TASMANIAN TRANSPORT ASSOCIATION

SUBMISSION TO THE TASMANIAN LEGISLATIVE COUNCIL SELECT COMMITTEE

ROAD SAFETY INQUIRY

SEPTEMBER 2021

LEGISLATIVE COUNCIL SELECT COMMITTEE ROAD SAFETY INQUIRY

To inquire into and report upon ways in which to improve road safety in Tasmania.

Submission by the

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ABOUT THE TASMANIAN TRANSPORT ASSOCIATION

Established in 1960, the Tasmanian Transport Association is the peak industry body representing freight transport industry employers in Tasmania.

A proactive, member-based industry Association, the TTA works to support our members across all transport sectors and modes, including road, rail, ports, warehouses, shipping and freight forwarders, and those businesses providing services to the industry.

TTA's vision is for safe, productive, profitable, sustainable, and environmentally responsible freight supply chains facilitating trade to, from, and within Tasmania.

TTA's purpose is to serve our members and the broader transport community to enable them to provide best practice, professional freight transport services for the benefit of Tasmanian people, businesses, communities, and the economy. We do this by influencing the regulation of transport, the provision of transport infrastructure, and the delivery of transport services.

The TTA has close links to transport industry associations in other states and represents the industry on a range of state and national committees including the Tasmanian Road Safety Advisory Council.

THE IMPORTANCE OF SAFE AND EFFICIENT FREIGHT TRANSPORT

An essential service provider, transport and logistics underpins and enables economic growth, Tasmanian businesses, communities, and the standard of living for all Tasmanians.

Transport and logistics is the backbone of the Tasmanian economy, facilitating growth in key sectors of construction, agriculture, aquaculture, and exports.

An efficient freight network within Tasmania, both road and rail, and connections with intra and interstate ports and freight hubs, is critical to the continued economic prosperity of Tasmanian businesses and the standards of living for all Tasmanians.

Road safety is a high priority for transport operators and drivers in both road and rail sectors, for the health, safety and wellbeing of industry members and other road users.

A SNAPSHOT OF THE TASMANIAN FREIGHT TRANSPORT INDUSTRY

- The Tasmanian industry is made up of 2,966 Transport and Logistics Businesses (June 2020), which was an increase of 14% from June 2019. More than half of these businesses are in the road freight sector and the majority are non-employing.[1]

- 12,500 people are directly employed in Transport & Logistics in Tasmania (February 2021), a 15% increase over the year from February 2020. The Road Freight sector in Tasmania has had a 25% increase in the number of people employed over the past 5 years.

- There are 50,525 registered trucks in Tasmania (not including tow trucks and construction vehicles), a 17% increase between June 2016 to June 2021.[2]

- 65,240 people in Tasmania hold a Heavy Vehicle Driver Licence – a 5% increase between June 2016 to June 2021.[3]

- 99% of freight by volume in and out of Tasmania is by sea.

- 95% of freight movements are interstate.[4]

- The Tasmanian Land Freight Task is projected to increase by 65% from 2012 tonnages, to 39 million tonnes, by 2035.

- Both road and rail sectors play a significant role in, and have immediate and longer-term challenges to, enabling the increase in land freight volume, with 18% of land freight volume by rail, and 82% by road.

- The industry has the oldest workforce in Tasmania, with almost 60% of those in the current workforce aged 45 years and older.[5]

THE SAFE SYSTEM APPROACH TO ROAD SAFETY

The TTA acknowledges the safe system approach to road safety and uses this for reference in this submission. Fundamental to this approach is the recognition that humans make mistakes, and the concept of a shared responsibility, including social and corporate, to advance solutions to reduce the consequences of those mistakes.

From the National Road Safety Strategy 2011-2020:

> "This involves a holistic view of the road transport system and the interactions among roads and roadsides, travel speeds, vehicles and road users. It is an inclusive approach that caters for all groups using the road system, including drivers, motorcyclists, passengers, pedestrians, cyclists, and commercial and heavy vehicle drivers. Consistent with our long-term road safety vision, it recognises that people will always make mistakes and may have road crashes—but the system should be forgiving and those crashes should not result in death or serious injury".6

The Safe Systems Approach acts to prevent crashes that result in death or serious injury across 4 key areas: Safe Roads, Safe Speeds, Safe Vehicles and Safe People. Each of these are addressed further in this submission.

Road Safety is a Workplace Health and Safety Concern

The Tasmanian Work Health and Safety Act (2012) provides instruction as to the meaning of a workplace:

> Meaning of *workplace*
> (1) A *workplace* is a place where work is carried out for a business or undertaking and includes any place where a worker goes, or is likely to be, while at work.
> (2) In this section –
> *place* includes –
> (a) a vehicle, vessel, aircraft or other mobile structure; and
> (b) any waters and any installation on land, on the bed of any waters or floating on any waters.[7]

For professional heavy vehicle drivers and for train drivers, the road is part of their workplace. There are unique challenges in managing risks to road and rail worker health and safety when it comes to the actions of other road users. Road and rail businesses in Tasmania provide significant training and support to ensure the competency of road and rail drivers however have concerns about the understanding of other drivers of the operational and physical limitations of trucks and trains, and the capacity and commitment of these road users to adapt their driving practices to maintain safe practices around trucks and trains.

The road is also the workplace for motorists who are travelling in the course of their work.

The TTA recommends that all workplaces which include driving on the road as a feature of work, are supported to deliberately address this practice in their workplace health and safety plans, including providing training for drivers in hazard and risk, and safe driving practices, including around heavy vehicles and trains.

SAFETY IN THE ROAD FREIGHT TRANSPORT INDUSTRY

Truck Driver Health, Safety and Wellbeing

The road transport industry is identified as a national priority for prevention activities in the Australian Work Health and Safety Strategy 2012-2022, which stated that (along with agriculture) the road freight transport industry would be:

> "the focus of efforts in all jurisdictions during the first five years of the Australian Strategy to reduce the high numbers of fatalities in these industries."[8]

Further, a report on the study into the health and wellbeing of Australia's truck drivers conducted by Monash University over a 12-year period and released in 2018 found that truck driving is amongst the unhealthiest jobs in Australia, because of the long working hours, prolonged periods of inactivity sitting, poor nutrition, social isolation and pressures associated with shift work, delivery times and low levels of job control – in addition to the risk of road crashes. The study identified truck driving as the most common occupation of male Australians, with one in every thirty-three male workers in Australia employed in either hire or private fleets in an industry where the demand for road freight is expected to double from 2010 to 2030.

The industry has an aging workforce (in Tasmania, it is the oldest workforce across all industries), with a high rate of work-related injury and disease claims caused by physical and psychological stress, falls, slips and trips and other causes, 17% of which related to vehicle crashes.

The study found that more than half of drivers are categorised as obese, compared to the national average of 32.5% of people.

The study also found that, whilst noting that most claims for work related injury or disease related to other causes,

> truck drivers had a 13-fold higher risk of fatal injury than other workers, and more than three quarters of fatalities in truck drivers were due to vehicle crashes.[9]

The SuperFriends Thriving Workplace Report found that the industry's index score fell in 2019 to be the lowest score of any industry. The latest report (May 2021) examines the state of industries in 2020 and transport, logistics and warehousing is (again) at the bottom of the index across industries.[10]

Healthy Heads in Trucks and Sheds, a national foundation championing mental health for the industry, identifies that:

- 44.8% of workers experience a mental health condition
- Mental health was the 2nd highest disability claim in 2017 and 2018
- Truck drivers are less likely to access mental health services
- Drivers with depression are 7 times more likely to have been in a crash
- The leading cause of death in the industry is heart attack, followed by heart disease, and then suicide.[11]

The transport industry has continued reliable, safe and responsible operations throughout the COVID-19 pandemic, maintaining supply chains for the benefit of Tasmanians. The industry is under considerable pressure to meet the ever-changing requirements for border crossings and operating as an essential industry under various restrictions, to meet the increased freight demand.

The mental and physical health of transport and logistics workers has an impact on the safety of themselves and of others.

The TTA recommends an increased recognition for transport and logistics as an essential industry, of the pressures that drivers operate under, and of the responsible way they have conducted the business of freight throughout the COVID-19 pandemic.

The TTA recommends that sector specific mental health and wellbeing support be made available to the Tasmanian transport industry, led by the TTA as the peak body.

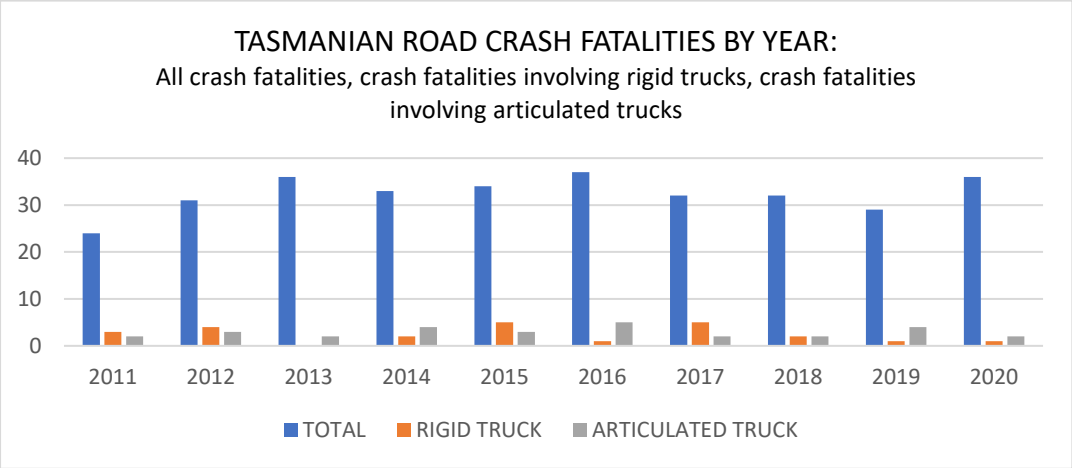
HEAVY VEHICLES AND ROAD CRASHES

Incidence of Heavy Vehicles in Crash Fatalities in Tasmania

Heavy vehicles represent approximately 8% of all registered vehicles in Tasmania (excluding registrations for trailing units such as caravans, trailers and horse floats)[12].

Over the ten years from 2011 to 2020, heavy vehicles were involved in an average of 18% of fatalities on Tasmanian roads, and in 2020 were involved in only 3 of the 36 fatal crashes.[13]

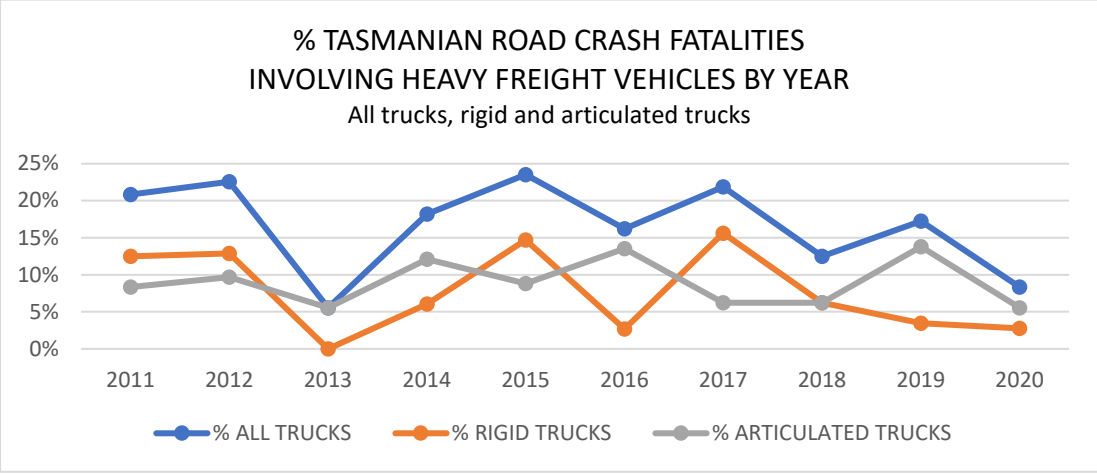
Figure 1 - Tasmanian Road Crash Fatalities by Year - all fatalities, fatalities involving trucks by type



This is consistent with national data where around 18% of all road crash deaths involve a heavy vehicle.[14]

The small Tasmanian data set does not support conclusions around the relative representation of rigid or articulated registered vehicles in road crash fatalities, with rigid trucks featured more in 2011, 2012, 2015 and 2017, and articulated vehicles greater in 2014, 2016, 2019 and 2020.

Figure 2 - Tasmanian Road Crash Fatalities involving heavy freight vehicles by year and type



When considered on the basis of kilometres travelled by different vehicle types in Tasmania[15], rigid trucks and articulated trucks account for around 7% of the total distances travelled. This means that heavy freight vehicles are involved in 18% of fatal crashes despite travelling less distance as a whole on the road network than the total of all other vehicles (including motorcycles).

Figure 3 - Kms Travelled Instrastate by Type of Vehicle – Tasmania, 12 months to 30 June 2020

Type of Vehicle	Million kms travelled intrastate	
Passenger vehicles	3,329	4,843 93% of kms travelled intrastate
Motorcycles	20	
Light commercial vehicles	1,441	
Non freight carrying trucks	10	
Buses	43	
Rigid trucks	225	376 7% of total kms travelled intrastate
Articulated trucks	151	
TOTAL INTRASTATE	5,219	

This again, is consistent with national data, where heavy vehicles are disproportionally represented in fatal crashes.

Light vehicles are the at-fault party in most fatal car-truck crashes

Where heavy freight vehicles are involved in crashes with light vehicles resulting in a fatality, the finding of national research by the National Transport Accident Research Centre (NTARC) is that **the light vehicle was the at-fault party in around 80% of these crashes.**

> "Interactions between light and heavy vehicles remain an area of significant concern with no significant shifts in the data. In 2020, where a car and a truck were involved in a fatal crash, the car was the at-fault party 78.3% of the time.

This is consistent with the findings of a review of fatal truck-passenger vehicle collisions in the United States, (as referenced in a paper published by the University of Newcastle in 2021), which:

> "… reveals that 67% of fatal crashes are attributable to the unsafe driving behaviours of passenger vehicle drivers, with the most prevalent behaviours being: veering out of their lane (19.9%); failing to give way (14.4%); speeding (14.1%); and driver inattentiveness (8.7%)."

A 2016 report from the Australian Bureau of Transport Infrastructure Economics (BITRE) included findings consistent with this, citing a 2014 NSW report:

> "In a 2014 summary presentation on heavy truck safety produced by the NSW Centre for Road Safety (NSW 2014), key-vehicle status in fatal multi-vehicle heavy truck crashes was assigned to the truck in 18 per cent of cases."

Increased risk of serious injuries and fatalities in crashes between light vehicles and trucks

Where heavy freight vehicles are involved in crashes with light vehicles, the likelihood of serious injuries or fatalities, particularly for the occupants of the light vehicle, is far greater.

> "Collisions involving trucks are 2.6 times more likely to result in a fatality, and passenger vehicle occupants are 10 times more likely than truck occupants to suffer serious or fatal injuries. Crash statistics indicate that 78% of fatalities and 76% of injuries resulting from passenger vehicle – truck collisions are sustained by occupants of the passenger vehicle."[16]

The BITRE also identified that:

> Heavy trucks are disproportionately involved in casualty crashes: approximately 16 per cent of road crash fatalities and 4 per cent of injuries involve these vehicles. In general, involvement of a heavy truck is associated with more severe injury outcomes.[17]

In summary, whilst heavy vehicles are disproportionately represented in fatalities from crashes involving light vehicles, this is because there are more severe consequences from these crashes, and the crashes are occurring as a result of the actions of the other road user, not that of the truck driver.

Impact of COVID and reduced traffic volumes

The latest NTI NTARC Report identifies a decline in multi-vehicle crash frequency involving heavy vehicles during the 2020 year and suggests a correlation with the reduction in light vehicle traffic volumes on the national road network:

> "Where COVID-19 has had a significant impact on road freight and road safety outcomes is through a significant reduction in light vehicle traffic volumes. Using data from Transport for NSW's for traffic volume on the Pacific Highway, vehicle traffic volumes dropped by 75% in the peak of the first wave in April 2020 and totals for the full year were around 20% lower than expected figures. With a reduced volume of light vehicles on the road, the exposure to potential car and truck crashes is also reduced and this was reflected in the NTARC crash data, with around 3 multi-vehicle major crashes per 1000 insured trucks in 2019 dropping to 2.5 in 2020."

Intentional Actions of Other Road Users

The contribution of intentional acts (including suicide) to fatalities from car and truck crashes has been explored over recent years, by both the NTI NTARC, and in a study by the Toll Group.

The National Road Safety Partnership Program report from 2019; 'There's a Real Human Being in this Truck': The effect of 'suicide by truck' on drivers, notes that:

> "Fear of prompting 'copycats' and a taboo around the topic often mutes discussion of suicide. In the transport sector, however, Australian train drivers are exposed to 'suicide by train' three times a week, and experience suggests heavy vehicle drivers also regularly face similar incidents."[18]

The Toll Group examined every on-road and driver fatality in its operations over a 10 year period and this research indicated that 14% of the fatalities in which it was involved were confirmed to be a result of intentional actions by another road user, or 'suicide by truck'. This confirmation came from a relevant finding from a coroner, police or insurance company, and Toll considered the real rate of incidents of suicide by truck to be much higher; closer to 20%.

Research by the NTI NTARC indicates the rates to be indeed much higher. From the latest NTARC report:

> "In 2020, 43.5% of fatal car and truck crashes were indicated or strongly indicated to be suicide, this represents an increase when compared to figures of 37.5% and 37.9% for 2017 and 2019 respectively. It is probable that this is an effect of COVID-19, with reduced traffic volumes reducing the number of accidental road deaths, thereby increasing the proportion of all road deaths which result from intentional acts."

Members of the road transport industry and particularly drivers, carry a sense that they, and their vehicles, are viewed as 'dangerous' by the broader community and the default 'at blame' party in road crashes. The media reporting of fatal crashes between heavy vehicles and light vehicles often perpetuates this perception, with (for example) references to the heavy vehicle 'colliding with' the light vehicle. This type of reporting possibly points to an unconscious bias and causes considerable trauma to the transport industry and to professional drivers who often witness, every day, the poor decision making of other road users, and take all reasonable steps they can to avoid incidents.

Again, from the NRSPP Report:

> "As with family members and friends who lose loved ones to suicide by truck, the impact on truck drivers can be profound. The collision may expose them to risk of injury and death. In addition to being inadvertently involved in a fatality, drivers are often the first responder on scene. The ongoing psychological effects can include guilt, flashbacks, depression and anxiety.
>
> The trauma for truck drivers can be compounded by media reports that assume the truck driver is at fault before the full facts of the case are known.
>
> Similar assumptions are probably less likely to be directed towards train drivers, where the risk of suicide by rail is more widely known and understood. However, train and truck drivers are both human and similar consideration could help truck drivers overcome the trauma of being involved in suicide by truck."

The TTA recommends that all fatal crashes involving heavy vehicles be fully investigated to identify all contributing factors.

The TTA recommends road safety campaigns be sensitive to trauma of heavy vehicle drivers involved in crashes and near misses, recognise the strong safety record of heavy vehicle drivers, and reflect the contribution made to fatal car-truck crashes by light vehicle drivers.

The TTA recommends that reporting on truck-car crashes be sensitive to the psychological effects on all those involved in crashes and take care to report in a way that reflects clear facts free of bias.

SAFETY IN THE RAIL FREIGHT INDUSTRY

Train Driver Health, Safety and Wellbeing

TasRail is the only rail freight provider in Tasmania and has around 250 full time equivalent employees across all areas of the business[19]. The health and fitness of rail workers including train drivers, is supported by mandatory safety management system requirements of rail operators to prepare and implement a health and fitness program[20].

The TrackSAFE Foundation is a charity established in 2012 supporting the rail industry with an aim to mitigate the trauma caused to rail employees, by working to reduce suicide, trespass and level crossing incidents on the rail network[21].

Interactions between trains and light vehicles

TasRail's operational rail network includes 249 level crossings on public roads. 106 of these are protected with flashing lights, automated bells and safety signage. 143 are protected with appropriate safety signage.

In the 11 years since its establishment, TasRail has reported 4 fatalities at railway crossings; 18 vehicle or motorbike collisions and many more near miss incidents.

Level Crossing safety is as much about road safety as it is rail safety.

Australian Road Rules apply to railway level crossings, but there is a concern that Tasmanian motorists may not be fully aware of all of these rules, nor their obligations around level crossings.

It is just luck that these statistics are not higher, because poor decisions of motorists at level crossings, including failing to observe directions, failing to observe flashing lights, and attempting to cross while lights are flashing, continues to be an almost daily occurrence for TasRail.

TasRail invests in online and print media advertising campaigns highlighting the consequences of poor decisions or risk taking by some road users and public rail safety remains a strong focus for the business.

In 2020-21 TasRail reported a 27 per cent increase in level crossing failure to stop or give way incidents around the State. Most of the reported incidents were in the North West of Tasmania where 28 out of a total of 42 "level crossing – failure to stop or give way" incidents occurred. The North West also saw 33 out of a total of 66 "trespass in the rail corridor" incidents reported. TasRail's General Manager-Freight Services Matthew Patten highlighted the challenge for train drivers:

> "…trainee locomotive drivers are taught many things about level crossing procedure, such as approach methods, awareness of surroundings, vegetation, pedestrians - anything that needs to be considered to enable safe transition across the roadway.
> What cannot be taught is how to cover off on the dangerous behaviour of road vehicle operators. Our train drivers can guess, roughly assume but cannot ever quite know what they are thinking.

> Locomotives can't swerve. It can take 1000 metres or so for them to stop under emergency brake. We ask motorists to consider how they would feel in that situation."[22]

In a publication designed to improve awareness of motorists around level crossings, TasRail reports that most railway level crossing incidents including near misses happen in conditions that are 'perfect', at active level crossings on dry, straight roads.

> "Complacency and inattention are the biggest contributors to near misses, as well as some motorists perhaps not understanding the scale of Tasmania's rail network." "[23]

As with truck drivers, train drivers experience mental health challenges, to which the poor decision making or inattention of other road users contributes. In the words of a TasRail Train Driver (from the same publication):

> "So many injuries and deaths still occur through inattention and misjudgement. Sometimes, sadly, it is simply bloody minded stupidity. All because of a perceived need to save 2 minutes with scant regard for others. Aside from the cost of vehicle damage, TasRail infrastructure and train damage, there is an insurmountable cost to life, injuries and mental health issues going forward forever."

Figure 4 - TasRail Safety at Level Crossings Educational Campaign Image

OPERATIONAL AND PHYSICAL LIMITATIONS OF HEAVY FREIGHT VEHICLES AND TRAINS

Heavy vehicles and trains have a unique range of operational and physical limitations, above those of light vehicles.

Operational Limitations of Trains

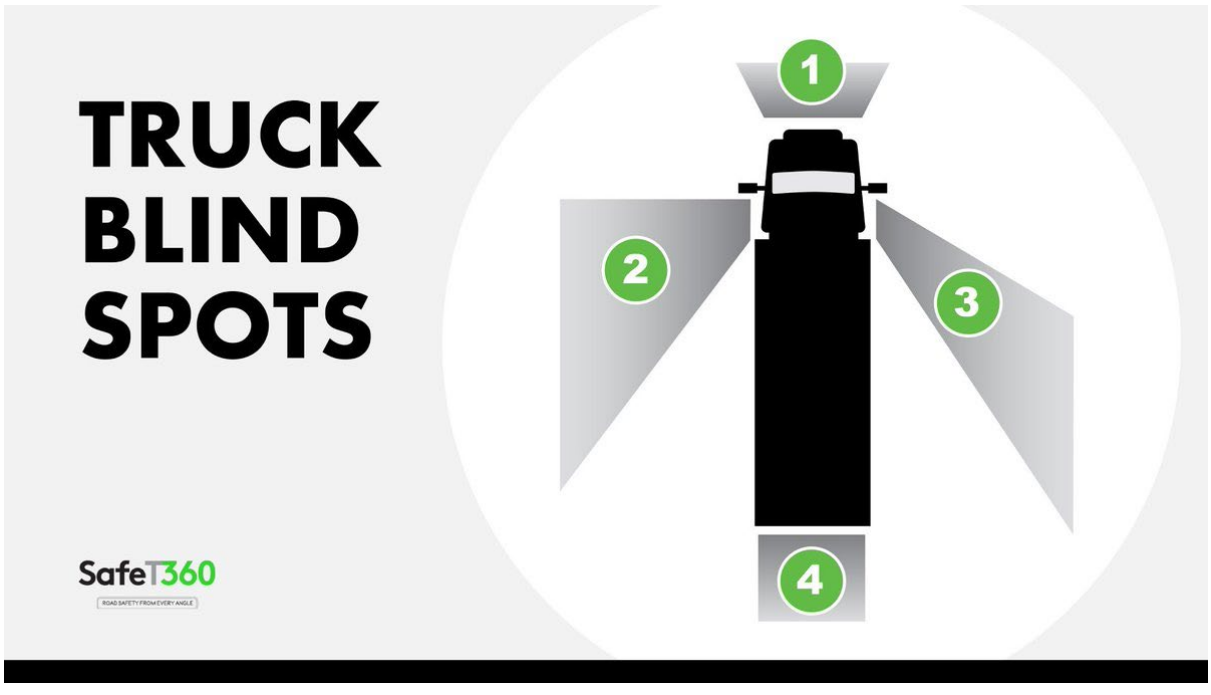
Trains are limited in terms of their capacity to avoid incidents, being constrained to the rail network and with no ability to 'swerve' or take avoidance action when faced with an incursion to the rail corridor by a person or vehicle. Trains typically have a stopping distance of 1000 metres or so, under emergency braking conditions.

Blind Spots around Trucks

Trucks have greater blind spots than light vehicles, with four main areas of limited visibility by the truck driver, being: immediately in front of the truck, behind the door on the driver side of the vehicle, along the passenger side of the vehicle, and directly behind the truck.

All road users need to be aware of the blind spots for heavy vehicles and adjust their driving practices to limit their presence in any of these areas. Road users need an awareness of techniques to be visible.

Figure 5 - SafeT360 Educational Image: Truck Blind Spots



Stopping Distances for Heavy Vehicles

Trucks take longer than light vehicles to stop, because stopping distance is affected by the mass of a vehicle. This is further compounded by the speed at which the vehicle is travelling, along with road and environmental conditions.

> "When travelling at 60kph, the average necessary stopping distance for a truck is 83m, compared to 73m for a car. When travelling at 100kph, trucks require an average safe stopping distance of 185m, which is 28m more than the required stopping distance of a passenger vehicle at the same speed."

The limitations around stopping distance have implications for the safety of other road users. Vehicles travelling in front of trucks, suddenly reducing their speed, or 'cutting in' on trucks after overtaking, when merging, or in lane changes, are at an increased risk.

Tailgating – Inadequate Following Distance

Tailgating, the practice of following too closely to the vehicle in front, is noted by members of TTA as a concern on Tasmanian roads. An inadequate following distance was also identified as a key aspect of driver error in the NTI NTARC Major Accident Investigation Report 2021, where 9.3% of heavy vehicle driver error losses was attributed to this. The report notes that the version of events provided by heavy vehicle drivers in these situations follow a similar pattern; where the driver reports a sudden or unpredictable slowing of traffic in front and not being able to stop in time. The report also notes:

> It is important to emphasise here that while from an insurance and road rules point of view, that the vehicle at the rear is at-fault, truck drivers have for decades been highlighting issues around other vehicles cutting into their safe stopping distance. Any effort to influence these inadequate following distance crashes needs to be a holistic one, including the behaviours of all road users, not just truck drivers.

A safe following distance is vital to creating the time and space to identify and react to changing circumstances in a driving future, and therefore critical to road safety, however the ability of people to estimate distances along a roadway is poor and their estimation varies significantly. A typical adult tends to underestimate distances to objects that were between 6 to 122 metres away[24].

The simpler way of expressing a safe following distance is to estimate that distance using a time-lapse technique. Typically, this is done by a driver selecting a marker (eg a guidepost), and counting the seconds from when the rear of the vehicle ahead passes that marker to when the driver's own vehicle passes that same marker. This is the approach recommended the Road Safety Advisory Council publication "Top 10 Misunderstood Road Rules", with the safe following distance advocated to be 3 seconds, increased to 4 seconds in poor conditions[25]. The Tasmanian Heavy Vehicle Drivers Handbook recommends a crash avoidance space of 4 seconds following distance for heavy vehicle drivers.[26]

A vehicle travelling at 100kph is covering 27.78 metres per second. Travelling at 100kph, a 3-second following distance provides a space of around 83 metres and a 4-second following distance provides a space of around 111 metres.

Figure 6 – NHVR: We Need Space Campaign - Following Distances and Space around Heavy Vehicles

Turning Space for Heavy Vehicles

Trucks often need more space than light vehicles to achieve turning manouvres. The Tasmanian Road Rules provide for some heavy vehicles to occupy more than one lane to effect turns under specified circumstances and prohibit other vehicles from overtaking a turning heavy vehicle.[27]

Tasmanian heavy vehicle drivers regularly report incidents including near misses where other road users display a lack of appreciation for this rule, and where other road users attempt to pass a turning heavy vehicle, often in the blind spot of the heavy vehicle.

Figure 7 - NHVR We Need Space Campaign - Turning Trucks and Space around Heavy Vehicles

This information is not provided in the Tasmanian Road Rules book, although it is mentioned in a document advising of changes to the Road Rules from November 2009 available from the Department of State Growth website[28].

The need to provide space for turning heavy vehicles has been highlighted in the National Heavy Vehicle Regulator's "We Need Space to Keep You Safe" campaign, including videos and educational material.

All road users need to be aware of the need to provide space around heavy vehicles and adjust their driving practices to ensure safe space is provided, mindful of the affect that adverse driving conditions has.

The TTA recommends that greater emphasis be placed in driver education on maintaining a safe following distance and crash avoidance space, particularly around heavy vehicles and in adverse conditions.

SAFE SYSTEM APPROACHES AND THE TASMANIAN FREIGHT INDUSTRY

Safer Roads

Tasmania has the 3rd smallest population in Australia after the ACT and the NT. In the 1980's Tasmania's population growth lagged behind that of mainland Australian states, with an annual growth rate averaging 0.8% while the Australian growth rate averaged 1.5%; meaning that the proportion of Australia's population living in Tasmania decreased from 2.9% in 1976, to 2.7% in 1989. During the 1990's, Tasmania's population growth averaged 0.5% whereas the Australian average was 1.2% - with the result that Tasmania's proportion of total Australian population decreased further to 2.5% at June 2000.[29]

Tasmania's population remained relatively steady for decades, hovering around the 470,000 mark. In 2008, the population reached 500,000 however population growth continued at less than 1% until 2018. In 2015, the Tasmanian Government released a Tasmanian Population Strategy, with the aim of achieving a population of 650,000 by 2050. Between 2018 and 2020, Tasmania's population growth increased by as much as 3.91% (in 2019) and Tasmania's population at June 2021 was projected to be 525,678[30] people. At December 2020, Tasmania's population had exceeded this, and reached 541,506 people[31] (even with an outflow from overseas migration associated with COVID-19 border closures).

With such a change in population growth, Tasmania's infrastructure is under considerable pressure. With an increasing population there are greater demands on transport and logistics, to meet the growing demands of a expanding consumer pool.

And with increasing demands on transport and logistics, comes greater demands on the machinery to enable this, including personnel, regulation and infrastructure.

TTA supports the commitment to upgrade the Bass and Midland Highways to a minimum AusRap 3 star rating. These are key freight routes and with an increasing land based freight task, will need to carry a steadily increasing tonnage of freight.

Road Safety Treatments

Safety treatments outlined in the Design Guidelines for Category One Roads in Tasmania include lane separation with flexible safety barriers within central medians and on outside shoulders where this will reduce run off road crashes, audible edge lines, external sealed shoulders, removing roadside hazards, improving skid resistance of road surfaces, improving junctions, alignment improvements, and alternating 2+1 lane arrangements at regular intervals[32].

The installation flexible safety barriers to the centre of undivided carriageways is important to respond to the risk of head on collisions as a result of driver error or intention.

These also however reduce the opportunities for overtaking slower moving vehicles on the network.

The TTA recommends more frequent opportunities for overtaking, including slow vehicle turn outs, particularly on the Bass Highway, where there is a regular presence of slow moving agricultural equipment.

The installation of flexible safety barriers to the edges of the road network has unintended consequences for heavy vehicles; reducing the opportunities for these vehicles to pull over safely to conduct vehicle or load checks, or fatigue breaks. The barriers are installed too closely on the outside

shoulder to allow a heavy vehicle to pull over without encroaching on the carriageway, and this limits the ability of heavy vehicle drivers to pull over off the road in the case of breakdowns.

Heavy Vehicle Driver Rest Areas

The Tasmanian Transport Association's 2020 report into the provision of rest area facilities for heavy vehicle drivers in Tasmania highlighted the essential nature of rest areas to driver health, safety and wellbeing, and legal compliance, and identified a failure across key freight routes in Tasmania to meet national Austroads guidelines.[33]

The TTA has welcomed the commitment of the Tasmanian Government to address the shortfalls as articulated in the Tasmanian Heavy Vehicle Driver Rest Area Strategy 2020.[34] TTA continues to engage with and support the establishment of facilities for drivers in Tasmania to take rest, however is concerned that the work to 'catch up' to the nationally agreed approach will take several years and is constrained by funding. TTA's specific recommendations relating to rest areas are provided within the TTA's 2020 Report.

Road Conditions – Road Maintenance

The road freight industry has been particularly concerned with the poor standard of maintenance on Tasmanian roads, particularly the Bass Highway. Areas of the corridor between Devonport and Deloraine have degraded where pits, grooves and potholes have been greatly impacted by water and the road surface has quickly deteriorated. It is not unusual to witness drivers using overtaking lanes as the preferred lane of travel to improve the driving experience and avoid the full brunt of impacts caused by the poor road surface. Poor road surfaces, unclear line markings, unpredictable surface conditions all contribute to driver fatigue. The deteriorated road conditions may also mean that they are not safe to travel at the posted speed limit otherwise applicable.

Protection of Key Freight Corridors

The TTA supports the identification and protection of key freight corridors within urban planning. The increasing freight task and need to provide security for freight movement must be considered in the current context of pressure for residential development. The TTA considers it essential to provide safe and secure corridors for freight transport.

Network Access for Safer, More Productive Vehicles

Tasmanian freight volumes are projected to increase 65% to 2035, from 2012 base. The majority of the increase will be borne by road, with the Bass and Midland Highways projected for significant increases between 2015 and 2035.

At the same time, Tasmania is pushing ahead with the introduction of larger, safer and better performing road freight vehicle configurations on the road network, including PBS2B 30 metre A-Doubles (for example).

The TTA recommends infrastructure upgrades factor in and support network access for these safer and more productive vehicle combinations, which provide for fewer vehicle movements to effect a specific freight task.

Safer People

Safer Heavy Vehicle Drivers

Tasmania's economy is performing exceptionally well and the estimated unemployment rate for the state was 4.5% in July 2021, 1.5 percentage points below the level of one year earlier.[35] This is the lowest unemployment rate in more than 10 years in Tasmania, with the highest number of Tasmanians ever employed.[36] The Tasmanian transport industry, particularly the road transport sector, is under tremendous pressure to resource the ever-increasing demand for road freight movements and is experiencing a shortage in skilled workers across the board, but most keenly in truck driving and mechanical trade occupations.

Investing in Skills beyond the Heavy Vehicle Driver Licence

A heavy vehicle driver licence is the base level qualification for a truck driving role however the criteria for achieving this does not address the full competency requirements for a person to be a safe and productive new entrant to the industry. There is a mismatch between the skills and knowledge covered in the licensing system and the requirements of heavy vehicle drivers under the heavy vehicle national law, and with the expectations of industry of a competent driver. The development of these competencies – such as load restraint, fatigue management, an appreciation for vehicle mass and dimensions, dynamics, rules around vehicle access to the road network, to name just a few – falls to the industry and to those businesses who are committed to safety and professionalism. The cost of developing professional drivers is borne disproportionately across industry by those operators, who invest in their workforce for the benefit of the industry as a whole. The deficiencies in the current licensing system represent a missed opportunity to lift the professionalism and safety of the industry by instilling safe practices in drivers as they enter the industry. The Tasmanian Transport Association recognises the constraints of heavy vehicle licensing providers, to work within the assessment processes of the licensing framework applying to Tasmania. TTA is also aware that the framework is being reviewed at this time, by Austroads.

The TTA recommends a future heavy vehicle driver licence system needs to urgently address the current age and tenure restrictions and replace these with a comprehensive heavy vehicle driver licensing model that supports the development and recognition of competencies that are critical to the industry and to road safety.

The TTA recommends that heavy vehicle driver licence training for drivers new to the industry include specific information addressing broad competency requirements including, for example, load restraint, fatigue management, heavy vehicle national law, vehicle mass, dimension and loading requirements.

The TTA recommends allocation of resources to the Tasmanian industry to provide the critical training and competency development required for safe and professional drivers that is currently not included in the licensing system.

Driver Licence Medical Standards vs Fitness for Duty

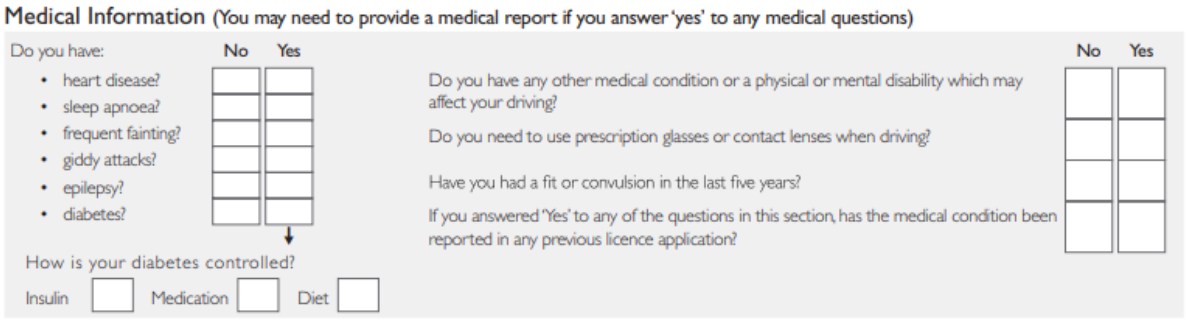
Heavy vehicle driver fitness is an important consideration in road safety. Heavy Vehicle Drivers are (in theory) required to meet the medical standards in the Austroads Assessing Fitness to Drive (AFTD) Guidelines; the "nationally agreed medical fitness standard for driver licensing".

As a condition of holding a driver licence, a person must declare if they have a long-term condition that may impact their ability to drive. In Tasmania, a medical certificate/evidence of meeting the

requirement is specified only for the Multi Combination licence class.[37] Drivers seeking a heavy vehicle driver licence at LR, MR, HR or HC levels are not required to complete a driver medical against the AFTD guidelines as a matter of course.

Otherwise, the requirement to complete the medical is only triggered by a declaration that a person has a long-term medical condition that may impact their driving ability.

Figure 8 - Medical Information sought on Tasmanian Driver Licence Application MR72 07/21



Medical Information (You may need to provide a medical report if you answer 'yes' to any medical questions)

Do you have:	No	Yes
• heart disease?		
• sleep apnoea?		
• frequent fainting?		
• giddy attacks?		
• epilepsy?		
• diabetes?		

How is your diabetes controlled?

Insulin ☐ Medication ☐ Diet ☐

	No	Yes
Do you have any other medical condition or a physical or mental disability which may affect your driving?		
Do you need to use prescription glasses or contact lenses when driving?		
Have you had a fit or convulsion in the last five years?		
If you answered 'Yes' to any of the questions in this section, has the medical condition been reported in any previous licence application?		

The AFTD standards are not 'fitness for duty' standards. These do not take specific account of the nature of the transport task. Drivers who require specific sector endorsements such as a Dangerous Goods Driver Licence, must also meet medical standards as a condition of the licence.

In contrast, transport operators with a strong commitment to safety and with accreditation under the National Heavy Vehicle Accreditation Scheme (NHVAS), along with those with accreditation under the TruckSafe Accreditation scheme, complete regular driver medicals as a condition of accreditation.

Safer Drivers and Other Road Users

Driver distraction and mobile phone use is identified as a significant factor impacting road safety. Heavy vehicle driver regularly observe motorists holding mobile phones, and engaging in a range of other practices which detract from the focus essential to safe driving.

Heavy vehicle drivers are subject to regulated fatigue provision including maximum hours of work and minimum rest periods. TTA considers that fatigue in the light vehicle driver fleet is not subject to the same focus.

Perceptions of light vehicle drivers of dangers around trucks

In considering how to effect behavioural changes for other road users to improve their safety around heavy vehicles, TTA highlights below the findings from a qualitative study conducted in the US around perceptions of light vehicle users road safety around trucks:

> "…passenger vehicle driver's perceptions of increased risk around trucks and general truck safety focused more on the dangers of trucks and the potentially dangerous actions of truck drivers."
> "The key factors motorist perceived to contribute to increased collision risk around trucks were: material thrown up by truck tires, trucks swaying, truck stopping distance, difficulty seeing around trucks, cargo falling off, truck driver error, wind turbulence caused by trucks, time required to pass a truck and truck mechanical

> failure. This finding suggests that while motorists do generally appear to have safety concerns when driving around trucks, their concerns are more focused on the dangers directly caused by trucks and the behaviour of truck drivers but are generally ignorant to the potential dangers of passenger vehicles when driving in the vicinity of trucks.
> **Consequently, when driving around trucks, passenger vehicle drivers are more likely to be focused on what they perceive to be dangers specifically associated with heavy vehicles, rather than focusing on the contributory crash risk factors stemming from their own driving behaviours**".[38]
> (Emphasis added).

Despite the findings that the other party is at fault in around 80% of fatalities where heavy vehicles are involved, learning to share the road with heavy vehicles is not addressed in any meaningful way in current Tasmanian driver education material or assessments.

- The Tasmanian Road Rules 2021 – Handbook available from Service Tas and online, makes one reference to safe practices around heavy vehicles, where motorcycle riders are advised to avoid lane filtering near heavy vehicles or buses.[39]
- The online practice Driver Knowledge Test for motorcycle riders has 35 questions. One of these relates to safety at rail crossings. None of the questions relate to safety around heavy vehicles.[40]
- In addition to the rail level crossing question, the Driver Knowledge Test Questions bank of 170 questions provided online, includes one question relating to heavy vehicles: the Do Not Overtake Turning Vehicle sign.[41]

The TTA believes it is critical that all road users are supported to develop an appreciation for the operational and performance limitations of heavy vehicles and trains, and to develop and apply safe driving practices to share the road safely with heavy vehicles and trains.

In 2021, the TTA, with support from the Tasmanian industry, the Department of State Growth and the Road Safety Advisory Council, hosted a road safety education resource at Agfest.

SafeT360 is a mobile road safety education experience featuring virtual reality. It is based on peer reviewed safety communication research. It will contribute to future research and safety programs everywhere: it is designed so researchers can follow up on its effectiveness and develop initiatives aimed at its 16-25 year-old target public.

SafeT360 uses virtual reality to deliver four critical road safety messages:
• Don't cut in front of trucks
• Don't overtake turning trucks
• Be aware of truck blind spots
• Don't be distracted by your mobile phone.

An episode of Safety Torque was filmed while the SafeT360 truck was in Tasmania. Featuring messages from the SafeT360 exhibition and consolidated by a Tasmanian truck driver talking of his experiences, the episode was broadcast on Tasmanian television and the TTA considers this to have provided valuable road safety messages.

The TTA is planning to bring the SafeT360 experience back to Tasmania in 2022 for an extended time and encourages participation by high school and senior students via the schools in Tasmania.

This information also needs to be provided to those who are instructing and supervising novice drivers in Tasmania – including professional driving instructors, and for parents and volunteer non-commercial driving supervisors.

Figure 9 - The SafeT360 industry road safety education resource at Agfest 2021

The TTA recommends that other drivers and road users, including light vehicle drivers, motorcycle and bike riders, and those responsible for their training and supervision, are provided with information and education about how to share the road safely with heavy vehicles and trains, specific to:

- Safety and legal obligations at level crossings
- Safety and legal obligations where heavy vehicles are turning
- Blind spots around heavy vehicles and the need to limit exposure and risk associated with these
- Safe following distances and maintaining crash avoidance space around heavy vehicles, especially when merging, overtaking, or changing lanes.

The TTA further recommends that this information and education be included within the various publications and resources that support novice drivers including for example, the Heavy Vehicle Road Rules book, Novice Driver Log Books, Novice Driver Knowledge Tests, Novice Driver learning resources such as videos, and in other broader road safety campaigns.

The TTA recommends that resources such as the SafeT360 driver education truck, be readily accessible in Tasmania including to young Tasmanians through secondary schools and other networks.

The TTA recommends an increased focus by Tasmania Police to address illegal mobile phone use by Tasmanian motorists.

The TTA recommends greater visible presence of Tasmania Police on Tasmanian Roads, to deter illegal and risky behaviour by Tasmanian road users including speeding, illegal mobile phone use, drug and alcohol impairment, and not wearing seatbelts.

The TTA recommends the introduction of camera devices with the capacity to detect drivers speeding, using mobile phones and not wearing seatbelts, with revenue from these directed to road safety solutions.

Safer Vehicles

Heavy Vehicles and Safety Features

Safety technologies and systems on heavy vehicles are improving rapidly. Heavy vehicles now typically feature crash avoidance and harm minimising features including

- Under-run protection systems at the front, sides and rear of heavy vehicles
- Autonomous emergency braking
- Electronic stability control and anti-rollover systems
- Fatigue monitoring systems – both those supplied by the manufacturer and those provided by specialist fatigue technology providers
- Lane departure warning systems
- Anti-lock braking and electronic braking systems
- High conspicuity markings to improve visibility of the heavy vehicle
- Cabin rollover protection to enhance the safety of occupants

Heavy vehicle telematics systems provide the opportunity for fleets to monitor the speed of heavy vehicles, the fatigue state of drivers, and the location of the vehicle on the road network. Modern heavy vehicles typically feature a cameras to collect information about the driving task and conditions including dash cams and driver facing devices. The heavy vehicle national law provides for electronic work diaries to record work and rest times and in the past 12 months several providers of these systems have entered the market however uptake of the electronic work diary option is limited.

Adoption of new technology, including uptake of vehicles with braking and stability controls which are mandated for new vehicles, requires investment by transport businesses. The high cost of assets means that the vehicle fleet replacement is constrained, and technology-based safety solutions take longer to become the norm across the industry.

Tasmania has the oldest vehicle fleet in Australia, both in light vehicles and heavy freight vehicles. The average age of passenger vehicles in Tasmania has increased from 12.2 years in 2016 to 12.9 years in 2021. The average age of heavy rigid trucks has increased from 17.1 years to 18.2 years, and for articulated trucks, from 10.9 years to 11.7 years over that same period[42]. This means that newer technologies are taking longer to be realized in Tasmania, particularly in the heavy rigid fleet.

The TTA recommends programs to incentivise transport operators and other workplaces where road transport is a workplace health and safety matter, to invest in upgrades to the current fleet and particularly technology solutions for safety.

The TTA recommends programs to incentivise all Tasmanian motorists to invest in newer vehicles, to reduce the age of the Tasmanian fleet and improve the safety ratings of vehicles on Tasmanian roads.

Safer Speeds

Safe Speeds for Heavy Vehicles

Heavy Vehicles are subject to specific regulatory speed limits which are lower than the maximum speed on Tasmanian roads with a limit of 110kph. Australian Design Rule 65 also applies to specified heavy vehicles built after 1 January 1998, to mandate speed limiting devices providing a maximum speed of 100kph, as part of the vehicle.

The maximum speed for heavy freight vehicles with a GVM over 12 tonnes is 100kph. Lower speed limits apply to other vehicles including those greater than 26m in length, such as A-doubles, which must not exceed 90kph.

Some Tasmanian fleet operators voluntarily set maximum vehicle speeds at lower than the regulated upper speed limit for safety purposes.

Safe Speeds for all Road Users

In any case, the safe speed for vehicles to travel on the Tasmanian road network is not solely determined by the posted speed limit or the regulated limit.

Driving at a speed that is safe for conditions at the time of travel, including road condition, road safety rating and safe system treatment, environmental conditions, the competency of the driver, is a critical road safety factor.

HEAVY VEHICLE NATIONAL LAW

The current legislative framework applying to the road transport sector is highly complex, unwieldy and does not provide the productivity benefits that should flow to high quality operators.

A review of the Heavy Vehicle National Law commenced in 2018 and industry is anxious that this full-scale review result in a modernised and streamlined law that recognises the considerable investments made by businesses committed to high standards of safety, responsible operations, good conditions for employees and quality service to customers. TTA is concerned at the time it is taking to realise safety or productivity improvements from this review. The original timeline for the review indicated that legislation would be presented to Ministers in November 2021, however in May 2021, a two-year HVNL Safety and Productivity program was approved by ministers to implement some reform outcomes and draft a new law; for 2023.

Most road transport businesses in Tasmania are owner-operator, non-employing entities who are not members of any industry association. Extremely busy keeping the wheels turning, these operators don't have established support networks and many struggle to maintain currency with the legal context for their operations.

TTA supports a streamlined and simplified heavy vehicle national law for operators who seek to provide services in a reasonably standardised business context. This will be of great assistance to those smaller operators who are challenged to maintain their knowledge of legal requirements.

TTA also supports a regulatory framework that provides incentives for operators who implement additional systems for safety.

TTA supports the Chain of Responsibility concept embedded within the Heavy Vehicle National Law as this recognises that pressure is often brought to bear on road freight transport activities by parties other than those traditionally within the road transport operation. However, CoR provisions falling under the primary duties category of offences are more difficult to mount a case for, as opposed to the prescriptive offences drivers and operators remain in the front line for penalties for.

TTA supports the National Heavy Vehicle Regulator to conduct in depth investigations to determine and penalise parties in the Chain of Responsibility who have control and influence over the safety of the transport task and who commit offences under the HVNL Chain of Responsibility Provisions.

The TTA recommends greater regulatory focus on chain of responsibility parties external to the transport business who exert control and influence over the safety of the transport task.

INVESTIGATIONS INTO SERIOUS CRASHES INVOLVING HEAVY VEHICLES

The Tasmanian Transport Association notes and supports the efforts of the Australian Trucking Association to establish a dedicated independent body to investigate transport crashes involving heavy vehicles. Such investigations are complex and require specialist expertise to provide meaningful and industry relevant findings that can be used to improve road safety.

The ATA set out this position in a recent submission to a Senate Inquiry:

> "Presently, road crashes are investigated by the police and the coronial system. While this system may meet the needs of the legal and insurance systems, it is not achieving the reduction in road crashes that governments should be seeking.
>
> In contrast, the Australian Transport Safety Bureau (ATSB) conducts independent investigations of transport crashes and other safety occurrences in the aviation, marine and rail modes of transport. Lessons arising from ATSB investigations are used to reduce the risk of future accidents and incidents through the implementation of safety action by industry and the Government.
>
> The ATSB also seeks to improve safety and public confidence in those transport modes by pursuing excellence in safety data and research and fostering safety awareness, in addition to independent investigation of accidents.
>
> The ATSB is an independent statutory agency that is separated from transport regulators, policy makers and service providers. It is not a function of the ATSB to apportion blame or to provide a means for determining liability.
>
> As stated by the ATSB, no blame does not mean no responsibility. It means that disciplinary action and criminal or liability assessment are not part of an ATSB safety investigation and should, if necessary, be progressed through separate parallel processes.
>
> Introducing ATSB investigations of road crashes involving trucks would supplement, not replace, existing police and coronial investigations and would provide valuable insights and recommendations for improving safety.
>
> That's why the ATA has long argued for the role of the ATSB to be extended to include crashes involving heavy vehicles; the Productivity Commission's draft report on the national transport regulatory reforms includes a similar recommendation."[43]

The TTA recommends the role of the Australian Transport Safety Bureau be extended so it can carry out independent, no-blame, safety investigations of road crashes involving heavy vehicles.

HEAVY VEHICLE DRIVERS AS FIRST RESPONDERS

Truck drivers are often first on the scene of road crashes and play an important role in their response to an accident, including rendering critical first aid, contacting emergency services, and taking steps to secure the scene of an accident.

Ambulance wait times in Tasmania are greater than in any other state, with response times in the 90th percentile for capital cities Tasmania 25.6 minutes, compared with 22.2 minutes in NSW and 14.3 minutes in the ACT. In the statewide response time in the 90th percentile, response times in Tasmania are again highest in the nation, at 32.8 minutes, compared with 24.9 minutes in NSW and 14.3 minutes in the ACT.[44]

A recent national survey by the Northern Territory Road Transport Association and the Western Roads Federation (at this point unpublished) of 156 remote and regional truck drivers found that nearly 70% had been first responders at road accidents. Of these, 75% stated that they had been first responder for over 30 minutes until professional help arrived.

In nearly 70% of the cases there were fatalities or people with serious injuries who required assistance. In most cases, the truck drivers reported feeling confident at the time they were being a first responder.

After the incident, 80% reported continuing with their trip, and less than one quarter subsequently completed an incident report for their employer. In just over 30% of the time, the employer took time to talk with the driver after they had been a first responder, and fewer than 15% participated in any post-incident debriefing, despite over two thirds advising that they were impacted at the time of being a first responder.

In a combined submission to the Joint Select Committee on Road Safety in March of this year, the Northern Territory Road Transport Association (the peak industry body for the NT road transport and logistics industry), Western Roads Federation (the peak industry body for the WA road transport and logistics industry), and TraumaSim Group (an Australian owned company providing trauma simulation products and services for the Defence, Medical, Police, Mining and Education markets in Australia, USA, Europe and the Middle East), detailed the outcomes of a pilot program to provide training for truck drivers as first responders. The submission states:

> A very limited pilot training program was conducted to train Truck Drivers in the NT and WA. The program was funded by the Federal Government Heavy Vehicle Safety Initiative. The 4-hour training program used advanced training techniques used by the Military and Police.
> The program leverages work undertaken by TraumaSim with the:
> - Queensland Police. Where a training program resulted has resulted in over
> - 60 lives being documented as saved in 3 years by the Queensland Police. An achievement that subsequently led to them receiving the Global Policing Award 2019, in London.
> - ADF. Where TraumaSim has helped prepare combat medics and soldiers prior to deployment to prepare for the realities of dealing with traumatic injury. This preparation has helped save lives on the battlefield and is equally applicable to remote area road safety.

The above-mentioned training has also been linked to reducing the impact of Post Traumatic Stress Disorder (PTSD) for the responding personnel as it improves resilience and competency, providing them with the confidence that they did all they could at the incident.

The program taught truck drivers:

- Action to be taken after coming upon an accident, including ensuring personal safety, communication of accident to other road users, accident site protection.
- How to communicate directly with emergency services, including RFDS, and what sort of information will be required.
- Maintaining safety at the scene for both the driver and others, in daylight and night-time incidents.
- Conducting a more detailed casualty assessment (once critical life saving techniques have been applied) to look for and identify any other injuries that may require treatment and/or management.
- Dealing with trauma victims for extended periods before the arrival of emergency services personnel and improvising when needed.
- How to identify and recognise signs and symptoms of PTSD and/or other mental health issues and where to seek help."

The TTA recommends that such programs be further explored and made available in Tasmania to support truck drivers who are often first responders at road crashes.

The TTA recommends that the role of truck drivers as first responders be recognised and support provided to drivers and to transport businesses to implement practices that reduce trauma for truck drivers arising from exposure to road crashes.

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