

**Submission**

**No 25**

## **DRIVER AND ROAD USER DISTRACTION**

**Organisation:** Outdoor Media Association

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**Position:** Chief Executive Officer

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27 April 2011

Staysafe  
Joint Standing Committee on Road Safety  
Parliament House  
Macquarie St  
Sydney NSW 2000

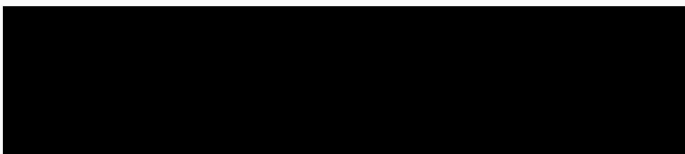


Dear Committee

The Outdoor Media Association is grateful for the opportunity to contribute to your *Inquiry into Driver and Road User Distraction*, by way of the enclosed submission and DVD disk.

Please contact me if you would like to discuss any aspect of this submission further. We are also available to attend a public hearing to provide further information.

Yours sincerely



Charmaine Moldrich  
Chief Executive Officer

# **OUTDOOR MEDIA ASSOCIATION**

**SUBMISSION TO  
PARLIAMENT OF NSW  
JOINT STANDING COMMITTEE ON ROAD SAFETY**

**Inquiry into  
Driver and Road User Distraction**

**27 April 2012**

## **1. EXECUTIVE SUMMARY**

Overall, the evidence on safety effects of outdoor advertising is inconsistent and contradictory, and the methodological bases of the research are all open to criticism.

Nevertheless, in NSW, State Environmental Planning Policy Number 64 – Advertising and Signage, and the associated *Transport Corridor Outdoor Advertising and Signage Guideline*, impose restrictions on the placement and design of third party advertising such that there can be no further concerns about road safety impacts.

In this case, the OMA urges the Joint Standing Committee on Road Safety to pay more significant attention in this review to sources of distraction such as:

- in-vehicle electronic devices;
- other sources of distraction that may be more difficult to regulate, such as drivers smoking, eating, grooming, observing external scenes;
- unregulated on-premise signage; and
- some variable message signage installed by the Roads and Maritime Services (RMS)<sup>1</sup>.

## **2. BACKGROUND**

The Outdoor Media Association (OMA) is the peak industry body representing 97% of Australia's outdoor media display companies and production facilities, and some media display asset owners (including the Roads and Maritime Services (RMS) and RailCorp).

Outdoor media display companies advertise third-party products<sup>2</sup> including:

- on buses, trams, taxis, pedestrian bridges, billboards and free-standing advertisement panels;
- on street furniture (e.g. bus/tram shelters, public toilets, bicycle stations, phone booths, kiosks); and
- in bus stations, railway stations, shopping centres, universities and airport precincts.

In addition to the third party advertisements displayed by our members, there is a vast amount of 'on-premise' outdoor advertising. This is advertising displayed at the premises where the goods or services are provided, such as pubs, clubs and retailers. The OMA does not represent advertisers that display on-premise advertising.

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<sup>1</sup> Namely, those that display messages that are not road safety critical.

<sup>2</sup> Advertising in which the advertisement is not associated with the premises on which it is displayed. That is, a land owner allows an outdoor media display company to display an advertisement for a third-party product.



### **3. OUTDOOR ADVERTISING AS A SUPPORTER OF ROAD SAFETY**

In 2011, the NSW Government was the third largest user of outdoor advertising in Australia, spending \$14.4 million.<sup>3</sup> The NSW Government uses outdoor advertising to inform the community about matters of public interest and invariably, some of this advertising budget is spent on road safety campaigns, such as that pictured below:



### **4. SOURCES OF DISTRACTION**

It is estimated that distraction is likely to be involved in approximately 3.6%<sup>4</sup> to 13.3%<sup>5</sup> of crashes. Of crashes where distraction is involved, it is likely that the source of distraction is outside the vehicle in 30-35% of cases.<sup>6</sup>

External sources of distraction may include external objects or events, such as scenery, persons or animals outside the vehicle, other traffic, road crashes, or drivers trying to find a location. While it has also been said that advertising and signage can sometimes be sources of distraction, it is important for the Committee to know that we are not aware of a single crash across Australia that has been directly attributed to third party advertising. In this regard, any link between outdoor advertising and unsafe driver behaviour is far from established.

The OMA is happy to provide a submission to the Committee in relation to outdoor advertising. However, third party outdoor advertising is already highly regulated in NSW, including in relation to safety concerns (refer to section 6 below).

<sup>3</sup> Nielsen Top Media Advertisers Report, 2011.

<sup>4</sup>Lam, L.T. (2002) Distractions and the risk of car crash injury: The effect of drivers' age. *Journal of Safety Research*, 33(3), 411-419.

<sup>5</sup> Wang, J., Knippling, R.R. and Goodman, M.J. (1996) The role of inattention in crashes: New statistics from the 1995 crashworthiness data system. 377-392 in 40<sup>th</sup> annual proceedings: Association for the advancement of automotive medicine.

<sup>6</sup> Stutts, J.C., Reinfurt, D.W., Staplin, L. and Rodgman, E. (2001) The role of driver distraction in traffic crashes. AAA Foundation for Traffic Safety. Glaze, A. and Ellis, J. (2003) Pilot study of distracted drivers. Virginia Commonwealth University Center for Public Policy.



Therefore, the OMA suggests that the Committee give more significant attention to potential sources of distraction such as in-vehicle electronic devices, drivers smoking, eating or grooming, and un-regulated roadside advertising (on-premise advertising).

The OMA recognises that many common distractions are difficult to regulate, and suggests that where regulation is difficult, government attention should be turned to extensive education programs which can promote awareness of, and correct responses to, these distractions.

## **5. SAFETY EFFECTS OF OUTDOOR ADVERTISING**

The research on potential safety effects of outdoor advertising generally comes from the following sources:

1. Analysis of crash statistics around signs;
2. In-field studies of driver behaviour such as speed maintenance and lane-keeping; and
3. Simulated driver situations.

From the mid-1900s there have been several studies that have used the above methods in an attempt to examine the road safety effects of outdoor advertising. However, the studies have produced varying and inconsistent results, and the methods of study are all open to criticism.

Analysis of crash statistics have generally been flawed because of issues of under-reporting or inaccurate reporting as to the cause of crashes. In-field studies of driver behaviour have been criticised because they fail to account for the many variables involved in driving and cannot isolate a causal link between signage and driver distraction. Simulated studies have been criticised because they fail to replicate a real-life driving scenario.

As well as the various methodological flaws, the results are also quite varied. Some studies find no effect of advertising signs on road safety<sup>7</sup>, where others find an effect<sup>8</sup>.

The OMA will not summarise the various pieces of research for the purposes of this submission, suffice to say that more research is needed to reach any conclusive findings.

Some research that should be noted, however, is in relation to outdoor advertising as a “glance medium”. Several studies have considered how long drivers tend to glance at outdoor advertising. The results vary, however glances are generally less than a second. Lee, McElheny and Gibbons found that the average glance duration at conventional billboards was 0.73 seconds, and the average glance duration at digital billboards was 0.92 seconds.<sup>9</sup>

Of relevance to this is research by Klayer et al (2006)<sup>10</sup>, which did not study the impacts of roadside advertising on driver inattention per se, but that did make the following directly relevant findings:

<sup>7</sup> Kettwich, C and Lemmer, U, (2008) Do advertisements at the roadside distract the driver? *Optical sensors. Proceedings of the SPIE*, Volume 7003, pp. 70032J-70032j-5. Lee, S.E, Olsen, E.C.B. & DeHart, M.C. (2003). *Driving performance in the presence and absence of billboards*. Virginia Tech Transportation Institute, Centre for Crash Causation and Human Factors.

<sup>8</sup> Johnston, A. and Cole, B. Investigations of Distraction by Irrelevant Information. *Australian Road Research*, 1976, 6, No. 3, 3-22. Holohan, C., Culler, R. and Wilcox, B. Effects of visual distraction on reaction time in a simulated traffic environment. *Human Factors*, 1978 20, No. 4, 409-413.

<sup>9</sup> Lee, S. E., McElheny, M.J. and Gibbons, R. (2007) *Driving performance and digital billboards*, Virginia Tech Transportation Institute.

<sup>10</sup> Klauer, S.G., Dingus, T.A., Neale, V.L., Sudweeks, J.D. and Ramsey, D.J. (2006) *The impact of driver inattention on rear-crash/crash risk: An analysis using the 100 car naturalistic driving study data*. Virginia Tech Transportation Institute.



1. Total eyes-off-road durations of greater than 2 seconds significantly increased individual near-crash/crash risk whereas durations for less than 2 seconds did not significantly increase crash risk relative to normal, baseline driving.
2. In secondary task engagement, if the task is simple and requires a short glance, the risk is only elevated slightly, if at all. The OMA submits that because outdoor advertising is intended to be a glance medium, the short glances that would be required to read and interpret the message would not have a significant impact on road safety.

This research needs to be considered when considering whether outdoor advertising poses a significant safety risk. Some have argued that advertising is, by its very nature, “distracting” and intended to take attention away from the driving task. However, from this research it can be seen that short glances away from the road, such as to roadside advertising or other roadside signage, are not a significant distraction that is likely to cause road crashes.

Another issue that is important to note in relation to outdoor advertising, is that pedestrians and passengers have been shown to glance more at the advertising than drivers.<sup>11</sup> The OMA commissioned an Australian Government accredited eye-tracking firm to study glances of drivers, passengers and pedestrians towards outdoor advertising. The study found that pedestrians looked at 44% of available signage compared with drivers who looked at 13% and passengers who looked at 23%. One can see from this that third-party advertising does not draw attention from drivers 87% of the time. As outlined above, when drivers do glance at a third-party advertisement, it is generally for less than a second in any case.

While the evidence in relation to the safety effects of outdoor advertising is contradictory and lacking in robustness, the current NSW regulations nonetheless impose restrictions on third party outdoor advertising such that any concerns that our members’ advertising is a potential safety risk are null and void.

## **6. REGULATION OF OUTDOOR ADVERTISING IN NSW**

An important part of the OMA’s activities is to work with Federal, State and Local Governments to ensure that laws and regulations for outdoor advertising are fair and equitable.

The OMA supports the reasonable regulation of outdoor advertising and is committed to working with its regulators to ensure that all outdoor advertising signs are located in permissible areas, are well-integrated with the surrounding environment and support local community activities.

In NSW, State Environmental Policy Number 64 – Advertising and Signage (SEPP 64) is complemented by the *Transport Corridor Outdoor Advertising and Signage Guideline* (the Guideline). SEPP 64 and the Guideline are attached at Appendices 1 and 2, respectively.

The OMA recently made a submission to the NSW Planning Review, outlining various concerns with SEPP 64 and the Guideline, and those concerns will not be reiterated in this submission.

The Guideline was prepared by the Department of Planning, in consultation with the Roads and Traffic Authority (now the RMS) and the OMA. The RMS plays a concurrence role for safety issues.

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<sup>11</sup> Access Testing (2008), Eye tracking study for the Outdoor Media Association.



Section 3 of the Guideline outlines road safety assessment criteria for signage, such as sign location and design, different types of moving or electronic signs and illumination. For example:

- An advertisement must not obstruct a driver's, bicycle rider's or a pedestrian's view of the road, other vehicles, bicycle riders or pedestrians.
- Signs should not obstruct a driver's view to intersections or traffic control devices.
- A sign should not be located less than the safe sight distance from an intersection, merge point, exit ramp, traffic control signal, pedestrian crossing or cycleway facility.<sup>12</sup>
- A sign should not be located so that it is visible from the stem of a T-intersection.
- The advertisement should not distract a driver's attention away from the road environment for an extended length of time.
- Signs must meet structural and wind-loading requirements.
- Variable message signs should not contain any scrolling text.
- Video and animated signs are prohibited.
- The maximum luminance of signage must be within a certain range.

The Guideline reflects a very risk-averse position, and the outcome of this is that outdoor advertising is highly regulated in NSW. Since SEPP 64 came into effect in 2001, there have been only 10 new billboards installed on private land (however, there have been approximately 37 new structures built on State owned land by RMS and RailCorp).

As outdoor advertising is highly regulated under SEPP 64 and the Guideline, outdoor advertisements are not situated so as to be highly conspicuous, but rather to be well integrated into the surrounding environment.

In light of this, the OMA suggests that the Committee give more significant attention in this review to potential sources of distraction such as in-vehicle electronic devices.

## **7. CONTENT OF ADVERTISEMENTS**

SEPP 64 does not regulate the content of advertisements. Content for advertisements in any media is regulated through various Codes of the Australian Association of National Advertisers (AANA), and overseen by the Advertising Standards Bureau (ASB). The AANA Codes require advertisements to meet prevailing community standards in terms of sex/nudity, violence, discrimination, health and safety etc.

Rightly or wrongly, outdoor advertising has in the past had a reputation for producing advertising that pushes the boundaries. However this is certainly not a true reflection of today's outdoor advertising industry. For example, in 2010, the outdoor advertising industry displayed 30,000 different advertisements. The community made complaints about only 66 of these, and the ASB found that only 7 of the advertisements were contrary to the AANA Codes. That is, 99.98% of the time the industry displayed advertisements that were in line with community standards.

In spite of this excellent record, the OMA implemented several initiatives in June 2011 in an attempt to reduce the number of upheld complaints. These initiatives include a rigorous copy review process before advertising is displayed, and extensive training for our members

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<sup>12</sup> Driving conditions are more complex at intersections, merge points, exit ramps etc and therefore accidents are more likely to occur at these places. The restriction in the Guideline clearly addresses concerns that even a short glance away from the roadway can negatively effect a driver's detection of a hazard on the roadway ahead.



on the terms of the AANA Codes. Since these initiatives were implemented in June 2011, there have been only two upheld complaints.

Therefore, the content of third-party outdoor advertisements is managed very well by the self-regulatory system and, again in light of the glance statistics discussed in section 5 above, should not be of significant concern to the Committee.

## **8. ELECTRONIC SIGNAGE**

There are different types of electronic signs, as follows:

- Static electronic displays – these signs are capable of displaying words, symbols, figures or images that can be electronically or mechanically changed by remote or automatic means. These displays contain static images only and do not have movement of any part of the sign structure, design or pictorial segment of the sign, including the movement of any illumination or the flashing, scintillating or varying of light intensity.
- Non-static electronic displays - are signs capable of displaying words, symbols, figures, images, animation, vision and moving pictures that can be electronically or mechanically changed by remote or automatic means.

As with all evidence about outdoor advertising, there are inconsistent and contradictory findings as to the safety effects of electronic signage, from which no conclusions can be drawn. Attached at Appendix 3 is a literature review on this topic, prepared by the OMA in 2010.

Regulations for electronic signage in NSW are currently being discussed by the OMA, the RMS and the Department of Planning. This discussion has been continuing since June 2009, however the OMA is hopeful that agreement on the terms of the regulations will be reached this year.

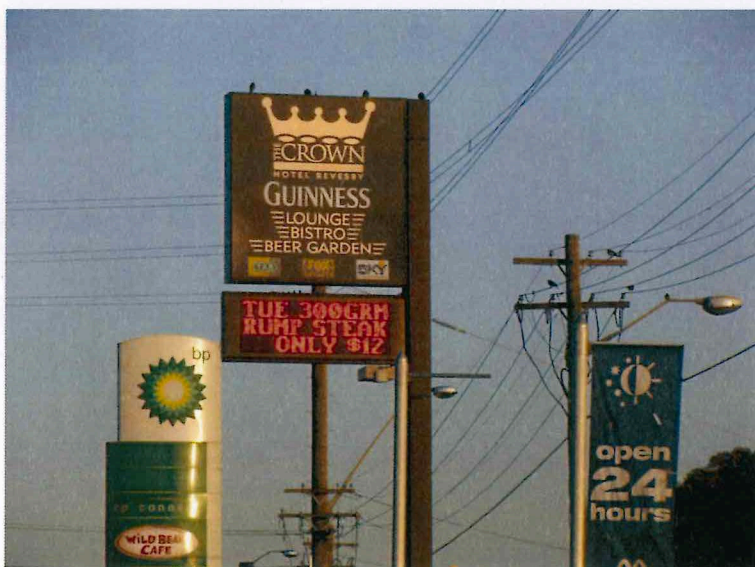
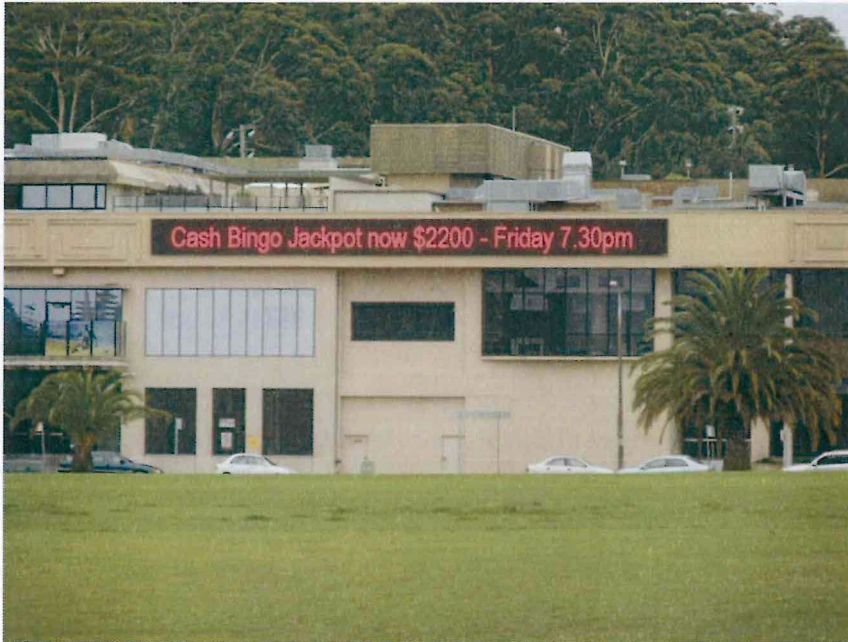
In particular, the OMA and the RMS have not been able to reach agreement on ‘dwell time’ for electronic signs. Dwell time is the length of time that an image is displayed on a digital sign before the next image is displayed.

The OMA’s members are displaying digital billboards on Federal airport land in NSW, with dwell times of 8 to 10 seconds and no apparent negative road safety impacts.<sup>13</sup> Our members have been (long) waiting for the finalisation of the Guideline before proceeding to install digital billboards on State and Local land in NSW.

In contrast, we see numerous electronic signs appearing along roadways outside pubs, clubs and retail outlets, which are installed without RMS concurrence and with dwell times as short as 1 second. Many of these are ‘variable message signs’ (VMS) such as those pictured below.

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<sup>13</sup> The OMA’s members also display digital signage in Brisbane and Melbourne, with dwell times of 8 to 10 seconds, and no apparent negative road safety impacts. Our members also operate scrolling street-furniture signs in many States, with dwell times of 7 seconds, and no apparent negative road safety impacts.





The OMA urges the Committee to pay attention to the proliferation of these unregulated on-premise VMS. This is particularly important when considering the large numbers of on-premise signs along roadsides. For example, along Parramatta Road between Broadway and Leichhardt, there are over 2000 on-premise signs as compared to 14 third-party advertisements.

In addition to the commercial electronic signs along NSW roadways, the RMS itself displays electronic VMS. These VMS generally display 2 or 3 inter-related messages, with dwell times of 2 to 3 seconds. The messages may relate to the current functioning of the road, or they may be broadcasting notification of future road functioning issues. However, sometimes the VMS display messages that are barely linked to road functioning. For example, VMS in Sydney recently displayed commercial messages indicating that Telstra had paid for the road user's tolls on the cross city tunnel that day. There are also often VMS with messages about upcoming parades in the city centre etc.

The OMA has collected numerous video examples of VMS being displayed by the RMS with dwell times of 2 to 3 seconds, and has included these on a disk for the Committee's reference.

The OMA is concerned that the RMS is not willing to allow electronic signs with dwell times of 8 to 10 seconds because they fear a safety risk, when the RMS itself displays signs with dwell times significantly shorter than that. If the RMS considers that road-related messages can be justified on 2-second dwell times, then it seems difficult to believe that the RMS considers dwell times that are 4 times as long (i.e. 8 to 10 seconds) are a real safety risk. As mentioned above, it is not possible to draw conclusions from the available evidence, and so it certainly cannot be concluded that 8 seconds is likely to significantly contribute to road hazards.

The OMA would like to see the RMS differentiating between safety critical messages (for example, "Traffic jam in tunnel ahead, reduce speed") verses community messages (for example, "Parade in city 10 May, use alternative route"). It is difficult to see how non-safety critical messages could justify a 2-second dwell time.

We urge the Committee to question the RMS on this issue:

- Are short dwell times of 2 seconds a significant safety risk?
- If so, why is the RMS using them even to display road-related messages?
- How does the risk of a 2-second dwell time compare with the risk of not providing the road-related message?
- Can the road-related message be displayed in some static format?

## **9. CONCLUSION AND RECOMMENDATIONS**

The OMA's members cannot install a sign without a permit, which will not be issued if the proposal does not meet the RMS's safety requirements as discussed above in section 6. In this case, the safety effects of third party advertising should not be a significant concern for the Committee.

However, we urge the Committee to consider the safety effects of unregulated on-premise signs, particularly electronic VMS that are proliferating outside pubs, clubs and retail outlets, and which often contain flashing words/lights or multiple messages changing every 1 to 2 seconds. The importance of considering these signs is highlighted when we consider the number of on-premise signs as compared to the number of third-party signs.<sup>14</sup>

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<sup>14</sup> Along Parramatta Road between Broadway and Leichhardt, there are over 2000 on-premise signs as compared to 14 third-party advertisements.

The OMA also urges the Committee to pay attention to the issue of VMS displayed by the RMS, which have dwell times as short as 2 seconds.

The OMA considers that the Committee should also pay particular attention to in-vehicle distractions such as electronic devices. Research indicates that in-vehicle distractions account for 65% to 70% of distraction-related crashes.<sup>15</sup>

Finally, we ask the Committee to consider ways to address the sources of distraction that are more difficult to control – such as drivers eating, smoking, grooming, trying to find a location, observing crash scenes etc. While such sources of distraction are difficult to regulate, the OMA suggests that the government undertake an intensive education program to alert drivers to the dangers of such distractions, and how to manage the dangers.

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<sup>15</sup> Stutts, J.C., Reinfurt, D.W., Staplin, L. and Rodgman, E. (2001) The role of driver distraction in traffic crashes. AAA Foundation for Traffic Safety. Glaze, A. and Ellis, J. (2003) Pilot study of distracted drivers. Virginia Commonwealth University Center for Public Policy.