

Eye-catching safety initiative for truck drivers

By Iain MacIntyre

New Zealand's trucking industry appears to be embracing an enterprising NZI safety initiative that entails the country's largest commercial motor vehicle insurer itself paying for the installation and first six weeks' application of the Guardian in-cab, eye-tracking system.

Developed by Seeing Machines initially for the Australian mining industry, the system is understood to have subsequently gained wide acceptance in larger road transport operations across the Tasman; an early version was first introduced to New Zealand several years ago.

Estimated to require a one-off investment of about \$1180 for the in-cab camera and \$550 for installation, as well as \$90 per month for ongoing monitoring and support, the system monitors and reacts as necessary to the driver's eyelids, facial expressions and direction of vision.

If its face-tracking technology detects that the driver's eyes close for 1.5 seconds – a 'micro sleep' – or that the driver looks away from the road for a sustained period, an in-cab alarm sounds and their seat is vibrated to jolt the driver back to full alertness.

Such incidents also trigger a seven-second video of the



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driver's face being sent to Seeing Machines, which its 24/7 monitoring centre will analyse and – within two minutes – initiate contact with the driver's dispatcher, should further action be deemed necessary.

MAKING NEW ZEALAND ROADS SAFER

NZI commercial motor national manager Ian Taylor says 50 of the 70 trucks in this country so far fitted with the system have done so through his firm's initiative, which will conclude in June this year.

"Trials are being conducted

in trucks going about their normal work," he tells FTD. "Most of our clients involved in the trials are buying this equipment or are in commercial negotiations with the distributor Autosense – our partner in this – who also share our vision to make New Zealand roads safer."

Mr Taylor says truck drivers have also been accepting of the initiative. "We think they realise they have nothing to fear – the camera will only ever record a dangerous event. When it does this, the driver is generally pleased they are still alive and, in the event of an accident that wasn't the truck driver's fault, the footage will show that."

Although Mr Taylor says it is too early for any safety impact of the system to be reflected in statistical information, he notes that anecdotal evidence is positive – including enthusiastic feedback from the frequently anxious partners of long-haul truck drivers. "The system has woken numerous drivers and alerted plenty more who were otherwise distracted from the driving task," he says.

LOWER INSURANCE PREMIUMS

Mr Taylor believes the Guard-

ian system can reduce or even eliminate the closely related 'twin enemies' of driver fatigue and distraction – a review of truck rollovers having revealed fatigue has often either made drivers fall asleep or made them more susceptible to distraction. Hence, Mr Taylor expresses hope the initiative may potentially halve the number of such incidents occurring on the open road in New Zealand, thereby improving safety protection for both truck drivers and other road users alike.

As an added incentive to truck operators, Mr Taylor says NZI is considering introducing lower insurance premiums for those that install the Guardian system in their fleets. "For now we certainly take this, and indeed all valid fleet risk management interventions, into account when setting fleet premiums. Heavy vehicle owners operate in a very competitive insurance marketplace, and premiums are normally linked closely to a company's claim history. If you manage your claims well, your premiums will come down over time."

He adds that this initiative is an illustration of NZI's commitment to helping make New Zealand roads safer. "We think we have a responsibil-



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ity to do what we can to help transport operators and their drivers. We have designed a programme specifically for this purpose called Fleet Fit [which] offers a suite of programmes and services to help transport businesses perform at their peak and improve driver performance."

POSITIVE SAFETY STRIDES

Road Transport Forum chief executive Ken Shirley confirms his members are supportive of the initiative. "Anything that reduces the likelihood of accidents involving a heavy vehicle is worth exploring," he says.

In regards to any consequent cost impositions, he advises: "We would encourage operators who invest in the system

to make the necessary adjustments to their freight pricing as the system helps them to provide a safer, more reliable service for their customers."

Emphasising the positive safety strides made from within his industry over particularly the past two decades, Mr Shirley nonetheless sounds a note of caution to truck operators who may potentially rely on such systems ahead of addressing other operational imperatives.

"The number of fatal crashes that involve a truck for every 100 million kilometres driven by trucks has decreased by over a third since the early 2000s. Truck drivers have the primary responsibility for only a third of the fatal crashes they are involved in," he notes.

"[But] drivers should not be expected to work until they are so fatigued they are falling asleep at the wheel. This system is a valuable tool of last resort, to prevent a serious accident, but should not replace more proactive driver fatigue management processes."

Bob Lupton awarded TrackSAFE NZ award for safety leadership

Rail industry safety expert Robert (Bob) Lupton is the inaugural winner of the TrackSAFE NZ Safety Leadership Award, which was established late last year to recognise significant leadership in railway safety in New Zealand.

Chairman of TrackSAFE NZ Peter Reidy says Mr Lupton received the award for his outstanding contribution to safety over his 32-year career in New Zealand and overseas.

"Mr Lupton's continued contribution has appreciably influenced rail safety in New Zealand across a number of organisations," Mr Reidy says. "He has an outstanding reputation for providing sound advice and growing

and supporting those around him, and is fully deserving of this special award."

Mr Lupton has worked in a number of roles in the rail industry throughout his career, most recently as the rail systems safety and assurance manager for the City Rail Link project. In that role he provided leadership, mentoring and guidance to the City Rail Link safety assurance and construction safety teams.



A driver trials the simulator with Seeing Machine's Guardian system installed

REDUCING DEATH AND SERIOUS INJURY

WorkSafe New Zealand has confirmed it is maintaining a watching brief on technological developments such as the Guardian system that make workplaces safer, and acting inspector Mike McRandle of the NZ Police's Commercial Vehicle Investigation Unit has welcomed the initiative.

"Anything that can help address fatigue and ensure that drivers are alert and making good decisions has got to be a good thing and a positive to other road users and the transport sector as a whole," he says. "It may – just may – save a life. We welcome new technology that may assist in reducing death and serious injury on our roads."

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TrackSAFE manager Megan Drayton (left) and TrackSAFE chairman Peter Reidy (right) present Bob Lupton with the TrackSAFE NZ Safety Leadership Award

EXPERT RAIL SAFETY ADVICE

Among Mr Lupton's many achievements are leading the development of the Britomart safety management system, and responsibility for safety management during the transition to Auckland's electrified network. This included crashworthiness risk assessments for the new

Auckland electric rolling stock.

Mr Lupton is an executive member of New Zealand's National Rail System Standards (NRSS) executive committee, and continues to provide expert rail safety advice to the City Rail Link, one of New Zealand's largest transport projects.