

Controlling the network

Gareth Mainwaring, a control centre operator speaks to RoWSaFnews about the kind of things he sees on a day-to-day basis from his desk at the East Midlands regional control centre.

Gareth is a man with an eye for safety. He began his role as a regional control centre (RCC) control room operator six years ago and very early on he got a taste for the purpose of his job. "It was a quarter to ten and I was about to go on the night shift. The operations manager briefed the team on conditions in the area. The main issue was a carriageway closure because of a collision. It really struck me when I saw the scene on the CCTV monitor. There was a white sheet on the carriageway – you can imagine the rest."

The Highways Agency operates seven regional control centres, monitoring the network, responding to calls and coordinating the management of incidents. Gareth works in the East Midlands RCC, which has responsibility for stretches of the M1, M6, M45 and M69 along with a number of 'A' roads. The day is divided into three shifts, with up to seven operators and one team manager on duty in a shift.

When on duty Gareth has to respond to the situations present. "A report came in of a truck tyre in a live lane. I knew that there were roadworks in the area and called the traffic safety control officer responsible for the works to confirm the report. Within seconds we had set lane closure signals and made arrangements to remove the debris, under the protection of a traffic officer vehicle rolling road block."

Anyone can report an issue on the network, but only a traffic officer, member of the emergency services or road worker can confirm it. Cooperation between services helps to deal with issues quickly. By eliminating the hazard, the potential for an incident is also removed.

The RCC checks with traffic management crews so that they can support them with signs and signals to enable them to set up a lane closure, for example. If they hear from the traffic management crew first, they can have signs and signals set in five minutes.

Gareth has seen a number of incursions in roadworks, such as one when he was working on the signals desk on a late shift. "The traffic management crew on the road had set a lane one

to lane four chicane. It was right under one of the cameras that I was monitoring. I saw a car go straight through the cones in lane one, as if the chicane wasn't there. Luckily there was nobody working directly behind the cones.

Straight away the RCC made contact with the safety officer in the roadworks to check on the driver, whether there were any cones in the running lane, and to reinstate the traffic management. In this case we could get the car safely back into the traffic and the traffic management reinstated, but if it had been necessary we could have assisted by setting a 'debris in road' sign or reducing the speed limit temporarily to allow the vehicle to rejoin the traffic."

Having worked in logistics in the past, Gareth knows a thing or two about keeping things moving but he says that the biggest change in his time with the Highways Agency was when traffic officers were given the power to remove vehicles, a responsibility that only the police had previously held. "This means that we can clear congestion quickly and free up police time."

Gareth believes that the lack of driver experience required to drive on the motorway is a contributory factor to incidents and that compulsory motorway training for drivers should be the minimum standard. "The public doesn't just need to know what signs and signals mean, they need to know why they are set. I would much rather set a signal than deal with an incident!"

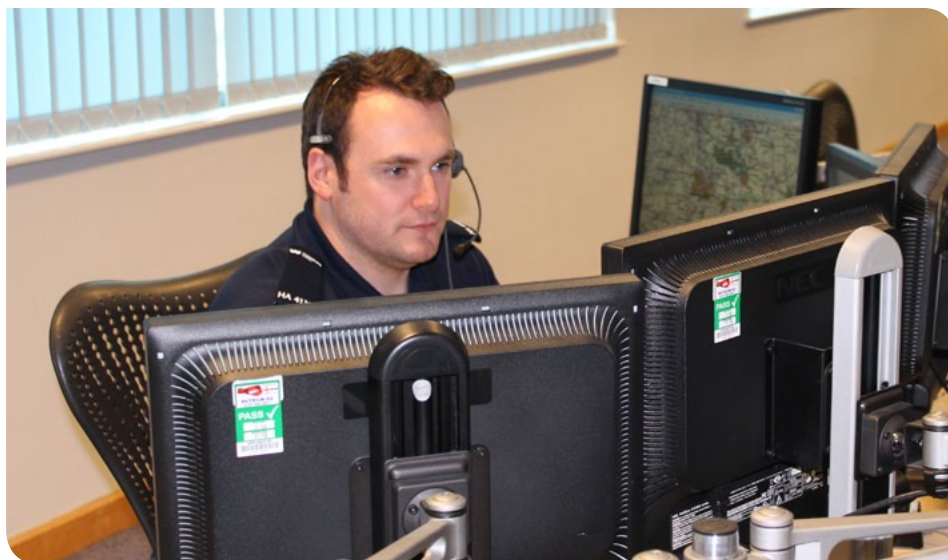


Don't put up with it - report it!

A survey released by the RAC Foundation found that:

- 80 per cent of road workers have been physically or verbally abused by motorists
- 40 per cent of workers are abused on either a daily or weekly basis.

See [page 3](#) for the full story.





The Highways Agency has been running a 'safety at roadworks' campaign over April and May, supporting its aiming for zero programme.

Media coverage has been generated around the country, and as one example, a recent event at a West Midlands depot has helped to spread an important safety message to millions of people by being featured on national radio and television.

In the West Midlands the Highways Agency's press office worked closely with Area 9 contractor Amey, its suppliers, the Highways Agency's traffic officer service, and Central Motorway Police Group to organise a series of safety demonstrations. M6 managed motorway contractor Carillion was also helpful in providing safe access to the live roadworks site.

Mik Barton, Highways Agency national press and PR officer, helped to deliver press support for the gathering on 14 May. He highlighted the 'intellicone' as something that would work well for the media, using some pretty graphic descriptions to paint a picture of what it's like to work so close to live traffic lanes. The resulting story was featured on national TV and radio and was the fourth most popular video on the BBC website. It was also covered by regional TV and eight local radio stations.

Media coverage highlighted the importance we place on the health and safety of our workforce and reminded people that eight road workers have been killed in the last three years while improving and maintaining our network. There have also been many near misses, with members of the public driving through coned-off areas or colliding with works vehicles.

The road worker safety campaign is particularly important as the Government is investing additional funding in road improvements to reduce congestion, boost economic growth, and improve safety. Over the next two years this will mean more roadworks as these improvements are delivered.

You can view the BBC video clip about 'intelligent' traffic cones at:
<http://www.bbc.co.uk/news/uk-22527383>

Safety first

Graham Dalton, Chief Executive of the Highways Agency, talks about changing attitudes to safety and why people matter.

'Incident involving Highways Agency employee/contractor'

Five seemingly innocuous words that grab my attention when they appear on my Blackberry. Yes, every time that a traffic officer or road worker is hurt then I and the other Highways Agency directors receive an immediate alert. The same happens after a serious near miss. We get these alerts because we put the safety and welfare of everyone who works for us – employee or key supplier – above all else.

It is nearly 30 years since I first started in the construction industry – 30 years of exciting major projects, maintaining and operating some big infrastructure. And throughout that time it has been the people who have made it such a great business to be in. The same camaraderie and professionalism runs through the roads sector as I have found in large construction sites and on the railways. The people make the business, which is why I think it is the people who matter.

What has changed over those 30 years is our attitudes on site and in the design office. We now talk about safety, and we think about how a road or structure is going to be maintained. Employers now provide good protective clothing, and they train us to use modern plant and equipment that makes the job easier and safer. And above all, we plan the work in advance, we prepare method statements, and provide good traffic

management to protect the workforce and the road user.

Yet despite all this, those incident reports keep coming.

As Chief Executive of the Highways Agency I worry about traffic flow on the motorway and trunk road network. I worry about whether we have secured enough money from the Government to maintain the network and to make the many improvements that our customers deserve. And I worry about the safety of the thousands of people who are out on that network as part of their job, day and night.

We live in difficult times. Road users expect us to maintain an ageing network with as little disruption as possible. Government and tax payers need us to do so at lower cost. Both are reasonable challenges, but neither should ever become an excuse for not doing the job safely.

I may have been around the industry for 30 years, but I have a good few more to go. So I hope that in the next 15 years we can make at least as much progress again as we have made over the last 30, and that those five dreadful words 'Incident Involving Highways Agency employee/contractor' become a distant memory. Keep safe!



The RoWSaF Trials Team – ten years of success

The trials team was originally set up in 2002 to deliver three trials in support of the Highways Agency's new initiative for 'safer practice in temporary traffic management', the forerunner of RoWSaF. Ian Spellacey and Iain Rillie, trials team founder members, each took on a short three-month secondment to review some innovative ways of improving road worker safety. Here they report on some key successes.

We got six trials going in the first three months and so were asked to carry on the good work. It's now been just over 10 years since our first trials but reflecting on the key successes of the Trials Team, we are most proud of the scale and momentum that has been generated around road worker safety and the changes we've seen implemented and adopted by the industry. The level of enthusiasm from every member organisation to make a real difference has been remarkable and shows a maturity within the industry that we've not seen anywhere else.

Particular successes are the changes and revisions made to Chapter 8 and the interim advice notes (IANs) and area management memos (AMMs) that have dramatically improved safety, in particular:

- Introducing sequentially flashing road danger lamps that are now an industry standard on entry tapers (one of our first trials)
- Developing the alternative taper from concept to a layout that is now in extensive use
- Reducing carriageway crossings by removing the 200 and 600 yard advance warning signs

- Removal of all offside signing to eliminate carriageway crossings
- Light arrow, variable message sign and matrix developments: increased use of both vehicle mounted and static.

There have been so many more initiatives reviewed than we can list, but it is these trials that we believe have significantly improved the safety of road workers and the public. And we shouldn't forget the educational work we've done in increasing driver awareness through videos such as 'respect our road workers' and radio advertisements.

However, running through all of these is the willingness to challenge current practices and the desire to make things safer. This is something all the members of the trials team support wholeheartedly, and without which none of our successful trials would have seen the light of day.

There's more to do and plenty of scope for future improvement. We believe that if we keep working with everyone's continued support, we really can get to our goal of zero injury.

Overhead gantry signals and variable message signs trialled to warn of roadworks ahead

A trial on the M25 and M42 is using advance motorway indicators (AMIs) on gantries to warn drivers of roadworks ahead. The four-month trial is the first time that gantry signals are being used without temporary traffic management advance warning signs on A frames at ground level.

A further trial in July on the M4 will use variable message signs (MS4s) cantilever-mounted on the verge to display the advance warning of lane closures for roadworks.

The data, captured over 15 trial nights on the M42 managed motorway, M25 controlled motorway and M4 standard motorway, will be used to assess the advantages and disadvantages of using variable signs and signals, using cameras to monitor driver behaviour.

Andrew Butterfield, project sponsor for the M42 and M25 trials, said "The Highways Agency is always looking at ways to minimise the risk to road workers. This trial is about how we can do that, by reducing the number of times road workers need to cross the motorway carriageways, while at the same time not negatively impacting road users."

Antony Atkins, project sponsor for the M4 trial, said "Now that the Agency is introducing all-lane running – converting the hard shoulder to a permanent running lane – we need to minimise the risk to road workers who put out signs on all-lane running routes as well as on normal routes. The increase of technology assets across our network present an opportunity to look at different and innovative methods of providing driver information relating to roadworks."

Don't put up with it – report it!



It's a tough and dangerous job, but someone has got to do it. It could be your brother, dad, sister or cousin behind those cones!

The Quarry Products Association (Northern Ireland) has committed to continuing to do more to protect road workers and encourage road users to show them respect for the difficult job they do. Not only do road workers typically work in close proximity to live traffic that is too often passing at excessive speed, they also face the threat of violence and aggression from road users who pass their site daily.

Violence and aggression towards road workers should not be overlooked and procedures have been put in place to report such incidents to the police. Not only do oncoming vehicles pose a threat to road workers, but the behaviour of drivers in passing vehicles and members of the public is a growing problem. Abuse can be verbal, such as raised voices and threatening language, or physical, including missiles thrown at passing works vehicles or from passing road users' vehicles.

The industry continues to work hard to raise awareness of the work road workers carry out in order to change the public's perception and behaviour towards them and would make this appeal to all drivers.

The key message for all road workers is:

Don't put up with it, do something about it by reporting these incidents.



Continuing the series exploring road worker safety myths, Dr Iain Rillie of TRL looks at the real impact on road worker safety from using IPVs.

Impact protection vehicles (IPVs) are an important safety feature at mobile roadworks and temporary traffic management operations. They are also used to protect all sorts of other work carried out by the police, fire service, breakdown technicians and tyre operatives.

The size, technology and safety features that are fitted to the modern IPV are both expensive and extensive – a light arrow board, illuminated 610 arrow sign, high conspicuity markings and lorry mounted crash cushion to name but a few.

Surely with all these safety features the impact protection vehicle must protect the people who work on the road from impacts?

Well, yes – and no. The main road worker safety benefits from using an IPV are a clear advance warning to drivers and the presence of the IPV as a physical barrier in the closed lane. Advance signing that's visible from about a mile away makes sure that drivers have plenty of advance warning of what they have to do before they reach the IPV, for example to change lanes. The IPV also makes it clear to drivers who are paying attention that carrying on in the closed lane isn't really an option. All of this works to help protect the road worker against impact from approaching traffic.

But what happens if a driver gets it wrong and stays in the closed lane? The crash cushion on the IPV is designed to reduce injury to the driver of any vehicle that impacts the IPV. But when it's hit, the IPV will be pushed forwards – the worst case is when it's hit by a fast-moving lorry, which will push it a long way.

Anyone working on the back of the IPV or standing just in front of it will be very seriously injured if the IPV is hit – the IPV won't protect the road worker from impact so it's absolutely vital that workers spend as little time as possible (or preferably none) on the back of the IPV and that an adequate distance is maintained between the IPV and anything or anyone in front of it. The lower (50 metre) figure of the range given in Chapter 8 is an absolute minimum; distances towards the upper (100 metre) range are preferable, particularly if there's a risk of impact from heavy lorries travelling at high speed.

So, the myth that impact protection vehicles protect people who work on the road from impact? Partially busted – while IPV safety features do work to provide advance warning to drivers and so provide some protection for road workers from impacts, the 'impact protection' bit of the IPV is really there for the benefit of drivers who hit the IPV and not for road workers. But it's essential to limit the time that road workers spend on the back of any IPV in a live lane, as well as making sure there is an adequate distance between the IPV and anything or anyone in front of it.

Managing site access points

The M62 junctions 25 to 30 managed motorways team use site marshalls to manage site access points within roadworks to prevent unauthorised access. Dave Todd, Traffic Management and Network Operations Manager for the Bam Nuttall and Morgan Sindall Joint Venture, talks about managing site access into the works area.

The site marshalls are stationed within the works shortly after a site access point on the motorway hard shoulder to manage access to the works area. The site covers 65 kilometres on the M62, including link roads from the M621, M606, and M1, with up to 30 site access points operating at any one time.

The site marshall checks the authorisation (site pass) of all drivers and passengers before allowing them to enter the works area and record those who have been refused entry, and those who have been allowed access, including the emergency services.

To date around 689 interventions over 18 months have been made with members of the public who have been prevented from entering the works area.



The benefits of using site marshalls

- Recording people entering the site, allowing access by only authorised and inducted personnel, and informing them of any restrictions on the haul route.
- Allowing only authorised vehicles and authorised deliveries access to the works area.
- Informing new delivery drivers of site rules at the point of access.
- Improving safety for errant members of the public who try to drive into the site, safely escorting them back to the live carriageway.

Update on managed motorways – all-lane running

A significant amount of work is underway to ensure that MM-ALR sections can be operated and maintained safely. Here's the latest on the work being done to demonstrate how the road worker safety objective for the MM-ALR programme will be met.

A task and finish group of safety specialists is working to assure the Health and Safety Executive on the safety of road workers. The group is on track to demonstrate how this will be achieved. The group has already identified a number of activities that will help deliver these safety objectives for road workers:

Concept of operations

This supports [IAN161/12](#) and has identified the need for MM-ALR scheme designers to collect an inventory, with condition data, of all assets on the proposed ALR section. A road worker safety assessment tool is being finalised to check how effective the safety mitigation measures are in achieving the road worker safety objective. An example will be to check the assumption that the road worker safety objective can only be achieved by using a central reserve concrete barrier.

Maintenance and repair strategy statement

Work is well underway and examples have been submitted by schemes for consideration and the development of a universal template.

Remote access to technology equipment

This is required to reduce the need for road workers to be on the road. It is being delivered in two stages:

Stage 1 – to provide remote access to roadside controllers who control signs and signals through a dedicated PC located within

each of the seven regional control centres. This will be delivered by 31 January 2014.

Stage 2 – will provide remote access through secure connections accessed by any PC at any location. This is currently scheduled to be delivered by 31 December 2015.

ERIC (eliminate, reduce, inform, control) assessment

This assessment made some recommendations for reducing maintenance activities that rested at programme-level. The group considered the following programme level issues, for which the analyses are ongoing:

- Removal of fog sensors
- Increasing time to fix – this will take account of a risk based approach to criticality
- Review of cleaning requirements for technology
- Review of statutory electrical testing requirements and test periods for mechanical equipment.

Aiming for zero projects

We recognise that these projects could have great benefit in reducing risk to the traffic management operative. The following have particular relevance to the MM-ALR programme:

- Elimination of all offside wicket signs for relaxed traffic management
- Use of MS4s to sign roadworks
- Use of high-level vehicle mounted VMS signs

to supplement the MS4s. This may create issues regarding accessibility and the need for such vehicles to stop in the verge rather than in lane one

- To produce guidance and a specification for post-mounted remote-controlled VMS in the verge and/or central reserve
- Reducing risk by using impact protection vehicles. This includes an analysis of the reasons why we have so many IPV strikes. The work will lead to the development of guidance on the use of IPV's
- Use of MS4s/AMIs as temporary mandatory speed limit terminal and repeater signs, removing the need for fixed-plate signs. The consideration is looking at whether MS4s/AMIs will show a speed restriction in addition to a wicket sign for MM-ALR in advance of roadworks.

Use of MS4s to convey information

It is intended that the MS4s in MM-ALR will sign incident management and temporary traffic management. A trial is underway on the M4 to test the effectiveness of using MS4s to display TTM closures, rather than ground-level plate signing. Discussions with the Department for Transport regarding the precise sign/signal legend are ongoing.

National agreements

The following national agreements are being drafted for discussion with emergency responders:

- Managed motorways emergency responder strategic agreement
- Managed motorways emergency responders national guidance framework.

TSRGD revision impacts on Chapter 8 contents

The Department for Transport (DfT) has undertaken a review of *Traffic Signs Regulations and General Directions (TSRGD)* and has decided that the method of regulating the design of temporary signs will change, giving designers more flexibility in matching the design of signs to the relevant traffic management layout. The Highways Agency will be undertaking this work on behalf of DfT.

The primary driver for this piece of work is to ensure that sufficient advice and guidance on signing, equipment, layout and operations is available to designers and practitioners to implement safe and effective traffic management.

Whilst the full detail has yet to be finalised, it appears certain that the current structure of *TSRGD Schedule 12* will change and the design requirements likely to be presented in a different format. In line with other parts of the *Traffic Signs Manual*, Chapter 8 will be expanded to provide guidance on the design and use of signs which are currently restricted to a specific layout.

Whilst a wider revision of the contents of Chapter 8 parts one and two to reflect the changes in *TSRGD* would have been ideal, given the tight timeframe available, the wider revision will not take place at this time and parts one and two will remain as they are.

However, a new part three will introduce guidance on temporary traffic management (TTM) signs and incorporate advice on sign design. It will also bring the principles of recent interim advice notes (IANs) relating to TTM into Chapter 8 and include reference to new/upgraded specifications and standards.

All the current contents of Chapter 8 will remain extant – any additional advice and guidance contained in the new part three will be solely limited to complementing the existing parts one and two.

To meet the timescales for the revision of the signs regulations, changes over and above those already identified will be restricted and of a very limited nature.

Bank holiday roadwork dates for 2013 and 2014

For the purpose of planning and programming of traffic management for the next two years, the Highways Agency has issued embargo dates for 2013 and 2014:

2013	Dates	TM removed by	TM Embargo to
Summer bank holiday	Monday 26 August	06:00 Friday 23 August	00:01 Tuesday 27 August
Christmas/ New year	Wednesday 25 December Thursday 26 December Wednesday 1 January	06:00 Monday 23 December	00:01 Thursday 2 January 2014

2014	Dates	TM removed by	TM Embargo to
Easter	Good Friday 18 April Monday 21 April	06:00 Thursday 17 April	00:01 Tuesday 22 April
Early May bank holiday	Monday 5 May	Low key – no specific request for TM to be removed	
Spring bank holiday	Monday 26 May	06:00 Friday 23 May	00:01 Tuesday 27 May
Summer bank holiday	Monday 25 August	06:00 Friday 22 August	00:01 Tuesday 26 August
Christmas/ New year	Thursday 25 December Friday 26 December Thursday 1 January	06:00 Tuesday 23 December	00:01 Friday 2 January 2015

M62 safety project a success for workers as roadworks scheme is set to go national

Motorists have been urged to adopt a 'safety first' approach as a major upgrade of the M62 in West Yorkshire enters its closing stages. You can follow the media coverage at the following links:

Huddersfield Examiner – <http://www.examiner.co.uk/news/local-west-yorkshire-news/2013/04/09/m62-safety-project-a-success-for-workers-as-roadworks-scheme-set-to-go-national-86081-33139931/2/>

Yorkshire Post / Evening Post – <http://www.yorkshirepost.co.uk/news/at-a-glance/general-news/safety-call-to-drivers-as-m62-barriers-removed-1-5564585> Scan also attached

BBC West Yorkshire online (includes *Look North* filming) – <http://www.bbc.co.uk/news/uk-england-leeds-22075841>

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.

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Contact us

RoWSaFnews welcomes contributions from all parts of the highways maintenance community. If you have any contributions please contact

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Promoting road worker safety

Paul Mitchell, Head of Health and Safety at the Highways Agency, is to feature in a couple of specialist publications talking about the importance of aiming for zero and the ambition that nobody comes to harm as a result of their work for the Agency.

Paul talks in the regular *Highways* magazine editorial slot about aiming for zero and how far the Agency has come since the launch of the programme in 2009; and in *Transportation Professional* about some of the innovative techniques being adopted to help road workers stay safe. Look out for these articles in forthcoming editions of *Highways* magazine and *Transportation Professional* later this month.

Safety and wellbeing

In recent weeks the Highways Agency has been focusing on safety and wellbeing in the workplace, highlighting that safety and wellbeing is everyone's responsibility, whether you work on road, on site or in an office, control centre or outstation.

The next issue of *RoWSaFnews* will include a focus on health and wellbeing, so if you've got a work-related story to tell, please contact the editor, Lesley O'Reilly, at:

lesley.o'reilly@highways.gsi.gov.uk