Failure to prepare is preparing to fail, as the management truism goes. Brian Tinham talks to three very different operators about how they have prepared their fleets for this winter

ARE YOU READY?

As winter draws near, it's time for some common sense preparation to ensure that vehicles, drivers and hence your operations run safely, but also as smoothly and efficiently as possible, whatever the weather. And, if you're in any doubt as to what you might want to consider, see the checklist of basics (page 22). But for those who wonder whether it's economically feasible to do better than they have in the past, read on.

The point is, it's not just about low temperatures and damp compromising vehicle electrical systems and fuel flow, nor only heavy snow and ice making roads treacherous or even impassable. They're clearly bad news requiring mitigation strategies, but other hazards include potentially restricted depot movements, and getting staff in and out. And there are the annually increasing risks of strong winds and flooding – as evidenced earlier this year.

So, yes, of course it's critical to focus on making sure vehicles are up to scratch, but it may also be worth improving resilience in other ways. Time to take some advice – and who better to hear it from than three fleet engineers at very different ends of the transport spectrum?

First, Gary King, operations support manager at Sainsbury's, who says his organisation started planning last March. For him, that includes ordering stocks of salt and grit for all transport and retail sites, with facilities contracts in place for the smaller locations. The organisation has also invested in adverse weather equipment, including rear-mounting snowplough and gritter attachments for its Terberg shunters, to keep depots functioning, and eight 'transformers' for store distribution work.

The latter are a mix of 6x4 and 4x4 Volvo and Mercedes-Benz rigids with demount bodies: in good weather, they run as refrigerated box vans, but they can be converted into full-blown gritters with specialist hopper and spreader bodies, plus snowplough attachments in about an hour. "On top of that, we have acquired a used local council specification gritter for our latest site in Daventry, both to service the depot and act as a back-up for stores," says King, adding that it can also be used to clear local roads by arrangement.

Winter tyres?

What about the rest of Sainsbury's fleet of tractors, trailers and rigids? "Nothing special," he says. The organisation trialled winter tyres in Scotland but drivers noticed "virtually no difference", so that policy has not been pursued. "We have adverse weather checklists for all the obvious items – antifreeze, screen wash, maintenance regimes, etc – and we issue packs to all depots highlighting equipment, emergency contacts and instructions for winter driving. But we also check things like dock doors and seals. And we monitor vehicle tracking and routing against weather forecasts to protect store deliveries."

Meanwhile, for Lancashire County Council (LCC) principal fleet engineer Chris Grime, one of the primary issues is ensuring that gritters are ready. "Since many will have been standing idle for months

Winter tyres, chains and socks

Winter conditions in northern European countries are generally more severe than in the UK, yet they boast significantly lower accident rates. Tyre manufacturer Hankook puts that down to the fact that fitting winter tyres is common practice on the continent, and a legal requirement in some countries.

What's different about winter tyres? Most are manufactured using a higher natural rubber and silica content than their summer counterparts, which ensures that they don't harden as much when it's cold. They are also finished with a different tread pattern designed to retain flexibility at low temperatures. Tests generally indicate that the result is better grip and hence also shorter stopping distances, particularly at temperatures below 7°C.

Because temperatures in the UK generally start to dip in October, that is when most manufacturers and distributors recommend changing over. Summer tyres are then refitted in April. That's why tyre service specialist ATS Euromaster has already switched thousands of customers on to winter tyres – and why the firm has placed orders for £7 million worth.

"Winter tyres have increased in popularity over the last few years as fleets understand that fitting the specialist rubber is key to ensuring their vehicles stay safe and mobile," comments Peter Fairlie, ATS group sales director. His advice: "Waiting until roads are covered in ice, or a vehicle gets stuck in the snow, isn't the way forward. Preparing early ensures fleets will be ready for when the chill kicks in."

But winter tyres can only go so far. When serious snow falls, it may be worth considering snow chains or tyre socks. Specialist importer John Jordan says that, although chains are now quick and easy to fit, some understanding is required. Best advice: size and strength matter; and you get what you pay for, with more expensive versions offering, for example, self-tensioning devices.

Check the OEM's recommendations and consider ladder track chains that cover only the tyre contact area and attach to the hub, says the firm. Also, for trucks and buses, look for automatic hooped chains, which are designed for use on heavier, double-wheel vehicles.

What about tyre socks? John Jordan explains that they are manufactured from specially developed, hard-wearing textiles and are easily fitted over drive wheels. The firm recommends AutoSock (developed in Norway more than 15 years ago), with sizes available for cars, vans, trucks and coaches.

"If the right people – which means those tasked to keep the roads open – carried AutoSock, snow-related blockages would be a thing of the past," asserts a spokesperson. "AutoSocks make an immediate and extraordinary difference, and most people are not only surprised but astonished at the improvements in traction, cornering and braking."

"In good weather, [the rigids] run as refrigerated box vans, but they can be converted into full-blown gritters with hopper and spreader bodies, plus snowplough attachments in an hour"
Gary King

there can be problems, for example, with the AdBlue dosing units," he warns. "SCR [selective catalytic reduction] systems are designed for constant operation, and you can get crystallisation, or the AdBlue can degrade. So you need to check the systems, not just ensure that AdBlue is to the right spec and topped up."

Incidentally, Grime also worries that some Euro 6 engines might struggle to achieve the temperatures for automatic regeneration of their active DPFs (diesel particulate filters). "That's not just gritters but other municipal vehicles, such as gulley emptiers, that don't do much mileage but more PTO [power take-off] work. It was fine with Euro 5, but it will be interesting to see if everything works properly with Euro 6." Note: all the OEMs have expressed full confidence.

That said, LCC has also developed a novel road-clearing vehicle for use when temperatures dip below -10°C, the point at which salt becomes ineffective. "We've reconfigured one of our 7.5-tonne tippers to take a rear-mounted spray bar attachment, engineered to our design by a local agricultural

Winter checklist

FUEL: Consider moving over to winter spec derv to EN BS590 – it has a lower cold filter plugging point
VEHICLE STARTING: If vehicles are more than three years old, ask maintenance to perform a heavy discharge battery and alternator check at next PMI
ENGINE ANTI-FREEZE: Check that concentration (specific gravity) is correct for low temperature
SCREEN WASHER FLUID: Ditto
SCREEN DE-ICER: Ensure availability for drivers
WIPER BLADES: Check they are up to scratch
VEHICLE CHECKS: Ensure that drivers have properly functioning torches for dark work
ENGINE AND CAB HEATING: Consider relaxing idling rules in the yard to allow for engines to warm, heaters to work and glass to clear
TYRES: Be extra vigilant on condition and tread depth – consider a 3mm policy – and consider winter tyres and/or chains and socks where appropriate
VEHICLE LIGHTS AND PLATES: Extra vigilance on cleanliness
DRIVERS: Issue instructions for drivers to carry extra clothing in case of delays, breakdowns, poor weather, etc, plus suitable footwear not only for loading and unloading, but also in case of snow or ice
VEHICLE PARKING: Ensure adequate space between vehicles in depots to access batteries for non-starts
DEPOT LIGHTING: Check operation and clean all lights
SALT AND GRIT: Ensure adequate stocks
DEPOT SNOW CLEARING: Either ensure availability of snowplough and/or gritting vehicles, or engage contractor. Remember, forklift trucks are not designed for snow clearing and you can expect transmission damage

equipment manufacturer. That jets Eco-thaw [a molasses-based solution] in controlled spray patterns depositing the prescribed 12ml/m^2 on to roads from two 1,000-litre IBCs on the back of the truck."

Also, he says, LCC has now changed over to winter tyres for critical highway vehicles. "We simply swap them on the rim when average temperatures start to fall," he explains, adding: "On gritters, we've switched permanently to winter tyres."

All eventualities

As you might expect, there are similarities but also other considerations with emergency services fleets. Mick Sweetmore, head of fleet engineering at the North West Ambulance Service, says planning started in August, involving representatives from all operational management, staff and fleet. "Because we have to be sure we can get to emergencies fast and without jeopardising our crews, considering all eventualities is critical. It's not like planning transport for an RDC: we have to be able to respond."

Just so, and for him that means, for example, hiring in a fleet of 4x4s for the cold season, to build extra resilience. "We go for Mitsubishi and Toyota crew cabs, and use them for the more rural zones.

"Euro 6 engines might struggle to achieve the temperatures for automatic regeneration of their active DPFs"
Chris Grime

They come with blankets and basic equipment, such as snow shovels, salt, etc, so we can get out to help if ambulance crews get struck. We also use them to get crews to work if there are local difficulties."

Apart from that, Sweetmore says it's all about ensuring that crews and technicians redouble their vigilance around daily checks (including lights and windows) and vehicle maintenance (fluid level checks, concentrations, and don't forget vehicle heaters). As for tyres, the service switched permanently to all-weather last winter, fitting Michelins under the framework agreement. "We tried the new tyres on our ambulances and cars in conurbations and rural areas before switching, and they've been a godsend," says Sweetmore. "We used to run on standard tyres, but in 2010 we had trouble getting some of our vehicles off parking bays."

As for the drivers, he makes the point that all are blue light trained and that includes advanced driver training for inclement weather. "Building on that, we make sure all vehicles are equipped with de-icer and that all crews have hi-vis clothing, standard PPE, winter woollies, snow shovels, etc. They must never be in a situation of compromising their own safety when rescuing others."