rightTrack

Issue 13 **Autumn 2015**

Industry Autumn Review

Driver survey results and next steps

Our regular features:

RAIB REPORT BRIEF
Loughborough Central

The Lowdown
Kevin Greasley

SPADtalk
SPAD trends

Newswire

The route to tackling crime

RSSB

Contents

03 iRules: introducing the digital rule book
04 Trends on the right lines
06 High speed training
08 The Lowdown: Kevin Greasley, Mobile Operations Manager
10 Community Safety: the route to tackling crime
12 RAIB report brief: Loughborough Central
14 Industry autumn review: driver survey results
16 SPADtalk: SPAD trends

Welcome to issue 13 of RightTrack, the magazine for all staff working on the railway.

In this issue, Claire Volding continues her driver training experience, this time on a simulator. We also look at some of RSSB's annual safety performance facts, figures and trends, while Network Rail tells us about some of the community initiatives it's put in place to help keep kids off the track. We also bring you details of changes to the Rule Book, and your feedback on rail adhesion.

As always, there are our regular features, including Newswire, SPADtalk and the RAIB report review, as well as a return to our interview feature, the Lowdown, starting with Kevin Greasley, a MOM from Nuneaton.

As ever, if you have any comments on Right Track or any of our articles, please do let us know. You can contact us at righttrack@rssb.co.uk

Happy reading!

Right Track can be downloaded from Opsweb -www.opsweb.co.uk. Right Track is produced by RSSB through cross-industry cooperation. It is designed for the people on the operational front-line on the national mainline railway, yards depots and sidings and London Underground. Their companies are represented on various cross-industry groups, including the System Safety Risk Group, managed through RSSB, and Right Track is overseen by a cross industry editorial group.

RSSB The Helicon 1 South Place London EC2M 2RB

Tel 020 3142 5300 email righttrack@rssb.co.uk web www.rssb.co.uk www.opsweb.co.uk

Printed by Urban Juice / Willsons Group Services.

Right Track is designed to share news and views from individual companies in a positive way. However, the views expressed in Right Track are those of the contributing authors; they do not necessarily reflect those of the companies to which they are affiliated or employed, the editors of this magazine, the magazine's sponsors - the System Safety Risk Group - or the magazine's producers, RSSB (Rail Safety and Standards Board).

iRules

Many of us are relying more heavily on the internet in our everyday lives, be it for banking, shopping, or music, leisure, work or all manner of day-to-day communication.

More than half the UK population use smartphones, and nearly half use tablets. Increasingly, rail staff are being equipped with mobile devices to help them do their jobs out on the track or deal with customers on trains, as well driving, dispatching and signalling.

As a result, many people involved in rail operations are asking for Rule Book material that they can download to their own mobile devices, so they can get the information wherever they happen to be - which may not be near a computer.

This is now possible, using the Rule Book manuals, which RSSB has made available. The manuals are customised for specific competencies, meaning you can get to the rules relevant to your role.

The manuals available to download are:

- Master Module (all modules, the whole Rule Book)
- Signaller and Signalling Technician
- Track Worker
- Train Driver
- Train Operations Staff

To download the manuals, go to http://www.rssb.co.uk/railway-group-standards and search '8000'.

Having content in a single document means you'll now be able to download your very own manual to your device, and navigate it 'off-line' using the predefined links on the contents pages. You'll also be able to search the entire manual for key words or phrases, such as 'Single Line Working'.

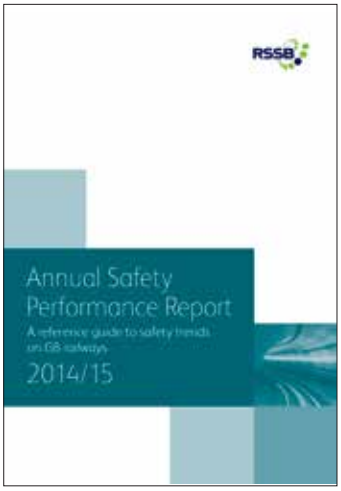
RSSB is looking at ways of making the Rule Book and other products and services even more accessible and responsive on-line, and is also exploring the potential of developing an even smarter 'app'. Look out for a future issue of Right Track for more details.

Hopefully, the new digital manuals will save time and reduce the need to print. However, you can still order paper copies of individual standards, modules or handbooks if you need them and don't have the facility to print out your own. Contact Willsons (tel 01636 702334, or go to http://willsons.com/online-ordering/)

Mobile Rule Book manuals are now available to download or view on a smartphone, tablet or PC with either the iOS, Android or Windows platform.

A few tips for getting the most out of your digital Rule Book:

- Be sure to swot up on your company's policies and procedures on use of mobile devices - if you're unsure of anything, contact your line manager or relevant colleagues!
- Look at the user guide to help you find your way around - this can be downloaded from the RSSB site alongside the manuals
- When rules are updated (in December or June), the manuals will also be updated. However, users will need to download a fresh manual from the RSSB site to replace their old one. If you choose to use the new digital manual, you may want to double-check you receive the catalogue updates. To be prompted when this happens, contact enquirydesk@rssb.co.uk



In July, RSSB published its Annual Safety Performance Report (ASPR). This gives a comprehensive breakdown of GB rail safety performance in the last year, and a thorough analysis of the trends this data shows when compared to previous years. It's a big book of stats, basically, and is used by the industry to help focus resources where they're most needed.

Here we discuss some of the key workforce-related findings for 2014/15.

To read the full report, check out rssb.co.uk and search 'ASPR'.

Trends on the right lines

Road driving All members of the workforce who travel by road vehicle for work purposes, or travel to or from their home and a non-regular place of work, including taxi provision, are susceptible to road driving harm (see 'Safety Indicators' in issue 12 of Right Track). The ASPR shows that:

- There were 120 road driving injuries recorded by rail staff in 2014/15.
- Of road driving injuries since 2005/06, one third have been recorded in the last two years.
- There have been six recorded workforce fatalities during the last four years. More are known to have occurred over the last ten years, but have not been reported into SMIS.
- The majority of injuries occur to infrastructure workers (five of the six fatalities were infrastructure workers).
- Staff from TOCs, FOCs, and Other groups make up around one quarter of road driving injuries.

RSSB has recently clarified that injuries involving employees or contractors' employees while travelling for work purposes by road, need to be reported into the Safety Management Information System (SMIS). Basically, this means any occasion other than commuting between the driver's home and their normal place of work. You can find out more about the issues at: **http://www.rssb.co.uk/pages/improving-industry-performance/road-driving-risk.aspx**. Chart 1 shows how the level of road driving incident recording has changed over the last ten years.

What is SMIS?

SMIS stands for Safety Management Information System. It is the rail industry's national database for recording all safety-related events that occur on Britain's network. Since 1997, SMIS has seen 75,000 events a year entered by Network Rail, passenger and freight train operators.

Chart 1 Injuries from road driving injuries by type of worker

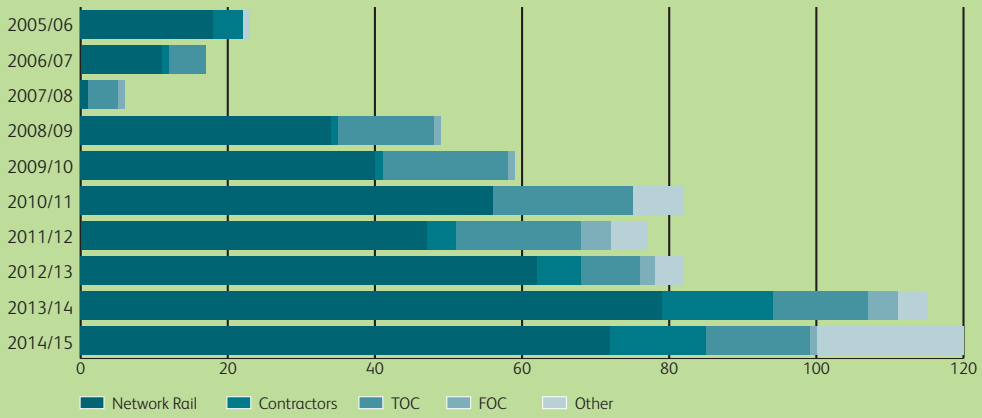
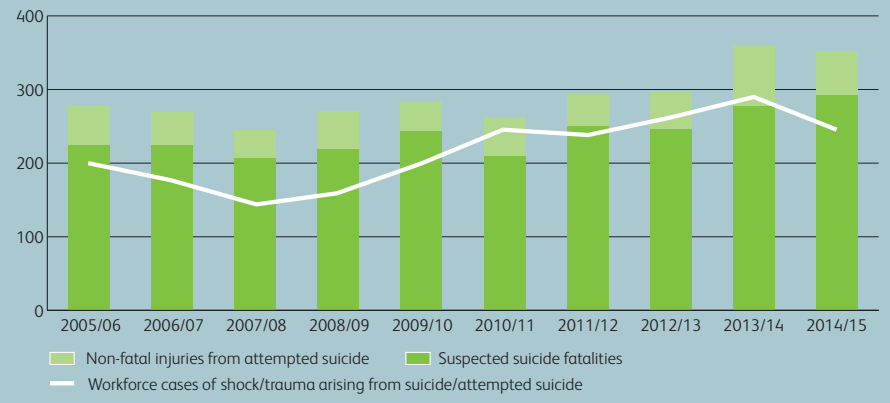


Chart 2 Trends in suicide and workforce shock/trauma



Workers affected by suicide and trespassers
There were 352 suspected suicides and attempted suicides during 2014/15. Around 20% of suicide attempts do not result in a fatality; some people are left to face life with serious and debilitating injuries.

Staff will react differently to being involved in a suicide-related event. For all, it will be upsetting; but for some, it may result in severe post-traumatic stress and could affect their ability to return to their former role.

- SMIS recorded 235 members of the workforce as suffering shock or trauma as a result of witnessing or otherwise being involved in suicide-related events; one member of the workforce suffered a minor injury.
- Around 50% of staff return to work within four weeks of the incident, and around 75% return within eight weeks.
- Reports of shock or trauma have increased over the last ten years. This could be in part due to the greater level of understanding, care and support now in place for staff following suicide incidents.

In 2010, Network Rail, RSSB and the Samaritans began a long-term partnership programme to reduce the number of suicides. This includes prevention and post-incident support measures at national and local levels.

- To date, over 8,000 railway staff have attended a training course on how to manage suicidal contacts.
- Around 1,275 personnel have had Trauma Support Training.
- During 2014/15, BTP recorded a total of 848 interventions that had been made in situations judged as potentially suicidal. This compares to 573 during 2013/14.

Please remember that Samaritans are available to all in need.

hotline 08457 90 90 90
www.samaritans.org

SAMARITANS

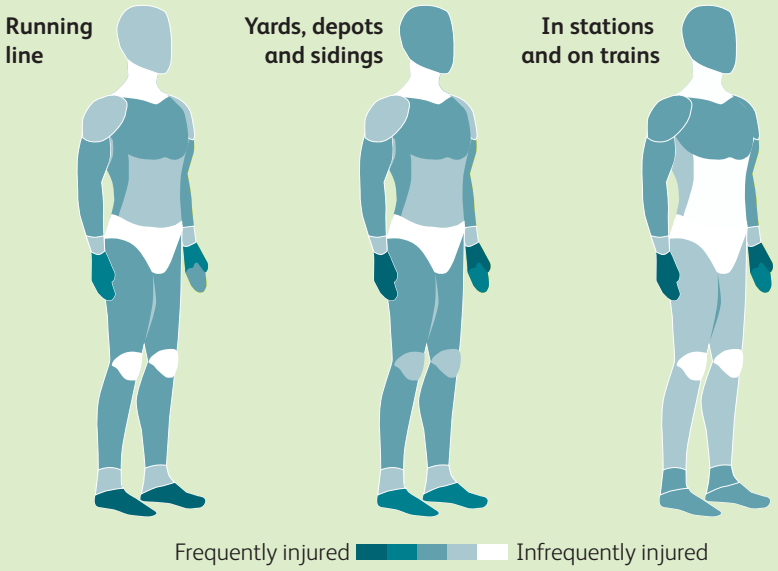
Contact with objects Slips, trips and falls are the most common cause of injury to the workforce. The second most common cause is contact with an object. These injuries occur while lifting, moving or carrying objects (eg dropping or striking injuries); they do not include manual handling, which has a separate category.

These injuries occur in all areas of the railway.
During 2014/15 there were:

- 2 major and 488 minor injuries - in stations and on trains
- 22 major and 468 minor injuries - On or about the running line
- 11 major and 547 minor injuries in yards, depots and sidings

While there are similarities, the injury profiles in Chart 3 show slight differences depending on the location and work involved. Darker areas represent higher number of injuries to that body part. ■

Chart 3 Body parts injured by contact with objects



High speed training

Following my skid pan adventure (see 'Becoming a skid-pan fan' in issue 12 of Right Track), I thought it would be good to see the other side of training. First Great Western, which has recently rebranded as Great Western Railway kindly offered me the chance to visit the simulators at Plymouth and I gladly accepted. Off I went on the train down from Paddington, gazing from the window as the terrain changed from congested city to green fields to seaside, and the weather wound its way from grey skies to bright sunshine.

On arrival, I was met on the platform by the driver competency manager, who ushered me into a mysterious office that I'd never noticed before. Here, I was introduced to the simulator manager. 'HST or 150/2?' he asked, with a smile.

It was a toss-up: my skidpan training had been on a 143, so the 150/2 would make the most sense, as I could compare the two. But the idea of taking an HST to 125mph sounded like an opportunity too good to miss! 'Can I do both?' I pleaded like an excited child asking Mum and Dad if they could go on a fairground ride. They chuckled. Of course I could…

In one room is the console, from where the simulator manager controls the proceedings. He can see and hear everything you're doing while you drive the train. There are also screens on the wall, so that when drivers are being trained as a group, they can go on learning by watching their peers' every move.

The simulator manager can throw a number of scenarios at the driver - like animals on the line, or children throwing stones - all requiring them to call on their knowledge to handle each one safely and effectively.

I asked how drivers were trained to handle emergency situations before there were simulators. Apparently, it was all about table-top exercises with model trains. Sometimes they might do things in a controlled environment, where they would isolate parts and pull emergency levers; however, this was costly and time consuming. Simulators are much more affordable and practical.

Each driver manager has roughly 28 drivers reporting to them, and each driver needs to complete 250 hours of training to pass out. During the training process, each First Great Western driver will go on the simulator as part of the passing out process, and every driver will be tested with a low adhesion scenario.

And so the time came at last for my turn. As I'd completed my skidpan training on a 143, I thought I'd start with the 150/2.
With this one, the simulator manager sits behind you, but the layout is exactly the same as the real cab. There are screens ahead and on each side, so it feels a bit like a panoramic cinema. It's great, because it means you can practice the same skills over and over again and not worry about making errors.

I have to say though that, without the feeling of the train slipping underneath you, it was hard to get the same sense of low adhesion danger that I'd experienced with the skidpan training. Clearly, drivers need both tools to understand the challenges of autumn most fully.

Then it was time for the HST! I could hardly contain my excitement! Here, the simulator manager was in the room next to me. Walking into the simulator was the same as walking into an HST cab. I sat myself down; I looked through the 'windscreen'; I felt like a real driver.

Newswire

US: Freight derails, wagon falls from bridge, no reported injuries

At around 08:30 (local time) on 11 June 2015, nine wagons and a locomotive from an 84-wagon freight derailed on a bridge in Houston, Texas. Two wagons fell from the track; one landed on the road below. There were no reported injuries or spillages, and no dangerous goods were involved.

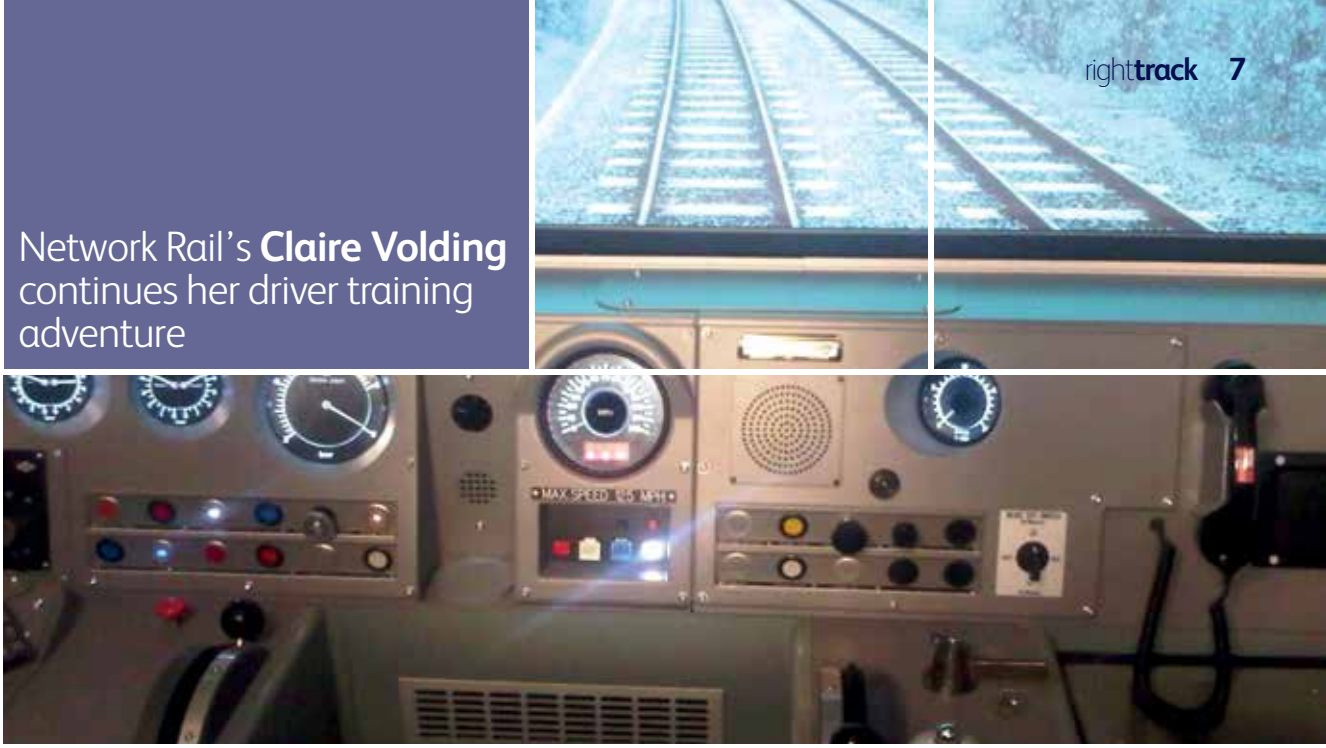
Tunisia: Level crossing collision kills 18, injures 98

At least 18 people were killed and almost a hundred were injured when a passenger train struck a lorry and derailed at an open level crossing in Tabika on 17 June 2015. The lorry driver was questioned by police before being taken to hospital.

India: Buffer stop collision injures 5 in Mumbai

On the morning of on 29 June 2015, a passenger train struck the buffer stops before derailing at Churchgate station, Mumbai. Five passengers were injured. The operator – Western Railways – says the accident was '99 %' due to human error. However, the driver told the media

Network Rail's **Claire Volding** continues her driver training adventure



The Class 395 Simulator at Ashford

The driver competency manager talked me through the various tasks I needed to do to prepare the unit. It is a fairly lengthy process, as Automatic Train Protection (ATP) is used on the Great Western route. This ensures that the train is following the correct speed profile to stop and adhere to speed restrictions.

I opened the power handle to get some amps before releasing the brake and allowing the train to pick up speed. As we travelled along, the weather was sunny, but then all of a sudden it was drizzling - much like the changing weather on my journey to Plymouth.

The Wheel Slip Protection (WSP) light flickered on and the speedometer went up with it. I reduced the power until the wheels stopped spinning and then gently re-applied it, making sure the wheels did not start to slip again.

Wheel Slide Protection comes into effect during braking in low adhesion situations, caused - for example - by leaves, drizzle and other contaminants. It detects an imbalance in the speed the wheels are turning and momentarily releases the brake on the wheels which are turning at a different speed. This is to get the wheels turning again and helps reduce wheel damage ('wheel flats'). When this occurred later in the 'journey', I was tempted to take the brakes off but the driver manager reminded me that it's the job of the WSP to try and resolve these issues.

With this in mind, I left the braking to the WSP. Later though, I did have to make an emergency brake application when I noticed a fire in the distance. When we came to a stand, I pressed the yellow GSM-R urgent priority point-to-point call button to contact the signaller.
A big part of the training is about effective communications, as that is an important aspect of a driver's role; I experience this necessity for myself as I set about making my report.

After the fire had been put out, I proceed at caution; but lo and behold there were children on the line, and my adhesion deteriorated again. I applied the emergency brake and contacted the signaller once more. By the time the children had moved on, it was snowing. Was I ever going to get this simulated train to 125mph?

Finally my chance came: the snow cleared and I was running on greens as I cruised towards that magic maximum.

All of a sudden the AWS sounded a loud angry horn, and the sunflower dial turned to black and yellow on the driving desk.
I looked ahead to see if the signal was the yellow I was expecting.
But it wasn't yellow…and it wasn't red - it was flashing between the two manically. Again I made an emergency brake application.

'What's happening?' I asked the driver manager

'We're experiencing a signal aspect fault,' he sighed.

I was impressed by the simulator's ability to cover so many of the issues you can encounter out on the real railway, and showed me first hand just how focussed and professional drivers have to be. ■

Factbox

Wheel slide protection is similar to ABS on a car: it works to stop wheels locking up during braking.

Wheel slip protection is like the traction control on a car: it reduces the power to a wheel/axle if it spins when power is being applied.

that he applied the main brakes, 'but the train barely slowed down'. Reports say that onlookers trying to take pictures of the train hampered staff as they tried to repair the damage.

Poland: Level crossing collision leads to derailment, 2 passengers injured

On 29 June 2015, a passenger train struck a lorry that had broken down on a level crossing in Milejów. The vehicle was dragged along for several hundred metres before it collided with a lineside building. Two rail passengers were injured. The lorry driver had reportedly tried to warn the train driver prior to impact.

Japan: Passenger burns self to death on 'bullet train'

On 30 June 2015, a 71-year-old man burned himself to death aboard a 'bullet train' in what appeared to be a deliberate act. A second passenger was also found dead nearby. The man is reported to have doused himself and parts of the train's interior with a flammable liquid before setting himself on fire with a cigarette lighter. Twenty-six people required treatment for burns and smoke inhalation.

The Lowdown

Martha Parkhurst meets Kevin Greasley, Mobile Operations Manager at Nuneaton

Kevin Greasley met me at Nuneaton station, before showing me to the central pedestrianised area of this small, cheerful market town. It was one of his shift days, and he'd agreed to spend some of it telling me what life's like for a Mobile Operations Manager (MOM). Despite the early summer sun, it was a cool morning, so Kevin suggested we get a hot drink. We stepped into a local café for a coffee.

Kevin has been a MOM since 2007, but railways have fascinated him since childhood – when, like so many other children, he enjoyed playing with train sets. His first role in the railway came in 2002, where he spent a couple of months as a level crossing keeper. "It was on a branch line," he tells me, "so it was a really quiet job. I had plenty of time to brush up on my rule books before going to signalling school at Derby. After eight weeks of study, I passed all my written exams. I then spent several months training at Narborough signal box, before finally passing out to work the box on my own. In 2005, I became the relief signaller at Hinckley and Croft boxes too."

Newswire

US: Freight derails near Knoxville – dangerous goods involved, 5000 evacuated

Shortly before 23:50 (local time) on 2 July 2015, a freight train carrying acrylonitrile derailed near Knoxville, Tennessee. The resulting fire led to the evacuation of around 5000 local residents within a two-mile radius. Ten police officers had to be taken to hospital because they breathed in fumes, according to a Blount County Sheriff's Office spokeswoman.

Pakistan: 19 killed when bridge collapses as train passes over at Gujranwala

On 2 July 2015, a bridge in Gujranwala collapsed as a military train was passing over it. Nineteen people were killed when it fell into the canal below. An inquiry found that the train had been driven at three times the permitted speed, its locomotive having a faulty speedometer.

US: Two crew injured in Virginian freight collision

At around 16:00 (local time) on 14 July 2015, two freight trains collided in Dublin, Virginia. The first was struck in rear by a second, causing at least five wagons from each to derail. No dangerous goods were involved, but diesel fuel from one of the locomotives was spilled. Three

RSSB has produced a special topic report on the risk caused by animals on the line, and the impacts these can have on operational safety. To read the report, go to rssb.co.uk and search "animals on the line".

It was whilst he was working at Tamworth that he first saw a MOM in action. "Two deer had come onto the line, and the MOM on duty had all the fun of chasing them off again." Wanting to join in the fun, Kevin applied for a MOM role himself at the end of 2007; the rest, as they say, is history.

There are five MOMs based at Nuneaton. Kevin and his colleagues Tony, Greg, Gary and Nick work shifts. They look after a broad area, from Rugby to Lichfield, as well as lines to Birmingham, Coventry and Leicester. It's impossible to say what will happen on any given day. "Except on Sunday," says Kevin, with a cheeky smile. "Then, whoever's on duty has the glorious job of cleaning the shower and kitchenette!" But for the most part, it depends on the incidents of the day, whether that be animals on the line, trespass, point failures, lineside fires, or driving miles to close an access gate that someone's left open.

In contrast with the relative isolation of the MOM station, some incidents require a good dose of human skills – like when the police are also called to an incident. If it's the BTP, there's no issue, they know what a MOM does and expect him to show up. But the civilian police? They do not have the same experience of working on the railway. "Even when we arrive in a Network Rail van, wearing an orange vest, they might not understand that this is our job." In one particularly striking instance during a night shift, Kevin was hoping to catch some cable thieves red-handed, when the police (looking for exactly the same people) knocked on the door of his van and all but accused him of being part of the gang of thieves!

But of course not all aspects of being a MOM are appealing. In his 8 years in the job, Kevin has dealt with 4 suicide fatalities, and lost count of the number of attempted suicides he has dealt with. Attempted suicide incidents usually start with a driver reporting a member of the public acting suspiciously near the line; subsequent drivers are advised to drive at caution in the area while Kevin jumps into his van to find and help the person involved. Once there he meets the BTP squad that is dedicated to the West Coast Main Line. These officers have been through the suicide prevention training course created by RSSB in conjunction with Samaritans.

As a MOM, Kevin needs to use his judgement and common sense every day – some scenarios cannot be prepared for in training; every incident is different, every person has different reactions and triggers. This good judgement is vital for keeping Kevin's patch of the railway working, and making sure everyone who uses it is safe. ■

See also "A MOM for all seasons" in Right Track 7, when Greg Morse interviewed an urban MOM and a rural MOM, comparing how the differences in their environment affected the challenges they faced.

homes were evacuated as a precaution. Two crew members from the second train also required hospital treatment.

Canada: Freight derailment near Bowmanville, no dangerous goods

A container train derailed near Bowmanville, Ontario, on 18 July 2015, causing passenger operator VIA Rail to suspend services between Montreal, Ottawa and Toronto. There were no dangerous goods involved and no reported injuries. An investigation has been launched.

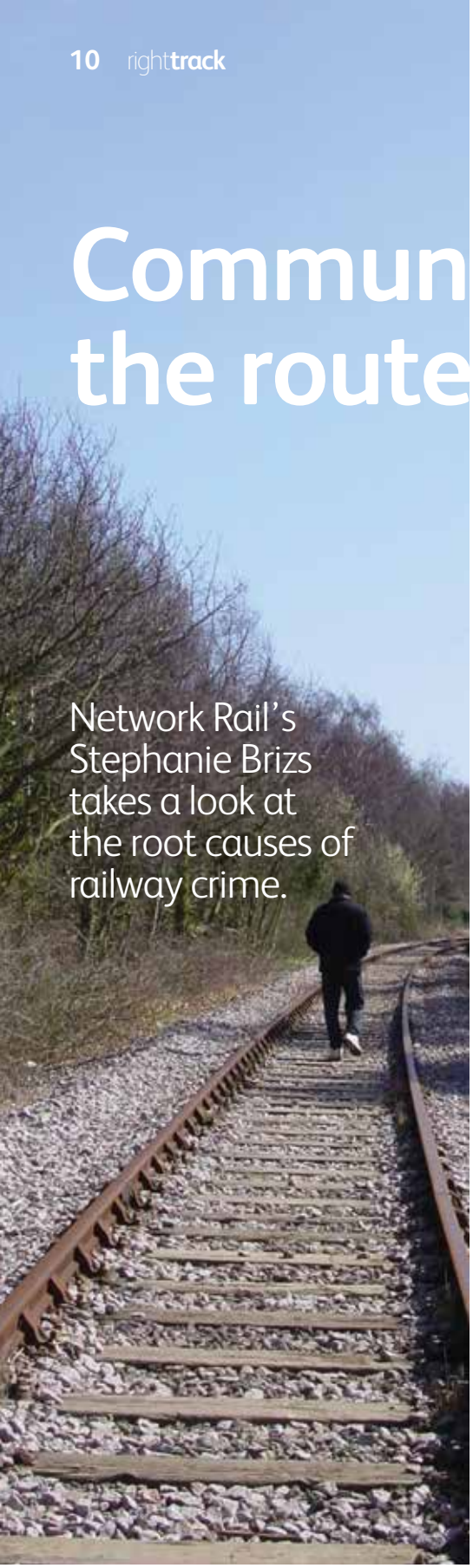
South Africa: Train collision near Johannesburg injures 300+

At 18:00 (local time) on 18 July 2015, 326 people were injured when two commuter trains collided near Booysens, Johannesburg. There were no reported fatalities. The cause of the incident has yet to be determined, though one commuter told the local press that the first train had stopped at a signal before the second ran into it.

Czech Republic: Level crossing collision kills 3, injures 13

On 22 July 2015, a high-speed passenger train struck a lorry at a level crossing in Studenka. Three people were killed and 13 more were injured.

Community Safety - the route to tackling crime



Network Rail's Stephanie Brizs takes a look at the root causes of railway crime.

Network Rail's Community Safety programme focuses on preventing and reducing route crime, particularly trespass, vandalism and misuse to things like level crossings. Such activity costs the industry over £40m per year, causes delays and disruption across the network, and risks the safety of passengers, staff and other railway users. It also impacts on the reputation of the whole industry, with public safety incidents influencing people's perception of our overall management of the railway.

With the possibility of being electrocuted or being struck by a train, the chance of death is high when a member of the public trespasses on railway property. Indeed, there were 21 fatalities as a result of trespass incidents in 2013/14 alone.

People access the railway unlawfully for a number of reasons. For some, it may be misguided convenience - taking a shortcut along the tracks, or walking the dog. For others, it may be a spur of the moment decision - for example, if something has been dropped from the platform edge and the person tries to retrieve it. In other cases, such as playing 'chicken' or committing a crime or act of vandalism, there may be a thrill-seeking element involved.

Most incidents associated with railway crime are caused by young people between 11 and 16; more specifically, most trespassers are young males aged 16-24. In both groups, incidents usually occur because of wider societal issues. Understanding who carries out these activities and why allows us to implement targeted intervention measures, including erecting physical barriers, deploying security staff and running railway safety education programmes.

Trespass and vandalism is tackled both nationally and within the Network Rail Routes. A national safety team works collaboratively with the Route-based Community Safety Managers, and focuses on creating partnerships and initiatives that tackle trespass and vandalism on a national level. Meanwhile, the Community Safety Managers work to tackle trespass and vandalism at a local level, identifying and targeting 'hot spots'. This is done through community engagement activities, including school visits, awareness days at local events, organising diversionary activities and creating partnerships with a variety of stakeholders to educate young people and to raise awareness of the dangers on the railway.

Such events include:

- Safety Road shows - using the Network Rail vehicles
- BTP Rail Safety Football Cup
- School intervention & education programs
- County shows
- Community enhancement projects such as rejuvenation of land and skate park projects.
- Neighbourhood watch and community safety partnerships
- Competitions for young people - e.g. poster designing

National projects are centred on diversionary activities and railway safety education for young people. Through the provision of these activities, such as sport, in which young people are keen to be involved, we are able to deliver railway safety messages as part of the activities. Some examples of our national projects are as follows:

Newswire

UK: Animal strike derails Ramsgate service, RAIB attends

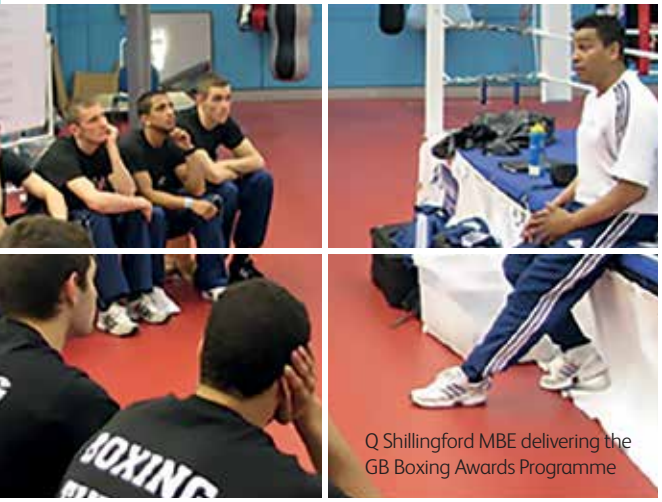
At 21:43 on 26 July 2015, a London Charing Cross–Ramsgate service derailed between Wye and Chilham after striking two cows. The train came to rest with the derailed vehicle leaning at 45 degrees towards the cess. There were no reported injuries amongst the 65 passengers; all were moved from the leading vehicle and were later evacuated to a local village hall.

Germany: Fire on commuter train near Munich, no reported injuries

Shortly after 07:00 (local time) on 27 July 2015, a fire broke out on a locomotive as it hauled a commuter train between Donnersberger Brücke and Hirschgarten. Passengers in the first three carriages were moved to the rear part of the train, which was then pulled back to a station for evacuation. While the cause of the fire remains unclear, a spokesperson for DB reported it as being down to a technical failure

France: Pantograph fire in Lunel leads to evacuation, 7 receive minor injuries

At around 08:00 (local time) on 2 August 2015, a Spanish high-speed train caught fire shortly after leaving Lunel in France. The media reported that seven or eight passengers



Q Shillingford MBE delivering the GB Boxing Awards Programme

GB Boxing Awards

The GB Boxing Awards partnership is a new initiative which combines boxing and railway education. The partnership oversees the creation of three new youth boxing clubs in each route. The location of the clubs will be in targeted trespass and vandalism hot spot locations.

The GB Boxing Awards provide an organised programme, which combines the teaching of non-contact boxing skills alongside healthy living, life skills and railway safety. The clubs provide a work book which attendees must complete alongside their boxing skills. This lets them progress through the levels, gaining certificates and medals at each stage.

Junior Filmmakers Competition

Network Rail is sponsoring the 2015 Junior Film Makers Competition. The competition provides the opportunity for 10 schools across Hertfordshire, Bedfordshire and Buckinghamshire to participate in the Junior Filmmaking programme to develop and produce a short film based on railway safety.

With young people being the primary recipients both as filmmakers and as audience, the programme aims to be an enriching experience that not only allows participants the chance to grasp basic filmmaking skills, but also raises the importance of Railway safety to a young audience.

Following the competition the films created by the young people will be available on the Network Rail Educational Resources webpage, and will be used by our team of Community Safety Managers to educate young people on the dangers of the railway.

The Football League Trust

The Partnership with the Football League Trust delivers football based activities, in association with football league clubs, in trespass and vandalism hot spot locations. The activities are run at peak periods, such as school holidays, with the aim of directing young people away from the railway.

In 2014, 10 football clubs were selected:

- Brentford FC
- Brighton & Hove Albion
- Bristol City
- Bristol Rovers
- Derby County
- Leeds
- Nottingham Forest
- Notts County
- Portsmouth
- Shrewsbury Town

Using the links with local football clubs, the Football League Trust is able to promote the activities on match days and in match programmes. Additionally, the clubs support the projects by providing sports equipment and access to their facilities. They also allow their players to become ambassadors for the project (which in turn helps to increase attendance).

Young film makers in action

These are some examples of the diversionary activities in place. As with all activities provided by Network Rail's Community Safety programme, they are open to all young people who wish to attend. However, the activities are targeted towards the interests of young males, who are identified as the most 'at-risk' group as a result of trespass.

The success of these activities can be hard to measure other than through attendance figures, repeat visits and questioning the young people on what they have learnt and their enjoyment.

However, monitoring the number of trespass incidents is also a measure of the success of these activities, in addition to other control measures in place. Over recent years we have seen a positive trend showing a reduction in the number of events and resulting fatalities.

Although there were 21 fatalities in 2013/14, this is a reduction of 33 % on the previous year, when there were 32. It is also lower than the previous five-year average of 33.

Whilst a number of control measures are responsible for this reduction, it is recognised that Community Safety activity plays an essential part in it. ■

For more information on Network Rail's Community Safety Programme, please contact **Abigail.Patterson@networkrail.co.uk**

sustained minor injuries after breaking windows to make their escape.

India: 29 killed when two trains derail on track washed away by river

A flash flood is said to be behind a two-train derailment that occurred near Hardam, Madhya Pradesh, on 4 August 2015. Heavy rains had caused river levels to rise and wash away the track bed. The Kamayani Express from Varanasi to Mumbai derailed first; the Janata Express (travelling in the opposite direction) followed shortly after. A number of carriages fell into the Machak River. Twenty-nine people were killed and around 25 were injured.

US: Four injured when two freights collide in Georgia

At 13:15 (local time) on 7 August 2015, four crew members were injured when two Norfolk Southern freight trains collided in Sandersville, Georgia. Two were airlifted to a hospital in Augusta; the other two were treated locally. Neither train was carrying dangerous goods.

RAIB report brief

Loughborough Central

Right Track looks at a runaway that led to a collision on the Great Central Railway heritage line last year.

'A sickening crunch.' That's what you might've said, if you'd seen a '37' roll into a beautifully restored vintage carriage. No one was hurt that day, but hearts were surely bruised. So what happened?

Taking possession

Possessions aren't limited to heavy rail - heritage operators have repairs to make too, and many keep special stock for the purpose. So it was, that on 12 May 2014, a PICOP on the Great Central Railway (GCR) prepared 37198 and started its engines.

At 08:30, he signed the possession control forms. After shunting the engineering wagons at Quorn and Swithland, the gang loose-coupled a coach to the locomotive, which they all boarded. The train then left Swithland with the locomotive leading.

Once at Rothley, a gang member set the block instrument to 'LINE CLEAR' so that Swithland 'box could be closed and its volunteer signalman could go home. The '37' then propelled the coach towards Quorn, where it arrived just before midday.

The gang took a break at Quorn, and the PICOP shut down the locomotive, stopping the engine and placing the Master Switch to 'OFF', thereby shutting down the two main air compressors. One gang member was passed a wheel scotch. He said he put it against the leading (downhill) face of the right-hand wheel of the rear axle (leading bogie) and drove it home against the tread with his boot.

But soon after 12:20, the gang emerged to find that their train had gone. One gang member said he could see the train in the distance. The PICOP phoned the Ops Manager to warn him. When a signaller checked the track circuits in Loughborough North 'box, he realised that a stabled set of coaches had moved and that a collision had occurred.

The damage from the incident

Images: Courtesy of RAIB.

An inspector calls

RAIB said the runaway occurred because the scotch hadn't been positioned correctly. Furthermore, the PICOP hadn't applied the handbrakes, as he wrongly believed they wouldn't work on a '37' and thought the scotch would be enough if the pressure in the air brakes leaked away. He was wrong, but may have been influenced by prevailing GCR practices.

Newswire

France: Three killed in crossing collision in Orne region

At 20:20 (local time) on 8 August 2015, a train struck a car on a level crossing at Conde-sur-Huisne. The vehicle was dragged for several hundred metres and three of its occupants were killed. It is thought the car had stalled on the interface. One person got out to try to push it clear but was unable to do so before the train's arrival. There were no on-train injuries.

Russia: Theft suspected in derailment that injures 4

On 8 August 2015, a passenger service derailed in central Russia, injuring four of the 648 passengers on board. Officials suspect that the accident was caused by the theft of rail chairs over a 30-metre length. However, the Regional Prosecutor's Office for Transport believes the derailment may have occurred because of a widening of gauge.

US: Light aircraft crashes on to line in Long Island, one killed

One person was killed and another was injured shortly before 08:00 (local time) on 16 August 2015, when a light aircraft crash-landed at a level crossing between Bethpage and Hicksville, Long Island. The Federal Aviation Administration said the Hawker Beechcraft BE35 had departed from Francis Gabreski Airport in Westhampton Beach. The pilot

Witnesses say engineering trains would normally be stabled on the main line at Quorn and berthed in the local sidings at the end of the week. It's thought that stabling engineering trains like this had become accepted by the P Way gang as 'safe practice', even though it isn't.

RAIB also found that checks by GCR managers didn't detect all the unsafe and non-compliant practices present within possessions. Some of the rules on how rail vehicles were to be left unattended were also inconsistent and potentially unclear.

RAIB identified two key learning points:

- Moving trains not fitted with continuous automatic brakes (or which don't include brake vans controlled by a guard at the rear) should be avoided, as a vehicle without operational brakes could run away after a coupling failure.
- Safety critical activities like moving, shunting and stabling trains must be undertaken by an adequate number of competent staff.

What was done?

The GCR issued a bulletin reminding staff that 'trains must not be left on running lines unless absolutely necessary; [however] if it is necessary for a train or vehicles to be left unattended on a running line, ALL handbrakes must be fully applied AND the wheels securely chocked in both direction to prevent movement…'

Possession requests must also now be submitted to the Ops Manager for approval at least 72 hours before implementation (emergencies excepted).

Another new process requires additional train movements (ie those not included in the working timetable) to be approved by the operations manager, who will ensure that an adequate number of staff holding the correct competencies are appointed to crew them.

The GCR has implemented changes to ensure diesel locomotive examinations include any vehicles used on non-passenger services and check the functionality of the handbrake.

RAIB also recommended reviewing:

- The GCR Rule Book, General Appendix and any other instructions relating to leaving vehicles unattended.
- The arrangements intended to ensure the safety management system, rules and procedures are functioning as intended.
- The arrangements for training and assessing staff to make sure they're effective at ensuring employees and volunteers are fully competent to undertake their duties.
- The arrangements currently in place by which the GCR makes sure that diesel locomotives operating on its infrastructure are being maintained in a way which adequately addresses the risks posed by the potential failure or reduced reliability of components and systems. ■

reported an issue and was trying to get to Republic Airport in Farmingdale at the time of the incident.

France: On-board shooting injures three, man arrested

At 17:45 (local time) on 22 August 2015, a gunman was foiled on a high-speed train near Arras after being overpowered by three US citizens, two of whom were off-duty military personnel. They heard a weapon being loaded in a toilet cubicle and confronted the attacker when he emerged. The French authorities said three people were injured, two seriously – one with a gunshot wound, the other with a knife wound. The attacker, a 26-year-old from Morocco, was arrested at Arras station.

South Africa: 63 injured in Shosholoza Meyl derailment

On the evening of 19 August 2015, a long-distance passenger train derailed between Modderrivier and Heuningneskloof. Sixty-three people, including the driver and a technician, sustained injuries, most of which were minor. Four overhead line equipment masts and 300 metres of track were damaged.

Industry autumn review

Driver survey results and next steps

Earlier this year, the Adhesion Working Group (AWG) sought the views and opinions of train drivers about autumn driving via a survey advertised in Right Track (see issue 11, February 2015).

You may recall that autumn 2013 was particularly poor across the country in terms of safety incidents, such as station over-runs, SPADs and wrong-side track circuit failures. On the back of that, a national industry review of the 2013 season was undertaken to understand what the key issues were, and how to improve things for autumn 2015 and beyond. However, in order to get a better handle on low adhesion from a train driver's perspective, we really wanted to hear from you.

The survey was designed to enable you to feed into the discussion, and many of you did. AWG would like to thank all of you who took part. The results obtained from your feedback will really help AWG to understand more about how drivers perceive autumn and the effectiveness of some of the measures that are deployed throughout the season.

So what happens next?

In terms of next steps, the AWG sub-group reviewing the results will be looking at:

- How to provide information to drivers on sites of known low adhesion and information contained in the Sectional Appendix
- The effectiveness of the current training material
- The role of the Rule Book, in particular module TW1
- The requirements for reporting low adhesion to the signaller and what happens with these reports
- How to make the daily adhesion forecast more user-friendly and meaningful
- Reviewing the terms used in autumn to describe poor adhesion to help to remove some of the subjectivity

Thanks once again for taking the time to complete the survey. We will keep you posted on future developments via Right Track. In the meantime, if you would like to make further comments on your experience of low adhesion, or you weren't able to take part in the survey, please let us know your thoughts by contacting **daniel.mann@atoc.org**. ■

Over 43% of drivers stated that they would report low adhesion experienced under traction/power to the signaller

40% of drivers found existing sources of information on areas of known low rail adhesion 'very helpful', 50% 'quite helpful' and 10% 'not helpful' although that doubled to over 20% in terms of the accuracy and reliability of this information

Despite being fitted, just over 7% of drivers do not use sand for traction, with just under 10% stating that they are 'not confident' in the amount of sand available for their sanding/braking needs.

77% of drivers did not report 'low' or 'exceptional' railhead conditions to signallers in 2014. This was higher than the AWG sub-group had expected, but perhaps reflects the more benign autumn experienced in 2014

79% of drivers confirmed that they understand the information conveyed in the daily adhesion forecast, and 18% that they understand 'some of it'. Nearly 53% of drivers find it 'quite helpful' and 35% find it 'very helpful'

There is a general tendency amongst drivers to drive defensively as the colour code deteriorates

Drivers are relatively confident that they know where areas of known low adhesion are located: 44% of drivers said they were 'quite confident' and 52% 'very confident'

More than 70% of those who completed the survey had 10 or more years' driving experience

Over 91% of drivers agree with their company's braking policy for low adhesion

63% of drivers reported that the use of the emergency brake would prompt them to consider reporting low adhesion to the signaller. This makes us wonder if it means that 37% of drivers would not contact the signaller after making an emergency brake application.

For drivers experiencing their first autumn, the levels of support from staff and colleagues was rated as relatively high

The information obtained on the effectiveness of training types for new drivers is interesting because there was a real mix of feedback. 41% of new drivers rated briefings as 'high', but no single training format stood out. This perhaps suggests more work may need to be done in this area to see if there's an optimal training type

More than 40% of drivers found the briefing information they receive prior to autumn 'very helpful', over 50% 'somewhat helpful' and just over 6% 'not helpful'

What do you do when there's an emergency on board? How do you react when passengers take matters into their own hands? These are the types of questions considered in the reconstruction in the next issue of RED.

We'll also be looking at a recent evacuation exercise, and how one train operator is preventing stop-short door releases.

RED 43 DVD will be available from November 2015 - watch out for it in your safety briefings!

For more information, search 'Red' on Opsweb, or email red@rssb.co.uk.

43

RED

SPADtalk

You'll have seen elsewhere in this issue that RSSB has released its usual big book of statistics. It's as regular as clockwork, the start of the football season, and the failure of a non-league no-hoper to rise to the challenge.

But what does it tell us about SPADs?

On the surface, the numbers are going up: in 2013/15, there were 287 SPADs; in 2014/15, there were 299. Yet the risk – the chance of an accident occurring after a signal's been passed at danger - went down because there were fewer SPADs where the chance of a collision or derailment was high (14, as opposed to 16 in 2013/14). So that's alright, then.

Except of course, it isn't. We're all very aware that it only takes one SPAD for a fatal collision like Ladbroke Grove, and the incident at Wootton Bassett that we looked at in Right Track 12 shows how close we can come. We're also all aware that, while 'reset and continues' continue to occur (which they do), SPADs will go on being an issue even in areas with TPWS-equipped signals.

Thankfully a lot of work is being done, as RSSB's Learning from Operational Experience Annual Report explains – not least of which is a Ten-Year SPAD Strategy. This is designed to look at the current underlying causes of SPADs, in order to model their risk more effectively, and ultimately develop further measures against them in the period before ERTMS becomes more widespread.

The strategy will be delivered through three key phases:

1. Review of existing management activity, tactical improvements and good practice;
2. Next generation of risk mitigation; and
3. Delivering the long-term plan.

Phase 1 is considering the system 'as is', recognising the work that has been done regarding multi-SPAD signals, the opportunities and risks posed by renewal schemes, TPWS, the quality of SPAD investigations, and so on.

At the same time, Phase 2 is starting to think about what should come next, and will include a deeper look at the risks, looking beyond the numbers to recognised good practice.

A cross-industry SPAD Risk Reduction Strategy Steering Group will provide support, establish and set the remit for sub-groups. These groups will inform strategic decisions, monitor progress, and assist with any cross-industry issues. The steering group will also develop a 'vision' for SPAD risk management, among other things. Right Track will be watching with interest, and will keep you posted as the work goes on.

Since TPWS was introduced, there have been a number of events where the driver has reset the equipment and continued forward without the signaller's authority.

Though such events are relatively rare, they're potentially serious because they negate the safety benefits of TPWS.

There was one 'reset and continue' after a SPAD in 2014/15, in which a depot driver shunted empty coaching stock past a signal on the main line.