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# Bad Weather Driving Guide

## Freight Guidance

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## Introduction

During bad weather, professional drivers face more challenges than other road users through increased demands on their own concentration and their vehicles. Some of these are due to the size of the vehicles and factors such as braking distances that are affected by certain weather types.

Typically, planned delivery times and journey times remain the same all year round with drivers and vehicles required to perform the same duties whatever the driving conditions. We know that high winds, ice and snow or driving rain make the operation of a large vehicle much more difficult.

**Remember:** whilst on the road, you the driver are solely responsible for the safe operation of your vehicle, security of your load and delivery of goods to your destination.

By following the simple steps outlined in this Guide, you can ensure your own safety and that of other road users:

- check your vehicle daily
- ensure your load is safely secured in place
- plan your route including potential diversions
- watch the weather forecasts ahead
- drive safely

### How will this guide help you?

This guide is for you – the professional driver. It offers simple advice to help:

- check your vehicle is fit for purpose
- plan your route
- know the weather forecast for your route
- adapt your driving style to suit the conditions
- be flexible to road closures and re-routing
- minimise delay and idle time
- save you and your employer money

Planning ahead and preparing for potential road closures and diversions will save you time, fuel and money. Having the right advice to hand is sometimes difficult when you are out on the road.

## UK weather: the four seasons

The UK weather is known to change quickly. What can start out as a bright sunny day can change quickly over the course of the working day or over the course of your journey. In almost all cases of bad weather, you will have to adjust your driving style and vehicle speed to suit the conditions.

### High winds

Strong headwinds can affect your forward speed and the turbulence from other vehicles on the road around you can affect your vehicle's handling and performance.

### Headwind and crosswind

When driving into a headwind at motorway speeds a splitter gearbox may allow you to maintain a good headway at slightly higher engine revs. Remember to change back up the gearbox to a more fuel-efficient gear once the headwind has reduced. In gusty winds, it is important to keep a slow but steady pace.

Control your steering - side winds can cause a high-sided vehicle to veer out of lane.

### Wet conditions

Turn on your vehicle's lights to be seen by other road users. Use longer braking distances to slow your vehicle more smoothly. Make your vehicle's movements known with extended use of the indicators.

Watch out for puddles! Other road users may try to avoid them. Fit a spray suppression kit to keep down the spray from your tyres. Water thrown from your vehicle's tyres can be a hazard to other road users and pedestrians.

### Snowfall

Heavy falling snow will cause all road users to slow down. In heavy snow, you may have to make 'tram lines' to allow other road users to follow safely through. Gentle use of all of the controls is required to ensure the vehicle does not 'break-away' in the slippery conditions. You should use the differential lock on the drive axles to increase grip in the worst cases.

### Ice and black ice

Ice on the road surface will massively increase your stopping distances. Brake early and gently. Steering and braking must be gentle so as not to upset the high centre of gravity of your vehicle thereby causing a skid.

Where your vehicle does not have ABS, 'cadence braking' may be used whereby rapid but gentle use of the brake pedal slows the vehicle. Watch out for bridge decks during icy conditions. They may be colder than the road close by making them more slippery.

## **Slush**

Often, stripes of melting snow create 'tram lines' along the road making driving particularly difficult for drivers of smaller vehicles with smaller wheels. You should reduce your speed during slushy conditions; there may still be ice underneath the layer of slush. Other road users may have difficulties in these conditions.

Be aware of other vehicles' movements. Try to avoid damage to wheels and tyres as slush can cover roadside objects such as kerbstones. Be aware of your vehicle's position when approaching junctions and roundabouts as road markings may be covered.

## **Fog**

Fog is a danger to the driver. It blocks the driver's view over long distances causing most vehicles to slow down. On open motorway and trunk roads, fog represents the greatest danger. Varying vehicle speeds affect traffic flow creating more potential for accidents. Fog limits your visibility. You should slow down to a safe speed. You must make sure you have adequate stopping distance in front of your vehicle. Use your fog lights when appropriate and remember to turn them off once you clear the fog to avoid dazzling other road users.

## **Flooding**

Following wet and wintry weather, dangers can still exist through snow melt and localised flooding. This can result in road closures and diversions. If you have to ford a flooded road, you should keep to the highest point of the road camber, usually the centre line. Keep your speed down to avoid making a 'bow wave' which may be thrown up onto oncoming vehicles. Always dab your brakes several times after getting them wet, in order to test / dry the system.

## Windscreens and windows

Your windscreen is your view on the world; make sure it is free of stickers, hanging motifs and emblems. Keep side windows free of obstructions such as sleeper curtains. Cold and wintry weather can lead to a build-up of condensation on the windscreen and windows in the cab. In very cold weather, ice can build up quickly on the outside of the cab covering unheated parts of the windscreen and side windows. To ensure that your windscreen stays clear during poor weather you should:

- regularly clean the glass on all cab windows with an approved cleaning product
- ensure that the cab heater is set to blow onto the windscreen and door windows
- not cover air vents with paperwork and clothing
- pre-programme your night heater to defrost your cab before you start the engine
- not leave your engine idling to defrost your cab before starting a shift, unless it is essential

## Windscreen wiper blades

Windscreen wiper blades are vital to maintain your line of sight on the road. If they become iced up or there is damage to the rubber blades, this will restrict your view of the road ahead. Check and renew wiper blades regularly.

Wash-wipes can freeze in very cold weather due to exposed pipes feeding the fluid from the reservoir to the blades. Use neat screen-wash with a minimum freeze limit of -20 degrees C to help prevent wash-wipe fluid from freezing. Neat screen wash will help defrost nozzles.

**Remember:** keep a spare bottle of screen-wash inside a cab locker in order to top up en-route.

## Wing mirrors

Before starting your journey, make sure your wing mirrors are positioned so that you can see all around the vehicle. Most modern vehicles have a heated wing mirror function. Make sure it works properly and that you use it. Cracked or damaged glass should be replaced straight away. To ensure the best all round view you should:

- wipe clean your mirrors before every journey
- replace any broken or cracked glass
- ensure that the heater is switched on at all times to clear mirrors while driving

**Remember:** road salt can build up quickly because of heated wing mirrors - wipe your mirrors regularly.

## **Is your vehicle fit for purpose?**

Vehicle performance in the winter months can be as much as 10% poorer than in the summer months. Winter conditions can mean greater use of equipment such as fog lights, screen de-misters, etc. The change from 'summer grade' diesel fuel to 'winter grade' can also contribute to an increase in fuel consumption of around 3%.

Defects or problems should always be recorded, reported and if necessary, repaired. The Vehicle and Operator Services Agency (VOSA) has the right to stop a vehicle at the roadside, carry out spot checks and issue prohibition notices if necessary.

## Safety checks

Vehicle checks should be carried out before starting any journey. These should be part of your everyday responsibilities as a professional driver. Drivers are legally responsible for:

- checking the vehicle is roadworthy
- ensuring specified equipment is present and serviceable
- NOT DRIVING the vehicle if major faults are present

## Fuel

Make sure your vehicle has enough fuel to cover any stoppages or holdups you may face on your journey. In severe and cold weather, you may need to top-up your tanks prior to tackling a potentially hazardous journey.

## Brakes

When you need to use your brakes, they must be working at their best, in order to protect you and other road users. The air brake system draws moisture from the atmosphere through an air compressor. Many modern vehicle designs use an automatic draining system for the air brakes. Manual systems need regular draining to keep them safe.

**Remember:** check to see if your vehicle has manual or automatic draining

Air Brakes - check your brakes before every journey:

- charge up your air tanks and turn off the engine
- listen for leaks in hoses and brake components
- monitor your air tank readouts on the dashboard
- when coupling up to a different trailer, carefully inspect the components visually, audibly and with a brake test
- before leaving your rest area or yard, test your brakes with a simple tap of the brake pedal, this should draw your vehicle up promptly

## Use of ABS

Modern HGV design includes disc brakes on all axles, typically with Anti-Lock Braking System (ABS). This technology is included to assist your input as a driver NOT to take over for you.

For the safest use of ABS brakes apply the brake, maintain maximum force to the pedal as this ensures that the system works most effectively.



## Auxiliary braking systems

Auxiliary braking systems typically work in the drive-train of the prime mover; exhaust brakes, retarders and intarders all use systems to slow the drive axles of the vehicle. Be aware that in icy and snowy weather there is potential for skidding or locking up the drive-axle as the following axles on the vehicle rely wholly on the drive axles to brake the vehicle.

## Tyre conditions

Ensuring that your tyres are in good condition on both the steering and drive axles during the winter months is particularly important. To ensure that you remain within the law and do not run the risk of a 'blow-out', inspect tyres for damage and wear before every journey:

- inspect tread depth across the tyre
- check for correct operating pressure if equipment is available (if not, plan visits to your fitter for checks often)
- look for uneven wear on shoulders
- inspect dual tyres for even wear between tyres
- look for damage and cracks
- remove debris trapped in a tyre's tread and between twin tyres
- replace worn or damaged tyres immediately
- flat spots can indicate a locking brake

## Tyre pressure

In very cold weather, tyres can appear to be under-inflated as the air pressure inside drops with the temperature. Regular tyre pressure checks should ensure that as the weather, temperature and air pressures change the tyres are operating at the correct pressure.

Soft tyres increase rolling resistance and fuel is wasted e.g. a 10-psi fall in tyre pressure will result in a 1% decrease in MPG.

## Lights, markers and reflectors

During bad weather, other drivers' ability to see your vehicle is as important as your ability to see other vehicles.

When driving at night clean and efficient headlights reduce eyestrain and driver fatigue! When using headlights and fog lights in very poor visibility remember to turn them off again when the weather clears to avoid dazzling other road users. Side marker lamps must be visible at set intervals along your vehicle. If snow or ice builds up you must stop to clean these lights. Before every journey and throughout a long journey in winter months:

- regularly check and clean all onboard lights
- clean debris from all markers and reflectors at all rest stops and breaks
- replace broken bulbs, light clusters and reflectors before setting off again

## Catwalks, ladders and trailer beds

Slips, trips and falls are responsible for the greatest number of accidents in the workplace. During snow and icy weather, you must be extra careful when walking or climbing on the outside of your vehicle. Ensure that you have slip resistant footwear with good grip. Remove snow and ice on the catwalk behind the cab. Be careful of ice and snow when walking across flat or exposed trailer beds in winter weather. Chip ice off ladders, tail lifts and ramps BEFORE attempting to climb on or operate them. After cold nights, watch out for ice which may fall from your vehicle and become a danger to other road users

## Curtain-sided trailers

In high winds, curtain-sided trailers and loose-sheeted flat-bed vehicles can be affected by wind damage more than other vehicle body types. The risk of 'blow-over' is far higher when operating a curtain-sided trailer due to the air pressure difference between the windward and leeward side of the vehicle.

When running a curtain-sided trailer empty in high winds, it may be necessary to tie back the curtains to avoid a blow over. When making this decision you must assess the risks involved.

Factors which may be considered in this are tying back curtains to reduce the wind load on the trailer or if this is not possible, rerouting away from high and exposed routes to minimise risk to you, your vehicle and other road users and pedestrians.

Damage to curtains and sheets must be repaired immediately not only to protect your vehicle's load but because loose trim may be hazardous to other road users.

## Straps and lashings

If your vehicle is a curtain-sided trailer or a flat-bed with sheeted load, you must check your vehicle over regularly. Ensure there are no loose lashings, chains, ropes and straps, which may break away from the load in high winds.

You should check the condition of your straps, worn or damaged straps can fail. Replace damaged equipment at the earliest opportunity. Report any defected equipment to your transport manager.

**Remember:** it is illegal to drive an HGV with loose lashings and chains, which may cause a danger to other road users.

## Be prepared

Before starting your journey in bad weather, you should plan your route in detail. Identify any potential hazardous locations on the route and where you will need to stop for rest breaks. If necessary, take advice from other drivers and your Transport Manager over issues you may face on your journey.

## Route planning

Taking ten minutes to plan your route before starting your journey could save you hours out on the road. Always plan for an alternative route to allow for road closures during bad weather. When planning a route during bad weather try to:

- identify where there is a risk of high winds, particularly on high or exposed routes
- be aware of potential localised road closures through snow gates, flood risk, landslip or other dangers
- always prepare for a suitable diversion route

## Radio advice for the route ahead

Your best defence against getting lost or stuck in traffic is forward planning. Local radio is one of the best and most up to date methods of monitoring weather and traffic. You can tune your in-cab radio by:

- using the Traffic Report (TP) or Traffic Announcement (TA) button, this function can tune into local as well as national traffic reports
- modern radios often also feature the Traffic Information Memory (TIM) function, which can be set up to record traffic announcements before your journey

## Variable Message Signs (VMS)

VMS are used to transfer short messages to road users and provide accurate and up to date information on local traffic delays.

## Internet and RSS services

A number of internet based traffic and weather services are available, including:

- Traffic Scotland: <http://www.trafficscotland.org/traffic.aspx>
- Met Office: <http://www.metoffice.gov.uk/weather/uk/>

## Satellite Navigation

Some Satellite Navigation equipment has built-in or optional real-time traffic updates. You can only use one if it is available. It could save you lost miles, time and money.

## Pack your bags

During bad weather, you should prepare for delays and the possibility that you could have to spend longer in the vehicle than normal. You should be prepared to bring with you:

- a warm jacket, gloves and hat
- winter boots and spare clothing
- bottles of water
- extra food and a flask of warm drink
- a blanket
- a mobile phone and charger

## Rest stops and breaks

Plan your rest stops and breaks ahead of travelling. When operating in bad weather make sure you have a plan for suitable places to park your vehicle in the event of the weather closing in and preventing your onward progress.

During bad weather, you should always have a secondary route planned. A journey you consider simple on a fine day can result in significant additional time and mileage during bad weather.

## Fixed diversion routes

Fixed diversion routes are shown through the use of traffic signs and VMS messaging. Typical situations where re-routing may occur are the closures of bridge crossings due to high winds or accidents.

**Remember:** if you have to follow a fixed diversion route make, sure it is suitable for your vehicle type.

## Own choice diversion

Where you know from experience that high and exposed routes are likely to be closed or very treacherous, make sure that you plan a diversionary route suitable to your vehicle. Stop and take your time to plan ahead using maps, atlases or SatNav.

**Remember:** for reporting crime or emergencies, you must phone your local Police force.

## Getting stuck

If you are stuck in snow or in a traffic hold up, you may have to park up until snowploughs can clear a route or an accident has been removed from the carriageway. When you park up for the night or to take a rest period, make sure you do so in a safe and legal place.

**Remember:** in these circumstances follow the requests of any official at the location

## After your diversion route

Once you rejoin your original route, **do not** be tempted to push past the legal driving hours just to make up mileage, drivers' hours are still mandatory even under exceptional circumstances.



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