New Zealand Guardian Insights Report 2024-25

AutoSense DRIVING SAFETY

Creating safer journeys for all road users

seeing machines | GUARDIAN

Powered by Guardian Live

Contents

Introduction

Every day, thousands of professional drivers navigate New Zealand's roads, delivering goods, keeping communities connected, and carrying the nation's economy forward. Behind the wheel, however driver fatigue and distraction remain silent risks with the potential for devastating consequences.

Welcome to AutoSense's inaugural Guardian Insights Report for New Zealand, covering the 12-month period from **1 July 2024 to 30 June 2025**. AutoSense is proud to be New Zealand's exclusive distributor of Guardian by Seeing Machines. This report draws on human-verified data from **5,945 vehicles** equipped with Guardian technology, operating across **864 fleets** and travelling over **442 million kilometres** during this period — offering an unprecedented view of real-world driver behaviour across the country.

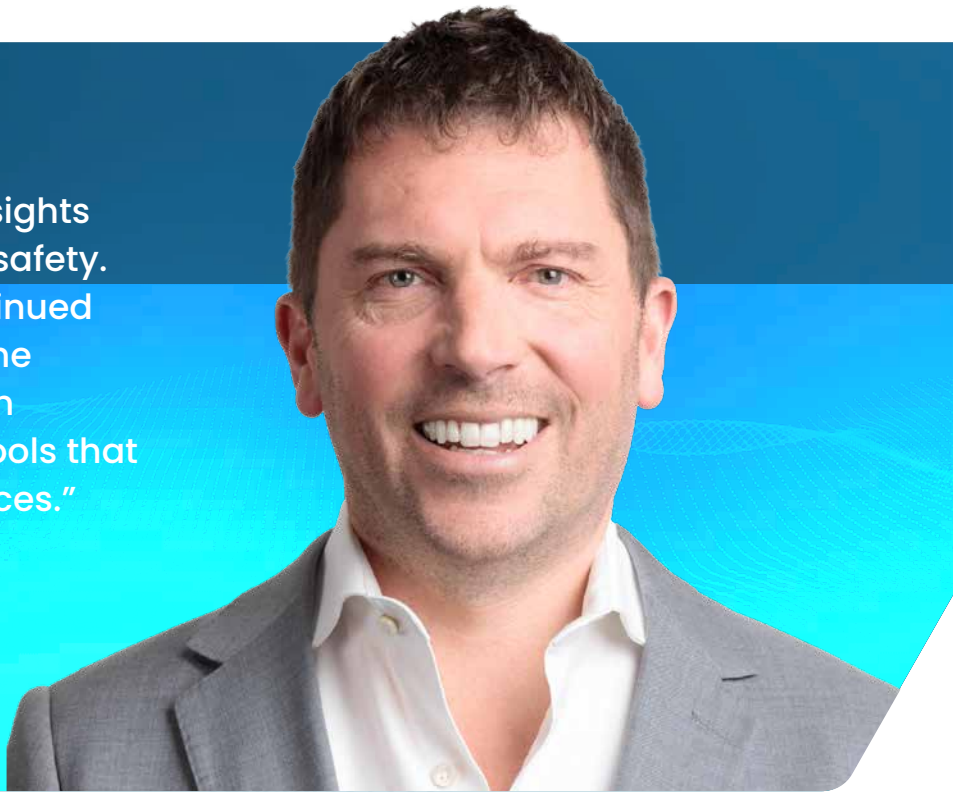
It is designed to support fleet operators and industry leaders in identifying, understanding, and managing the risks associated with driver fatigue and distraction. By highlighting key trends from Guardian's in-cab technology, the insights in this report aim to inform better decision-making and guide targeted strategies that are essential to reducing preventable incidents and improving long-term safety outcomes.

At AutoSense, we believe data-driven insights are vital to improving road safety. This report reflects our continued commitment to providing the commercial fleet sector with practical intelligence and tools that support safer driving practices.

Thank you for joining us on our mission to create safer journeys for all road users.

Charles Dawson
CEO, AutoSense

"We believe data-driven insights are vital to improving road safety. This report reflects our continued commitment to providing the commercial fleet sector with practical intelligence and tools that support safer driving practices."



The facts behind the figures

Guardian, the industry-leading driver fatigue and distraction technology developed by Seeing Machines, is powered by real-world driving data collected across billions of kilometres.

Trusted by more than 1,100 commercial transport and logistics operators globally, this real-time safety solution is scientifically proven to reduce fatigue-related driving events by over 90 percent.

This inaugural 2024-25 New Zealand report by AutoSense draws on data gathered exclusively within New Zealand and processed through Guardian Live. All fatigue and distraction events (including mobile phone use) are verified by human analysts in the Guardian Centre, which operates 24 hours a day, 7 days a week

*Events captured include fatigue, distraction, field of view, acceleration, overspeed and manual recordings triggered by drivers.

442,614,614
Kilometres travelled

864 fleets

9,497,788
hours driven

5,945
vehicles

983,750
events captured*

Data normalisation - monthly insights

To ensure the insights in this report are meaningful, a data normalisation approach has been applied to the monthly event data. Incident numbers have been adjusted according to the number of kilometres travelled each month. This matters because more kilometres usually mean more trucks on the road and/or longer distances driven, which naturally increases the likelihood of incidents. For example, if one month records fewer incidents, is it due to safer conditions, or simply fewer vehicles operating?

All monthly insights are therefore presented as the number of incidents per 10,000 kilometres travelled, enabling fair comparison across months.

For day of week and time of day insights, kilometre data is not available at that level. These views are instead expressed as percentages of total incidents, highlighting when incidents most commonly occur within the overall distribution.

Data from Guardian by Seeing Machines technology installed in New Zealand fleets, covering the period 1 July 2024 to 30 June 2025.

At a glance

For the year to 30 June 2025, 983,750 risky driving events were captured across New Zealand.

19,336
Fatigue Events

51,597
Distraction Events

INCLUDING

14,575
Instances Of Mobile Phone Use*

Overview of event types

Guardian uses advanced algorithms to detect when a driver is fatigued or distracted. When such an event is identified, drivers receive real-time alerts inside the vehicle to help keep them safe. At the same time, the data is transmitted to Seeing Machines' secure online monitoring platform, Guardian Live, where a team of analysts operates around the clock to review, confirm and classify each event.

Fatigue events

Fatigue events are categorised as microsleep, drowsiness, yawning, or marked as criteria not met. A standard duration threshold of 1.5 seconds is applied to identify microsleeps. This threshold strikes a balance between detecting safety-critical events and filtering out frequent behaviours unrelated to microsleep.

Key indicators of microsleep include uncontrolled eye closure, eye rolls, prolonged eye closures, head bobs, or loss of neck muscle control. Additionally, the driver will not exhibit intentional behaviours such as squinting, speaking, laughing, glancing down, or yawning.

Signs of drowsiness include heavy or slow eye closures, more frequent blinking, difficulty maintaining attention on the road, and noticeably relaxed facial or body muscles.

Distraction events

Distraction events will be confirmed by the analyst as either a long glance away, mobile device use, other distraction or criteria not met.

The threshold for a distraction event in a driver is 4 seconds (except for mobile phone use, where all instances of a visible mobile phone distraction are recorded). A threshold of 4 seconds strikes a balance between safety and driver experience, and targets distracted behaviour that is more likely non-driving related.
'Other distraction' is defined as events where the driver is undertaking an activity where it is clear they do not have full control of the vehicle, that is not a long glance away or a visible mobile device. Examples can include a medical emergency, both hands are off the wheel, interference from another vehicle occupant or a potentially dangerous object.

** Mobile device use is only confirmed when a driver is verified by an analyst handling a portable electronic device*

Data from Guardian by Seeing Machines technology installed in New Zealand fleets, covering the period 1 July 2024 to 30 June 2025.

Fatigue overview

19,336
Verified events

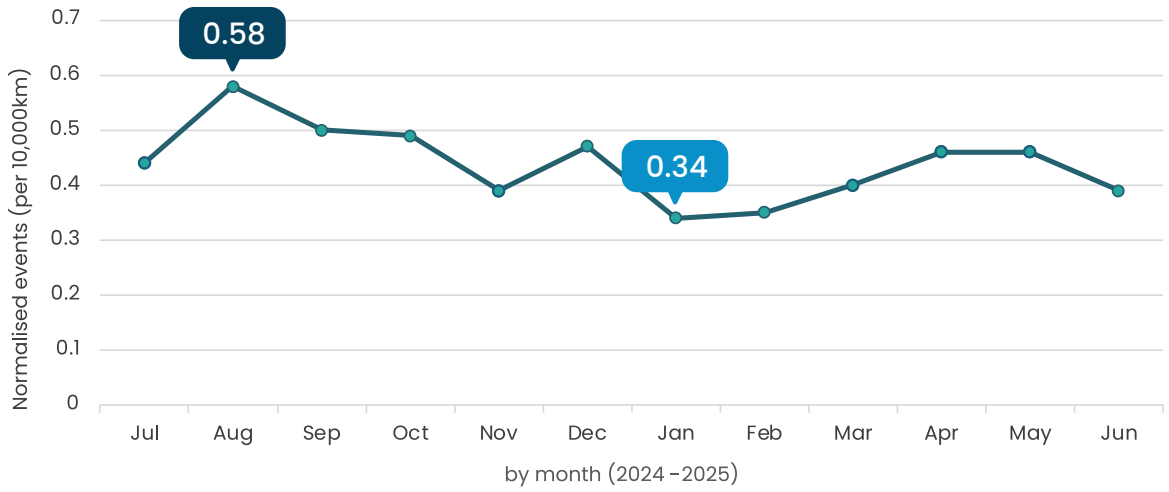
14,147
Intervention phone calls*

* Intervention phone call data covers the 12-month period ending 8 August 2025.

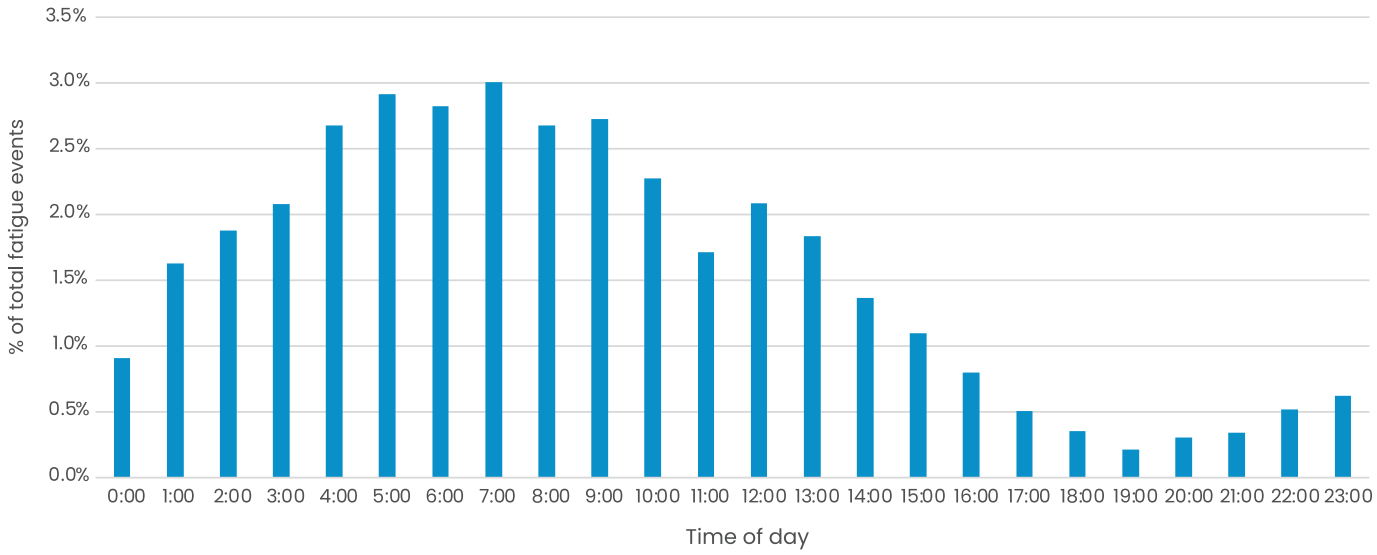
% of verified fatigue events by day of week

SUN	MON	TUES	WED	THURS	FRI	SAT
4%	18%	23%	17%	16%	15%	7%

Events by month (PER 10,000 KM)



% of verified driver fatigue events by time of day



Data from Guardian by Seeing Machines technology installed in New Zealand fleets, covering the period 1 July 2024 to 30 June 2025.

Distraction overview

28% 72%

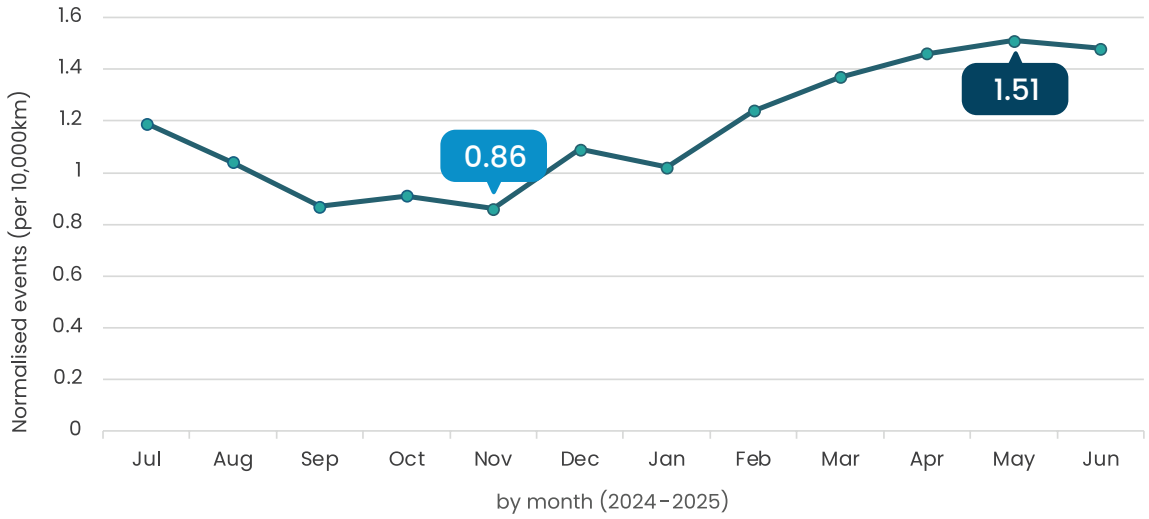
14,575 Mobile device

37,022 Other distraction

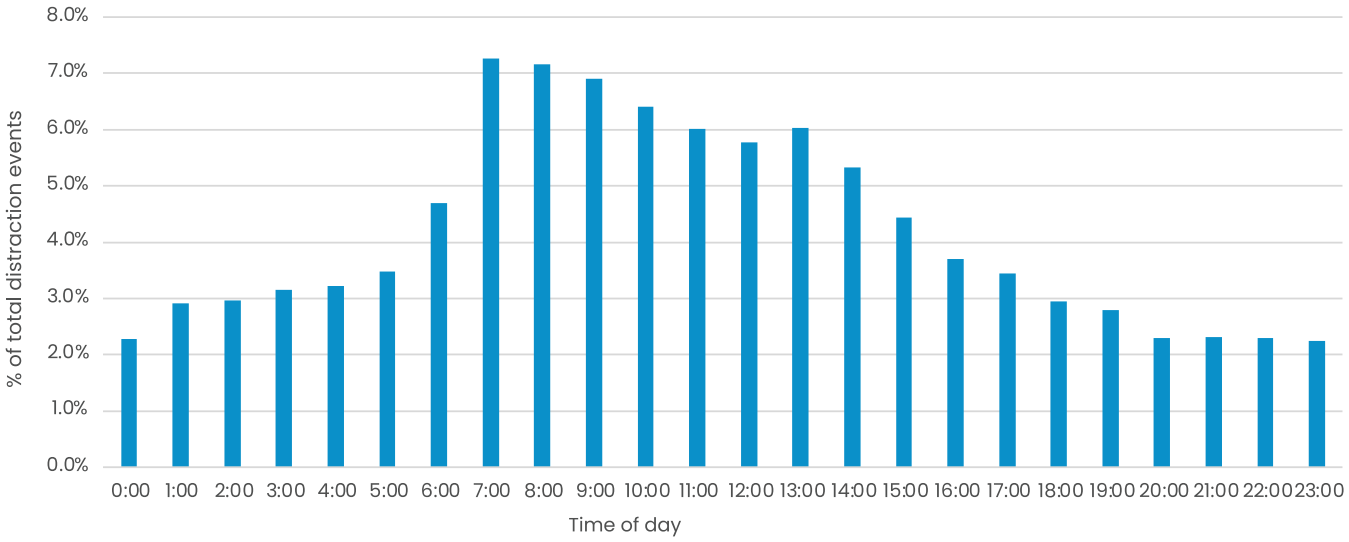
% of verified driver distraction events by day of week

SUN	MON	TUES	WED	THURS	FRI	SAT
5.8%	17%	18.5%	17.2%	17.6%	16.2%	7.7%

Events by month (PER 10,000 KM)



% of verified driver distraction events by time of day



Data from Guardian by Seeing Machines technology installed in New Zealand fleets, covering the period 1 July 2024 to 30 June 2025.

Summary

Driver fatigue and distraction continue to pose significant risks on the road. Identifying and understanding when these dangers may be more prevalent is an important step in mitigating them.

Over the past year, the New Zealand insights show:

Fatigue events occurred most frequently between **4:00 am and 10:00 am**, and peaked between **7:00 and 8:00 am** when many New Zealanders are on the roads.

The peak summer months of **January and February** recorded the lowest number of fatigue incidents. In contrast, the highest rates occurred in **August and September**, a time of year that often coincides with challenging winter and early spring weather conditions.

The fewest **fatigue events** were recorded in the evening, between **6:00 pm and 10:00 pm**.

Distraction events peaked during the day, with the highest frequencies recorded between **7:00 am and 3:00 pm**, when traffic volumes are typically also at their highest.

Distraction events were less frequent during **late winter and early spring** and increased through late **summer and autumn**.

Mobile device use accounted for a significant share of distraction events, comprising **28% of the total.**

Making data work for you

This report offers valuable insights into driver fatigue and distraction trends across New Zealand. To complement these findings, all clients are encouraged to utilise the detailed, account-specific data available through their monthly reports and the Guardian Live console. Your AutoSense account manager is ready to assist you in exploring your fleet's insights in greater depth.

Driver engagement

Educating drivers about the dangers of fatigue and distraction is critical to enhancing road safety. One of the most effective coaching methods is sharing real events captured by Guardian with drivers, especially fatigue-related incidents. This also helps reinforce the importance of the technology and encourages driver buy-in.

Sharing data from this report and monthly Guardian Live insights with your drivers can raise awareness of high-risk periods. When combined with fostering an understanding of the signs of fatigue and distraction, your team will be better equipped to proactively manage these risks, so everyone gets home safely at the end of their shift.

Guardian can only protect your drivers if it can see them. If the in-cab sensor is misaligned or tampered with, for example turning it to face another direction, it can have devastating consequences. AutoSense can assist with overcoming potential inertia drivers may have about this important in-cabin technology.

Solutions

AutoSense offers a range of tailored solutions to help improve fleet and driver safety. Speak with your account manager to learn more about our Safe Driving Policy, Fleet Driver Training, Simulation Training, Fatigue and Sleep Management programmes, and the latest updates in Driver Monitoring Systems.

AutoSense
DRIVING SAFETY

Creating safer journeys
for all road users

Get in touch

autosense.co.nz
0508 AUTOSENSE (0508 288 673)
support@autosense.co.nz

seeing machines | GUARDIAN