Cell Phone Use in Vehicles

Last Revised: 1 November 2009

CAN Policy:

Using a cell phone while operating a motor vehicle should be prohibited.

Background:

Use of cell phones in moving vehicles can be classed as driver distraction. Redelmeier and Tibshirani (1997) found that:

- Cell phone users were four to five times more likely to have crashes than non-users; and
- Cell phone units that allow hands to be free offer no safety advantage over hand-held units.

They found that the main factor in most motor vehicle crashes is driver inattentiveness.

Car Naturalistic Driving Study

This study funded by the National Highway Traffic Safety Administration (NHTSA), the Virginia Transportation Research Council (VTRC), and the Virginia Department of Transportation (VDOT), sought to investigate naturalistic driving behaviour in an urban environment. Researchers instrumented 80 privately owned vehicles and 20 leased vehicles with a data collection system consisting of five cameras and a sensor suite that gathered continuous data for approximately 12 months; http://www.vtti.vt.edu/PDF/100-Car_Fact-Sheet.pdf.

The study found that almost 80 percent of crashes and 65 percent of the near crashes involved drivers who were not paying attention to traffic for up to three seconds before the event.

The NZ Land Transport Safety Authority reported to the Minister of Transport on the issue (LTSA, 2003). Data Table No. 1 shows that only a small proportion of in-vehicle distractions cause fatal or injury accidents. However, it should be noted that since 1998 it has increased and in fact in 2002 it was the third highest reason for crashes.

LTSA consulted on the draft ("yellow") Road User Rule in late 2002 and early 2003 (LTSA, 2002). The position presented was that it was not possible for the LTSA to demonstrate that a law banning cell phone use while driving represents 'safety at reasonable cost'. It lists four countries with which New Zealand consistently compares itself: Australia, United States, the United Kingdom and Canada:

- Every state and territory in Australia had at that stage already legislated against the use of hand-held cell phones while driving.

Cycling Advocates Network
PO Box 6491 Auckland New Zealand
Tel/Fax: 04-972 2552
Email: policy@can.org.nz
Web: www.can.org.nz

- In the United States, 37 states had by 2002 proposed legislation banning the use of cell phones while driving. New York had been, back then, the only state to implement the legislation.
- In Canada a number of provinces had by 2002 considered legislation to restrict the use of cell phones while driving, but had not yet enacted any laws.
- The United Kingdom Department for Transport was in 2002 seeking public views on prohibiting hand-held cell phones.

By January 2007, the situation in those countries had changed as follows: (Cellular News, 2007):

- In the US, another four states (California, Connecticut, District of Columbia and New Jersey) have banned the use of cell phones. In three states (Maine, Minnesota and Virginia), minors or those on a provisional licence cannot use cell phones. In many states, partial bans exist for school bus drivers. Many other states are still discussing legislation.
- In Canada, Newfoundland has banned cell phone usage.
- In the UK, cell phones have been banned since December 2003.

So whilst many countries that we consistently compare ourselves to are making progress, New Zealand is being left behind.

Many other countries already prohibit cell phone use while driving including France, Switzerland, Spain, Italy, Germany, and the road safety world leader, Sweden (Cellular News, 2007, ibid).

Recent New Zealand research commissioned by Land Transport NZ (LTNZ) is unequivocal in its findings that driver distraction through cell phone use while driving as an issue and that this is only in part linked to the manipulation of using a handheld which interferes with control actions (Charlton, 2008).

The research findings clearly indicate that driving while talking to an in-car passenger is appreciably different from conversing over a cell phone. Results found driving performance was adversely affected during cell phone conversations as compared with in-car passenger conversations, in terms of approach speeds, reaction times and avoidance of road and traffic hazards. With passengers two phenomena occurred, “conversation suppression” - the tendency for passengers to slow their rates of conversation as the driver approached a hazard and “alerting comments” a warning issued by the passenger to the driver of an approaching hazard.

Cell phone conversers displayed none of these conversational features. Cell phone conversations were shown to be significantly more detrimental than passenger conversations due to conversations being inflexible and incompatible with momentary traffic demands.

These key finding from the LTNZ commissioned research reinforces previous research that cell phone conversations were more distractive than equivalent conversations with passengers, due to the latter being more aware of the driver's workload and adjusting their conversation to suit (Charlton, 2008).

In August 2009, the Government introduced legislation that will take affect from November 1 2009 banning the use of hand held cell phones while driving except in certain circumstances (NZTA 2009). The ban does not cover the use of "hands free" devices or those that are fixed to the inside of the vehicle and are only operated "infrequently and briefly" (Road User Rule 7.3A (4) and (5)).

Several studies argue that the increased "cognitive workload" involved in holding a conversation is the real danger, not the use of hands (Recarte and Nunes, 2003; Strayer

et al., 2003; Strayer and William, 2001). The major problem is that the person with whom the driver is conversing cannot see the traffic situation and therefore does not regulate their level of conversation to allow the driver to concentrate when, say, approaching a junction. This problem does not apply to conversations with a passenger, as passengers can regulate the flow of conversation according to the perceived level of danger, and also provides a second pair of eyes to spot hazards (Crandall et al.).

CAN believes that:

- Prohibiting drivers from using cell phones while operating motor vehicles will help eliminate an increasing form of driver distraction making it safer for all road users including cyclists.
- This prohibition on mobile phones and other telecommunications devices should also include both hands free and those secured in a mounting fixed to the vehicle.

References:

All internet references have been last accessed on 1 October 2009.

- Charlton S. G (2008). "Distractive effects of cellphone use. Land Transport NZ Research Report 349, July 2008. TERNZ Ltd, Auckland and University of Waikato, Hamilton. http://www.landtransport.govt.nz/research/reports/349.pdf
- Cellular News (2007). http://www.cellular-news.com/car_bans/
- Crundall D., Bains M., Chapman P., Underwood G. (2005). "Regulating conversation during driving: a problem for mobile telephones? Transportation Research, Part F: Traffic Psychology and Behaviour 8F (3): 197-211.
- LTSA (2002) Land Transport Rule: Road User Rule 61001 - Overview. Wellington, NZ [consultation document on the yellow draft of the rule].
- LTSA (2003) Cell phone use while driving: Summary of research and analysis. Report prepared by the Land Transport Safety Authority, Wellington, NZ.
- Recarte M. A., and Nunes L. M. (2003). "Mental Workload While Driving: Effects on Visual Search, Discrimination, and Decision Making.". Journal of Experimental Psychology: Applied 2 (9): 119-137.
- Redelmeier, D. and Tibshirani, R. (1997) Association between Cellular-Telephone Calls and Motor Vehicle Collisions New England Journal of Medicine Study, Volume 336, pp 453-458.
- Strayer D. L., Drews F. A. & Johnston W. A. (2003). "Cell Phone-Induced Failures of Visual Attention During Simulated Driving.". Journal of Experimental Psychology: Applied 1 (9): 23-32.
- Strayer D. L. & William J. A. (2001). "Driven to distraction: Dual-Task Studies of Simulated Driving and Conversing on a Cellular Telephone" Psychological Science 6 (12): 462-466.
- NZTA (2009) Land Transport (Road User) Amendment Rule 2009; http://www.landtransport.govt.nz/rules/docs/road-user-amendment-rule-2009.pdf
- http://www.vtti.vt.edu/PDF/100-Car_Fact-Sheet.pdf

CAN's Vision:

Cycling is used as a means of transport by most people for some trips each month.

CAN's Objectives:

- 80% of people cycle for some trips each month by 2020.
- 20% of all trips are by cycle by 2020.
- 90% of those who cycle are satisfied with their cycling experience by 2020.
- Rates of fatality and injury for cycling are below that for cars (currently 5 per 100 million km) by 2020.
- Cycling is perceived as positive by 90% of the general population by 2020.