

# **NIGHT DRIVING SAFETY FOR SCHOOL BUS DRIVERS**

*Reference Guide and Test*

Produced by  
**Video Communications**

## **INTRODUCTION**

Driving a school bus at night is more difficult than driving in the daytime. Night driving requires an additional set of skills. When driving at night, there are many factors that school bus drivers must consider. These can include: Headlights, use of mirrors, night blindness and more. Our goal in the video is to demonstrate night driving skills.

## **Part One: Introduction to Night Driving**

**1) *The national safety council has conducted studies that show it is 3 times more likely that a fatal accident will occur at night than during the day.*** During winter months the daylight hours are shorter, so drivers may be required to pick up children before sunrise.

**2) *90% of a driver's reaction time results from what they see.*** Reaction time can be severely curtailed when driving at night. This will have a direct effect on what a bus driver can, and can't do while driving at night.

**3) Fatigue is another factor.** Drowsiness is caused because humans are more alert during the day, than at night. Human biorhythms are more in sync during daylight hours. Here are some preventative measures that can be taken to help stay awake and aware at night:

**a) Drink a cup of coffee or tea before you start driving.**

**b) Remain active while waiting to drive the bus.** In the evening, your body naturally relaxes and gets ready for sleep. The more active you are when anticipating the drive, the more alert you will be when operating the school bus.

**c) Keep adequate air circulation** and lower temperatures. This will help to keep you from getting too warm and drowsy. You can open the driver's compartment window and turn on the fan to allow for adequate circulation.

## **Part Two: Night Blindness**

4) Night blindness is one of the most important issues for school bus drivers to understand. Night blindness is how well our eyes adapt to the dark. An example of this is walking from a well lit area into a darkened one. After a while your eyes adjust to the dark and you are able to see fairly well.

5) Every individual reacts differently to night blindness. One person's eyes will adjust almost immediately to darkness, while another person's eyes may take 15 minutes or more to adjust to the same condition. And in some cases, an individual's eyes will simply not adjust to the darkness. You should take the time to experiment and find out how long it will take your eyes to adjust.

6) *Some of the physical signs of night blindness may include:*

- a) The inability to identify objects within the night driving environment.
- b) When a driver isn't able to drive at safe speeds for the night driving conditions they are experiencing.
- c) When a driver clearly does not recognize the lane they are driving in.

7) *Here are some techniques that can help improve night vision:*

- a) **Keep your eyes moving.** Try not to stare at one object for too long. Doing this causes your eyes to adapt to whatever light source is available at your point of focus. Move your eyes around, don't stay static.
- b) **Keep blinking.** Blinking helps the cells in your eyes that are responsible for night vision from desensitizing.

8) **Night blindness is a physical condition. It's NOT a reflection of a driver's ability.** It's important for school bus drivers to know their susceptibility to night blindness and to know how long it takes their eyes to adjust to night driving conditions. If you are unsure of your night blindness condition, contact your supervisor and they will work with you to determine the best course of action.

## Part 3: Pre Trip for Night Driving

**9)** The pre trip inspection for night driving covers the same items that you inspect before **ANY** route is driven. However, **particular attention must be placed on the windshield, the mirrors and the headlights.** All three of these items are critical to the safety of the bus during night driving.

**10) Windshields should always be free of debris or dirt.** This is critical at night because a dirty windshield will cut down on the driver's ability to see objects clearly. Take the time during your pre trip inspection to properly clean the windows. Make sure you windshield wiper blades are in good condition and are working properly. When driving in rainy conditions, rainwater will cover the windshield. Light reflects off of water, and may distract your eyes. So a clean windshield with good, working wiper blades are extremely important.

**11)** The same applies for **cleaning the mirrors on the school bus.** Even when the mirrors are clean, it's harder to see objects clearly at night than during the day. So take the time during your night pre trip to make sure your mirrors are clean and free of debris.

**12) You must also take the time to clean the headlights.** The headlights on the bus, during night driving, are your eyes. Without them you are blind. Increase your chances of being able to see objects clearly by taking the time to clean your headlights properly. You should do the same with your turn indicators so other motorists will clearly see when they are activated.

**13)** It is also a good idea to have a flashlight equipped on the bus in the event that a mechanical failure, injury or accident would take place.

**14)** When driving at night, it becomes much more difficult to identify and to turn switches on. This becomes more evident when there is little or no light to illuminate the switches. This becomes an important safety issue. You should also take the time to acquaint yourself with new switches, each time you drive a new school bus for the first time. You should know by feel and memory the

configuration of the switches on the control panel inside your school bus.

**15)** The pre trip inspection of the school bus is **CRITICAL** before operating the bus. When driving at night, it becomes even more critical to the safety of students, the public and the driver.

## **Part 4: Night Visibility and Driving Techniques**

**16)** Driving a school bus at night limits your visibility. Unlike driving during the daytime, and in optimal visibility conditions, **night driving limits the bus driver to what their headlights can illuminate.** This is one of the several night driving concepts that school bus drivers must be aware of.

### **Headlights**

**17)** One of the most common problems that drivers experience is driving beyond their headlights. **High beams illuminate the area in front of the bus for approximately 500 feet.** You must understand that to safely drive within your headlights, *you must be able to stop the bus within the 500 feet that the headlights on the bus are illuminating.*

**18)** **The low beams illuminate an area of about 150 feet in front of the bus.** *This means the driver must be able to stop their bus within the 150 feet that the head lights are illuminating.*

**19)** **In order to drive safely within your headlights, you must reduce your speed.** If your low beams are on, you must drive slower because you have a shorter distance of visibility. If your high beams are on you will be able to drive at a higher rate of speed (within speed laws) because you have a larger illuminated area with greater visibility. **REMEMBER TO REDUCE YOUR SPEED** so you don't drive beyond your headlights. You should practice this concept before you begin driving a school bus at night.

### **Judging Distances**

**20)** Darkness limits your visibility. What you see is limited to what your headlights allow you to see. **Your ability to judge distances between objects will be harder to recognize and distinguish at night.** During the day it's easier for a bus driver to accurately judge the distance of approaching vehicles. The same situation at night is exponentially more difficult. Your ability to judge distances between objects at night will be drastically reduced. **You must realize that distant objects might be much closer than they appear at night.**

### **Rate of Closure**

**21)** When following other vehicles at night, it's difficult to gauge the rate of deceleration of the vehicles you are following. You should leave adequate room between the bus and those vehicles. **You should maintain approximately a 300 foot following distance from your bus to the traffic in front of you.** The rate of closure between two vehicles at night is hard to judge. Err on the side of caution and moderate your speed. Watch for break lights ahead of you and be ready to react if it becomes necessary to do so.

### **Intersections**

**22)** It is important to be extra cautious when making a turn at an intersection at night because visibility is so limited. **When entering the intersection the driver should keep their eyes scanning across the path of travel to identify any relevant clues concerning traffic, pedestrians, bicyclists or anything that might cause an issue.**

### **Reaction Time**

**23)** One of the reasons that reducing speed plays such a vital role in night driving is that it has to do with the reaction time of the driver. Here are some examples: when you get too close to a vehicle in front of you; when you drive outside of your headlights; when you enter an intersection at night and don't slow down; when your reaction time may not be able to prevent an accident; when your reaction time is fixed and will not change. Remember, the best way to improve your reaction time is to reduce your speed and use safe driving techniques.

### **Courtesy to the Public**

**24) Whenever in doubt, dim your lights!** As a professional in the school bus industry, politeness and safety towards the public is the rule, not the exception. Dim your headlights whenever you are approaching or coming motorists or following behind another vehicle. Don't let your headlights become a distraction to other motorists.

### **Road Signs**

**25) School bus drivers need to concentrate on road signs,** even if visibility is drastically reduced. Signs that show sharp curves, traffic hazards or any other type of impediment, must be seen by the driver.

## **Part 5: Additional Night Driving Issues**

**26)** Visibility can become a major issue when driving into the sun. During the course of the video we show an example of this. The sun keeps shining right into the eyes of the driver, having to shield his face from the light. **You should always make sure that your seat is adjusted** so the shade from the visor will keep the sunlight from hitting your eyes.

**27) Mirrors are another critical component to night driving.** Proper adjustment of mirrors is absolutely necessary. At night you will not have a great deal of depth perception. You will be limited to how much you are able to see. Factor this into your driving when operating a school bus at night. Using the mirrors on the bus at night takes practice and good judgment.

**28) When driving in snow or ice at night,** it will become harder to see the road clearly. Water reflects light into the air, so **when you encounter these conditions use your low beams.** It will make it easier to see the road and pick out dangerous driving hazards.

**29)** Drivers may experience fatigue, when driving late at night particularly on long field trips such as athletic events. You should keep adequate circulation inside the bus. However, even with the best preparation and preventative techniques, some drivers will still get drowsy during a long night's bus trip. If this is the case, **pull off the road and find a safe and well lit area or shopping**

**center. Stop the bus and take a short break. If possible, plan ahead for safe places to stop if the need arises.**

### **CLOSING**

Throughout the video, we covered many important issues that bus drivers should follow when driving a school bus at night. Keep in mind that night driving, with limits on visibility, requires that drivers must stay alert and focused on the rapidly changing conditions that occur at night. Remember that visibility is limited at night. This means you have to be even more attentive and focused than usual.



## TEST QUESTIONS

- 1) It's 2 times more likely that a fatal accident will occur at night than during the day. TRUE or FALSE**
  
- 2) A preventative technique that can help reduce drowsiness is to:**
  - a) drink a cup of coffee or tea before you start driving.
  - b) remain active while waiting to drive the bus.
  - c) keep adequate air circulation.
  - d) All of the above
  
- 3) Night blindness is how well our eyes adapt to the dark. TRUE or FALSE**
  
- 4) You can drive the same speeds at night, as during the day. TRUE or FALSE**
  
- 5) You only need to clean the windshield and headlights when doing a pre trip inspection prior to driving at night. TRUE or FALSE**
  
- 6) High beams illuminate the area in front of the bus for approximately 500 feet. TRUE or FALSE**
  
- 7) If your high beams are on you will be able to drive at a higher rate of speed. TRUE or FALSE**
  
- 8) Some of the physical signs of night blindness may include:**
  - a) The inability to identify objects within the night driving environment.
  - b) When a driver isn't able to drive at safe speeds for the night driving conditions they are experiencing.
  - c) When a driver clearly does not recognize the lane they are driving in.
  - e) All of the above
  
- 9) You should use low beams in wet weather at night. TRUE or FALSE**
  
- 10) Make sure to turn on your high beams when you are approaching traffic to give warning to motorists. TRUE or FALSE**

## **ANSWER KEY**

- 1) FALSE**
- 2) d**
- 3) TRUE**
- 4) FALSE**
- 5) FALSE**
- 6) TRUE**
- 7) TRUE**
- 8) e**
- 9) TRUE**
- 10) FALSE**