

Seeing Machines 4 month overview

national **express**



GUARDIAN

A summary of our key learnings based on data up to and including 31 October.

Fatigue Headlines



400+

Guardian units now installed across the network



50%

reduction in fatigue events when seat vibrate alerts were switched on (trial results)



900+

notifiable fatigue events detected since 1 July 2020



310+

individual drivers have experienced a fatigue event since 1 July



79%

of all events are 'single trigger' events



13.7

fatigue events for every 100,000 kilometres driven



31

drivers have received additional personal welfare support after fatigue events



On our network, drivers aged 21 to 30 are most prone to fatigue events, followed by drivers aged between 41 and 50



21 mins

Total duration of all fatigue events since 1 August



**50 mph
81 kph**

Average speed of travel for a fatigue event
Any accident at these speeds would be very serious or fatal

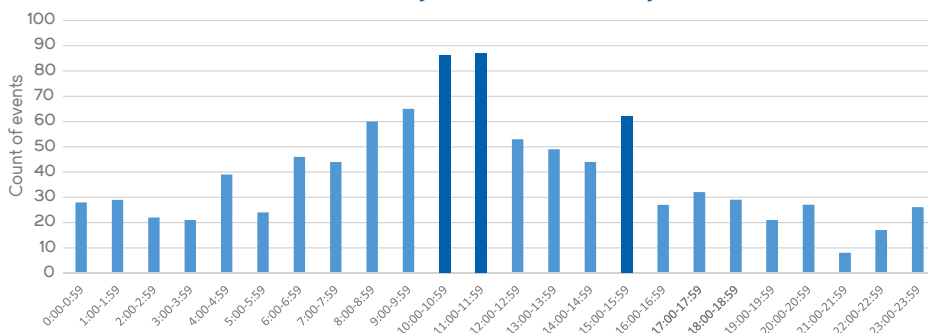


29km

Distance travelled while drivers eyes are closed since 1 Aug (equivalent to 276 football pitches)

With 4 months of data, we have identified the following interesting trends below:

Cumulative events by time of day

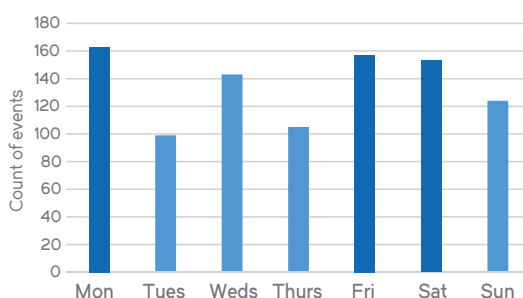


Drivers are most likely to have a fatigue event between 11:00 and 11:59 in the morning.

This is closely followed by 10:00 to 10:59 and 15:00 to 15:59.

ACTION: Possibly linked to food and blood sugar. Promote to your drivers the importance of a good breakfast / healthy snack between meals.

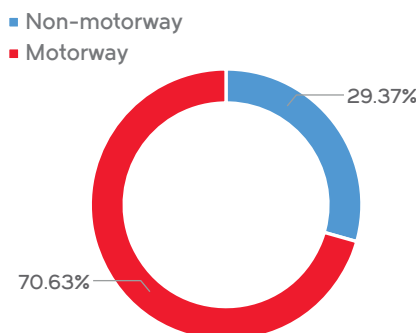
Events by day of week - Cumulative



Drivers are most prone to fatigue on a Monday, closely followed by Fridays and Saturdays.

ACTION: It is crucial that drivers are fit and rested for work. Talk to them about the importance of rest and routine, particularly at weekends.

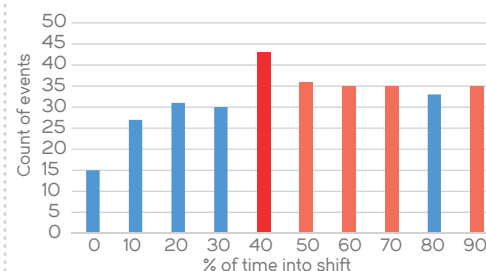
Fatigue events by road type



Over two-thirds of fatigue events happen on motorways with a third occurring on A roads/minor roads.

ACTION: Motorway driving can be monotonous. Share this info with your drivers and remind them to stay alert by scanning the road conditions ahead and anticipating any emerging risk. An active mind is not a tired mind!

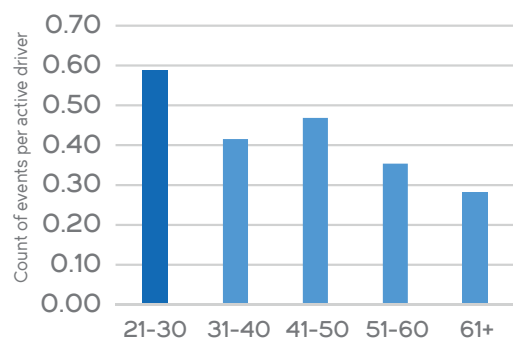
% of time into shift when fatigue can occur



Based on a sample of 320 journeys where a fatigue event occurred, 43 fatigue events happened when the driver was 40% into their shift. There is also a risk at 50% into the shift which for most of our services correlates with motorway driving.

ACTION: Fatigue risk increases from just before midway into a driver's shift. The second half of a drive is when tiredness is more prevalent. Stress to your drivers the importance of having a good, quality break, ideally involving a walk, fresh air and a healthy snack.

Fatigue events per active driver by age range



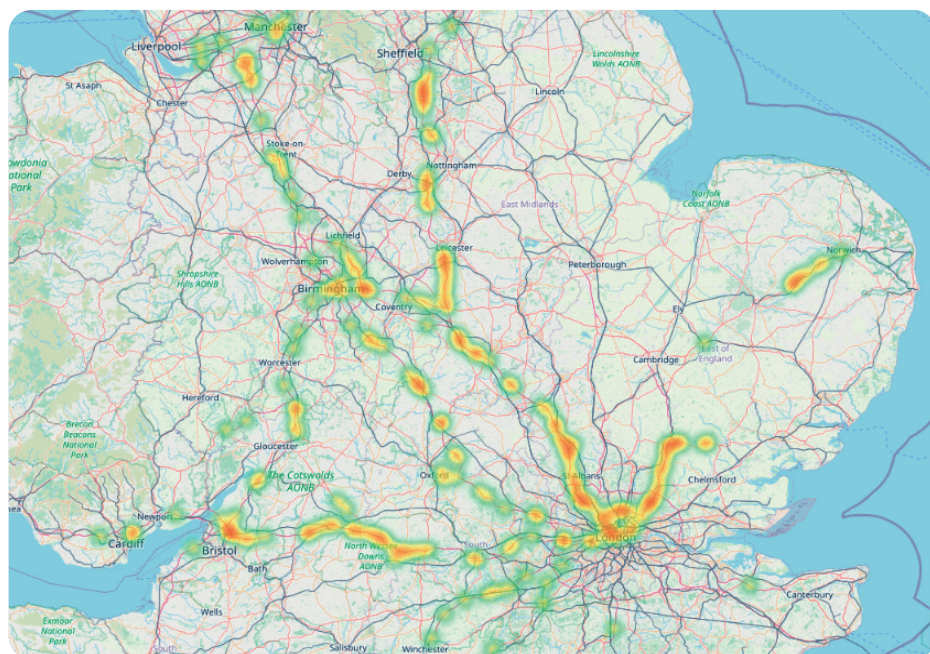
* this is the amount of fatigue events per active drivers within each age range (so normalised)

Fatigue events are most common in the 21-30 age range followed by 41-50.

It follows that younger drivers might have more active personal lives and young families, or both. Drivers in the 41-50 age range can be more prone to health issues often caused by diet and/or lack of exercise.

ACTION: Good driver oversight is about knowing your drivers. Talk to them about their personal lives. Promote rest and healthy living.

Where is fatigue most common?



From the 4 months of data we have gathered, fatigue hotspots around the country are:



M4 near Swindon
M40 near Thame
M11 near Harlow
M1 near Nottingham
M1 near the A14 junction
M4 near Reading

ACTION: Revisit your route risk assessments and update them to include fatigue risk.

TELL YOUR DRIVERS!

Distraction events (driver not focusing on the road ahead)

Headlines so far



763

distraction events of +4 seconds or more since 1 August



161 mins

the total duration of distracted driving time since 1 August. That is the time it takes to cook 40 boiled eggs.



19km

the total distance travelled whilst distracted since 1 August - the equivalent of 181 football pitches.



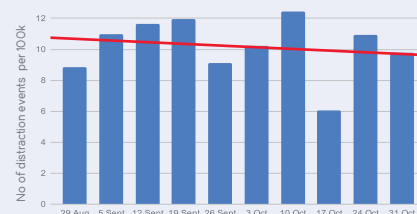
69kph or 43mph

Average speed of travel for a distraction event.

Any accident at these speeds would be very serious or fatal

Number of distraction events

<4 secs (normalised)

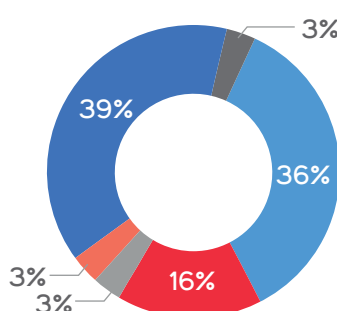


As you coach this crucial behaviour with your drivers, the number of distraction events of +4 seconds or more is reducing.

ACTION: Continue to act on distracted driving and use the Guardian system to support and enhance your coaching sessions.

Key findings from fatigue investigations

Of the 31 drivers temporarily taken off driving duties for multiple or repeat fatigue events, 36% have been referred for a medical to assess a current or suspected condition. 16% were helped with ongoing personal issues and 3% were attributable to rota issues or an ongoing issue at work. All of these reasons have enabled us to identify interventions and/or provide support for the drivers involved.



- Medical
- Personal issues
- Rota
- Work issues
- No root cause identified
- Investigation ongoing