

A close-up photograph of grass blades covered in a thin layer of white frost. The background is a soft, out-of-focus bokeh of light blue and white, suggesting a bright, overcast day. The lighting is soft and diffused, highlighting the texture of the frost on the grass.

Winter Weather Driving for School Bus Drivers

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Presented by: Derek Lavoy

AGENDA



- Introduction to Winter Weather Driving
- Driver Preparedness
- Vehicle Preparedness
 - Jessica's Law
- Vehicle Operation
- Summary & Questions



INTRODUCTION

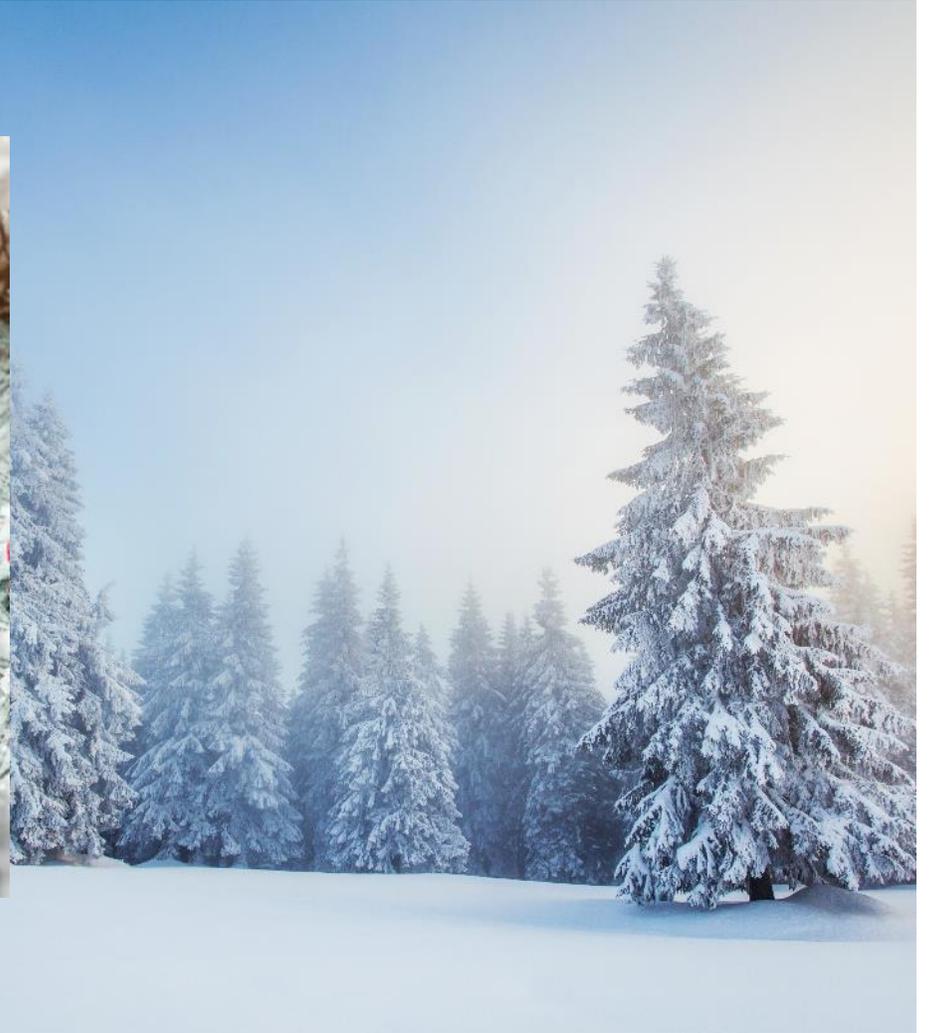
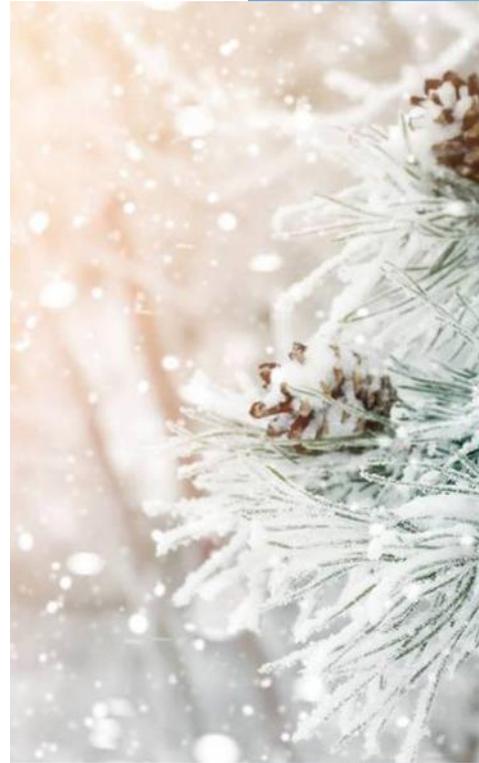
Before the winter snow begins to fall, school bus drivers need to take specific steps to ensure that they are mental prepared for the icy and slippery road ahead as well as preparing the school bus for the conditions. Winter weather driving is an added dynamic to the already difficult job of a school bus driver.



School Bus Driver Preparedness



What are some ways
that each of you
prepare yourself for
cold mornings?



Driver Preparedness

- Plan ahead:
 - Check local television stations (WMUR)
 - Subscribe to school district or company phone or text alerts
 - Review weather channels (weather.com or noaa.gov)
- Get adequate rest
- Dress appropriately, especially footwear
- Leave yourself extra time:
 - Get up earlier
 - Leave plenty of travel time to work
 - Expect delays



Driver Preparedness

- Expect time changes/delays
 - 1- hour delay, 90-minute delay, 2-hour delay
- Plan for detours on your route
- Expect vehicle accidents which may cause a delay on your route
- Limit extra distractions, explain to passengers that your attention is need on the road, more than ever
- Mentally prepare for changes in your normal routine



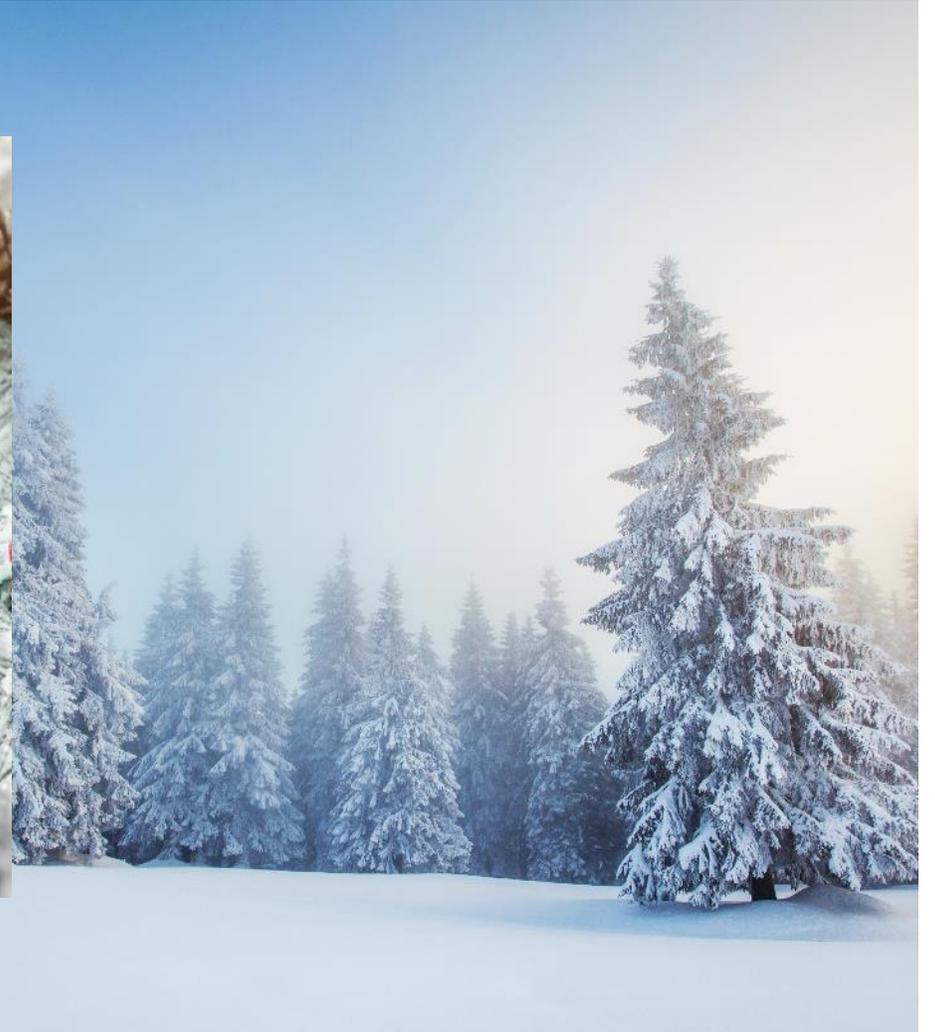


School Bus Preparedness



What is a Wabasto engine heater?

Why is it important to plug the engine block heater in, during cold weather months?



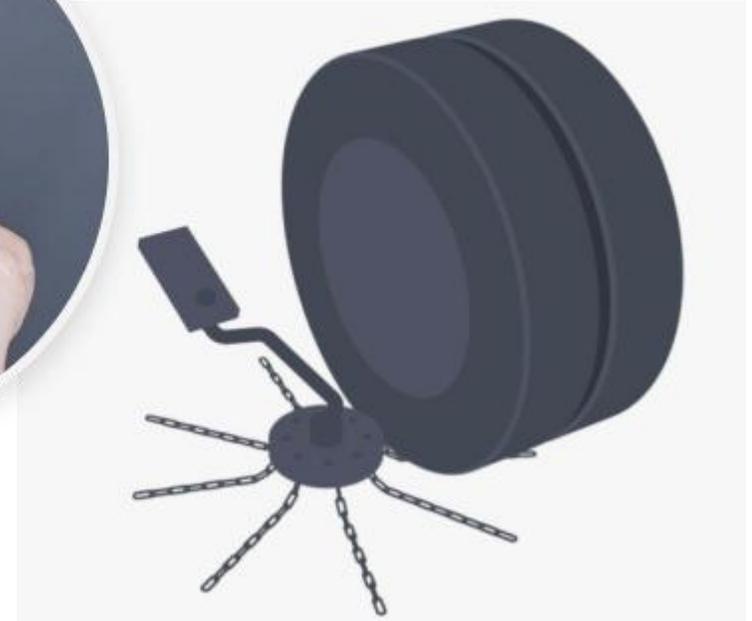
Vehicle Preparedness

- Prepare your school bus prior to snow days:
 - Consult your own companies' winter weather policies and procedures
 - Plug-in the engine block heater each day, or ensure that Webasto engine heater is programmed correctly
 - Plan to spend extra time to clean all snow off of the roof and/or hood of the bus prior to moving the vehicle
 - If the vehicle is equipped with tire chains (On-Spot), check regularly and have serviced if needed
 - Ensure that window defrosters and all passenger heaters are working properly
 - Ensure that mirror defrosters are working properly, if equipped
 - Keep sand on the bus, especially for rural drivers



Vehicle Preparedness

- On-Spot tire chain system:
 - Works in forward and reverse
 - Can be driven up to 35 mph
 - Can be used prior to, or after the vehicle is stuck
 - The flip of a switch engages or disengages the chains
 - Spins with the movement of the tire
 - No need to get out of the bus to hitch up tire chains





Have you used tire chains?

If so, have you used On-Spot or manual chains?



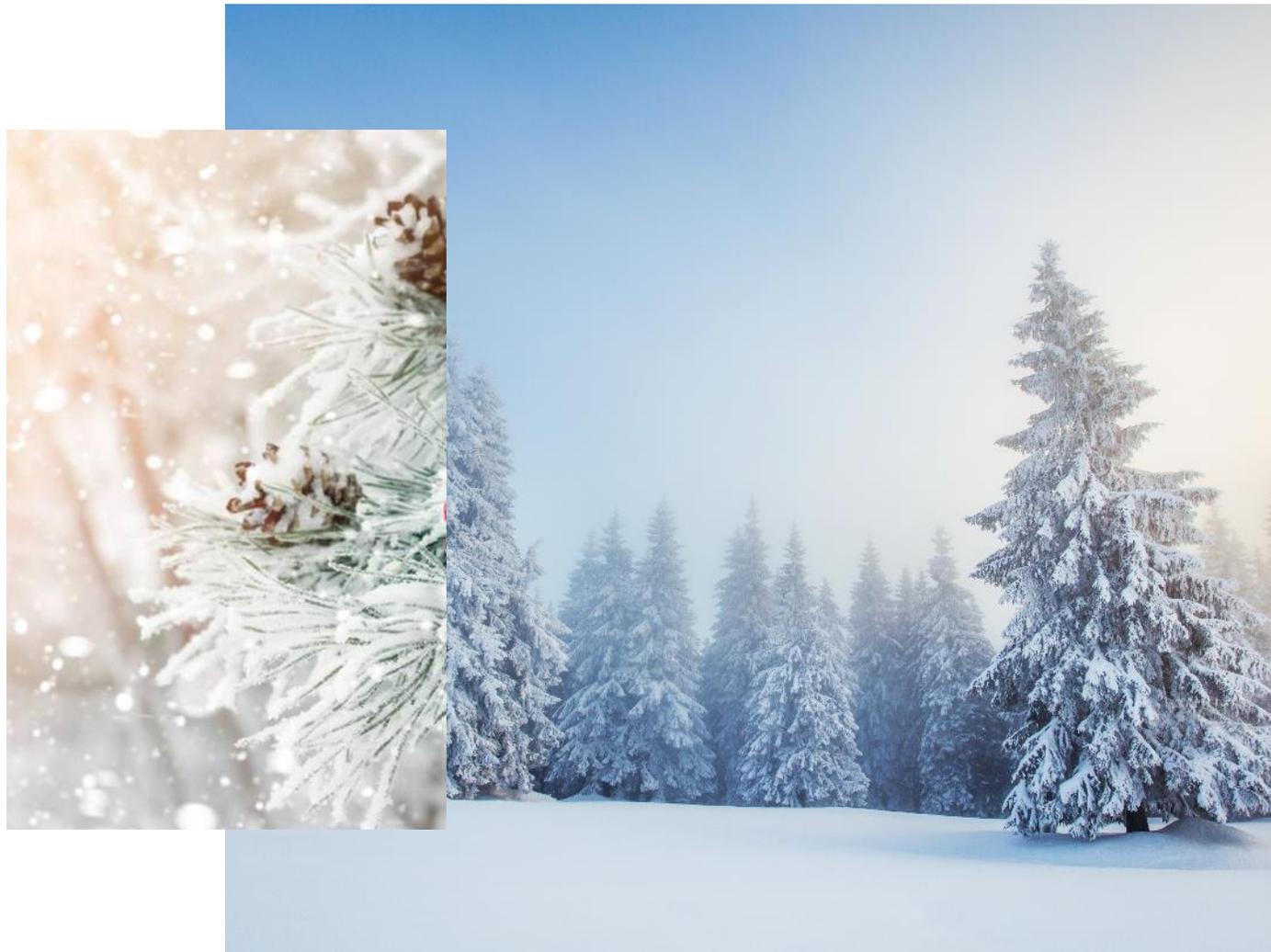
Vehicle Preparedness



- Ensure a “Safe Start” procedure
 - Many diesel buses are equipped with an Intake Heater (or glow plugs)
 - Turn the ignition key to start, and wait for the “Wait to Start” light to go out prior to cranking the starter
 - When the bus is started, utilize the “High Idle” feature
- Take extra time on pre-trip inspection
 - Pay special attention to snow/ice build up on tires, brakes, underbody of the bus. Windows, door, and stairs
 - Check all heaters prior to starting your route, ensure passenger areas are warm, to keep windows clear
 - Clear any snow from exterior lights, especially the stop sign as it may be frozen in place
 - Ensure that wipers and washers work properly to keep the windshield clean from road spray
 - Always check the engine compartment to verify that water hoses, belts and the radiator are connected properly as this may prevent a breakdown
 - Check the fuel level and keep the tank filled more than half a tank, at all times



What is Jessica's Law?



Jessica's Law

- Jessica's Law is named after Jessica Smith, a 20-year-old girl who was killed in Peterborough, NH, in 1999, when a chunk of ice flew off a truck, causing another truck to veer and crash into Jessica's car. Three years after the accident, the New Hampshire legislature passed a law requiring all drivers to remove ice and snow from their vehicles before driving.
- Under NH Rev Stat § 265:79-b, motorists who are found guilty of failing to remove ice or snow from the car windshield – or engaging in any other negligent acts – face a fine of between \$250 and \$500 for a first offense. For a second and any subsequent offense, the driver can be ordered to pay up to \$1,000 in fines. Also, violation of the law can lead to the suspension of a driver's license.





What are some issues this driver may encounter, if they drove the bus in this condition?



Remove Snow from School Bus Roof

- Use a roof rake or invest in a Snow Scrape System



Starting your route

- Be sure that all windows are clear prior to moving the bus
- Be sure that headlights, taillights and the 8-way light system is working properly and that the lights are visible
- Check brakes and steering at a slow speed to ensure they are working properly
- Do not use cruise control in snowy conditions
- Accelerate gently and smoothly. Braking in slow, steady pressure help to determine how much traction you have
- Begin braking early when you come to an intersection or a stop
- Give yourself plenty of time before entering the roadway, especially when starting from a complete stop
- Check for build up of snow on the roof and clean off during route if necessary
- Slow down!





Vehicle Operation



What light is this?

What steps would you follow if this light illuminates on your dashboard?



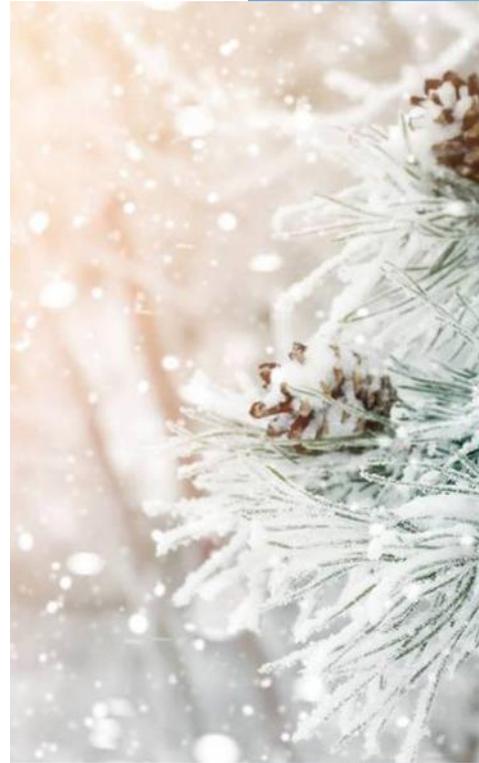
Braking

- Beware of shaded spots, bridges, overpasses and intersections. These are areas where ice is likely to form first
- Conventional brakes—turn the steering wheel, in a controlled manner; look in the direction you want the vehicle to go and pump the brakes
- Anti-lock brakes—keep your foot on the brake pedal, maintaining firm and continuous pressure while steering the direction you want to go
 - With ABS brakes you will feel pulsations in the brake pedal; DO NOT PUMP THE BRAKES let the ABS do its job. Stomp and steer.
- Go down hills in a lower gear



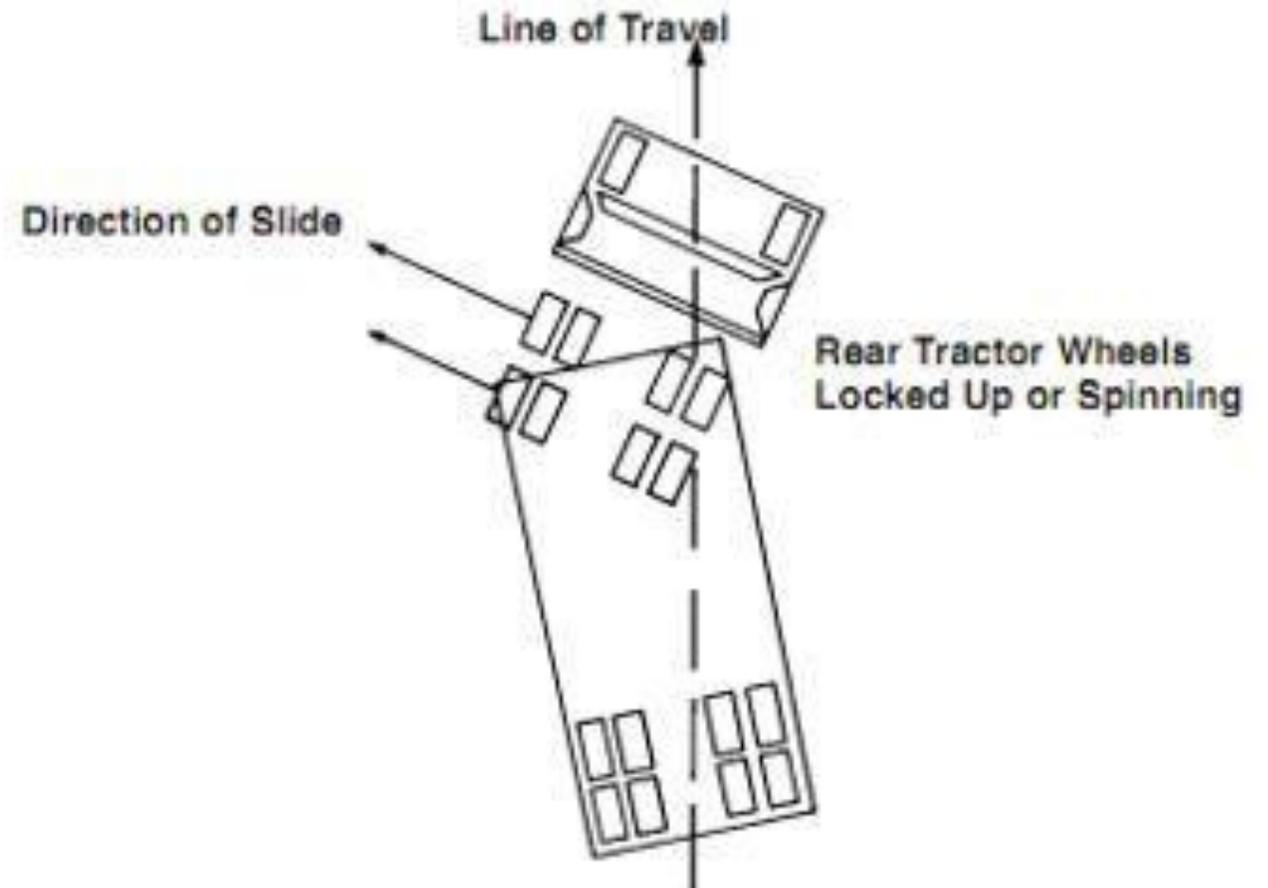


What are four types of vehicle skid?



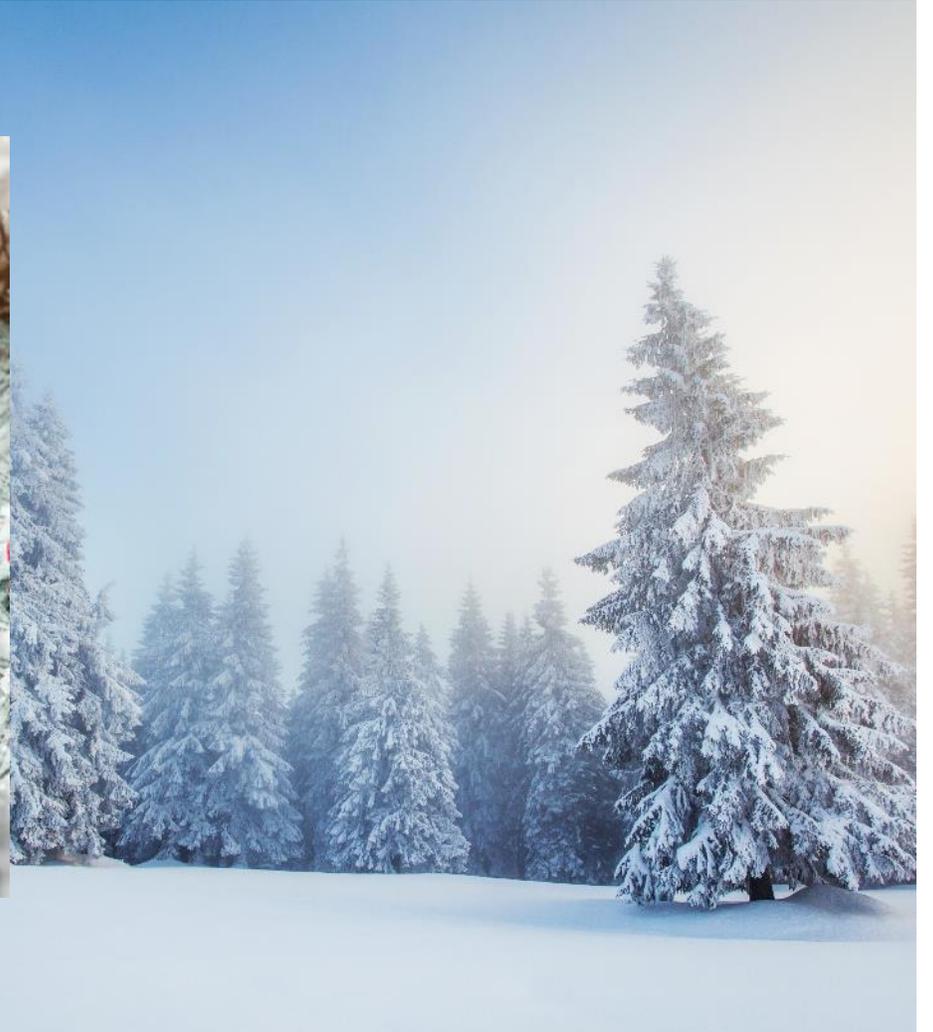
Skidding happens when:

- **Over-braking** - Braking too hard and locking up the wheels. Skids also can occur when using the speed retarder when the road is slippery.
- **Over-steering** - Turning the wheels more sharply than the vehicle can turn.
- **Over-acceleration** - Supplying too much power to the drive wheels, causing them to spin.
- **Driving too fast** - Most serious skids result from driving too fast for road conditions. Drivers who adjust their driving to conditions do not over-accelerate and do not have to over-brake or over-steer from too much speed.





What is adequate following distance during snowy and icy weather?



Increase Following Distance

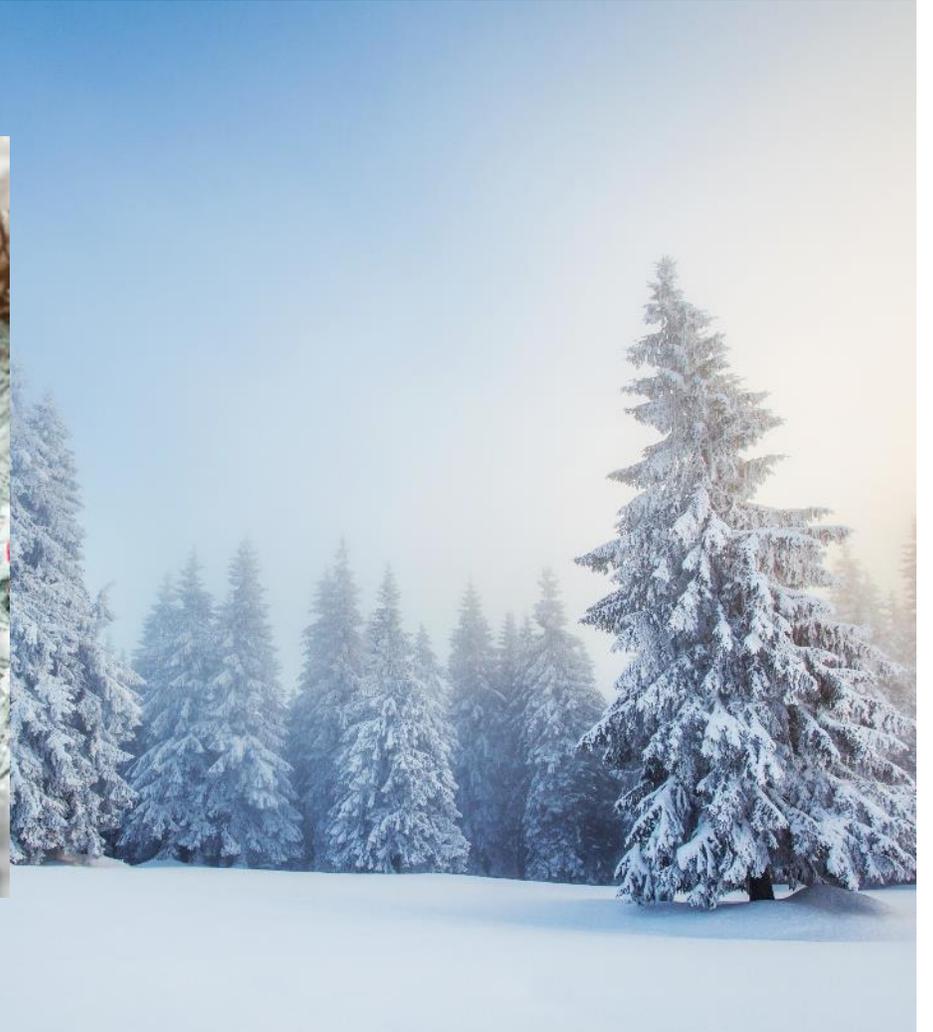


- Follow at a Safe Distance: Increase following distances to six seconds (instead of the usual four)





What is the height of
your bus?



Know your height



- When snow builds up on the ground, buses lose roof clearance
- When in doubt, stop and check
- Know where to find the height of any bus you operate



What signal do you give your students that it is safe to approach the bus, or cross the street?



Talk with students about bus stop etiquette

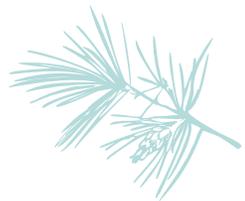
- **Loading:** Do not rush the bus. Wait for the driver to completely stop the bus before approaching the bus to load.
 - The bus may be sliding or skidding
- **Unloading:** Watch the driver to know when to cross. Do not assume any vehicle is stopping





Take the bus out in snowy weather, prior to transporting students to get a feel for the bus!





Questions or Comments

Winter Weather
Driving?





THANK YOU

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