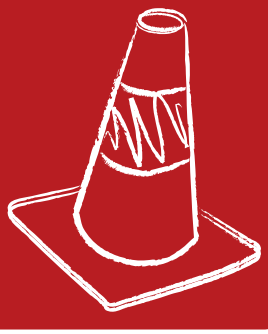
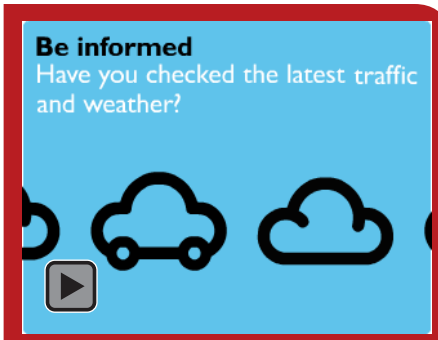
//RoWSaFnews
Making roads safer for road workers
rowsaf.org.uk
Issue 5 - February 2013





Wednesday 7 November witnessed the Highways Agency seasonal '**Make time for Winter**' media event in the north east of England. Held in the Area 14 Carville depot, media representatives from TV, radio and print attended. The event was hosted by Phill Beaumont, A-one+, who explained the Agency's key winter driving and campaign messages.

Whilst the event was designed to inform the travelling public of the Highways Agency's work to keep the roads free of snow and ice, it also allowed an opportunity for one of the A-one+ drivers to share his views.

Mickey Evans was seen on BBCTV's 'Look North' programme asking members of the public to give salt spreaders consideration when they approach them, and at all times to remember that the Agency's teams are trying their best to keep the roads safe for drivers.

The Highways Agency has over 500 winter vehicles on standby at over 100 depots across England. Using data from the Met Office and on-road weather stations, it is able to treat the strategic road network before road temperatures fall below freezing and has over a quarter of a million tonnes of salt in stock.

The Agency urges drivers to take some simple steps themselves - to check their vehicle before setting out, carry an emergency kit, listen to radio travel bulletins before and during their journey, and consider whether their journey is essential if conditions are severe.

Life in the fast lane – a traffic management foreman's view

Gavin Shaw, a traffic management foreman at Carillion, talks about the highs and lows of working in traffic management.

Gavin works and plays in an environment that requires significant risk control where there can be no margin for error. He's been a night foreman with Carillion Traffic Management for two years, managing up to 21 traffic management operatives per shift in anything from three to seven crews on the M40 DBFO contract, junctions 1-15. "It's a dangerous and complex business," he says, and he's still learning. Before Carillion he was a foreman with Chevron and before that, a traffic management operative with TM North East, so he knows at first hand the risks that road workers face in their day to day work.

His partner, Dawn, worries about the hazards he faces at work despite the controls in place to mitigate them. And she's used to him managing risk. Gavin's hobby is motocross, and he's pretty good at it. He's won a few championships at club level and is currently training for the Scott Amateur Nationals.

A typical working day sees him preparing packs to get ready for the shift – methods statements, the road space booking number, strategic road works number, risk assessments etc – and patrolling the jobs to keep a check on things. He needs to be vigilant about things like weather conditions. In December, he called off a shift because of ice and fog and redirected his teams back to the depot for maintenance work. Fifty per cent of the job is paperwork these days, but Gavin said that it's a necessity to get people to think ahead about what they have to do.

His biggest concern, of course, is the safety of the workforce, but he thinks this is getting better. "There's more awareness through team briefings and toolbox talks, and greater situational awareness – the guys know that the more they are carrying, the less they can see, so when we're putting signs on the offside, we split them down so that one operative carries the frame and one carries the sign."

Gavin and his Regional Contracts Manager, Chris Hayball, think that steps to improve better driver training would really help with road worker safety, and they'd also like to see greater recognition that a TM Operative's job is a profession. "The work is complex and requires technical competence. It also needs softer skills, like conflict management, and this could be added to sector scheme training," they say. In an ideal world, they'd like to get rid of carriageway crossings altogether and for consistency, see the adoption of guidance across the four UK nations and local authorities. "And smaller signs would help too," they say.

Off duty, Gavin sometimes sees things whilst driving home to Blackpool that make his hair curl. "I've seen operatives reversing down the hard shoulder to pick up signs, workers running across the carriageway, signs mis-spelt or placed the wrong way round. And there can be a lack of sense of PPE – workers will wear their hat, but leave their hi-viz vest open to flap around in the wind, making them less visible to traffic. Operatives are generally pretty good with that; it's sometimes managers on survey work that get it wrong."

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Continued from page 1

Life in the fast lane – a traffic management foreman's view

And worse than anything he's seen, is the near death experience he faced himself a few years ago while working on a two lane section of the M25 when a truck ploughed through the cross over doing 60mph in a 30mph restricted area. The guys on his shift shouted and he started running. The truck shaved past him – it was the spray of cones that took him off his feet. He escaped with a broken wrist, but his colleague wasn't so lucky… The truck pushed his van into him and knocked it from the central reserve to the hard shoulder.

But on a brighter note, Gavin said that RoWSaF has been a good thing – it has taken road worker safety seriously, and that's good for people to know. And Carillion has a new vehicle fleet to look forward to. They've invested £2m in new vehicles and had them adapted to incorporate new safety features.

Gavin has a home-from-home in a caravan in Henley on Thames, his base, and a relative haven, during his working week. But that's not where he's heading after his trip to Bedford to talk to the RoWSaF editorial team. It's back to the depot to get those all important packs ready for tonight's shift.

Based on feedback from staff and the Safety Action Group, the new fleet of eighteen 7.5 and 4.6 tonne vehicles has been fitted with innovative features to improve ergonomics and safety and reduce manual handling:

- Uniform auxiliary controls across the new fleet.
- Bigger cone wells, with red LED strip lighting on steps.
- Locking bar system to hold cones and signs in place when in transit, replacing awkward ratchet straps.
- Task lighting to make night working safer and easier.
- CCTV for the driver to see operatives on the back of the truck.
- A tail lift on the 4.6 tonne trucks so they can be used to move temporary traffic lights.

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Update from RoWSaF

High-level signs trials successful

To bring us one step closer to eliminating carriageway crossings at roadworks, A-one+ in Areas 10 and 12 teamed up with TRL to do trials of vehicle mounted high-level variable message signs.

Three impact protection vehicles, each fitted with a VMS panel at a height of five metres were used in place of fixed plate offside and nearside signs on the approach to relaxation roadworks to warn drivers that a lane ahead was closed.

The new method used a fourth impact protection vehicle to protect workers when they were placing the cone taper and it was then removed once the taper was in place.

The trials proved that the new layout is as effective as the standard chapter eight method in reducing closed lane occupancy by the start of the entry taper, without the need for any carriageway crossings. The next step is to prepare an interim advice note on the method for consultation through RoWSaF.

The success of this novel method is a significant step for the Highways Agency in achieving its aiming for zero target.

Reducing carriageway crossings

A-one+ has set the pace in deploying temporary traffic management signs simplification (TTMSS) to improve road worker safety. Since it was first introduced via interim advice note 150/11 in December 2011, they have deployed the simplified signs layout 6,273 times, saving around 200,000 carriageway crossings and more than 2,275 hours when roadworkers are exposed to the risk of working in live traffic.

Reflecting on the introduction of IAN 150/11, Andrew Sharp, Area Manager (North and Humber) said "It provided a step change opportunity for us to significantly reduce risk to our road workers, without increasing risk to the travelling public. Recognising this, we quickly identified a phased programme of introducing the simplified signs layout, where appropriate, across our MAC contracts to maximise the potential. Through staff feedback forums, we know that this significant step in reducing risk has been welcomed by our road workers."

IAN150/11 has enabled a reduction in carriageway crossings by 40 per cent across the supply chain. Offside signs removal, introduced with IAN150/12 in November 2012 (see below), will increase this benefit potential.

The latest interim advice notes (IANs)

Offside signs removal: IAN 150/12 replaces IAN 150/11 and provides updated guidance for temporary traffic management (TTM) on the approach zones at roadworks on dual carriageways where 'relaxation scheme' works criteria apply. IAN 150/12 provides an alternative technique to the signs simplification layout for relaxation schemes offered by IAN 150/11 and enables the removal of all offside signs in advance of the taper when closing one or two nearside lanes on a three or four lane dual carriageway for which the national speed limit applies. It re-states the guidance from IAN 150/11 which enables the removal of the 200 yard and 600 yard signs on both the nearside and offside in advance of the taper, plus the omission of detail 'A', where applicable.

Guidance for works on the hard shoulder and roadside verges on high speed dual carriageways: IAN 115/08 Revision 1 provides updated requirements and revised guidance for works on the hard shoulder and roadside verges on high speed dual carriageways. The same principles can also be applied to lower speed roads, with resulting road worker safety benefits. The clarification of a number of issues raised by service providers with regard to the previous version (IAN 115/08 published in November 2008) will help to reduce uncertainty about best practice and thereby reduce costs, and also help to improve road worker safety.

It is important to note that IAN 115/08 Revision 1 applies to works, inspection stops and breakdown and vehicle recovery on the hard shoulder and roadside verges. The staff involved in such work could be Highways Agency staff, service provider staff, other contractors, or a combination of these groups. The IAN does not apply to incident management, or the operational procedures applied to the Highways Agency's traffic officer service, or emergency services.

View these interim advice notes on the Design Manual for Roads and Bridges (DMRB) website http://www.dft.gov.uk/ha/standards/ians/index.htm

Update on managed motorway-all lanes running

Issue four reported on the development of the Highways Agency's managed motorway-all lanes running (MM-ALR) programme, which will see the conversion of sections of the hard shoulder on sections of the motorway network with the heaviest traffic flows into permanent running lanes. Here's the latest from RoWSaF on its engagement with the 'all lanes running' team to help ensure safe working practice in the new layouts for road workers.

The 'all lanes running' programme has evolved from the original M42 managed motorways pilot and, for 10 per cent of the motorway network, will convert the hard shoulder into a permanent running lane on the busiest sections. All lanes running has built on knowledge and experience from operating earlier managed motorway schemes, initially on the M42 and later on the M6. These enabled hard shoulder running during peak traffic flows and have provided increased capacity where and when it is needed at a reduced cost compared to road widening. Evidence from operating the M42 pilot set out in the three year safety report from that scheme also shows a significant reduction in safety risk for the driving public.

Following RoWSaF's discussion with the MM-ALR team, three new road worker safety projects have been developed. Two of these will trial the use of cantilever mounted variable message signs known as MS4 'flag signs' in place of ground level signs for advance warning of roadworks, one will use a cone taper, and the other a crash cushion in place of the taper. These trials are in the planning stage.

A third project will use simulation techniques to test traffic management options for MM-ALR and other scenarios, including exploring the optimum spacing of the MS4 signs. The simulation uses virtual environments to test driver reaction to different driving situations.

Other current projects will be extended to meet MM-ALR criteria, such as the project looking at the use of impact protection vehicles as block vehicles and, as a potential stop-gap measure, the use of permanently placed verge and central reserve traffic management signs.

The first section of MM-ALR is due to be operational early in 2014 on the M25 and will include the latest MS4 and Advanced Matrix Indicator (AMI) signalling technology (light-emitting speed limit signs on a gantry) to display mandatory speed restrictions. In addition these latest MS4 message signs are configured to allow the simultaneous display of several complementary elements of driver information. The MM-ALR team is looking carefully at different scenarios for signs in conjunction with RoWSaF. Simulation work has helped to determine what messages/message layouts drivers best understand and prefer.

A report on managed motorways future design, which provides requirements and guidance for the permanent conversion of the hard shoulder to a running lane, while retaining the ability to dynamically control traffic, is available from the Highways Agency's knowledge compendium at: http://tna.europarchive.org/20120703124527/http://www.highways.gov.uk/knowledge_compendium/E7F3627CAD304560A1EEB28F6D1861C5.aspx

Audible warning for parking hand brakes

Fatalities and serious injuries in construction and other sectors have occurred when parking hand brakes have not been applied fully or correctly, and where, for example, vehicles have rolled forward and crushed a person against gates, walls or other vehicles.

Carillion is looking at a simple cost effective solution to this and has fitted two systems on highways contracts that alert the driver with an audible warning to ensure that the hand brake is fully applied when the vehicle is exited. The systems are readily available and are a simple retro fit into the vehicles' existing wiring circuit.

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Myth busters

Continuing the series exploring road worker safety myths, Dr Iain Rillie of TRL sets out the line on marking out safety zones…

Safety zones help keep road workers and fast moving traffic apart and safe. The safety zone is important at all road works but is very important on high speed roads, where being hit by a passing vehicle will result in serious injury or death.

For this reason, it's often stated that Chapter 8 requires the entire inner boundary of the safety zone to be marked with tape or rope to prevent workers entering it. But is that correct?

Chapter 8 says on high speed roads the safety zone inner boundary should always be marked – **with a line of cones**. The guidance then says 'the inner boundary should be marked with a lightweight barrier wherever practicable.' This barrier is usually short lengths of traffic tape (recommended in Chapter 8) or thin rope.

The key thing is that Chapter 8 doesn't require or even recommend that the whole length of the inner boundary should always be marked out using traffic tape; it actually gives a lot of flexibility over how and when it should be marked. For example, progressive works moving along a closure may not need the inner boundary to be marked; for short term works of less than an hour other methods of marking out the boundary might be better.

So, the myth that Chapter 8 always requires the entire inner boundary to be marked with tape or rope? Busted – just read the existing guidance on marking out safety zones that's given in Chapter 8 (in paragraphs 03.2.8 - 03.2.15 for reference). It allows a good dose of common sense to be applied when marking out the inner boundary, which minimises risk to both the workers setting out the safety zone and those at work in the site.

Chevron introduce a new innovative radar 'Banksman' system

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Leading the way as successful trials result in all new Chevron TM installation vehicles being fitted with the revolutionary device.

At the cutting edge of vehicle safety, 'Banksman' radar is an intelligent, fully programmable radar-based reversing safety system. After successful trials, Chevron Traffic Management plan to have all new TM installation vehicles fitted with the device in addition to the existing CCTV systems.

In certain situations, it is not possible to reverse a vehicle with the assistance of a second person, such as the removal of the coning for a four kilometer lane closure, and when this occurs, an innovative system such as 'Banksman' can be used.

The 'Banksman' radar is mounted to the rear of the vehicle, and its sensors can detect any object or person within 20 metres of the reversing vehicle. This therefore gives the driver sufficient time to take appropriate preventative action, should the system be activated.

Equally important, it also gives an audible warning to operatives working on the bed of the vehicle, as well as others who may be in the vicinity, thereby significantly reducing risk.

For further information email lisa@chevrontm.com and for the latest Chevron news visit www.chevrontm.com

Management of incidents in roadworks

The M62 junctions 25-30 managed motorways team monitors roadworks across 65 kilometres of carriageway. Dave Todd, Traffic Management and Network Operations Manager for Bam Nuttall and Morgan Sindall Joint Venture, talks about the power of partnership.

The M62 team's incident management plan has been recognised by the North East Regional Control Centre as an excellent example of how roadworks should be managed collaboratively between all operational stakeholders.

Alan Mason, the Highways Agency's Operations Manager for the North East Regional Control Centre, applauds this innovative approach to incident management during construction. "It's the result of all operational stakeholders engaging early on in the process," he says. "By setting out clear roles and responsibilities from the beginning, incidents are resolved more quickly and efficiently."

Key elements of their incident management plan have been the development of a memorandum of understanding to identify maintenance responsibilities during roadworks between the MAC and main contractor and an incident management plan to agree processes with the operational partners, including the emergency services. "It's important to be proactive and test the incident management plan before the roadworks become operational," Dave Todd says. "We achieved this by using scenario planning workshops and included all relevant partners."

The workshops used scenarios to review potential flooding incidents, fire, overturned tankers, high winds, and a bus load of passengers in a road traffic collision. Dave Todd sees scenario planning as vital to achieving confidence in the plan. "It tests the plan and exposes any weaknesses, it drives co-operation between the industry partners, and helps to build relationships at an early stage."

The M62 team also periodically uses reflective learning from incidents on the network. Review sessions include all the partners and reflect on what went well and identify areas to ensure continuous improvement.

Removing a fatal risk

At a recent Highways Agency Principals Group meeting the M4/M5 managed motorway project team shared their zero carriageway crossings statistics and lessons learned with the industry. Project Director from Balfour Beatty, Dave Neal, explains more…

Having been involved with RoWSaF for a number of years in the drive to eliminate one of our industry's biggest fatal risks, the opportunity to establish the M4/M5 project as a zero carriageway crossing contract during construction was a must.

Regular readers of RoWSaF*news* will recall the article in February 2012 where the methods for removing crossings were discussed on the M62. As I'm sure you'll agree, this is something that the whole industry should be striving towards in a bid to keep all our teams safe.

So how did this change impact on the M4/M5 workforce in Bristol?

Early resistance by the teams to the proposal not to allow any carriageway crossings was not unexpected. They raised concerns about the extra time needed to plan the works, temporary and permanent blind sign failure, and the need to do more driving to meet with the Highways Agency's traffic officer team in the event of problems in the central reservation area.

With our traffic management supply chain partners H W Martin, we listened to these views. Our operatives were encouraged to propose ideas to overcome each of the concerns and amended procedures were then put in place.

The key to making the operation much safer is fundamentally having operatives with the right attitude. We took the decision that only those with a positive, 'can do' approach would be put through our induction and allowed to work on the project.

Feedback from teams tells us that there is less manual handling, less risk, less stress and it is much easier than expected to adapt to.

On the M4/M5 project to date we have removed more than 25,000 carriageway crossings and their associated fatal risks. The M62 scheme has removed a further 34,000 carriageway crossings, so if as an industry we all follow suit just imagine how much safer our traffic management crews would be.

Drivers cut through M60 roadworks

Motorists on the M60 and M56 in south Manchester are ignoring diversions and driving through roadworks.

An article in the September 2012 issue of 'Highways' magazine 'Highways on Fridays' highlighted a series of near misses on a four-month scheme taking place along the M60 between junctions 4 and 2 and the slip roads onto the A34, where people have been removing cones and driving through the roadworks to avoid using signed diversions or alternative local routes.

You can view the article at www.highwaysmagazine.co.uk/drivers-cut-through-m60-road-works-20120912?utm_source=MailingList&utm_medium=email&utm_campaign=HOF+14%2F09%2F12

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Getting to grips with temporary traffic management

Tom Merry, HM Inspector of Health and Safety at the Health and Safety Executive joins a TTM crew in Area 9.

Tom took over the Health and Safety Executive's portfolio for road worker safety on high speed roads in April 2012 and needed to get to grips with temporary traffic management (TTM) and its unique challenges. "Unfortunately there isn't a beginners guide to help, so I looked for an insider guide," he said.

Amey's Sandra Cusick and Paul Fillis in Area 9 arranged for Tom to attend TTM training and to go out with a crew setting out TTM. "I did the Scheme 12A/B course, passed the test, and then joined the crew on the A500 after they'd set up the lead taper," he said. "I learned a lot from the crew and it was great to experience the work first hand. I like to see the way things are done so it was great to learn the theory and see it in practice. I'm beginning to understand the world of TTM and look forward to working with others."

A-one+ radio ads

Following on from positive feedback received regarding the radio adverts developed in January 2012 which targeted road users in general, three new adverts took to the airwaves to target the drivers of heavy goods vehicles. The adverts were hard hitting and quite emotive with three different messages all aimed at getting drivers to stay awake and keep road workers safe. The adverts carry no branding and are available at www.rowsaf.org.uk/ for RoWSaF members and the road safety industry more generally to use free of charge. The adverts ran for four weeks from 7 November and were played on both Real and Smooth radio across Areas 14, 12 and 7 in daytime and more frequently at night, where the target audience poses the greater risk.

About us

The Road Workers' Safety Forum (RoWSaF) is an industry group established in 2001, promoting the health, safety and welfare of road workers. Members are drawn from UK roads administrations, enforcement agencies, contractors, designers and their associations.

Contact us

RoWSaF*news* welcomes contributions from all parts of the highways maintenance community. If you have any contributions please contact **lesley.o'reilly@highways.gsi.gov.uk**

Visit RoWSaF.org.uk

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