

## Commercial Vehicle Incident Prevention Programme

# Operation Tramline – Targeting dangerous driver behaviour

### Aim

To collaborate with the Police at a national level to target dangerously driven commercial vehicles, other high sided vehicles and private cars to improve compliance and to reduce the number of incidents caused by unsafe driver behaviour on the strategic road network.

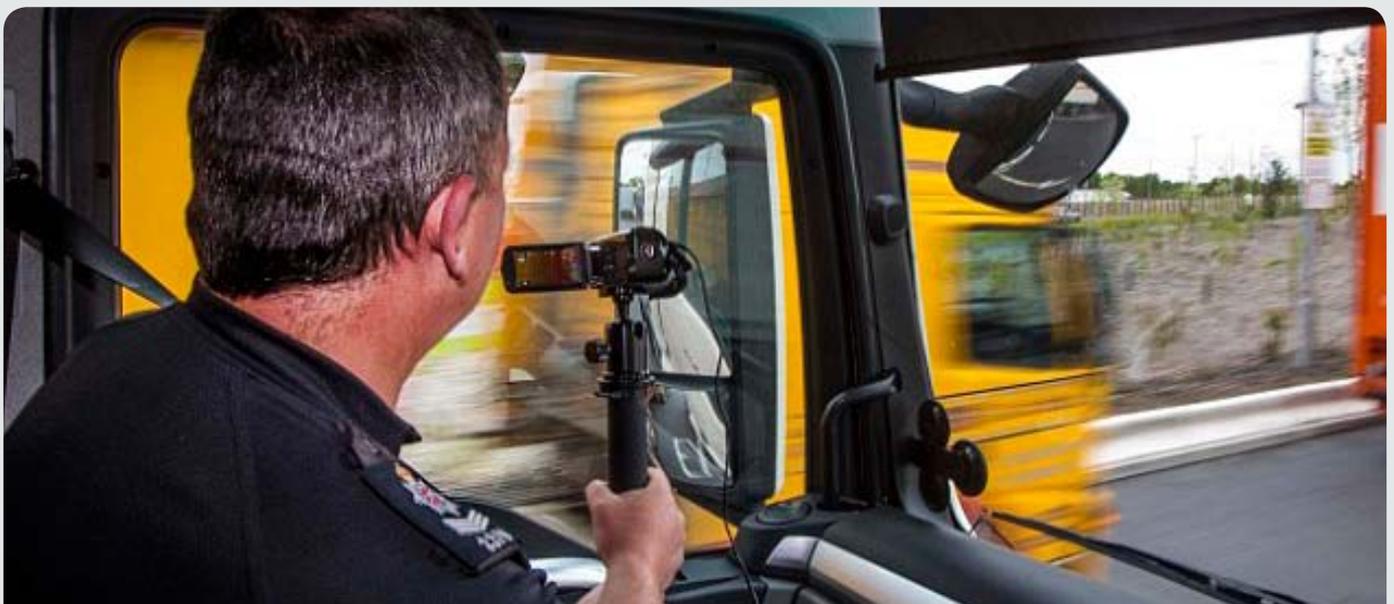
### Activity

Since April 2015 Highways England have funded and coordinated the use of an unmarked HGV tractor unit that Police Forces use to patrol the strategic road network to capture distracted HGV drivers and private motorists using mobile phones,

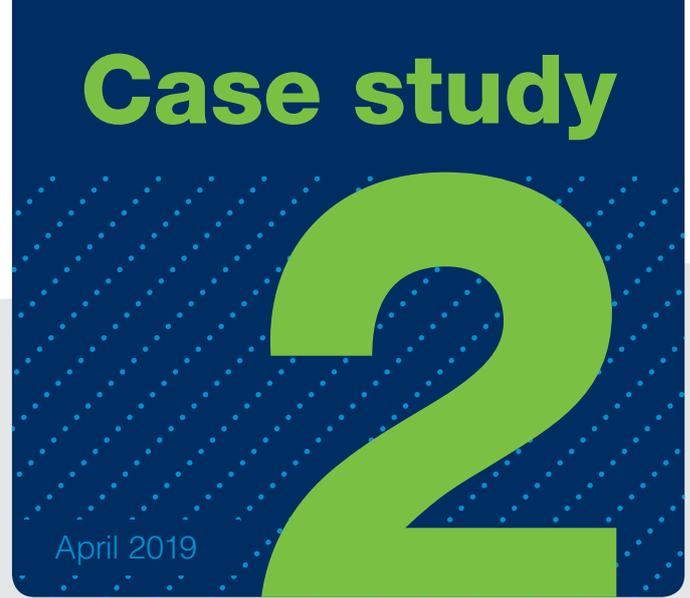
laptops, reading/cooking or other unsafe activities whilst driving. From November 2017 the number of HGV tractor units increased to three, one focused on the North, the second the Midlands, and the third the South.

### Results

Between April 2015 and March 2019, 28 police forces have stopped 8,926 vehicles, detected 10,164 offences and issued 10,560 interventions. Top three offences from this initiative are; mobile phone use, seat belts and not in proper control of the vehicle. As a result of this success the project has been extended until November 2020.



## Commercial Vehicle Incident Prevention Programme



# Driver fatigue – Roadside checks of drivers' hours

### Aim

Fatigue is a major cause of commercial vehicle incidents. Our aim is to support the Police in undertaking roadside checks of drivers' hours, in order to reduce the number of casualty collisions involving fatigued commercial vehicle drivers.

### Activity

Since 2009 Highways England has provided technology to support the Police with drivers' hours' checks. In 2017 a new operating model was developed which offers support to the Police based on the amount of driver's hours' checks undertaken. The new model gives the Police more discretion on how to use the support and provides a more targeted model.

### Results

26 Police Forces are participating in this initiative. Since January 2017 over 24,000 vehicle checks have identified more than 25,000 individual offences. Most offences are dealt with by the Police issuing a fine. Over this period, 1,700 vehicles that pose an immediate danger to the roads have been prohibited from continuing their journey. Examples of the more serious offences discovered is a driver who had driven for 22 hours in the preceding 28 hours. Another driver had only taken for 4 hours 20 minutes of rest in 49 hours of driving and on another occasion had only taken 4 hours 45 minutes of rest during 41 hours of driving.



## Commercial Vehicle Incident Prevention Programme

# Improving commercial vehicle load security

### Aim

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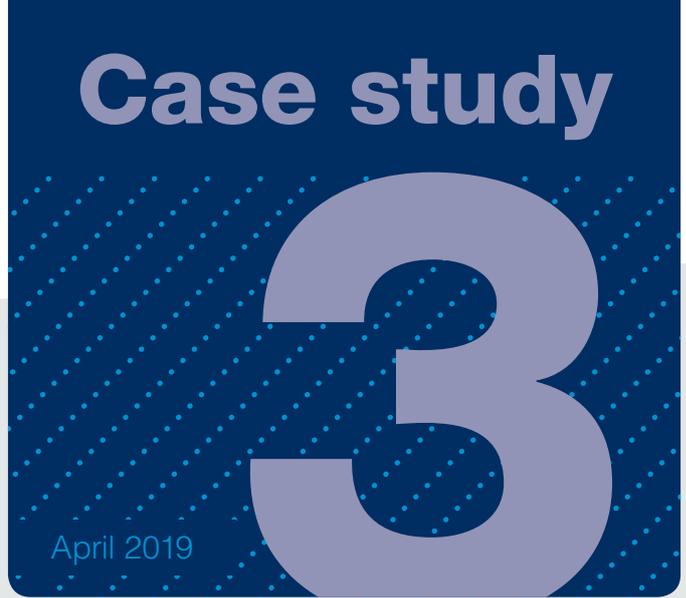
To collaborate and work with partners and the industry to improve commercial vehicle load security and thereby reduce the number of load security related incidents on the strategic road network.

### Activity

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**Expert Police Training:** Since 2016, Highways England have worked with the Health & Safety Laboratory (HSL) to develop and deliver expert load security training to 9 police forces in England. The police have utilised this training to identify poorly loaded commercial vehicles, educate drivers and, where necessary, undertake enforcement action to deal with poor load securing. To improve capability further, in 2019 Highways England have provided additional training to allow more police officers to prohibit vehicles with insecure loads to ensure that dangerously loaded vehicles are removed from the SRN until the problem is rectified.

**Ratchet Webbing Straps:** Research with HSL has highlighted the issue of misuse and poor management of ratchet straps used to secure loads, this can lead to strap failures and loads falling from vehicles. Highways England have worked with HSL to publish a new guidance leaflet for drivers which was launched at the 2018 Commercial Vehicle Show and is being issued at the roadside by DVSA and the Police.



**North East Load Security Pilot:** Highways England are working with the HSE, West Yorkshire Police and DVSA to pilot a new collaborative approach to load security compliance. Enhanced intelligence sharing is being used to allow these partners to better identify poor load security practise and target where the issue sits in the chain of responsibility.

### Results (*Expert Police Training*)

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During February 2019, West Yorkshire Police, in conjunction with the HSE and DVSA, put their training into practise for a “week of action” on load security resulting in 17 dangerously loaded vehicles being removed from the road. The NE pilot has implemented a number of new working practises including DVSA examiners routinely opening vehicles to check the load, vehicle prohibitions issued in lieu of a fine where the driver is deemed to be not at fault and HSE gaining direct access to DVSA intelligence data.



## Commercial Vehicle Incident Prevention Programme

# Highways England joint working with DVSA

### Aim

The aim of this pilot is to assess and determine if training Highways England traffic officers to act as 'stoppers' for the Driving and Vehicle Standards Agency (DVSA) would enhance the capabilities of both organisations and increase the number of unsafe vehicles being removed from the strategic road network.

### Activity

The objectives of the pilot at Doxey check site are to increase the detection of serious traffic offences and dangerous vehicle defects, improve examiner efficiency by increasing vehicle throughput, and to enhance DVSA enforcement flexibility by enabling simultaneous checks to be carried out in both directions of the M6 motorway.



## Case study

# 4

April 2019

### Results

**Pilot Summary:** During the pilot period (April 2017 – February 2018), a total of 782 vehicles have been escorted back to Doxey check site by Highways England traffic officers. The prohibition rate of the vehicles stopped by Highways England traffic officers is 45.9% (which is in line with DVSA's stoppers). The efficiency of DVSA's Traffic Examiners and Vehicle Examiners has improved which is attributable to the extra vehicles being brought to the check site. Traffic officers carried out 136 joint working shifts at Doxey during the pilot period and carried out 699.45 hours of stopping duties whilst attending 99 Highways England incidents.

There have been 0 instances of non-compliance and no negative impact on performance.

**Next steps:** The initiative has now been approved to be transferred into business as usual activities by Operations. The initiative has also received support for further roll out and additional sites will be identified and analysed for suitability.

## Commercial Vehicle Incident Prevention Programme

# Driving in the UK – Providing information to overseas commercial vehicle drivers

### Aim

The overall aim of this initiative is to aid overseas commercial drivers to use the network safely, thus contributing to the reduction of incidents on the strategic road network (SRN).

### Activity

The current project consists of developing a product which contains key information for driving on the SRN and highlights a number of key areas, including; safe and good practice driving (including blind spot awareness), illegal/inappropriate parking, breakdown information, speed limits/conversions and motorway driving (including Red X's).

### Results

We have carried out two insight surveys via our partnering survey company to gain valuable insight into the information required by overseas' commercial vehicle drivers, when they are using our network. This has been reviewed and the results of which will be incorporated into the final product which is due for completion and publication in the Summer.



## Commercial Vehicle Incident Prevention Programme

# Load security for private motorists

### Aim

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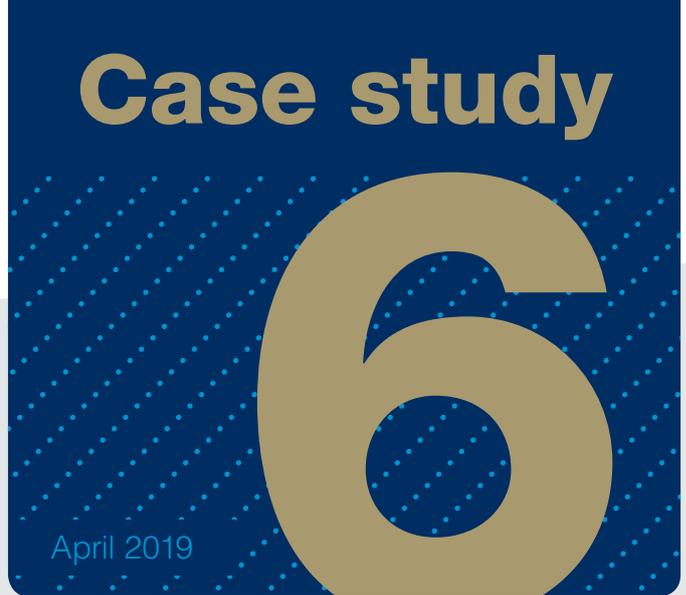
The aim of this intervention is to reduce the amount of shed load/debris incidents on the network by educating our road users. A research project was carried out in 2015 by the Health and Safety Laboratory, at a popular retail store located near the M1 motorway, following reports from Highways England Traffic Officers that they were experiencing a high number of shed load/debris incidents in the East Midlands region.

### Activity

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The research study was commissioned which involved a number of observations at the store. Within the first day of observations no methods were used by private motorists to secure loads. It was observed that the reasons for load instability were due to poor stacking and the load being too large for the vehicle the items were being transported in.

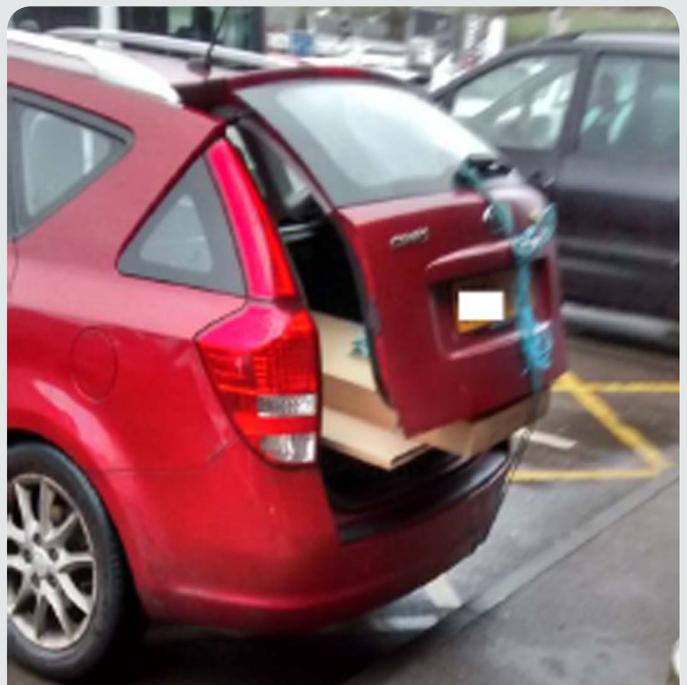
It was concluded that private motorists are not fully aware of the risks associated with load security, posing a safety risk to their passengers, themselves, other motorists using our network and our staff who risk their lives to clean up the damage post incident.



### Results

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*Complete:* A national campaign was developed to raise awareness to the public of the dangers of poor loading and encouraging them to think about how they transport their goods, passengers and themselves to get “home in one piece”. The campaign is formed of a set of animated GIFs which display a series of safety messages. These were published on Highways England’s social media accounts; Twitter, Instagram and Facebook over the early May bank holiday and we hope to continue to use these animations at key shopping periods throughout the year.



## Commercial Vehicle Incident Prevention Programme

# Case study

# 7

April 2019

## Prevention of diesel spillages

### Aim

The overall aim of this initiative is to reduce the frequency and severity of incidents associated with diesel spillages from commercial vehicle drivers on the Strategic Road Network (SRN).

In 2018, Highways England recorded 314 diesel spillages involving HGVs, causing a range of events including journey time delays, risk to life and environmental issues. The cleaning up of diesel spillages is expensive and time consuming. Diesel exposure to the road surface for approximately 120 minutes has been shown to result in significant damage. This can cause further future disruption to the network with repair work to the carriageway and associated costs.

Many operators who have not had an involvement in diesel spillage incidents are not fully aware of the cost/damage and have not invested in the diesel spillage protection or equipped their vehicles to have spill kits on board. To assist commercial vehicle drivers and operators in preventing diesel spillages Highways England are looking to implement a series of interventions.

### Activity

Highways England has developed a best practice diesel spillage prevention guide for commercial vehicle drivers and operators which will include, why spillages occur, steps taken to prevent spillages and the procedure to follow in the event of a spillage. To complement this a cost document

has been developed to raise awareness of the financial impacts of diesel spillages on the SRN. Highways England will also review best practices for fuel tanks' protection and sizes and publish the results via a best practice note where necessary.

### Results

*In progress:* The best practice guide and cost document are aimed at commercial vehicle drivers and operators and seek to improve awareness around the impacts of diesel spillages as well as improve understanding on the actions to take in the event of a diesel spillage. The overall aim is to reduce the frequency and severity of diesel spillages on the SRN. The documents are due to be launched in April 2019 and evaluation will be carried out during the following 12 months post publication.



## Commercial Vehicle Incident Prevention Programme

# Tyre technology and tyre debris

### Aim

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Sophisticated technology to measure tyre pressure and tyre tread depth as commercial vehicles travel over a pressure pad was installed at M6 Keele Motorway Service Area in March 2015 and remained in place until December 2015. During the 9 month trial over 100,000 tyres were checked with 1 in 12 commercial vehicle tyres found to be significantly under inflated, posing a safety risk.

### Activity

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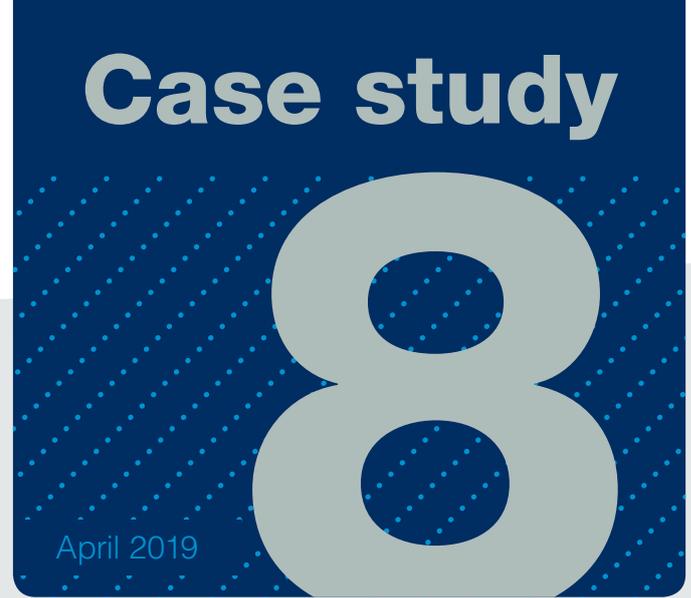
Highways England has engaged with the industry and the Driving and Vehicle Standards Agency (DVSA) to seek support for installing the tyre measurement technology at key locations across the strategic road network. The feedback has been positive and we are working to develop service level agreements with organisations interested in installing the technology.

Also, Highways England has worked with Bridgestone to analyse over 1,000 pieces of tyre debris from the strategic road network. The main cause of tyre failure is debris and under inflation.

### Results

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*In progress (technology):* Work is now well advanced to develop service level agreements for the different type of installations; ports, distribution



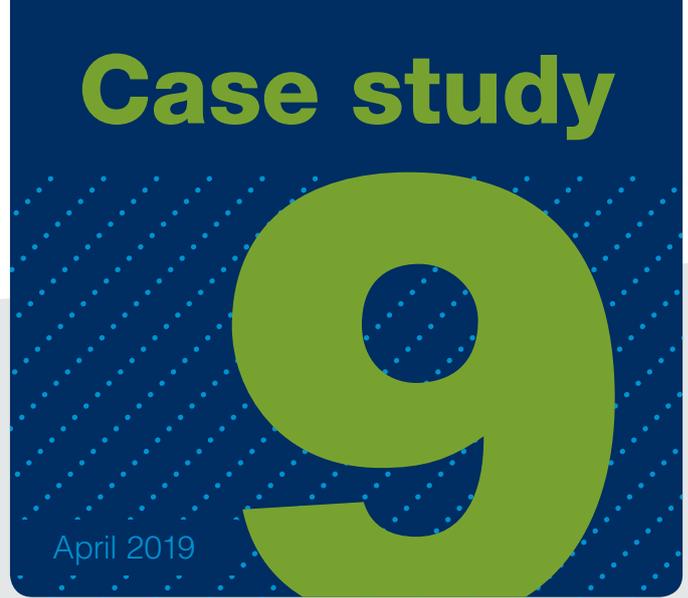
centres, commercial vehicle operator depots and DVSA check sites.

During February 2019 tyre technology has been installed at the following strategic sites; AW Jenkinson Penrith, DVSA check site M65 Cuerden and John Lewis (Magna Park) Milton Keynes. Further sites have been identified for 2019/20 and in parallel we will work with the tyre industry to raise the importance of effective tyre husbandry within the commercial vehicle sector.

*Complete (debris):* A joint Highways England/ Bridgestone tyre debris report, press release and video was launched at the Commercial Vehicle Show on 24 April 2018.



## Commercial Vehicle Incident Prevention Programme



# Highways England DVSA data sharing partnership

### Aim

Highways England Traffic Officer Service is sharing intelligence about dangerous or poorly maintained commercial vehicles, seen by traffic officers on their patrols, with DVSA.

### Activity

A pilot project in 2016/17 with Highways England traffic officers in the North East and West Midlands successfully provided intelligence to DVSA on unsafe commercial vehicles they encounter on the network. During the pilot the traffic officers kept paper records of dangerous vehicles they encountered on their patrols, but the collection process has been simplified by developing a simple proforma which runs on traffic officers' tablets. Data from the tablets is passed electronically to DVSA's Intelligence Team for assessment and further action, including enforcement, where appropriate.

### Results

Since June 2016, traffic officers have shared over 2088 pieces of intelligence with DVSA for further investigation and possible enforcement action. The single biggest category recorded has been vehicles taking tachograph breaks on the hard shoulder. We are now exploring how best to tackle this particular safety issue. The successful pilot was rolled out as a national business as usual process for all traffic officers in June 2018.



## Commercial Vehicle Incident Prevention Programme



# Highways England/DVSA joint working at Dartford

## Aim

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Highways England Traffic Officer Service (TOS) currently operate the Traffic Management Cell from Dartford's Control Room. Their role involves monitoring traffic entering the tunnel and dealing with tunnel safety issues. Specific tasks involve Control Room staff 'pressing the button' to activate signs and signals stopping traffic and directing vehicles into the Dartford compound for safety purposes.

Driver and Vehicle Standards Agency (DVSA) work on the same site as Highways England, however, they have difficulties undertaking compliance/enforcement activities as they usually stop target vehicles using their on-road vehicles following intelligence received from base. Due to the volume of traffic and nature of traffic management at Dartford, DVSA cannot easily use their on-road vehicles to bring target vehicles back for examination and DVSA were unable to ask Highways England to stop traffic for compliance purposes as Highways England do not have the legal powers to do this.

The aim of the pilot is for DVSA to delegate relevant stopping powers to Highways England Control Room staff at Dartford enabling them to legally stop traffic for compliance purposes. DVSA will inform Highways England Control Room

staff of vehicles they would like to examine for compliance purposes (max. 3 vehicles per hour) and Highways England control room staff will 'press the button' to activate signs and signals to direct target vehicles into the check site.

## Actions

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To maximise the effectiveness of the DVSA check site whilst minimising the impact on traffic, DVSA will maintain full control of decision making in relation to selecting target vehicles, and a two-way communication process has been agreed whereby Highways England Control Room staff, Highways England traffic officers and DVSA regularly liaise with each other to coordinate safety and compliance check activities, whenever possible. Highways England Airwave radios have been loaned to DVSA under a Memorandum of Understanding (MoU). This is currently being reviewed by the technology team/project team to design a longer term MoU to include regular fit for purpose/acceptable use checks to allow easier transfer into (Business as Usual) BAU.

The end of pilot report has been developed and a recommendation made to handover the activity into business as usual and close down the project. Highways England Operations Managers at Dartford are fully committed to this project and transfer.

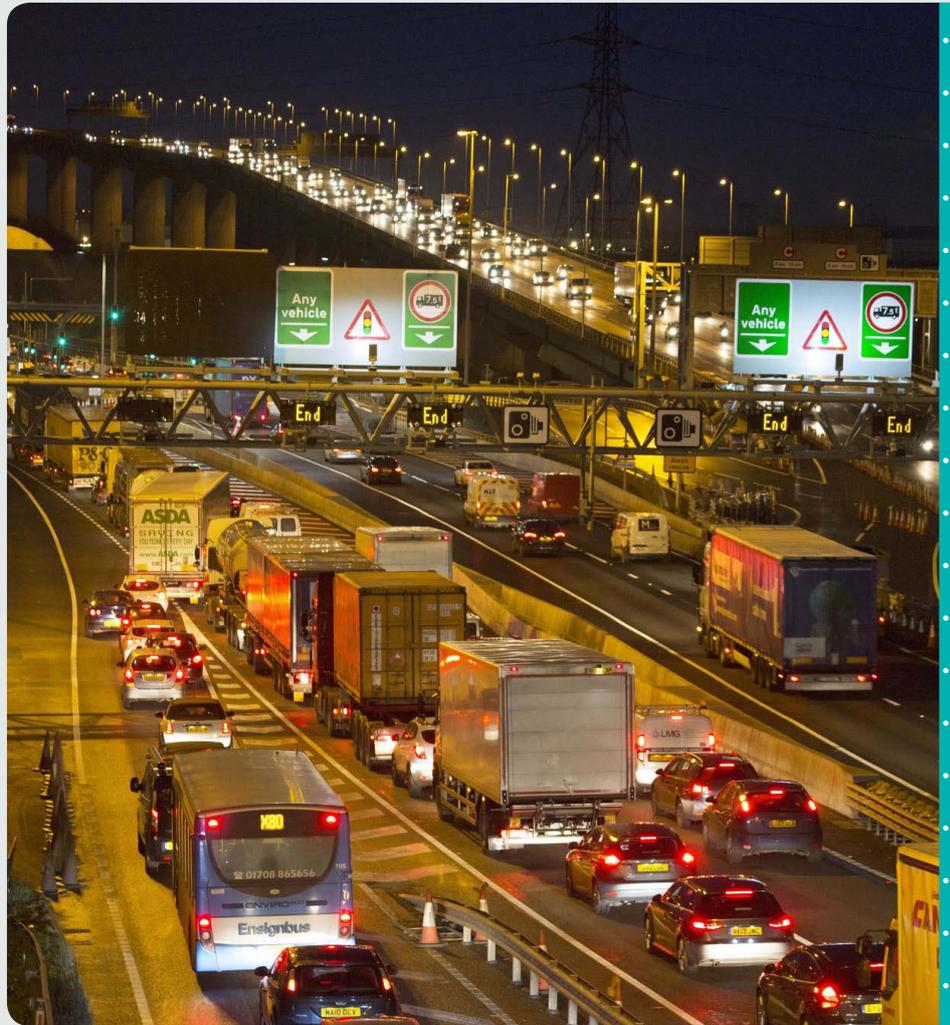
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## Results

Between November 2016 and December 2017 there have been 4973 extractions from lanes 1 and 2 and 866 extractions from lanes 3 and 4, totalling 5839 extractions.

DVSA's data shows that for 8 months prior to the joint working, 1314 prohibitions were issued and during the 8 months of joint working, 1523 prohibitions were issued.

Feedback from colleagues (both Highways England and DVSA) indicated that this pilot has had very little impact on the operations and traffic flow at Dartford. In addition to this, DVSA have been very pleased with the results and wish to make the project a permanent BAU activity. The project has been a success and is currently being transferred into BAU.



## Commercial Vehicle Incident Prevention Programme

# Virtual reality blind spots smartphone app

### Aim

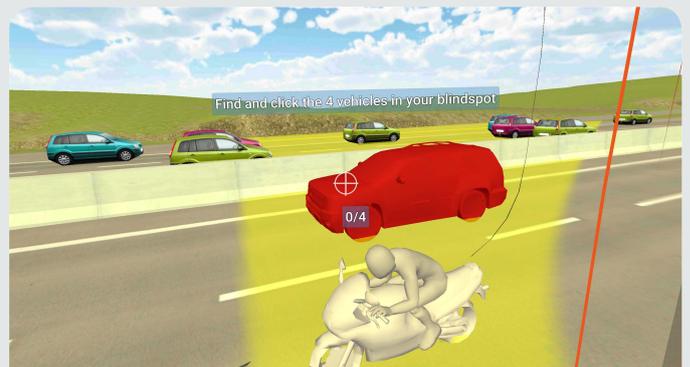
To use virtual reality to raise awareness of HGV blind spots in both commercial and private motorists, with the aim of reducing side swipe incidents on the SRN.

### Activity

We have developed an interactive virtual reality smartphone app that gives the user the perspective of a HGV driver in a number of SRN scenarios where the vehicle's blind spots pose a risk of collision. The scenarios, for LHD/RHD HGVs in which both good/bad cases are observed were developed by the Transport Research Laboratory using evidence of real collision types occurring on the SRN and are summarised below:



**Case 1 – Correct HGV mirror adjustment.** Raises awareness of the correct adjustment of HGV mirrors.



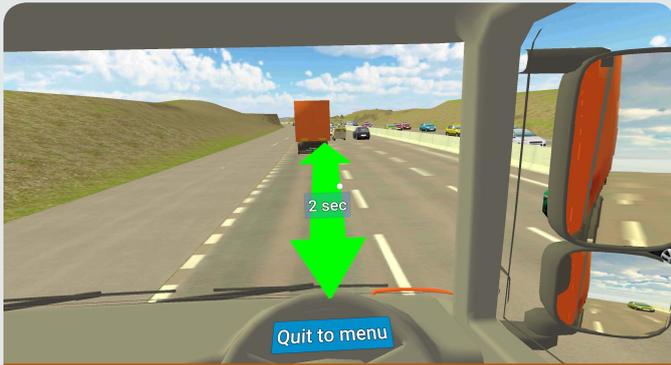
**Case 2 – HGV blind spots.** Raises awareness of HGV blind spot areas (what are blind spots and their locations).



**Case 3 – Slip road hazards.** Raises awareness of blind spots and hazards on slip roads likely to arise on both sides of a HGV.



**Case 4** – Safe lane change. Raises awareness of safe lane change and blind spot areas during lane change.



**Case 5** – Leave sufficient distance. Raises awareness of leaving sufficient distance between vehicles – not leaving sufficient gap creates additional blind spots with the vehicle in front.

The blind spot app can be set for left or right hand drivers and uses affordable Google Cardboard compatible goggles and is available on both Apple and Android platforms.

## Results

The app was launched at The Commercial Vehicle Show 2018 at the NEC in Birmingham where it was demonstrated on the Highways England stand. The app received very positive feedback with interest from drivers and those involved in driver training. Feedback has shown a demand for a version of the app aimed at drivers of other vehicles, to help them stay safe around HGVs. A new version of the app has been developed in collaboration with driving instructors aimed at learner and new car drivers and is planned to be hosted on the Driving Hub website. The new updated version was released in April 2019.

## Commercial Vehicle Incident Prevention Programme

# Joint working with Motorway Buddy

### Aim

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The aim of this initiative is to provide tools and information to UK and overseas commercial vehicle drivers to enable them to make informed decisions on where they can take breaks and park safely to reduce the number of illegal/inappropriate parking on the Strategic Road Network (SRN).

### Actions

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Motorway Buddy is an app that includes a database of information on commercial vehicle truck stops, such as location, directions from your current position, prices and facilities available at each truck stop. It is a well-used app and contains the most comprehensive, accurate and up to date information available for truck stop sites in the UK.

It is recognised that illegal/inappropriate parking by commercial vehicle drivers on the SRN is a significant nationwide problem. Highways England have supported the development of the app by funding the translation into Polish and Romanian to enable more drivers to have access to the app and the information it contains, thus encouraging more drivers to use truck stops to park, and reducing the amount of illegal/inappropriate parking on the SRN. Polish drivers form the largest percentage of overseas commercial drivers



coming to the UK, with Romanian drivers forming the second largest according to this [report](#) from the DfT.

### Results

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The Motorway Buddy app has been downloaded via the Polish app store more than 1600 times following the first translation. The number could be greater than this due to the way iOS records the data. The number of downloads from Romanian app stores will be monitored through 2018 and evaluated as to whether additional translations are beneficial to the Company/commercial vehicle industry. We are also working with internal colleagues to consider publicising the app on our website.

Further publications of the app, both from Highways England and Motorway Buddy will take place in the future to ensure the app reaches the target audience via the best possible platforms.

This includes demonstrating the apps at events such as the Commercial Vehicle Show and via our Regional Safety Co-ordinators at regional events such as Truckfest.

Motorway Buddy can be downloaded on iOS and Android.

Website: [www.motorwaybuddy.co.uk](http://www.motorwaybuddy.co.uk)

## Commercial Vehicle Incident Prevention Programme

# North west commercial vehicle unit research pilot

### Aim

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We have developed a pilot with North West Motorway Police Group, DVSA, Port of Liverpool Police, and HM Revenue and Customs to deliver a regional based approach to commercial vehicle compliance checks.

### Activity

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This pilot brings together commercial vehicle specialist officers from Cheshire, Greater Manchester and Merseyside police forces together with a Vehicle Examiner seconded from DVSA into a single NW regional commercial vehicle unit (CVU).

The CVU will deliver pre-planned targeted compliance activity across the NW SRN and for the first time working outside core hours, including nights and weekends. They will also be working collaboratively with Port of Liverpool Police and HMRC to obtain a “joined up” regional force. The CVU will collect and share detailed data with Highways England on the types of non-compliance, which will be included in the final report. A key area of focus in 2019 are light goods vehicles. The report will look to detail the nature of commercial vehicle non-compliance on the SRN and the effects of enhanced compliance checks by the NWCPU.

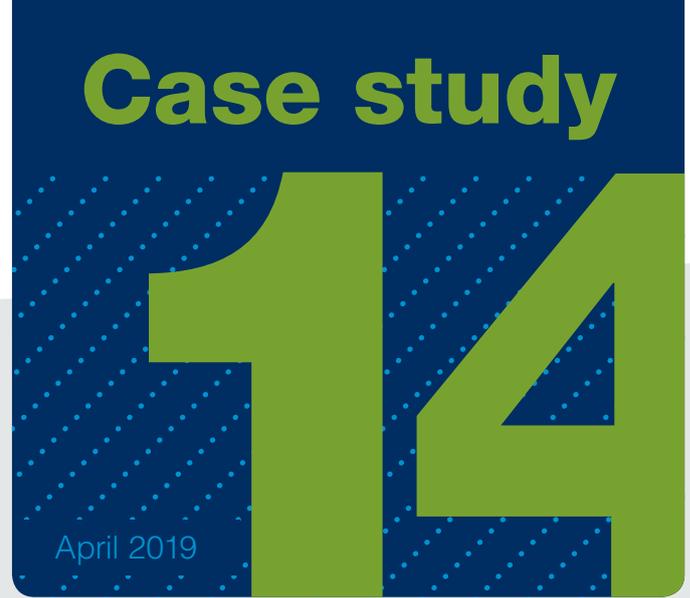
### Results

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The NWCPU launched in July 2018 with four dedicated police officers and an embedded DVSA vehicle examiner. The pilot will run to September 2019 and has so far conducted 1,640 vehicle checks, identifying 1,515 separate offences with 317 dangerous vehicles prohibited from continuing their journeys. The enhanced intelligence data collected is giving valuable insight into the nature of non-compliance on the SRN, allowing us to break down the non-compliance by offence type, vehicle weight class location, and operator. The project team are now working to use this pilot to support Highways England’s Driving for Better Business initiative.



## Commercial Vehicle Incident Prevention Programme



# Prevention of HGV fires

## Aim

HGV fires on the strategic road network (SRN) cause a great deal of disruption and attracts significant costs in delays, infrastructure, resurfacing and resourcing. Highways England have been gathering information and data to build a clearer picture of the common route causes so we are able to better understand why these types of fires. Through enhancing our knowledge we will be able to implement intelligence driven interventions to reduce the frequency and severity of HGV fires on the SRN.

## Activity

Data obtained from Highways England's incident reporting system (Control Works), illustrated a total of 344 fire related incidents in 2016 and 357 in 2017, giving an accumulative total of 701 incidents from 1st January 16 – 31st December 17.

Communicating closely with the Emergency Planning Officer for the West Midlands, we were able to obtain some on scene photographs of recent incidents. An example would be a HGV fire that took place on 23rd February 2018 on the M5 J3-4. This instance took place south of Frankley services and required 4 fire service units to tackle the blaze. This incident resulted in a full road closure and significant delays to both southbound and northbound traffic. This HGV was said to be carrying fabric and homeware.

Through liaising with Highways England's Green Claims department, we were able to obtain some indicative costs of such incidents. In 2016, infrastructure damage caused by fire damage resulted in costs totalling to £91,389 over four incidents alone. This figure does not include costs such as those associated with delays and resourcing. Reports in the media showed that across 12 incidents the average road closure was approximately 5 hours per incident. To put this into perspective, a road closure of three lanes over a 4 hour period is estimated to cost the UK PLC £473,760 and a closure of 4 lanes over a 4 hour period is estimated to cost £1,082,880.

Information obtained via a Freedom of Information request illustrated that in 2017, Greater Manchester Fire Service attended 23 HGV fire related incidents specifically on the strategic road network. Over half of these incidents were wheel or break related.



## Results

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Highways England have commenced a research project to obtain more detailed information into the causes of such incidents, investigating any correlation between areas such as (but not limited to); weather conditions; age, make and model of vehicles involved; location of incidents to investigate if they play a role in HGV fire incidents. This work commenced in April 2019.

These findings will provide direction to allow us to make informed decisions on the implementation of any interventions identified.



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