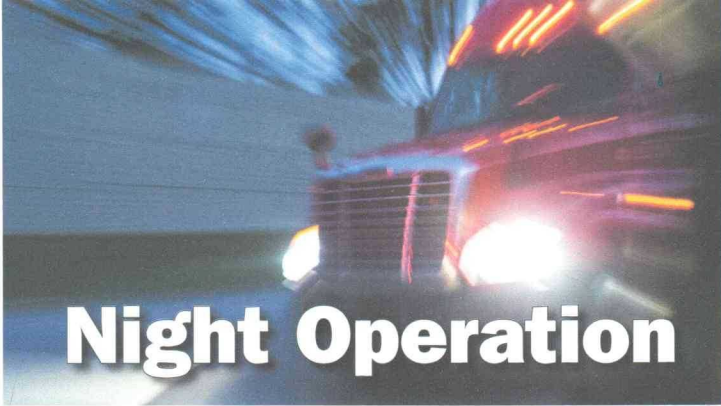




Night Operation

13

OBJECTIVES

Upon completion of this chapter, you will be able to:

- Discuss the factors that affect the safe operation of CMVs at night as they relate to your truck, the road, and you, the professional driver
- Explain procedures that can help make driving at night safer

Introduction

Even in the best conditions, driving a commercial motor vehicle (CMV) requires preparation, constant alertness, and attention to detail. Driving a CMV at night introduces additional challenges. For instance:

- Low light makes it harder to see
- Hazards may not be recognized as quickly
- A more limited sight area leaves less time to respond

Night Driving Factors

There are three major factors you need to focus on when driving at night:

- Your truck
- The road
- You, the professional driver

Your Truck

As a professional driver, your work day always begins with a pre-trip inspection. When you know you'll be driving after dark, pay special attention to the lights, reflectors, and windshield during this time. At night, you need to be able to rely on your lights, especially your headlights, to help guide the way.

Clean your headlights with a soft cloth and check that both your low and high beams function and are properly aimed. Dirt, dust, or grime on your headlights can reduce their effectiveness by as much as fifty percent.

A dirty windshield, mirrors, or windows may not affect your visibility much in the daylight, but when they're lit up at night by another driver's headlights or by a setting or rising sun, even a little dirt can cause a distractingly dangerous glare. Clean your glass and mirrors, and be certain you have adequate windshield washer fluid in your reservoir.



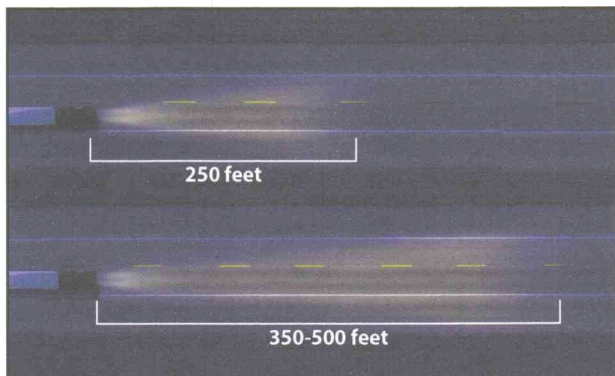
At night, making sure other drivers can see you and know your intentions is especially crucial, so clean off **all** your lights and verify they are in good working condition. This includes your:

- Turn signals
- Tail lights
- Marker lights
- Brake lights
- Clearance lights
- Identification lights

It's also a good idea to clean off all your reflectors, as well.

The importance of communicating your intention to turn, change lanes, or stop is multiplied at night. Other drivers may have a hard time seeing your vehicle and understanding your intent. Your turn signals and brake lights may be the only way to communicate this information.

Typically, your **low beams** will illuminate the road ahead of you up to about **250 feet**. So, in the dark at 65 miles per hour, you'll only be able to see about two and a half seconds ahead. Clearly, this means you'll have a much shorter time to react to potential hazards at nighttime than you do during the day.



For information on stopping distance, see **chapter 11**.

High beams allow you to see up to **350 to 500 feet** ahead, giving you more time to react than your low beams do. But even so, you still won't have as much visibility as you do during the day.

Glare from your vehicle's headlights can cause problems for drivers coming toward you. They can also bother drivers going in the same direction as you are, when your vehicle's lights shine into their rearview mirrors. Use high beams only when it is safe and legal to do so. High beam headlights should be dimmed within 500 to 1,000 feet of an oncoming vehicle or within 500 feet of a vehicle you are following.

Never use high beam headlights when driving in fog.

If an oncoming driver is using their high beams, look at the white line on the right side of the road rather than directly at their lights. This will offer some protection from the glare and enable your eyes to adjust more quickly once the vehicle has passed. Plus, following the white line will help ensure you keep your truck on the road.

In addition, be sure to set the interior lights of your cab for best nighttime visibility. Dimming the brightness of the instrument panel and keeping the dome light off will allow your eyes to maintain their best night vision by not having to adjust from a brightly lit interior to a very dark exterior.

Speed may need to be adjusted so the vehicle can be stopped within the range of the headlights.

Always drive within the range of the headlights. Driving outside the range of the headlights (over driving the headlights) can adversely affect your ability to recognize hazards.

The Road

At night, hazards aren't as easy to see and may not be recognized as quickly as during daylight hours. Driving after dark reduces the time you have to recognize and react to dangers on the road. Try to anticipate potentially hazardous situations and be prepared to react to them, if necessary.



Other drivers may be drowsy—especially late at night when people are more likely to be tired or inattentive. In the early morning hours, when bars and night spots are closing, there may be impaired drivers on the road. Keep an eye out for vehicles that weave from lane to lane, stop without reason, have trouble maintaining a constant speed, or show other signs of impaired or erratic driving. Maintaining your alertness and giving these drivers plenty of room will help ensure their driving mistakes don't become your problems.

People walking, jogging, or riding bikes wearing low-visibility clothing can be difficult to see until they are very close, so be extra vigilant in urban and suburban areas. Some may also be wearing headphones. They may be completely unaware of your presence and dart out into your path unexpectedly. Or they may underestimate your speed and try to cross before you reach them. Noticing them early and being prepared to stop is your best defense.

In many parts of the country, animals may be on the move at night so there's a chance you'll see some of them on the road. When driving in wooded areas or areas near tall grass, be sure not to overdrive your headlights and keep an eye on both shoulders ahead. As part of your visual scan, look for reflections of animals' eyes or movement along the sides of the road.

The terrain that you're driving on can also present hazards when driving at night. Your headlights can't illuminate over hills or around curves, so slow down to an appropriate speed for the road you're driving on. Be sure to allow yourself adequate time to stop if a hazard appears in front of you as you round a curve or reach the crest of a hill.

In rural areas, you need to depend solely on your vehicle's headlights for lighting.

In urban areas, lighting levels can vary. Since levels vary, your eyes are required to adjust to different levels of lighting.

And, if weather conditions are contributing to reduced visibility, slow down even more. Giving up a little speed for an increase in safety is the right thing to do.

In addition to improving your chances of seeing others, make an extra effort to make sure others see you. Give other drivers time to react by increasing your following distance by at least one second at night. And, use your turn signals for every turn or lane change so your intentions are always clear.

You, the Professional Driver

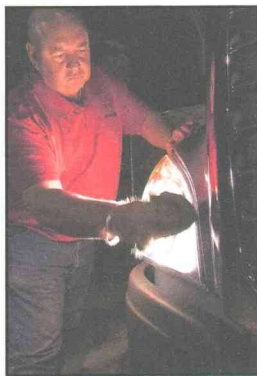
An important key to preparing for night driving is to be aware of your own visual limitations. At night, your eyes will have to work harder to adjust to changes from light to dark and dark to light. Because your headlights don't light the sides of the road, your side-to-side visibility is also reduced, and much of what you are able to see during the day is no longer visible.

If you wear prescription glasses to drive, be sure they're clean and free of scratches. Dirty or scratched glasses can magnify glare at night. It doesn't make sense to clean your windshield thoroughly and then look through it with dirty glasses.

Another helpful step whether you use prescription glasses or not, is to wear sunglasses during the day to reduce eye strain. This will help you see better at night and make the transition from day to night driving easier.

As oncoming vehicles approach, look to the right side of the road and watch for the white line. This will help you to stay on track and protect yourself from the glare that can temporarily impair your vision. It can take several seconds for your eyes to recover from the effects of glare. This can be dangerous. At 55 miles per hour, a vehicle covers about 150 to 160 feet in two seconds. That is a substantial distance to drive with impaired vision.

*For more information on driving in adverse weather conditions, see **chapter 14**.*



Never wear sunglasses at night.

One of the biggest hazards of night driving is fatigue. You need to be alert for other drivers who may be experiencing fatigue, but you also need to recognize how fatigue affects you. Fatigue can slow your reaction time to hazards and cause blurred vision. Some of fatigue's warning signs include:

- Drowsiness
- Frequent or repeated yawning
- Loss of visual focus
- Fighting to keep your eyes open
- Heavy/drooping head
- Stiff or sore neck muscles
- Lack of alertness
- Poor memory recall
- Weaving from lane to lane
- Making bad driving decisions
- Erratic speed control
- Dozing off for a few seconds at a time
- Erratic shifting
- Intermittent shifting
- Following vehicles ahead too closely

Make sure you are rested and alert. The cover of darkness can magnify the effects of fatigue, making night driving more dangerous. To combat fatigue when driving at night:

- Keep your cab cool to help avoid the drowsiness that can come from sitting in a cab that's too warm.
- Stop at regular intervals (every couple of hours) to rest or stretch.
- Pull over and get some sleep when tired. (It's much safer to get some rest in the sleeper than to push yourself and put you, and the motoring public, in danger.)

Scan your mirrors. As well as maximizing visibility, this helps fight fatigue by helping you avoid staring at one point for a period of time.

Inexperience with operating a tractor-trailer under nighttime conditions is also a factor. As with all other aspects of driving this type of vehicle, the more practice and experience you have, the better you will be able to deal with the challenges of driving at night.