

IMPROVING HEAVY VEHICLE SAFETY THE AUSTRALIAN WAY – A POSITION PAPER

TOWARDS DEVELOPING NATIONAL OPERATING
STANDARDS FOR HEAVY VEHICLES, FOR THE SAFETY OF
ALL AUSTRALIAN ROAD USERS

APRIL 2018



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THE VISION

The Australians Logistics Council is committed to continuing the improvement of heavy vehicle safety in Australia through the development of data driven enforcement provisions.

The Chain of Responsibility (CoR) provisions contained in the Heavy Vehicle National Law (the HVNL) will continue to play a significant role in improving safe outcomes.

However, it is imperative regulators have access to the 'new oil' of data to improve safety outcomes.

ALC believes the CoR requirements can be enhanced by:

1. the maintenance of a safety management system certified by an accredited auditor as being compliant with operating standards specified in an instrument made under the HVNL;
2. the demonstration of the financial capacity of the operator to provide a carriage service through the satisfaction of requirements along the lines of the section 10 of the Passenger Transport (General) Regulation 2017; and
3. for it to be mandatory for heavy vehicles to carry equipment meeting necessary technical standards capable of recording safety and other data as required by law.





INTRODUCTION

The Australian Logistics Council (**ALC**) is the peak national body representing the major and national companies participating in the freight logistics industry, with a focus on national supply chain efficiency and safety.

ALC is firmly committed to reducing the number of fatal heavy vehicle crashes and strongly believes that both technology and the development of a positive safety culture within businesses can play a significant role in improving heavy vehicle safety.

HEAVY VEHICLE SAFETY IN AUSTRALIA

The Bureau of Infrastructure, Transport and Regional Economics (**BITRE**) compiles quarterly statistics on the number of fatalities and fatal crashes involving a heavy vehicle. BITRE defines a 'heavy vehicle' as an articulated truck, a heavy rigid truck, or a bus.

As Jaguar Consulting observed in its 2014 review of the former Road Safety Remuneration Tribunal (RSRT) (**the 2014 review**):

(Figure 1 below) shows that human factors are responsible for around 85 per cent of accidents involving heavy vehicles, but that the heavy vehicle driver is at fault in around one quarter of these cases, or in 21 per cent of total accidents. A similar conclusion was reached in the Australian context by ACIL-Tasman, which found that in 82 per cent of motor vehicle accidents involving a heavy vehicle, the driver of the heavy vehicle was not at fault.

More recently, the 2013 Major Accident Investigation Report reported that, in the fatal accidents analysed, the driver of the lighter vehicle was at fault in every case, while the data presented in the 2011 edition of this report showed that the truck driver was at fault in 18 per cent of cases.

The OECD highlights the range of specific contributors to the 85 per cent of accidents caused by human factors. These are:

- » *Recognition errors (attention and perception);*
- » *Decision errors (mainly risky and aggressive driving); and*
- » *Performance and non-performance errors.*

In 2016 there were 190 fatalities from 169 fatal heavy vehicle crashes in Australia.

Despite these factors, and a general improvement in performance, the sad loss of life during the 2017/18 Christmas period shows that more should be done.

Figure 1: Shows that human factors are responsible for around 85 per cent of accidents involving heavy vehicles

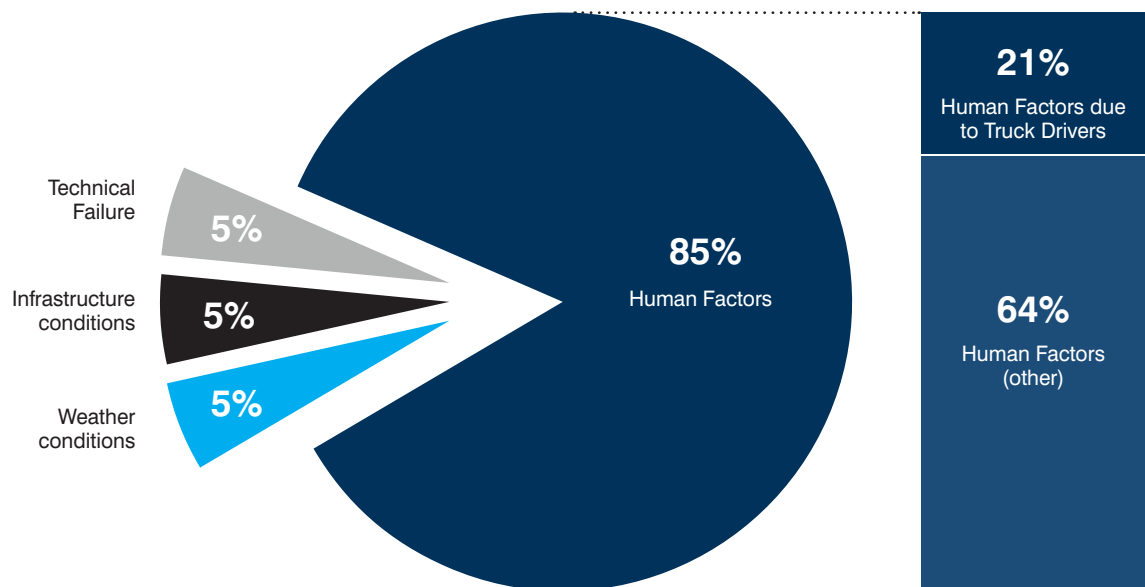
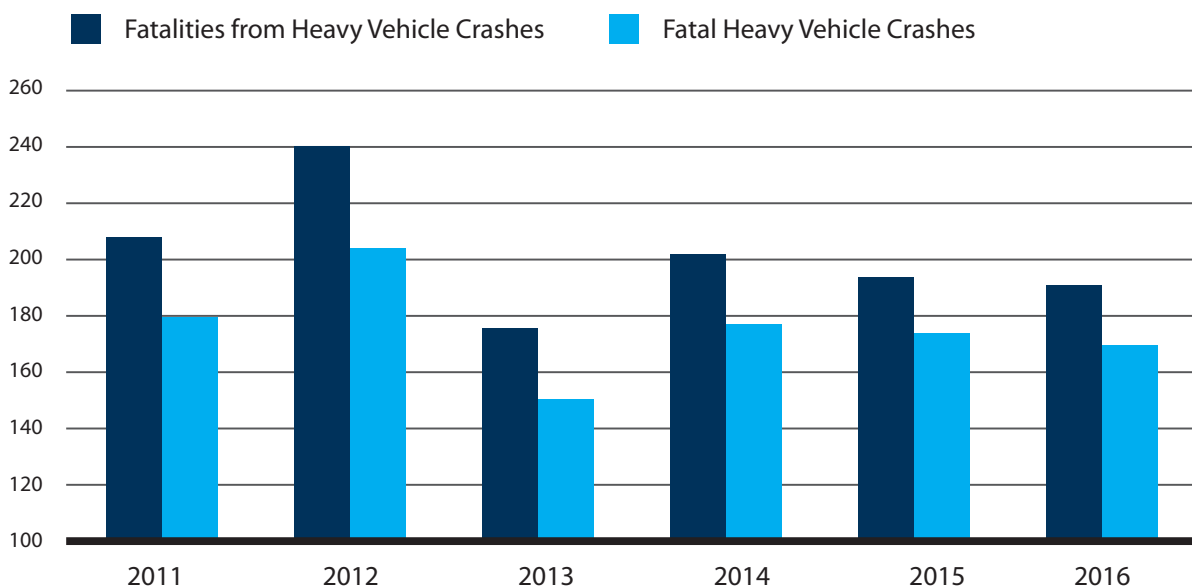


Figure 2: Shows the number of fatalities and fatal crashes involving an articulated truck or heavy rigid truck (a **heavy vehicle**) in Australia from 2011 to 2016.



THE STRUCTURE OF THE AUSTRALIAN HEAVY VEHICLE MARKET

As the 2011 regulatory impact statement for the Bill introducing the Road Safety Remuneration Tribunal indicated, there were approximately 231,000 truck drivers on Australian roads (including an estimated 71,000 owner drivers).

The Road Safety Remuneration Tribunal (**RSRT**) was established in an attempt to improve safety by changing the system by which drivers were remunerated.

However, on one analysis the system was established on a flawed premise.

As the 2014 review indicated:

Concerns that low levels of remuneration would compromise safety performance in the road freight industry were first expressed more than three decades ago. The economic deregulation of the United States road freight industry, commencing in the early 1980s, gave rise to relatively widespread concerns that road safety would suffer as a result of increased competition pushing down freight rates and consequently reducing profit rates and remuneration levels in the industry. However, subsequent research indicated that industry safety performance had been maintained and improved, even as real freight prices fell substantially following economic deregulation. Other Organisation for Economic Cooperation and Development (OECD) countries subsequently followed the United States lead, removing a range of economic regulation in the road freight industry and leading to a situation in which, by the late 1990s, price regulation had been eliminated.

It also referred to a 2007 report of the United States Federal Motor Carrier Safety Administration, which said:

... a number of studies purport to draw a relationship between driver compensation and safety outcomes, for example, that increased pay is associated with a reduction in crashes. The reviewers offer a cautionary note to these assertions: generally, it is not possible to understand the true nature of the relationship between these two factors. Specifically, it may be unclear whether cash bonuses for safe driving are responsible for higher pay, or that offering better pay at a company improves its ability to recruit and hire greater numbers of quality drivers.

The RSRT system, which in many ways required owner drivers to be, in effect, treated as employees rather than business operations, may also not have worked as well as it could have in advancing safety outcomes.

As PwC said in its *Review of the Road Safety Remuneration System* (2016):

When considering the 2014 Road Transport Order, we reach the conclusion that there is a high degree of overlap with other agencies who oversight road transport, safety, and workplace matters such as the National Heavy Vehicle Regulator, state road authorities, and workplace safety agencies.

The System has the flexibility to avoid such overlap yet consultations suggest the Tribunal has not adequately considered existing regulatory systems when making orders.

The PwC review made other useful observations about the different regulatory schemes impacting heavy vehicle operators (see box).



PWC OBSERVATIONS ABOUT DIFFERENT REGULATORY REGIMES IMPACTING HEAVY VEHICLE OPERATORS

While other regulators and safety agencies focus on road safety matters, we note that the Tribunal is the sole body that has the power to set national rates of remuneration for owner drivers across Australia.

Protections for independent contractors, such as owner drivers, were created under the Independent Contractors Act 2006 (Cth). Independent contractors enter into a commercial, not employment relationship, and are therefore given less protection than employees. Under this Act owner drivers may lodge a case with the Federal Court or the Federal Magistrates Court to review contracts and to have them varied or set aside if they are deemed to be too harsh or unfair. In deciding whether a contract is unfair or too harsh, one factor the court considers is whether the total remuneration paid it less than an employee would receive. This is especially important given the general perception that owner drivers are paid less than employee drivers. Other factors considered include the terms under which the contract was made and any evidence of undue influence. The Competition and Consumer Act 2010 (Cth) also provides a protection for owner drivers, providing an avenue for them to bargain collectively to secure rates of remuneration.

In the road transport and workplace health and safety spheres, state and territory governments have retained legislative power. To promote national consistency the Commonwealth government established the National Transport Commission and Safe Work Australia to develop and assist with the implementation of model legislation in road transport and workplace health and safety respectively. These bodies also coordinate, monitor and evaluate reforms.

HEAVY VEHICLE LAWS

A major initiative taken to harmonise national road safety laws in the heavy vehicle contact is the Heavy Vehicle National Law (**HVNL**), administered by the Heavy Vehicle National Regulator. Heavy Vehicle National Law applies to heavy vehicles over 4.5 tonnes gross vehicle mass, which comprise approximately 3 per cent of all vehicles, and regulates heavy vehicle registration and charges, vehicle standards, mass and loading, compliance and enforcement, driver fatigue, speeding compliance and the Intelligent Access Program. All states and territories have adopted these laws, except Western Australia and the Northern Territory. These laws came into effect on 10 February 2014.

Each state and territory has their own road rules, licence categories, registration procedures and legislation that relate to the trucking industry. Western Australia regulates fatigue management under the Occupational Safety and Health Act 1984. Heavy vehicles in the Northern Territory are regulated under the Motor Vehicles Act 2011. Fatigue management is regulated under the Work Health and Safety (National Uniform Legislation) Act 2011. Chain of Responsibility is a cornerstone Heavy Vehicle National Law Initiative.

Chain of Responsibility laws place an obligation on participants in the supply chain to ensure that the correct steps are taken to stop drivers from speeding, driving fatigued or breaches mass, loading and direction requirements. In particular, supply chain participants cannot make demands that would foreseeably lead to a breach. Supply chain participants are only made liable where a driver is found to be guilty of an offence. These parties include prime contractors of drivers, schedulers, loaders, consignors and operators of the vehicle...

Under the HVNL, section 17 ensures that HVNL and WHS laws operate together, with the duties imposed by both sets of laws preserved. Additionally, industry has promulgated codes such as the ALC National Logistics Safety Code, that is currently registered in Victoria and which is intended to be registered as a code of practice under the HVNL. Once registered, for the purposes of the National Law, compliance with the Code will be evidence that all reasonably practicable steps were taken to ensure that a particular event involving speed or fatigue did not occur.

The PwC observations make it clear that there are specific statutory schemes dealing with the security of small business in its dealings with larger businesses and road safety.

It also makes clear that there is now a clear single national law - the Heavy Vehicle National Law (the **HVNL**) – that controls heavy vehicle safety.

The question now is how to continue the improvement of heavy vehicle safety outcomes having regards to:

- » the structure of the Australian federation and;
- » the nature of the Australian road freight industry.



THE ALC POSITION

The ALC 2016 Election Priorities Document **Getting the Supply Chain Right** called for the introduction of requirements for heavy vehicle operators to meet a national operating standard.

ALC said:

Discussions with regulators have made it clear there are concerns about the capacity of some road operators to operate a business in a business-like manner and, more particularly, that some operators do not maintain sufficient capital to maintain vehicles in a roadworthy state, thus posing dangers to all road users.

An incoming government should therefore display national leadership and ensure that road operators meet a national operating standard that requires an operator of a heavy vehicle to have in place both the financial capacity to operate a business and a uniform safety management system to ensure that Australia's roads remain safe.¹

With recommendation 21 of the document being:

21. Road operators should meet a national operating standard requiring an operator of a heavy vehicle to have in place both the financial capacity to operate a business and a uniform safety management system to ensure that Australia's roads remain safe.²

Getting the Supply Chain Right also referred to the need to give the community assurance that road transport operators have electronic systems in place to ensure vehicles are operated safely. It contained these recommendations:

26. So as to give the community assurance the road transport operators have in place systems to ensure that vehicles are operated safely, an incoming government should request the next available TIC (Transport and Infrastructure Council) meeting for an amendment to the Heavy Vehicle National Law to require heavy vehicles to carry data recording equipment that captures: a. the longitude, latitude, speed, date and time of circumstances of speeding events; and b. engine on/off data c. and for such data to be retained by operators.

27. Legislation requiring the capture of data for statutory reporting and monitoring purposes should rely on open standards and a systems platform approach rather than prescribing particular pieces of hardware and without the overriding concern to ensure the collection of data to 'evidentiary standards' to support (in particular) prosecutions.

¹ Australian Logistics Council *Getting the Supply Chain Right: Building the Economy Through Efficient and Safe Supply Chains* (2016): 24 www.austlogistics.com.au/wp-content/uploads/2016/05/Getting-the-Supply-Chain-Right.pdf

² *Getting the Supply Chain Right*: 7.



To augment the operation of the CoR provisions contained in the HVNL, ALC believes there is a case for an operator of a heavy vehicle to:

- 1. maintain a safety management system certified by an accredited auditor as being compliant with operating standards specified in an instrument made under the HVNL;**
- 2. demonstrate the financial capacity to provide a carriage service through satisfaction of requirements along the lines of section 10 of the *Passenger Transport (General) Regulation 2017* (NSW); and**
- 3. carry in heavy vehicles equipment meeting necessary technical standards capable of recording safety and other data as required by law.**

This is because the structure of the Australian heavy vehicle industry must be recognised. Many operators are small businesses and not employees. It follows that if safety is to be improved, then improvements must be made to operator management systems.

It will also create, for all intents and purposes, a system of accreditation for the nation.

In that case, any amendments that are necessary should be made through the national law dealing with safety – the HVNL – that uses the ‘applied legislation model’ in which one jurisdiction makes the law,³ with the other jurisdictions then subsequently ‘applying’ (picking up) the first jurisdiction’s legislation, thus removing any constitutional barriers that could be breached if the proposal was enacted under a Commonwealth law.

³ Currently Queensland. Western Australia and the Northern Territory do not participate in the national scheme regulating heavy vehicles.

OVERSEAS EXPERIENCES

Operator licencing for heavy vehicle operators is currently employed in varying forms in countries such as the United Kingdom, New Zealand, the United States and Canada.

Although the mechanics of each system varies, what they have in common is the availability of information on the compliance of operators with maintenance and operating standards. The availability of such information enables regulators and consumers to evaluate the risk associated with operators.

In the United States for instance, licensing is valuable for the information it provides regulators on the regulated cohort – something that will be important as the National Heavy Vehicle Regulator moves towards a targeted regulatory regime.

As Mooren et al have noted:

In the USA, companies with heavy vehicle operations must be licensed under Federal Regulations. To meet the requirements of licensing, the companies must conform to the Federal Motor Carrier Safety Administration's (FMCSA) safety fitness policy and be able to demonstrate adequate financial responsibility. Further, prior to approval, the FMCSA posts a summary of the application to enable members of the public to raise any objections. Further, more USA heavy vehicle operators are subject to regular safety analysis. A safety measurement system monitors the safety levels of operators across Behavioural Analysis and Safety Improvement Categories (BASICs) including:

- » *Unsafe Driving*
- » *Fatigued Driving (Hours-of-Service)*
- » *Driver Fitness*
- » *Controlled Substances/Alcohol*
- » *Vehicle Maintenance*
- » *Cargo-Related safety*
- » *Safety/crash records.*⁴

Since the publication of this article, on 18 December 2017 the US has made the carrying of electronic work diaries compulsory.⁵

In the United Kingdom, an Operator Compliance Risk Score (OCRS) is calculated using data from annual tests, roadside and on-site inspections. The score is calculated on a three year basis, with a 'traffic light' rating given to operators of either: **R** (red) – for high-risk; **A** (amber) – for medium risk; and, **G** (green) – for low-risk. The lower the score, the lower the risk.

4 Mooren et al *Comparing heavy vehicle safety management in Australia and the United States* (2012):4-5
http://acrs.org.au/wp-content/uploads/5_Mooren-PR.pdf

5 Contained in Part 395 of Chapter 3 of Volume 5 to Title 49 (Transportation) of the US Code of Federal Regulations:
www.ecfr.gov/cgi-bin/text-idx?gp=&SID=&mc=true&tpl=/ecfrbrowse/Title49/49tab_02.tpl



The National Transport Commission and the National Heavy Vehicle Regulator have identified this approach as a possible motivation for operators to maintain their vehicles in an on-going state of roadworthiness.⁶ They also stated that, 'in turn, a risk management approach to roadworthiness may allow regulators and enforcement agencies to better allocate their resources to those higher risk heavy vehicles both on-road and as part of their regular inspection regimes.'⁷

The UK operator licencing system also requires operators to have sufficient financial resources to keep heavy vehicles serviceable and roadworthy. As of 1 January 2016, heavy vehicles under the 'Standard National' licence category - which enables operator to carry one's own and other parties' goods for hire or reward - require £6,650 (AUD \$11,428.72) for the first vehicle and £3,700 (AUD \$6,358.83) for each additional vehicle.⁸

Operators who hold a 'Restricted' licence – which means they can only carry their own goods - require £3,100 (AUD \$5,327.67) for the first vehicle and £1,700 (AUD \$2,921.63) for each additional vehicle.⁹ Supporting evidence such as bank statements, asset statements and loan facilities must be supplied to the independent Traffic Commissioner covering a period of three months.¹⁰ Financial resources 'must be sufficient to ensure the requirement for financial standing with the need for continuing availability.'¹¹

In an Australian context, such financial requirements could have the potential to bring financiers into the Chain of Responsibility.¹² Their role could be to ensure that on-going maintenance and roadworthiness costs are taken into account when funds are provided to operators.

6 National Transport Commission and National Heavy Vehicle Regulator *Heavy Vehicle Roadworthiness Review: Phase One – Report of Current Practice* 2014: 54 www.nhvr.gov.au/files/heavy-vehicle-roadworthiness-report-of-current-practice.pdf

7 UK Senior Traffic Commissioner, *Statutory Document No. 2: Finance* (2015): 54 www.gov.uk/government/uploads/system/uploads/attachment_data/file/501371/statutory-document-2-finance.pdf

8 *Statutory Document 2*:6

9 *Ibid*:6

10 *Ibid*:6

11 *Ibid*:11

12 Sarah Jones, *Chain of Responsibility and the Heavy Vehicle Freight Industry: Benefits, Challenges and Opportunities*, 2015 Australasian Road Safety Conference (14-16 October 2015): 8 <http://acrs.org.au/files/papers/arsc/2015/JonesS%20088%20Chain%20of%20responsibility%20and%20the%20heavy%20vehicle%20freight%20industry.pdf>

POSSIBLE REFORMS IN AUSTRALIA

Some have suggested the National Heavy Vehicle Accreditation Scheme (NHVAS) accredited operator system works as a proxy licensing system inasmuch that if a consignee/logistics planner places a premium on safety, they will use an NHVAS accredited operator with the accreditation providing a market guarantee of safety.

This form of accreditation is usually advanced in economics literature as having a similar effect as licensing. However, it is unclear if there are any commensurate superior safety outcomes.

Whilst raw licensing of operators may not be an immediate option, there is some scope for ensuring that those who carry goods for reward do so in a way that draws the best from international and Australian experience.

ENSURING OPERATORS HAVE THE NECESSARY CAPITAL TO SAFELY OPERATE A HEAVY VEHICLE

Maintenance is classically one of the discretionary expenses that can be cut by an operator to make ends meet.

This is why Part 11 of the Code of Practice made under the Victorian *Owner Driver and Forestry Contractors Act 2005* suggests hirers ensure an operator has the financial capacity to operate their business.

The reason for the guideline was the realisation that many operators fail to appropriately cost this area of their business.¹³

As one commentator has observed:

*Many financially troubled or under-capitalised businesses are tempted to cut corners. Vehicle maintenance may be neglected which increases the chance of an auto accident related to mechanical problems. Obtaining and using needed safety equipment may be postponed; this increases the chance of work comp injuries...*¹⁴

The community must have the confidence that heavy operators have available the funds to undertake maintenance when they are due.

ALC believes that something like section 10 of the *Passenger Transport (General) Regulation 2017 (NSW)* should be developed and inserted into the HVNL. That section reads:

¹³ Contained in Schedule 1 to the *Owner Drivers and Forestry Contractors Regulations 2017* (Vic) www.austlii.edu.au/cgi-bin/viewdoc/au/legis/vic/consol_reg/odafr2017557/sch1.html

¹⁴ Smith Mitchel *Insurance: A Big Decision for Small Business* (2011):26



10 Applicant to be financially capable of carrying on relevant service

- (1) The applicant must be financially capable of carrying on the relevant service.*
- (2) Evidence of the applicant's financial standing is to be provided in the form of a signed statement from a qualified accountant (other than an employee of the applicant), on the accountant's business letterhead, containing the following:*
 - (a) a report on the applicant's financial capacity to carry on the relevant service, with specific reference to the applicant's financial ability to meet the requirements of this Regulation and other relevant laws as to:*
 - (i) vehicle maintenance and roadworthiness, and*
 - (ii) the safety of drivers, passengers and the public, and*
 - (iii) the operation of a business,*
 - (b) a statement specifying the number of public passenger vehicles that, in the opinion of the accountant, can be accommodated by the service proposed to be carried on by the applicant,*
 - (c) if the applicant is a corporation—a statement of the accountant's opinion as to the solvency and general financial standing of the corporation.¹⁵*

If this standard is good enough for vehicles carrying people it should be good enough for heavy vehicles carrying freight.

¹⁵ www.legislation.nsw.gov.au/#/view/regulation/2017/473/part2/div2/sec10

SAFETY MANAGEMENT SYSTEMS

Safety management systems are a well-known tool designed to manage workplace safety.

These are used in a number of industries with significant safety risks, including:

- » aviation;
- » petroleum;
- » chemical;
- » railway; and
- » electricity generation

In a 2016 publication *An Evidence Based Safety Management System for Heavy Vehicle Transport Operations*, Mooren found:

Knowledge gained from the scientific literature identified a number of specific safety management interventions associated with good safety performance. In order of most to least number of relevant studies found, the safety practices shown to have significant links with safety outcomes included: management commitment/safety climate (30 studies), worker input to WHS, safety communications (21 studies), vehicle/workplace conditions (13 studies), safety training (12 studies), scheduling/journey planning/work pressure (11 studies), safety management systems/accreditation schemes (9 studies), safety policies/procedures/enforcement (8 studies), financial performance/pay systems/pay rates/unionisation (8 studies), risk analysis and corrective actions (8 studies), incentives (7 studies), size of organisation/truck fleet/freight type (6 studies), worker characteristics/driver attitudes/behaviours/health (4), hiring practices/driver retention/return to work policies (4), and prior safety violations, crashes/incidents (2).¹⁶

An abstract from a subsequent paper published by Mooren et al in 2017 said:

Independent research into safety management features that distinguish between lower insurance claimers and higher insurance claimers identified characteristics that show clear evidence of efficacy in safety management in trucking operations. Findings of this research were compared against risk management factors included in the risk assessment process adopted by a major truck insurer. When these were compared with the Zurich Risk Engineering (ZRE) grading criteria substantial consistency was found. There were some inconsistencies as well.¹⁷

with the paper going on to say:

The similarities between the important risk management elements determined by the experience of an insurance company's risk engineering experts and those found by independent scientific research provides a cross-validation of important safety management characteristics.¹⁸

¹⁶ Mooren *An Evidence-based Safety Management System for Heavy Truck Transport Operations* (2016): 159

¹⁷ Mooren et al *Comparison of Experience-Based and Evidence-Based Safety Risk Management Features for Heavy Vehicle Transport Operations* (2017): 1 http://www.tars.unsw.edu.au/news/2017/Mooren_00045_FP.pdf

¹⁸ Mooren et al (2017): 9

ALC believes the HVNL should be amended to mandate the development of a safety management system prescribing the management systems an operator must have in place to assist the safe operation of the Australian heavy vehicle fleet.

Should such a system be prescribed, it would be appropriate that accredited auditors be required to certify that the systems in place are being complied with.

This would not only improve the management abilities of heavy vehicle operators, but also provide regulators with some of the data necessary to identify the types of practices that are adopted (or not adopted) by operators that are indications of risk.



TELEMATICS

ALC has supported a mandatory requirement for heavy vehicles (as defined by the HVNL)¹⁹ to be fitted with a telematics device for safety and other purposes since 2010.

The historical position of ALC is set out in **Appendix A**.

The current ALC position is set out in **Appendix B**.

As the 2013 Heavy Vehicle Compliance Review Consultation Draft, prepared by the National Transport Commission, indicated:

Research into deterrence theory was also revealing that size of punishment is relatively meaningless to offenders and would-be offenders. What matters is the probability of detection and punishment of illegal behaviour. In the heavy vehicle context, probability of detection and punishment varies widely according to location and typography.²⁰

Given this, it is noteworthy that the Fair Work Commission was satisfied that installing outward facing and driver facing cameras can contribute to better safety outcomes in the road transport industry.²¹

A recent survey conducted by Teletrac Navman also found that companies who have implemented, or are planning to implement, telematics technology saw speed prevention (58%) and monitoring hours to prevent driver fatigue/exhaustion (39%) as the top two safety benefits realised by using telematics.²²

ALC also notes that a cost-benefit assessment and prioritisation study of 21 vehicle safety technologies conducted for the European Commission in 2005, based on a wide range of Electronic Data Reporting (EDR) field examples and studies, concluded that implementing broad accident data recorder implementation led to:

- » an average reduction of collision probability of 10% for fatalities as well as for serious and light injuries;
- » benefits estimated to outweigh costs by a factor of 7; and
- » behaviour changes minimising the risk and severity of accidents and repair costs by up to 25%.²³

More generally, a recent survey found that 88% of transport businesses are currently using, or a planning to use, telematics.²⁴

In effect, the competitive nature of the heavy vehicle industry is encouraging transport businesses to adopt telematics to improve the efficiency and safety of their operations.

The current Australian Government has also recognised the value of telematics in improving regulatory compliance and heavy vehicle safety. In an interview in April 2016, the then Minister for Employment, Senator the Hon. Michaelia Cash, told Sky News that:

DAVID SPEERS: As Minister, would you like to see every truck installed with GPD technology to track how fast, how many hours drivers are doing at all times.

MINISTER CASH: I think it is a great step in the right direction that we utilise technology to the most effective way that we can to ensure that we are all safe on the roads.²⁵

19 Usually a vehicle with a GVM or ATM of more than 4.5 tonnes – see section 6 of the HVNL.

20 National Transport Commission *Heavy Vehicle Compliance Review Consultation Draft* (2013): 6 and 26. The comment on page 38, which reads 'As noted earlier, probability of detection is a key factor in securing compliance' should also be noted.

21 *Toll North v. Transport Workers Union* [2014] FWC 2945 para 85 www.austlii.edu.au/cgi-bin/viewdoc/au/cases/cth/FWC/2014/2945.html.

22 Teletrac Navman 2017 *Telematics Benchmark Report Australia Transportation Edition* (2017): 14.

23 European Commission Directorate-General for Energy and Transport Vehicle Event Recording Based on Intelligent Crash Assessment 6 October 2009 p.39.

24 Teletrac Navman 2017 *Telematics Benchmark Report Australia Transportation Edition* (2017): 11.

25 <https://ministers.employment.gov.au/cash/sky-news-pm-agenda-david-speers>.



OTHER USES

Data is also required for other statutory purposes.

For example, the COAG Transport and Infrastructure Council committed in May 2015 to a four phase process to reform heavy vehicle user charging.

Technology will facilitate the development of this regime.

As the Productivity Commission indicated in its 5 year productivity review published in 2017:

Surveys gauging user perception of transport quality and issues suggest that the substantial investments in new capacity that have been made in recent years may have provided some relief, but also induced greater use of roads. Governments have recognised the need for changes to road regulation but there has been, overall, little progress.

Technology now exists that could readily address the lack of price signals for road investment and complement other revenue sources. But the willingness to trial such developments requires a catalyst.²⁶ (Emphasis added)

The 2015 Competition Policy Review (**the Harper Review**) also said:

Reform of road pricing and provision should be a priority. Road reform is the least advanced of all transport modes and holds the greatest prospect for efficiency improvements, which are important for Australian productivity and community amenity.

Technologies are available that allow for more widespread application of cost-reflective pricing in roads, taking into account location, time and congestion. Revenue raised through road pricing should be channelled into road funds to promote more efficient road use and investment.²⁷

To that extent, it is noted that Transport Certification Australia (**TCA**), the body responsible for providing governments with advice on the use of telematics and related intelligent technologies, is working with Main Roads Western Australia to use telematics to implement a new road charging solution.²⁸

Information collected and retained by operators is the most pragmatic and achievable way to allow road users to gather this difficult to collect data and use it as the demand estimate in any investment and maintenance plan submitted for consideration to an economic regulator.

Finally, there has always been interest in the supply chain industry to encourage the ability to transfer non-proprietary information to improve the flow of freight from one end of a freight chain to another in a manner similar to the Hunter Valley Coal Chain.

ALC has long recommended the development of policies to allow this to happen, with the economic regulator with responsibility for land transport pricing and access decisions permitted to authorise such a practice if it regarded as being *prima facie* anticompetitive.

26 Productivity Commission *Shifting the Dial 5 Year Productivity Review – Inquiry Report* (2017): 135 <http://www.pc.gov.au/inquiries/completed/productivity-review/report/productivity-review.pdf>.

27 Australian Government *Competition Policy Review Final Report* (2015): 216 http://competitionpolicyreview.gov.au/files/2015/03/Competition-policy-review-report_online.pdf.

28 https://tca.gov.au/documents/2017_03_22_TCA_Media_WARoadPrice.pdf.



| | | |
|-----------|--------|-----|
| MAXGROSS | 30.480 | KGS |
| | 67.200 | LBS |
| TARE | 2.200 | KGS |
| | 4.850 | LBS |
| PAYLOAD | 28.280 | |
| | 62.350 | |
| CUB. CAP. | 32.5 | |
| | 1.1 | |

These are all reasons why telematics should be made mandatory in heavy vehicles.

That said, ALC harbours concerns that as technology becomes more dynamic and cheaper, different jurisdictional regulators will require heavy vehicles to use multiple pieces of hardware prescribed by particular laws to capture data fields that may be identical to information required by other regulators.

As an example, section 144AC of the *Protection of the Environment Operations Act 1997* (NSW) allows the NSW Environmental Protection Authority to require certain operators transporting waste to carry specific approved GPS tracking devices.

ALC therefore believes the law should meet clear technical standards that can be used in different statutory and commercial applications, with evidence collected on what could be described as being the ‘civil’ standard of proof, which would be sufficient in circumstances to allow a regulator to develop better targeted enforcement strategies, based on quality data. It isn’t necessary for a regulator to have information at the ‘criminal’ level of proof for this style of analysis.

As the *Compliance and Enforcement Framework for Heavy Vehicle Telematics* published by NTC in 2014 says:

Telematics systems generate detailed and accurate data that can be transmitted wirelessly to operators, regulators and enforcement agencies. In many regards, telematics technology increases the probability of detecting driver and vehicle breaches. It is critical that drivers are not unfairly targeted because they use regulatory telematics and that regulators and enforcement agencies do not use telematics to focus on isolated small breaches. Rather, regulatory telematics should provide an increased evidence base to identify patterns of behaviours and to enable regulators and enforcement agencies to develop intelligent, risk-based analyses and to target high levels of noncompliance. In turn, drivers and operators will be able to demonstrate compliant behaviour. In the longer term, regulators and enforcement agencies will have opportunities to consider the balance of roadside and back office approaches.²⁹

The framework then goes on to say:

The method to guide understanding of minimum standards is set out in Part 4: When you will need certification or government approval. It provides that the minimum standards of a telematics system should require a high level of assurance only when the data is explicitly gathered for an enforcement or supervisory intervention purpose, and particularly when the data is used to issue an infringement at the roadside.

Other compliance approaches, such as chain of responsibility, audit-based compliance and safety management systems, are not focused on enforcement-based infringements and do not have the same requirement to produce immediate and reliable data to establish an offence and to initiate a prosecution. Regulators and enforcement agencies will not seek as high a level of assurance from telematics systems generated for these alternative purposes. And when an operator uses telematics for entirely commercial purposes, or to generally increase their compliance, governments do not have a role deciding minimum standards for those systems.³⁰ (emphasis added)

²⁹ NTC *Compliance and Enforcement Framework for Heavy Vehicle Telematics* (2014) [www.ntc.gov.au/Media/Reports/\(C5F39CEF-3F43-490C-8D2B-569185379C55\).pdf](http://www.ntc.gov.au/Media/Reports/(C5F39CEF-3F43-490C-8D2B-569185379C55).pdf): 8.

³⁰ Ibid:7-8.

This recognises:

- » use of other technology to deter breaches to the law that **is** calibrated to a level that permits the data recorded as being accepted as being evidence to support a criminal prosecution, such as radar guns used to detect speeding, or a breathalyser used to determine blood alcohol levels; whilst
- » understanding that other systems without the same level of calibration can be used for auditing (for example) an operator has the safety performance anticipated by the chain of responsibility provisions of the HVNL – facilitating this auditing function is a principal reason why ALC supports mandatory telematics in heavy vehicles.

The design of the mandate should be consistent with, or be incorporated within, the National Telematics Framework.³¹

This means any relevant equipment must comply with the telematics data dictionary developed by TCA, if for no other reason than the cost that would be imposed on operators who purchase telematics for one statutory purpose, then have to purchase other units complying with different standards if another mandatory recording obligation is subsequently added.³²

This idea would require some technical amendments to the HVNL.

A high level indication of the types of amendments necessary is set out in [Appendix C](#).



31 <https://tca.gov.au/ntf/national-telematics-framework>. The framework is comprehensively based on ISO 15638 the Framework for Collaborative Telematics Applications for Regulated Commercial Freight Vehicles (the TARV).

32 <https://tca.gov.au/ntf/tdd>

CONCLUSION

The HVNL is an applied legislation model designed to ensure the law is the same in all participating jurisdictions.³³

The National Heavy Vehicle Regulator is moving towards a data driven enforcement regime which reflects the fact that in today's world data is the new oil.

For this reason it is important the information is available to ensure that both vehicle movement and performance and management capacity are operating in a way that ensures that heavy vehicles are moving safely on the Australian roads that are shared by all of us.

Safety requires these reforms. Australian governments must now show the leadership to develop them.

Australian Logistics Council



33 Currently all States and Territories ex. WA and NT

APPENDIX A



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Response to the National Transport Commission's National in-vehicle Telematics Strategy

Toll Group, Linfox and Asciano are leaders in the road transport industry in Australia. The companies are at the forefront of road safety management practices, including around speed and fatigue.

There are too many heavy vehicle (HV) accidents on Australian roads. Year end Mar 09 there were 248 fatalities from accidents involving heavy vehicles, and ~30% of HV accidents are single vehicle.¹ HV drivers are not always at fault in accidents, but when a HV is involved, accidents tend to be more severe. Numerous studies have shown that major causes of HV accidents, particularly single vehicle ones, are fatigue and speed.²

Toll, Linfox and Asciano believe that the existing chain of responsibility (CoR) legislation provides a sound basis for improving road safety for both heavy vehicle drivers and those who share the roads with them. But increased company monitoring of fatigue management and speed is required to improve compliance.

Studies in Europe and the US show that introducing black boxes to monitor fatigue and speed reduce HV accidents by 20-30%, reduce the severity of the accidents and in Europe have reduced single vehicle HV accidents to ~15% (from ~50%). Cost/benefit analyses overseas have proved compelling with benefits up to 7 times costs.³

We believe it should be mandatory for companies to monitor fatigue and speed using telematics technology. We also believe it is vital to amend the current counting hour rules to make them nationally consistent.

For these reasons, Toll, Linfox and Asciano cannot support any of the three options currently being put forward by the NTC.

We are proposing that a new option (Option 4) that includes **mandating that companies use and monitor telematics technology** be developed. Option 4 should meet the following requirements.

PROPOSED OPTION 4

Regulators should look to determine the outcome not the process. There should be flexibility to allow the appropriate telematics technology to provide a broad range of both compliance and commercial benefits.

Regulators should focus on compliance and leave commercial aspects to industry.

1. The vital outcome is to improve safety and on-road behaviour by mandating an operator's management of speed and fatigue in their fleet. It is important to remember the operator and other supply chain participants already have legal responsibility for managing speed and fatigue under chain of responsibility (CoR) legislation

¹ March 2009, Department of Infrastructure, Transport, Regional Development and Local Government, Road Safety Statics

² Media release, Hon Anthony Albanese MP, Minister for Infrastructure, Transport, Regional Development and Local Government Road Safety and Productivity Package, 29 February 2009

³ January 2006, European Commission Directorate General Energy and Transport Report - "Cost Benefit Assessment and Prioritisation of Vehicle Safety Technologies", October 2009 European Commission Directorate General Energy and Transport final report - "Vehicle Event Recording based Intelligent Crash Assessment"

2. The Regulator should work to encourage the industry to embrace CoR legislation across the entire supply chain and not solely focus on the truck driver and their company
3. Self regulation – we believe that all heavy vehicles performing long distance work should have a monitoring device that assists owners and operators better manage speed and fatigue. Heavy vehicles are defined in NTC fatigue model law. Long distance work is defined in the Road Transport (Long Distance Operations) Award 2010.
4. The Regulator should not mandate a specific device
5. The National Heavy Vehicle Regulator (NHVR) should set a single national standard. State regulators should not deviate from this standard
6. The Regulator should mandate monitoring for speed & fatigue only. Anything further would delay a start up across the whole industry
7. The Regulator should amend legislation where required to allow use of electronic work diaries where operators choose to implement them as part of their telematics system
8. The Regulator will need to phase in mandatory compliance to allow all operators to fund equipment and establish thorough monitoring regimes within their businesses
9. The Regulator should take a proactive and preventative approach and not a punitive one – CoR legislation will lead to strong outcomes without the need for the regulator to be heavy handed
10. The compliance process should remain managed by the company although it should be available for external audit or accreditation such as under the National Logistics Safety Code or to the Regulator in the event of a major incident or investigation
11. Industry codes of practice are a vital part of ensuring safety in the industry and should be at the forefront of industry and regulator thinking on this issue

Minimum standards of compliance

It would be GPS enabled and would time / date / location stamp events e.g. over speeds, key on key off locations etc

It would send SMS or email messages in real time to the owner of the vehicle when a potential breach occurred

It would warn the driver that he is speeding

It would count driving hours and warn the driver when he was approaching a limit (SDH and BFM)

It would provide traceable records

It would have anti tampering systems e.g. It would monitor GPS speed v ECU speed and report variations

It would record distance and time between key on and key off

It would be able to identify the driver – log on key or smart licence

It would be able to Geo fence ad hoc locations

It would provide live location via web or other

It would be able to produce standard reports

It would be able to log accident data i.e. capture in detail activity prior to an "incident".

Signed on behalf of Toll Group



Andrew Ethell
General Manager
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Signed on behalf of Asciano



Helen Newell
Director
Strategy & External Relations

Signed on behalf of Linfox



Tania Whyte
President Commercial

APPENDIX B

Electronic gathering of data for government purposes by the Australian Freight Chain – a policy restatement

1. Data collected by a business is the property of the business.
2. Regulators and enforcement agencies may only collect and use data collected by businesses:
 - a. in the manner authorised; and
 - b. for the purposes intended by an Australian law.
3. Access should otherwise be governed by the privacy principles in force in the jurisdiction.
4. Regulators must clearly specify in legislation:
 - a. the data fields to be collected;
 - b. the purposes for which it is being collected; and
 - c. the confidence level the data must possess.
5. Regulators need to accept that in the usual case, commercial data applications will not be calibrated to record data to a level that it can be presented as evidence of the facts recorded beyond a reasonable doubt.
6. However, such a level of certainty is not necessary in most government applications, such as data recorded for revenue, planning or monitoring purposes. Regulators therefore need to consider whether a particular statutory requirement needs the collection of data accurate to the level of confidence required for prosecution purposes.
7. Businesses should be able to use systems designed and represented by vendors as meeting prescribed data confidence levels for a particular statutory purpose, or if absolutely necessary, using equipment that satisfies regulator 'type approval' requirements.
8. Regulators should endeavour to develop a consistent confidence level for data collected for civil statutory purposes.

APPENDIX C

Amendments to the HVNL to underwrite the electronic collection of safety and other data

1. To improve safety outcomes, the HVNL should require heavy vehicles to carry telematics equipment.
2. Relevant legislation (including the HVNL) should set out:
 - a. what information should be recorded; and
 - b. the circumstances where enforcement and other officers can access information
3. The HVNL be identified as the law establishing telematic standards in heavy vehicles.
4. The HVNL should therefore be amended to:
 - a. allow the making of some form of legislative instrument that contains:
 - i. something like the Data Dictionary currently maintained by TCA, that can be amended from time to time as recording requirements for either safety or other purposes are subsequently added by other Australian laws so there is a common set of data definitions to facilitate the collection, exchange and use of data and information; and
 - ii. privacy standards that must be met by those eligible to access the personal and business information of a transport operator;
 - b. allow amendments to primary legislation so that:
 - i. road transport operators are required to use software or hardware applications certified by the vendor as satisfying data dictionary standards and to maintain data as required by the legislative instrument set out above; and
 - ii. an offence of falsely representing that a software or hardware application satisfies a particular statutory requirement is created against a vendor, if competition and consumer laws relating to the making of false and misleading claims are considered insufficient;
 - iii. if considered necessary, a capacity to prescribe an industry standard that must be met to maintain recorded data should be included; and
 - iv. offences are created to penalise activities such as tampering with either hardware or data.

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