

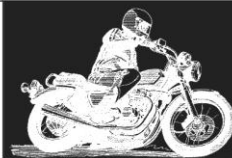
National Transport Commission

Public Submission

Developing technology-neutral road rules for driver distraction

February 2019

MOTORCYCLE COUNCIL
OF NEW SOUTH WALES
INCORPORATED



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About the Motorcycle Council of NSW Inc.

The Motorcycle Council of NSW Inc. (MCC) is an internationally recognised umbrella group for motorcycle clubs, associations and ride groups in the state of New South Wales, representing over 50 clubs, with more than 41,000 riders.

Established in 1981, MCC is recognised as the peak motorcycle representative body in NSW and subject matter experts on many complex issues dealing with motorcycling, including crash data and statistics, traffic data and congestion information.

MCC has published documentation that has been referenced worldwide by overseas motorcycling and traffic bodies, and has produced video training films that have been utilised and referred to by many overseas trainers, researchers and ride associations.

The MCC wishes to thank the National Transport Commission for this opportunity to make a submission in response to the “Developing technology-neutral road rules for driver distraction” issues paper.

Should you require further information on the information contained within this submission, please feel free to contact the MCC enquiries@mccofnsw.org.au or 1300 NSW MCC (1300 679 622).

Regards,

Brian Wood
Secretary

Comments on motorcycle specific distractions not discussed in the Issues Paper:-

1/ Communication Devices

There are range communication devices available that can be fitted to motorcycle helmets. These devices can be activated by buttons on the device itself, buttons on the handlebars or voice activated. Features available include GPS, phone, music, as well as rider to rider and rider to pillion communication.

2/ Helmet 'Heads Up' displays

Helmets with an integral Heads Up Displays (HUD) are in development while aftermarket clip on HUDs are currently available. These provide information such as route directions, weather, time and speed. Potentially they could be used to communicate Cooperative Intelligent Transport System information.

Some HUDS are transparent so the rider can see through them. Non transparent versions, being mounted close to the eyes take up more of the field of view than do HUDs designed for in cars

Either style potentially requires refocusing the eyes from far to near field and back again.

Answers to Questions

Defining the driving task

Question 1. Does the proposed definition include all the key functions required to safely perform the driving task?

Response:- The Motorcycle Council of NSW (MCC) has not been able to identify a key function that is not included in the proposed definition.

A common definition of driver distraction

Question 2. Does the proposed definition capture all the behaviours that lead to driver distraction and a reduction in driving performance?

Response:- The proposed definition does not recognise that a driver has a limited attentional capacity and that this attentional capacity is shared between the driving task and secondary activities. In some situations the attentional capacity required for the driving task will be high leaving little or no attentional capacity for secondary activities. In other situations the attentional capacity required for the driving task will be low leaving some capacity for secondary activities. In other situations the driving task will be so demanding that the driver has insufficient attentional capacity to deal with all the driving tasks.

This effect is sometimes referred to as having \$10 worth of attention to devote to the driving/riding task. In some situations only \$7 worth of attention is required for the driving task which would leave \$3 for secondary activities. In poorly designed or complex driving environments, more than \$10 of attention may be required and the driver/rider has to prioritise where to place their attention.

Permitted secondary activities need to be restricted to those that can be interrupted immediately so the driver/rider can divert all their attentional capacity to the driving task.

A rider of a motorcycle has to pay more attention to road surface defects such as potholes, cracks and gravel as these defects can potentially capsize a single track wheel. 'Looked but failed to see' by drivers is a common cause of motorcycle crashes so motorcyclists have to pay particular attention to the actions of other vehicle operators. The additional attention required for these avoidable distractions reduces a rider's attentional capacity for other tasks.

The definition of distraction needs to recognise:-

- that a driver has a limited attentional capacity and that this attentional capacity is shared between the driving task and secondary activities.
- the proportion of this limited attentional capacity that needs to be devoted to the driving task will depend on the complexity of driving environment and the type of vehicle being driven/ridden.
- Secondary activities are restricted to those that can be immediately interrupted.

Types of driver distraction

Question 3. How could a distinction between manageable and unmanageable levels of driver distraction be used to inform the way distraction is regulated? What evidence-based distinctions could be considered?

Response:- as a driver has limited attentional capacity, what would be a manageable distraction in one situation would be unmanageable in another. Regulating levels of distraction could therefore prove to be challenging.

As Australia is to introduce a self certification system for automated vehicles, the issue of how a human driver will manage taking over the driving task when required will be one that Automated Driving System Entities (ADSE) will need to address. How ADSEs intend to deal with this issue could inform how manageable and unmanageable levels of driver distraction could be regulated.

The human driver of a Level 3 automated vehicle should not be able to devote so much attentional capacity to a secondary activity that they have insufficient awareness of the driving environment to safely resume control of the vehicle.

Clear and consistent approach in the Australian Road Rules

Question 4. Should conventional and technology-based causes of distraction be treated equally in the Australian Road Rules? Why?

Response:- Yes, as both causes of distraction add to the cognitive workload and use up attentional capacity.

Responsibility for distraction

Question 5. Can you provide examples of effective non-regulatory approaches to driver distraction that assist drivers to self-regulate their behaviour in a dynamic driving environment?

Response:- Generally drivers don't appreciate how significant a causal factor distraction is in road trauma. While there have been educational campaigns regarding the use of mobile phones, there needs to be educational campaigns for all forms of distraction.

Shared responsibility

Question 6. Can you provide examples of strategies successfully implemented by other international jurisdictions and industries (for example, aviation) that could be applicable to driver distraction?

Response:- the MCC is not able to provide and examples successful strategies implemented by other international jurisdictions and industries.

The concept of chain of responsibility

Question 7. Are there other parties besides the vehicle driver who can influence the risk of driver distraction? If so, are there mechanisms to ensure those parties are doing all that is reasonably practicable to ensure safety?

Response:- designer of the vehicle can play a significant role in influencing driver distraction. The designer can limit the number and type of secondary activities available to those that can be immediately interrupted. The Human Machine Interface (HMI) needs to be designed to minimise the attentional capacity required to operate it.

These are issues ADSEs will need to address under the self certification system.

Technologies that can assist with (and distract from) the driving task

Question 8. Can you provide examples of effective strategies for ensuring that new in-vehicle technology and mobile apps minimise driver distraction?

Response:- the MCC is not able to provide and examples successful strategies.

Transition towards automation

Question 9. Can you provide examples of strategies to ensure that users of partially automated vehicles are fully informed about their responsibilities, and the limitations of their vehicle's technology?

Response:- As Australia is to introduce a self certification system for automated vehicles it will be the ADSE's responsibility to fully inform users of the limitations of their vehicles technology. Recent crashes of automated vehicles have demonstrated that warnings provide in the owner's manual and the like are insufficient. It appears there needs to be comprehensive training program with drivers being accredited to drive a particular model of vehicle.

Prescriptive and performance-based approach to regulation

Question 10. What evidence is available in support of a performance-based approach or a prescriptive approach for managing the risks of driver distraction?

Response:- a mixture of both will be required. For technology that is well developed prescriptive rules provide certainty, clarity and uniformity. For emerging technology performance based rules that allow for future innovation and technology changes are required.

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