

**Submission
No 55**

SPEED LIMITS AND ROAD SAFETY IN REGIONAL NSW

Organisation: National Road Transport Association

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NATIONAL ROAD TRANSPORT ASSOCIATION

**Staysafe Committee Inquiry into speed limits and road
safety in regional New South Wales**

5 July 2022

Executive summary

Speed limits are not a silver bullet for road safety improvement.

While speed must always be appropriate to the road conditions, NatRoad strongly believes governments at all levels need to massively upgrade infrastructure to drive better safety outcomes.

There is no better example than the upgrade currently underway on the Kings Highway, the State highway within the Australian Capital Territory and New South Wales linking Canberra with Batemans Bay on the NSW South Coast. It focusses heavily on construction of overtaking lanes and the installation of safety treatments including widened centrelines, widened shoulders, roadside safety barriers, and audio-tactile line marking.

These infrastructure upgrades are, in NatRoad's view, much more important than speed management, which all too frequently becomes a revenue-raiser.

NatRoad advocates for separation of vulnerable road users, such as pedestrians and cyclists, from heavy vehicles, given the higher likelihood of a fatality at increased speeds for vulnerable road users.

NatRoad has made representations to Transport for NSW to have vulnerable road users (such as cyclists) excluded from certain highways, as they are with freeways. A risk management approach must be adopted to restrict bicycle access to the Pacific Highway.

Variable speed limits are becoming more prevalent in NSW. Our view is that variability can lead to inadvertent non-compliance, largely unrelated to safety issues, and is a poor way to deal with safety.

They cause frustration, and at times anger - expressed by light vehicle drivers who often overtake trucks in a dangerous manner. NatRoad's solution is, wherever possible, for separation of heavy and light vehicles, together with education in appropriate driving behaviour around heavy vehicles.

Better safety outcomes are achieved if all heavy vehicles travel at the same maximum speed. This reduces the need for overtaking, for example by a B double seeking to overtake a road train. The difference in handling and stability for different types of combinations at a 10kmh speed difference is minimal and does not outweigh the benefits of the same maximum speed.

It is notable that a 2020 NTARC report shows that 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 figure has exceeded 90% in past reports.

Introduction

1. The National Road Transport Association (NatRoad) is pleased to make a submission to the NSW Staysafe Committee inquiry in relation to speed limits and road safety in regional New South Wales.
2. NatRoad is Australia's largest national representative road freight transport operators' association. NatRoad represents road freight operators, from owner-drivers to large fleet operators, general freight, road trains, livestock, tippers, express car carriers, as well as tankers and refrigerated freight operators.
3. NatRoad has a deep commitment to improving road safety. Reducing heavy vehicle fatalities and serious injuries is one of NatRoad's core objectives.
4. As a general principle, designing roads and vehicles to be safer is more effective than relying on driver behaviour, a matter inherent in term of reference (b) that is "The impact of improved vehicle technology and road infrastructure." Priority should be given to how we can 'design out' inherent hazards or minimise human error using technology and engineering solutions. Those engineering solutions as they relate to infrastructure creation and maintenance, should, where possible, separate heavy vehicles from light vehicles.
5. This submission first discusses the NatRoad policy regarding speeding and then specifically addresses the issue of differential or variable speed limits. We then address the tragic issue of suicide by truck.

Speeding and Safety

6. NatRoad policy regarding speed management is that it is not a silver bullet for road safety improvement. Whilst speed must be appropriate to the road conditions, there needs to be a more holistic examination of road safety issues for optimal solutions. This is shown in the upgrade currently underway on the Kings Highway.¹ The upgrade emphasises the construction of overtaking lanes and the installation of safety treatments including widened centrelines, widened shoulders, roadside safety barriers, and audio-tactile line marking. These infrastructure upgrades are, in NatRoad's view, much more important than speed management per se.
7. On the face of it, the NatRoad position contrasts with the statement made in the National Road Safety Strategy 2021-2020 (the Strategy),² where safe speed is considered one of the four pillars of the road safety Safe System, and the issue of remote area safety is addressed as follows:

*Based on the rate of deaths per 100,000 people, the risk to an individual of being killed on a road in a remote area (ABS Remote and Very Remote Australia) is 11 times the risk of living in a major city. Of the 1,136 people killed in 2018, 116 were in remote areas of Australia. There is a greater proportion of unsealed roads and other lower quality roads with lower traffic volumes **and relatively high speed limits in remote areas.***³

8. Some of the views expressed in the Strategy are based on assumptions that on analysis do not necessarily hold and we believe that is the case for the bolded words, especially as

¹ [Kings Highway safety upgrade - Kings Highway - Projects - Roads and Waterways – Transport for NSW](#)

² [National Road Safety Strategy 2021-30](#)

³ Id at p16 NatRoad emphasis

they relate to heavy vehicles. For example, we note the work of Jurewicz et al⁴. This detailed scholarly work indicates in formal terms, the feedback that NatRoad members have provided on the issue of speed management i.e., that separation and preferencing of heavy vehicles to minimise the probability of road conflicts is more important than speed management per se: Safe System performance of road infrastructure cannot be wholly achieved by controlling impact speeds and angles (i.e., geometry and layout), especially where so-called relatively higher speeds are necessary to meet the mobility function and the freight task over Australia's extensive road network. This means that for optimal road safety solutions, more weight should be placed on minimising the probability of road user conflicts. Road user separation, minimisation of number of conflict points, and greater management of road user movements can all be used to provide solutions supporting the Safe System vision, along the lines of the improvements to the Kings Highway discussed earlier.

9. The propositions in the prior paragraph are borne out where Jurewicz et al say:

*Review of crash reconstruction research suggests that estimated or measured impact speed of a vehicle is generally a poor predictor of crash severity, with the exception of pedestrian and cyclist crashes.*⁵

10. NatRoad policy especially emphasises separation of vulnerable road users, such as pedestrians and cyclists, from heavy vehicles, given the higher likelihood of a fatality at increased speeds for vulnerable road users.
11. In this context, NatRoad representations to Transport for NSW have included submissions that vulnerable road users such as cyclists should be excluded from certain highways, as they are with freeways. A risk management approach should be adopted to restricting bicycle access to roads such as the Pacific Highway where road conditions are not conducive to a mix of freight and leisure vehicles (such as where cycle lanes or wide road shoulders are absent).
12. NatRoad members are firmly of the view that bicycles and traffic (especially heavy vehicle traffic) at 90/100km don't mix. Safety is often compromised with the application of the relevant road rule in 100/110km zones. The rule requires drivers of a motor vehicle to leave a minimum distance when passing bicycle riders. The rule requires all drivers to leave at least 1 metre between the motor vehicle and a bicycle rider when passing a bicycle rider on a road with a speed limit of 60km/h and below. Drivers must leave at least 1.5m when they pass a bicycle rider on a road with a speed limit above 60km/h.⁶
13. So, extending the example, with riders sometimes two abreast the road rules just discussed combined with undulating roadways makes heavy vehicle travel along parts of the Pacific Highway where riders are present, a dangerous occurrence. We argue for better separation and/or banning of riders where road conditions warrant it (such as where cycle lanes or wide road shoulders are absent). We commend such an approach to the Committee.

⁴ [Jurewicz C 256 Proposed vehicle impact speed - severe injury probability relationships for selected crash types.pdf \(acrs.org.au\)](#)

⁵ Id p 3

⁶ The road rule is discussed here: [The Minimum Passing Distance Rule and What Bike Riders Can Do – Bicycle NSW](#)

14. NatRoad also points out to the Committee that the extract from the Strategy set out at paragraph 7 above, refers to road quality. This is an important issue, impinging on the issue of appropriate road design which both assists with reduction of road incidents and, in particular, the implicit signals that road design communicates to drivers, including about speed. This is summed up by Williamson⁷ where she says:

*Unfortunately, there is considerable evidence that simply setting lower speed limits is a poor approach to safety as compliance often presents problems for drivers. Compliance is especially difficult when roads communicate conflicting information about appropriate speeds to drivers. To be effective, speed limits need to be creditable to drivers.*⁸

15. The NatRoad feedback is therefore that enforcement must be credible (not perceived as primarily revenue raising) and speed limits creditable, that is accepted as appropriate by road users. Again, as summed up by Williamson:

*In summary, the problems for drivers in managing speed suggests that speed limits must be compatible with the characteristics of the road system and be credible. **Road safety problems should not be solved by only reducing speed limits but must be accompanied by modifications to the road system such as traffic calming and self-explaining roads.** These signal to drivers that a slower speed is needed and, even better, encourages them to do so as they naturally drive at lower speeds and do not require constant checking of the speedometer.*⁹

16. In essence, speed management is not only about regulating the speed but also about planning and designing appropriate road layout and networks to obtain the proper speed. This is separate from ensuring that vehicles, including heavy vehicles, maintain posted speed limits.
17. Many road incidents occur where speed limits are exceeded. For example, Ayuso *et al* concluded that the risk of accident increases with exceeding speed limits.¹⁰ In this context, NatRoad points out that the Heavy Vehicle National Law (HVNL) includes provisions which prohibit any person entering into a contract or asking, directing or requiring a driver of a heavy vehicle or a party in the chain of responsibility to do or not do something that would cause the driver to exceed a speed limit.¹¹
18. The HVNL also requires vehicles with a GVM over 12 tonnes to be fitted with speed limiters¹² and makes it an offence to tamper with speed limiters fitted to a heavy vehicle.¹³ NSW has in fact derogated from the HVNL in this context to apply a penalty to an operator. Part 6.2 of the *Road Transport Act 2013* (NSW) provides that the responsible person for a vehicle to which that Part applies is guilty of an offence unless the vehicle

⁷ A Williamson *Why do we make safe behaviour so hard for drivers?* Journal of Road Safety Vol 32, 1 2021 24 36

⁸ *Id* at p27

⁹ *Ibid* NatRoad emphasis

¹⁰ Ayuso M, Guillén M, Pérez-Marín AM. *Time and distance to first accident and driving patterns of young drivers with pay-as-you-drive insurance.* Accident Analysis & Prev. 2014; 73:125–31

¹¹ S26E

¹² Discussed here, inclusive of the disadvantages of speed limiters: [What vehicles have a speed limiter in Australia? \(driverknowledgetests.com\)](http://www.driverknowledgetests.com)

¹³ Above note 11 and S 93 HVNL

is speed limiter compliant (within the meaning of that Part) when the vehicle is being driven on a road.¹⁴

19. These and other factors have in recent years, led to the proportion of heavy vehicle incidents caused by inappropriate speed declining to 2019. This was made clear in a report about major heavy vehicle incidents released by the National Transport Accident Research Centre (NTARC) on 10 June 2021.¹⁵ That report shows the trend did not continue in 2020, with the same percentage of losses attributable to inappropriate speed in 2020 as 2019: 13.8%.¹⁶
20. Two important findings from the NTARC work are critical in linking speeding issues with road safety outcomes. First, the report shows that over three quarters of inappropriate speed crashes (77.1%) are “off path on curve” crashes. These are essentially roll over incidents. The report says that any crash where the vehicle does not remain upright is a critical concern due to the vastly increased risk of serious injury or death to the driver (and any other occupants). Consequently, given the high proportion of rollovers resulting from inappropriate speed, prevention of this type of crash needs to be given the highest priority within the transport industry.
21. The issue of the best means to prevent these crashes is not mentioned in the NTARC report. The NatRoad view is that making necessary infrastructure adjustments, particularly where off-camber incidents are prevalent, should be a high priority for governments; hence this submission commending the Kings Highway improvements. We reiterate that infrastructure adjustments must be made, not just penalties for speeding imposed or other punitive measures introduced, or speed limits reduced across-the-board.
22. Working to improve infrastructure would better enable heavy vehicle drivers to predict appropriate speeds on corners (e.g. through better accuracy on yellow speed corner warning signs which are not always reflective of heavy vehicle appropriate speeds, especially where “hanging” or uniform density loads are carried.) In addition, most heavy vehicle inappropriate speed crashes appear likely (in the absence of hard data or a full forensic investigation) to occur at less than the posted speed limit. Accordingly, increased enforcement of the speed limit is unlikely to significantly reduce the incidence of these types of crashes. So, if speed enforcement is to be undertaken, it is better that it occurs on or adjacent to bends than on straight sections of road.
23. The other issue highlighted in the NTARC report also points to better roads assisting with fewer inappropriate speed incidents. The report says in relation to evaluation of speed zones in which speed related incidents occur:

While it is unlikely to be a surprise that the largest proportion (36.4%) of inappropriate speed crashes occur in 100km/h zones, when compared to the distribution of speed zones for all incident causes, it is 80km/h and 90km/h zones which are over-represented, with 22% of Inappropriate Speed crashes occurring in these speed zones compared to 13.1% for all crash types.¹⁷

¹⁴ See s 93(8A) which provides for the operation of Part 6.2.

¹⁵ NTI/NTARC Major Accident Investigation 2021 Report

¹⁶ Id p9 (noting reported losses are \$50k and above)

¹⁷ Ibid

24. The report therefore indicates that B-roads are likely to present an elevated risk of inappropriate speed crashes when compared with highways. Accordingly, NatRoad supports current government measures to better shape roads to prevent incidents as the preferred method of reducing inappropriate speed incidents for heavy vehicles.

Variable Speed Limits

25. There are three broad issues with which NatRoad is concerned in relation to variable speed limits. First there are roads in NSW where there is a different, lower speed limit for trucks, notoriously the Mount Ousley road.¹⁸ Secondly, there are roads where variability in speed is commonplace. That variability can lead to inadvertent non-compliance, largely unrelated to safety issues. For example, recently, a member whose driving record had been unblemished by a speeding fine for decades received a speeding infringement for traveling in the NorthConnex tunnel system at the normal speed when a lower variable speed limit was, allegedly, posted on flashing notices. NatRoad recommends a greater emphasis of warning signs that are suitably large and placed at decision points along freight routes, including rural and regional freight routes.
26. Thirdly, is the issue of different lower maximum speeds for road trains in NSW when compared with other heavy vehicles.
27. Before dealing with the detail of the third issue, in respect of the differential speed limits for trucks mentioned in relation to our first and second concerns, we note that varying the speed limits in the manner described is a poor way to deal with safety. They cause frustration, and at times anger, expressed by light vehicle drivers. These drivers often overtake trucks in a dangerous manner where a truck has a lower speed limit, and is travelling at that lower speed, making the heavy vehicle appear to be taking a “carefree” attitude to reaching a destination efficiently.
28. Where heavy vehicles are required to proceed at a lower speed than light vehicles on the same road many problems arise, inclusive of a stimulus for poor light vehicle behaviour. The NatRoad solution is, wherever possible, for separation of heavy and light vehicles, an issue incorporated in a proposed upgrade of the Mount Ousley road network, together with development of programmes that reinforce appropriate driving behaviour around heavy vehicles.
29. Relatedly, we note that in respect of fatalities involving light and heavy vehicle drivers, the NTARC report shows that 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.¹⁹ This figure has exceeded 90% in the past.²⁰ The issue is that light vehicle driver education about interactions with heavy

¹⁸ Mount Ousley is the most notorious in NSW. But it is now proposed that heavy and light vehicle traffic will be separated: [Project documents - Mount Ousley interchange - Projects - Roads and Waterways – Transport for NSW](#)

¹⁹ Above note 15 at p 17.

²⁰ [NT11183-NTARC-Accident-Report-297x210-4C-FINAL.pdf](#) shows that for 2015 the figure was 93%.

vehicles is an increasing necessity, especially given the high level of fault attributable to light vehicle drivers in fatal incidents involving heavy vehicles.

30. In relation to the third issue, NatRoad policy is that better safety outcomes are achieved if all heavy vehicles travel at the same maximum speed. This reduces the need for overtaking, for example by a B double seeking to overtake a road train. The difference in handling and stability for different types of combinations at a 10kmh speed difference is minimal and does not outweigh the benefits of the same maximum speed. Any disparity between speed limits of different vehicle classes can be problematical, but disparity in truck speed limits inevitably encourages those trucks permitted to travel at the higher limit to overtake slower trucks.
31. On single lane roads this puts the overtaking vehicle on the wrong side of the road for an extended period which is, to say the least, undesirable. The risk is reduced on multi lane highways, but road trains generally operate on rural and remote roads and highways which rarely offer more than a single lane in each direction (hence the NatRoad support for the construction of overtaking lanes, earlier expressed). In that environment all trucks must operate to the same maximum speed limit. Therefore, NatRoad does not agree with the system installed in NSW where, via permit, road trains are limited to 90kmh. Attachment A is a document, jointly prepared by NatRoad and the National Heavy Vehicle Regulator, which sets out the differences between road trains in NSW and elsewhere, particularly in relation to speed. We recommend to the Committee that it find that the lower speed limit for road trains is unjustified and causes rather than reduces road safety problems.
32. Finally in this context, we note that a NatRoad member in commenting on an earlier draft of this submission said:

With high productivity freight vehicles' use rapidly growing through regional NSW Highways, we are seeing a three-speed system – 90, 100, 110 – all on the same road. The Semi's and B-Doubles are more and more competing with the cars for overtaking sections. This will inevitably lead to more cars using less ideal locations to move past trucks – safety suffers.

Suicide by Truck

33. Suicide is also a problematic issue: “death by truck” is a disturbing and increasing phenomenon. In authoritative research, 37.5% of fatal truck and car crashes (multi vehicle incidents) in 2017 were indicated or strongly indicated to be suicides by the driver of the car.²¹ Members have reported that light vehicles often speed up and direct the vehicle to an oncoming truck as a means of committing suicide.
34. This is simply tragic, not only for the victim but for those truck drivers who may suffer trauma from such incidents. There needs to be urgent research as to why this is a way in

²¹ <https://www.cilta.com.au/news-ta-2019-ntarc-suicide-by-truck-figures-a-shock>

which people increasingly choose to take their own lives. Further, there can be no zero road toll where the opportunity for this kind of behaviour remains, particularly where road incidents are not clearly of the character of suicide and area therefore considered “road incidents.” That means that road separation infrastructure, a matter emphasised earlier in this submission, should be prioritised to advance road safety. Similarly, suicide reduction/prevention measures should be canvassed by Government despite the exclusion of road deaths that are clearly suicides (and other intentional acts like murder) from the road toll statistics.²² In NatRoad’s view whilst suicide prevention is a general health issue, suicide by truck is clearly a road safety issue.

Conclusion

35. NatRoad is committed to road safety. There are many issues associated with an examination of speed management, with the NatRoad priorities based on improved road infrastructure and having enforcement of speed limits credible (not mere revenue raising) and the limits themselves creditable.
36. These fundamentals do not change on rural and remote roads but the need for more appropriate infrastructure development and improvement in the standard of roads is made more pressing once focus is given to ways to improve safety on those roads.

²² Discussed here <https://www.nrspp.org.au/2020/04/30/nrspp-commences-delivery-of-austrroads-collaborative-suicide-in-road-transport-project/>






Operation of Class 2 Road Trains

December 2021

The information in this document has been collated from various publications, for further information it is recommended to refer to relevant notices.






- These road trains are eligible to operate under the [National Class 2 Road Train Notice 2020](#).
- While the notices provide access to networks, jurisdictions can still place restrictions on maps such as mass restrictions on structures and/or stacking distance restrictions at certain intersections, also travel restrictions.
- When operating as a class 2 road train, vehicles must meet the requirements of the **Heavy Vehicle (Mass, Dimension and Loading) National Regulation**, specifically the axle mass spacing schedules.
- There are also Performance-Based Standards (PBS) vehicles such as A-doubles that travel on dedicated networks at higher masses (e.g. high productivity freight vehicles in Victoria under a different Notice).

Eligible Vehicles (Type 1 – up to 36.5m long)

Type 1 combinations (up to 36.5m long)	Maximum length limit (m)	States where operation is permitted			
		NSW	QLD	SA	VIC
 <p>A-double</p>	36.5*	✓	✓	✓	✓
 <p>B-triple (Modular)</p>	35.0	✓	✓	✓	✗
 <p>B-triple</p>	36.5	✓	✓	✓	✗
 <p>AB-triple</p>	36.5	✓	✓	✓	✗
 <p>Rigid truck towing two trailers</p>	36.5	✓	✗	✓	✗

* A separate and additional road network for A-doubles up to 30.0m long exists in South Australia only

Eligible Vehicles (Type 2 – up to 53.5m long)

Type 2 combinations (up to 53.5m long):				
States where operation is permitted:	NSW	QLD	SA	VIC
	✓	✓	✓	x
Allowable type 2 combinations:	Maximum length limit (m):			
A-triple 	53.5			
AB-triple 	44.0 [†]			
BAB-Quad 	53.5			
ABB-Quad 	53.5			
Rigid truck towing two trailers 	47.5			

[†] A separate and additional road network for AB-triples up to 42.0m long exists in South Australia only.

Speed Limits

Note: While the road rules generally specify speed limits for heavy vehicles, Notices may have further restrictions (e.g. speed limits) as a condition of the Notice.

State or territory	The maximum speed limit for road trains #	Publication	Contact details
New South Wales	90km/h Maximum speed limit of a road train operating under the National Road Train Notice.	National Class 2 Road Train Operator's Guide *Current Transport for New South Wales policy	Contact Roads and Maritime Services Transport for NSW Road Rules webpage
	100km/h Any other heavy vehicle (unless conditioned otherwise)	New South Wales Road Rules 2014	
Queensland	90km/h (Including B-triples)	Transport Operations (Road Use Management – Road Rules) Regulation 2009,	Contact Transport and Main Roads Queensland Road Rules webpage
South Australia	100km/h On the Eyre Highway, West of Port Augusta and Stuart Highway, North of Port Augusta.	Traffic Regulations, Schedule 3 – Australian Road Rules 1999	Contact DIT South Australian Road Rules South Australian Speed limits
	90km/h On any other road in SA	South Australian Road Traffic (Road Rules – Ancillary and Miscellaneous Provisions) Regulations 2014.	
Victoria	100km/h	Road Safety Road Rules 2017	Contact Department of Transport Victoria Victorian Road Rules
Northern Territory	100km/h For a vehicle that meets the description under regulation 32 of the Motor vehicles (standards) Regulations 2003	Motor Vehicles (Standards) Regulations Australian Vehicle Standard Rules	Contact the Northern Territory Government Northern Territory Road Rules
	90km/h A road train that does not comply with regulation 32 of the Motor vehicles (standards) Regulations 2003	Traffic Regulations, Schedule 3 – Australian Road Rules 1999	
Western Australia	100km/h or as stipulated on the authorised network	Road Traffic Code 2000	Contact Department of Transport Western Australia WA Heavy Vehicle Driver – Tips & Guide

Key State Specific Conditions

NSW	<ul style="list-style-type: none"> An eligible road train that is a Type 1 combination consisting of a rigid truck and two trailers must not exceed 79t. An eligible road train that is a Type 1 A-Double transporting livestock must be fitted with a tri-axle converter dolly and the converter dolly must not exceed General Mass Limits when operating east of the Newell Highway. A prime mover in a B-Triple or AB-Triple must have an anti-lock braking system complying with third edition Australian Design Rule 64.
QLD	<ul style="list-style-type: none"> An eligible road train operating in QLD may not have a quad axle group on any its components when operating on a State controlled road.

Higher Mass Limits Conditions

Note: These telematics conditions apply via the Notices [here](#)

NSW	<ul style="list-style-type: none"> A vehicle operating at Higher Mass Limits (HML) under this Notice must be enrolled in one of the following telematics application under the National Telematics Framework: <ol style="list-style-type: none"> The Telematics Monitoring Application (TMA) with Transport Certification Australia (TCA); or The Intelligent Access Program (IAP) with Transport for NSW (TfNSW).
QLD	<ul style="list-style-type: none"> Vehicle/s must have an Intelligent Transport System (ITS) approved by Transport Certification Australia (TCA) installed for the purpose of the IAP, for use by an IAP service provider to monitor the relevant monitoring matters for an intelligent access program vehicle.