths, slow and hold your steering wheel firmly.

**Leaves** Wet leaves on the road can decrease traction and reduce your stopping and steering control. Slow ahead of time if you see wet leaves on the pavement.

**Construction Areas** Construction trucks and other equipment can leave mud, dirt, or sand on the road. Slow, steer gently, and obey workers' directions. Be especially careful for workers and construction drivers who do not see you. Use an extra space cushion to protect them. In many states, traffic fines double in construction zones.

### Skidding

In Chapter 5 you learned how traction allows your vehicle to grip the road. You also learned what factors can reduce traction. In extreme reduced-traction situations, your tires may lose all or part of their grip on the road and **skid**. Skidding can happen on any surface while you are braking, accelerating, or steering.

In addition to slowing ahead of time, early detection is one of your best defenses to control skidding. What is the best way to detect a skid? Aim high to see your target



Respect the dangers around a construction site by lowering your speed and being ready to stop.



If your vehicle skids off target to the left, you might see this...



and you should steer like this.



If your vehicle skids off target to the right, you might see this...



and you should steer like this.

well down the road. The instant you see your vehicle is not traveling in your intended path of travel toward your target, you need to start correcting the skid, as the pictures show. If you wait until you feel your vehicle skidding, you may not be able to correct the skid in time to avoid trouble.

These pages will show you how to correct most skidding situations.

In all these situations, remember:

1. A locked or spinning wheel provides no steering control.
2. Never give up trying to correct a skid.

**Over-Power Skid** If you apply too much power to your drive wheels, they may spin, thus causing a skid. To correct this, simply let off your accelerator.

**Over-Braking Skid** If your vehicle does not have an antilock braking system (ABS) and you over-brake, the wheels may stop while you are still moving. To correct this, release your brake pedal enough to get your wheels rolling. See the controlled braking section on the next page for more details.

**Front-Wheel Skid** You are in a front-wheel skid if you turn the steering wheel and your vehicle wants to slide straight ahead. Your vehicle responds less than you want it to. To correct this skid, you need to regain traction for steering. To do this, you need to

1. Release accelerator or brake pedal pressure.
2. Quickly apply and release the brake pedal to slow if your vehicle does not have ABS.
3. Continue to look and steer at the path of travel you want to follow.

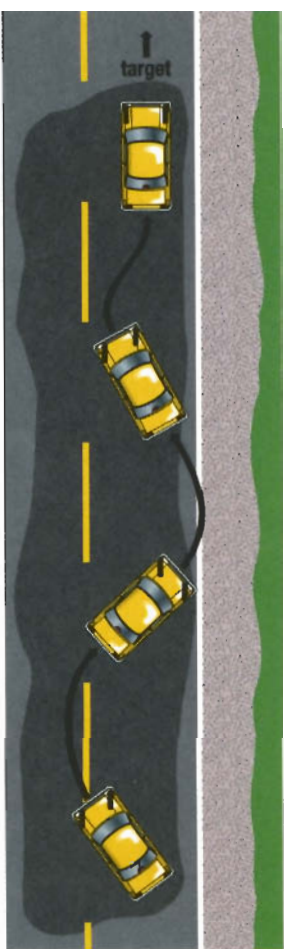
**Rear-Wheel Skid** If you are steering straight and your vehicle starts to move off target to the left or right, you probably are just starting a rear wheel skid. This skid can be caused by using too much power or braking on slick surfaces. The instant this skid starts, do the following:

1. Release your accelerator or brake. With manual transmission, depress your clutch pedal.
2. Steer quickly and precisely in the direction your vehicle needs to go, as shown on page 257. On a straight road, steer for your target and intended path of travel. Be careful not to overcorrect for the skid by steering too much.

3. The rear end of your vehicle probably will continue to slide a little from side to side, or **fishtail**, after you have corrected the initial skid. Steer and countersteer in the direction your vehicle needs to go. As your speed drops, your control will increase.

Look at the illustration to the left to see how you can provide precise, smooth, continuous steering actions to correct a fishtail skid sequence.

**Skidding in a Curve** Slow ahead of time to avoid skidding in a curve. If you do skid in a curve, you probably are going to go off the road. If so, use the steps to correct a front-wheel or rear-wheel skid and steer for an off-road path of travel that is as safe as possible.



Correcting a fishtailing skid



ABS enables you to steer and stop at the same time.

## Controlled Braking

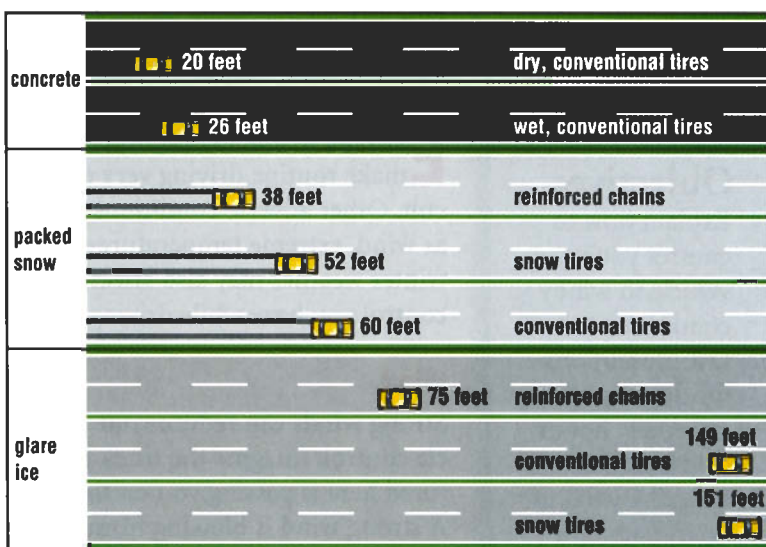
A panic stop can lock your wheels, causing a skid and loss of steering control.

Use **controlled braking** to reduce your speed as quickly as possible while maintaining steering control of your vehicle. Controlled braking is a technique of applying your brakes to slow or stop quickly without locking your wheels. Follow these steps to use controlled braking:

1. With the heel of your foot on the floor, let the ball of your foot press your brake pedal. You must press hard enough to slow your vehicle rapidly without locking your wheels.
2. If your wheels lock and your vehicle skids, ease up on your brake pedal just enough to let your wheels start rolling.
3. Keep using this squeeze-relax a little-squeeze process until you stop.

Using just the right amount of pressure is the hardest part in controlled braking situations. To overcome this problem, most new vehicles are equipped with an anti-lock braking system (ABS).

An ABS-equipped vehicle uses a computer to prevent its wheels from locking—even in an emergency stop. If your vehicle has an ABS, just press the brake pedal as hard as you can in an emergency. You may feel little pulses through the brake pedal or hear the ABS at work. Don't let up on the brake pedal; maintain firm pressure until you stop. Also remember, ABS vehicles will allow you



Braking Distances at 20 mph

to steer and brake at the same time as shown in the picture on the left. *They will not enable you to stop in a shorter distance.*

The chart shows how long it takes to stop from 20 mph. Notice the difference that different tires and road surfaces can make.

## Review It

1. What happens to traction during rain and snow?
2. What happens when a vehicle hydroplanes?
3. What are the steps you need to take to correct a rear-wheel skid?
4. What does controlled braking enable you to do?

## 12.3

# Other Adverse Weather Conditions

### Objectives

1. Explain how to control your vehicle in windy conditions.
2. List precautions for driving in extremely hot or cold weather.
3. Describe what to do to maintain vehicle control during winter driving.

**E**xtrême weather conditions can make routine driving very difficult. Other adverse conditions such as wind, extreme temperatures, and winter weather may also affect the control you have while driving.

### Wind

Strong winds can reduce your vehicle control. Imagine the truck pictured here is passing you on the left. A strong wind is blowing from the left. What should you expect? How can you maintain control?

Anticipate a strong blast of wind from the left after the truck passes. To maintain control, be ready to slow a little, move to lane position 3,

and apply extra steering to the left just to keep moving in your intended path of travel.

You may experience this type of situation when driving out from under a bridge or from a tunnel. Just remember to keep a balanced grip on the steering wheel and be ready to make steering corrections for cross winds.

In the unlikely event you are in an area where tornadoes are spotted, be ready to act. The last place you want to be in a tornado is in a car. If you see a tornado and there is no place to take cover, stop, get out of your vehicle, and lay down in a ditch or under a bridge.



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





In deep snow, make sure exhaust can get away from your vehicle.

### Hot Weather

Your vehicle is designed to operate in a wide range of temperatures. It has a cooling system to help it warm up in winter and stay cool in the summer. But in extreme conditions, problems can develop.

Your temperature light or gauge indicates when your engine is too hot. When this happens, turn off your air conditioner. You may be uncomfortable, but you might also be able to cool your engine enough by turning on your heater. If the engine temperature warning light stays on, stop and park in a safe place to let the engine cool. Once cool, check your coolant level in your cooling-system surge tank. Never remove the radiator cap on a hot engine because the hot liquid inside can scald you. If needed, refill and repair your cooling system.

### Cold Weather

Very cold weather creates problems. Be prepared by taking the following steps:

- **Be Alert for Exhaust Leaks**

Carbon monoxide gas is created when your engine runs. This gas is colorless, odorless, and deadly. Even a small exhaust leak can be trouble. When driving, always have a source of fresh air coming into your vehicle—even if you have to open a window a little. If you are stuck in snow with your engine running, make sure your exhaust pipe is not blocked as this driver is doing.

- **Do Not Race a Cold Engine**

Racing a cold engine will increase wear on it. Do not run a cold engine at high speeds.

- **Do Not Set Your Parking Brake**

Ice or slush stuck to the underside of your vehicle can freeze your parking brake when you park your vehicle. In these conditions, use your automatic transmission park gear or reverse with a standard transmission.

### Tips for Smooth Winter Driving

Winter driving will test the best of your IPDE driving skills. The extra



Clear snow off your roof, hood, and trunk so it will not blow off and block your vision.

effort you make to maintain an adequate line of sight and open zones is worth it. You can help smooth the way by following these tips:

- **Look and Listen for Traffic Reports** Be alert to television and radio reports about accidents, road repairs, and bad weather. You also can take advantage of Internet information sources.
- **Keep Windows Clear** Remove snow and ice before driving as this driver is doing. Don't forget your headlights and taillights. You want to see and be seen.
- **Respect Lower Speeds** Travel with the flow of traffic, but always maintain control of your vehicle.

- **Keep a Safe Following Distance** Allow six, seven, or more seconds of following distance just to make sure you have room.
- **Try to Keep Moving in Snow** If you must be out in a blizzard, be alert for drivers who are stalled, disabled, or moving extremely slowly. Try to avoid getting stuck behind them. Slow down and maneuver to avoid others and to keep moving. The energy of motion created by your moving vehicle can help carry you through snowy situations.
- **Use a Lower Gear on Slippery Roads** Use a lower gear to maintain control on ice or snow. Remember, keep moving to avoid getting stuck.
- **Avoid Cruise Control** Do not use cruise control on slippery roads. The system could cause you to lose control.

## Review It

1. What actions must you take to maintain vehicle control in strong winds?
2. What can you do to cool an overheated engine?
3. Why should you try to keep moving at low speeds in heavy snow?

## Reviewing Chapter Objectives

### 1. Reduced Visibility

1. How do you use the IPDE Process to manage risks in bad weather? (246)
2. What can you do to help others see you at dawn and dusk? (247)
3. What special techniques can you use for night driving? (247–249)

### 2. Reduced Traction

4. What happens to traction during rain and snow? (252)
5. What steps can you take to avoid hydroplaning? (252)
6. How do you correct a rear-wheel skid? (257)
7. How do you use the controlled-braking technique? (257–258)

### 3. Other Adverse Weather Conditions

8. How can you control your vehicle in windy conditions? (260)
9. What precautions can you take for driving in extremely hot or cold weather? (261)
10. What should you do to maintain vehicle control during winter driving? (262)

## Projects

### Individuals

**Investigate** Make a list of all the sources available to you to check on traffic conditions. Your list should include sources for local conditions as well as sources for conditions across the country.

**Use Technology** Use the Internet to check weather conditions throughout the United States. Identify places with weather conditions that could affect travel. Compare your findings with those of your classmates.

### Groups

**Demonstrate** Using model vehicles, demonstrate to the class the various types of skids discussed in the text. Explain how the skids occur and how to correct for them.

**Practice** With the owners' permission, practice cleaning the outside windows of the vehicles parked in your school parking lot.

# Chapter 12

# Review

## Chapter Test

### Check Your Knowledge

**Multiple Choice** Copy the number of each sentence below on a sheet of paper. Choose the letter of the answer that best completes the sentence or answers the question.

- When visibility is reduced, the first action to take is to
  - maintain a steady speed.
  - stop.
  - slow down.
  - move closer to the windshield.
- If traction conditions are hazardous, you should
  - drive slowly.
  - not drive at all.
  - drive close to other vehicles.
  - use emergency flashers.
- Traction on wet roads can be improved by driving
  - toward the right edge of the roadway.
  - at or near the posted speed limit.
  - with reduced tire air pressure.
  - in the tire tracks of the vehicle ahead.
- When your temperature gauge indicates that your engine is too hot, you should
  - turn on your heater.
  - remove the radiator cap.
  - turn on your air conditioner.
  - none of the above

**Completion** Copy the number of each sentence below. After each number, write the word or words that complete the sentence correctly.

- Wearing sun glasses and a sun visor helps you deal with blinding \_\_\_\_\_ conditions.
- If it is snowing during the day or at night, you should always use \_\_\_\_\_ headlights.
- \_\_\_\_\_ brakes allow you to steer and stop at the same time.

### Review Vocabulary

Copy the number of each definition in List A. Match the definition in List A with the term it defines in List B.

#### List A

- vehicle loses part or all of its grip on the road
- repeating the sequence of driving forward a little and then back a little to move your vehicle out of deep snow, mud, or sand
- reducing speed as quickly as possible while maintaining steering control of your vehicle
- driving at a speed that makes your stopping distance longer than the distance lighted by your headlights
- occurs when a tire loses road contact by rising up on top of water

#### List B

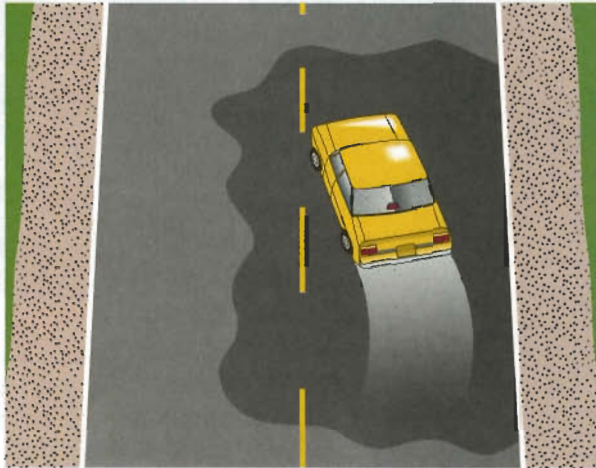
- controlled braking
- hydroplaning
- rocking a vehicle
- skid
- overdriving headlights

### Think Critically

Write a paragraph to answer each question.

- Using the IPDE Process as your guide, explain how you can maintain a safe intended path of travel when visibility is reduced.
- Which headlights (low-beam or high-beam) should you use when driving at night in adverse weather conditions? Explain your answer.

## Decision Making



1. What actions should you take in this skidding situation?



2. In this winter situation, what precautions should you take when approaching the bridge?



3. As you approach this situation and see that the blue van has stopped, how would you use controlled braking?



4. What visual habit should you use to avoid being blinded by these oncoming high-beam headlights?