

STRATEGY ON DISTRACTED DRIVING

A Component of the Strategy to Reduce Impaired Driving (STRID)

Prepared for

**CCMTA's STRID Task Force and Standing Committee
on Road Safety Research and Policies**

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MANDATE OF THE SUB-GROUP ON DRIVER DISTRACTION:

1. To develop a strategy to assist jurisdictions to a) measure the role of driver distraction in collisions, and b) manage the safety impacts arising from all sources of driver distraction including in-vehicle communication and information devices (telematics), activities extraneous to the driving task, passengers as well as external to vehicle sources.
2. To encourage jurisdictions to make changes to data collection procedures that would enable estimation of the number of serious injury and fatal collisions due to driver distraction.
3. To monitor developments in vehicle telematics and their potential implications for driver attention and safety.
4. To produce an annual monitoring report on the progress toward a) measuring the role of driver distraction in collisions, and b) achievements by jurisdictions in managing the potential safety impacts of all sources of distraction.

A. OVERVIEW, DEFINITION AND PROBLEM IDENTIFICATION

1. Strategy Objective

To reduce the number of collisions in Canada resulting from distraction from all sources.

2. Relationship to Road Safety Vision 2010

The Strategy on Distracted Driving is included as an addition to the CCMTA Strategy to Reduce Impaired Driving (STRID), along with two other component strategies, the Strategy on Drugs and the Strategy on Fatigue. The primary strategy relates to alcohol, and its target is defined in terms of alcohol-related collisions. The Strategy on Distracted Driving belongs with STRID because distraction can be considered a form of impairment. However, no target has been assigned to the strategy due to the lack of a suitable baseline measure. Whereas, a good measure exists for alcohol-related collisions, we do not yet have the ability to measure the number of collisions due to distraction. The objective of the strategy relates to the overall target of Road Safety Vision 2010. The Distracted Driving Strategy also has activities directed to each of the four goals of Road Safety Vision 2010:

- Raise public awareness of road safety issues.
- Improve communication, cooperation and collaboration among road safety agencies.
- Enhance enforcement measures.
- Improve national road safety data quality and collection.

3. Definition of Distracted Driving

The following definition was modified by the STRID Sub-Group on Distracted Driving, working from the one developed by delegates to the CAA/TIRF International Conference on Distracted Driving.

Distracted driving is the diversion of attention from driving, as a result of the driver focusing on a non-driving object, activity, event or person. This diversion reduces awareness, decision-making or performance leading to increased risk of driver error, near-crashes or crashes.

The diversion of attention is not attributable to a medical condition, alcohol/drug use and/or fatigue

This definition has several important implications for how we can approach the driver distraction problem:

- Distractions exclude pre-existing conditions, including impairment by alcohol or drugs, fatigue, and psychological state; however, any of these can make it easier for a driver to be distracted or can change the effect of a distraction.
- Distractions are affected by personal characteristics such as age and medical conditions.
- Distractions and their impact on driver performance are affected by the complexity of the driving task; certain driving tasks require more attention than others.
- Distractions need not produce immediate consequences such as corrective actions, near-crashes or crashes, but do increase the risk of these consequences.

Using the above definition of driver distraction the STRID Sub-Group on Driver Distraction will seek to:

- determine how frequently distraction occurs during the driving task;
- determine how frequently it is a factor in motor vehicle collisions (by collision type and severity);
- identify key sources of distraction in collisions involving driver distraction;
- identify how distraction affects driver performance for a range of driving tasks (ranging from simple to complex); and,
- how distraction affects a driver's collision risk (for a range of driving tasks and driving conditions).

4. Scope of the Strategy

Whether a driver is inattentive because of passive disengagement or because of a distracting event or activity, there is competition for the driver's limited information processing resources, and the driving task may be compromised. This strategy will focus on distraction because it can be identified with external causes; thus there is more potential for management and control.

There are a number of different types of distraction. The National Highway Traffic Safety Administration (NHTSA) has identified four dimensions of distraction based on the nature of the interference: cognitive, visual, auditory and biomechanical. Distraction can arise from any number of different sources and a given source of distraction may involve more than one of these dimensions. Sources of distraction may be classified as those outside the vehicle (signs, billboards, people or animals, other objects and events); objects within the vehicle (vehicle controls, other occupants, items introduced into the vehicle (e.g., food, beverages, tissues, maps and insects) and actions (which are often directed at objects). Actions include adjusting vehicle controls, manipulating audio equipment, dialling, listening or talking on a cellular telephone, reaching for objects, eating, drinking, smoking, grooming, reading and attending to children, animals or interacting with other occupants.

The strategy will consider all potential sources of distraction. It will encompass the overall problem of driver distraction, rather than targeting specific sources. It is important to recognize that inattention is a state that can result from many diverse sources, and not all possible sources have been identified as safety risks or subjected to empirical study.

That being said, a major concern is that there are now new distractions in vehicles as a result of new technologies becoming available. Other distractions have been present for a long time, and there is less concern that they are increasing in frequency. The strategy will include components that address distraction from specific classes of sources such as telematic and communication devices, and make particular reference to distractions for which a body of research exists. However, the objective of the strategy is to reduce the problem of distraction from all sources.

5. Driver Distraction and Crash Risk

Driver inattention is a major contributor to highway crashes. Earlier estimates by the National Highway Traffic Safety Administration (NHTSA) put some form of inattention as a contributor to at least 26 percent of

collisions, and about half of those (i.e., 13%) to driver distraction (Wang, Knipling and Goodman, 1996). Some authors have estimated that the percentage of crashes due to inattention is in the range of 35 to 50 percent (Sussman, Bishop, Madnick & Walter, 1985). A more recent NHTSA study showed that drowsiness and secondary task engagement together contribute to 45% of crashes, with secondary task engagement accounting for 23% (Klauer et.al, 2006)

One might think that police reports and other collision investigation studies would be the primary source of information on the contribution of driver distraction to collisions. However, many jurisdictions' police report forms do not distinguish between distraction and other forms of inattention, and among those that do, the specific categories of distraction are often undefined or limited. It is generally accepted that police reports severely underestimate the role of distraction in collisions, especially where only narrative data are available (Stutts et al., 2001).

In a report prepared and published in December 2001 by the Commonwealth of Pennsylvania Joint State Government Commission on Driver Distractions and Traffic Safety, researchers estimated that 21.9 percent of specific driver distractions contributing to crashes were external. Of all crashes in Pennsylvania reported to police during 1999-2000, 0.4 percent were cited as involving a driver distracted by a cellular phone.

A recent report published by Saskatchewan Government Insurance (SGI) examined 16,183 police-reported collisions from January 1, 2000 until December 31, 2001 where the police cited inattention or distraction as a contributing factor. The report stated that 17 percent of those collisions were accounted to driver distraction. This estimate is considerably lower than the NHTSA estimate of 50 percent of inattention collisions.

The SGI study highlighted that an outside object or person accounted for approximately 32 percent of collisions in which driver distraction played a role. Individuals who were attempting to use or were using a cellular phone accounted for only one per cent of these incidents.

One study conducted for the AAA Foundation for Traffic Safety (Stutts et al., 2001) quantified the frequency with which various distracters were identified as contributing to collisions, using data from the NASS Crashworthiness Data System (CDS), which is gathered by expert crash investigators. Only 8.3 percent of drivers involved in these crashes were identified as distracted. Among the specific distractions noted, the most frequently cited category was external objects, events or people. The complete categorized list of distraction sources from this study is given in the following table:

The specific sources of distraction among distracted drivers	% of Drivers in Distraction Collisions
Outside person, object or event	29.4
Adjusting radio, cassette, CD	11.4
Other occupant in vehicle	10.9
Moving object in vehicle	4.3
Other device/object brought into vehicle	2.9
Adjusting vehicle/climate controls	2.8
Eating or drinking	1.7
Using/dialing cellular phone	1.5
Smoking related	0.9
Other distraction	25.6
Unknown distraction	8.6
Source: Stutts et al. AAA Foundation for Traffic Safety 2001©	100.0

The authors point out that their study has several limitations. First, it probably underestimates the overall percentage of collisions involving some form of distraction. Secondly, the percentages for the different types of distractions are likely biased by differential underreporting. For example, a crash-involved driver might be more willing to admit that he was adjusting a mirror or distracted by a crying infant, than to divulge that he was smoking or using a cellular phone. The primary purpose of this analysis was to develop a comprehensive taxonomy and to understand the context of various distractions. However, the study is often cited as evidence for the unimportance of certain behaviours to collisions. Without a measure of exposure, it is not possible to draw conclusions about the relative risk of a crash associated with any particular distraction.

Cellular telephone use has been the focus of epidemiological studies of driver distraction. Unfortunately there is a lack of research on the risk associated with distracting behaviours other than cellular phone use. Some studies have included additional measures of other distractions, but only as supplementary data, and measured in a gross way. Many of the cellular phone studies were carried out in Canada. All have some limitations. The major weakness of all epidemiological studies is that they measure associations, not causal relationships. Although they can control for a large number of potentially confounding variables, we can never be certain that the list is exhaustive or that they are accurately measured.

There is a large body of experimental literature demonstrating that distracting tasks, especially those involving high cognitive load, interfere with simulated or real driving. In 2005 NHTSA produced a comprehensive bibliography of research addressing the use of wireless technologies in

vehicles (Goodman, Barker & Monk, 2005). Many of these studies have been reviewed extensively elsewhere (e.g., McCartt et al. 2006). Of particular importance are two meta-analyses of completed research, one from the United States (Horrey & Wickens, 2004) and one from Canada (Caird et al, 2004). Two primary findings were reported by Horrey and Wickens (2004). The first is that there are definite costs associated with the use of cell phones while driving and that these are manifested primarily as delays in response time to critical road hazards. The second was that no safety advantage was observed for hands-free versus hand-held devices. The conclusions from Caird et al. (2004) echoed these findings.

Recent on-road work has captured the major role that inattention plays in crashes. The results of this 100-Car Naturalistic Driving Study are described in a report published by NHTSA (Klauer, et al., 2006). This study was able to establish direct relationships between driver actions and crash or near-crash involvement because drivers were continually monitored by in-vehicle video observation for 18 months. The analysis of eye glance behaviour indicated that eyes-off-the-road durations of greater than 2 seconds significantly increased risk of crashes and near-crashes. Furthermore, the study found that secondary task distraction contributed to over 22% of crashes and near-crashes. Use of a hand-held device was the most frequent type of secondary task engagement. Talking/listening to a hand-held device was associated with an odds ratio of 1.3 for crash/near-crash risk, while dialing a hand-held device had an odds ratio of 2.8. Other actions associated with the high odds ratios were: reaching for a moving object (8.8), looking at an external object (3.7), reading (3.4) and applying make-up (3.1). A front-seat passenger appears to bestow a protective effect, as the odds ratio was less than one. The study also calculated a population-attributable risk, which takes into account both the odds ratio and the frequency of occurrence of the behaviour. This is defined as the percent of crashes and near-crashes that were attributable to the action. Both the odds ratios and the population-attributable risks are shown in the following table. This study demonstrates that distraction, and certain specific distracting behaviours are riskier and account for a higher percentage of crashes than earlier estimates based on police reports.

Odds ratios to assess likelihood of a crash (n=49) or near-crash (n=439) when engaging in secondary tasks and population-attributable risk percentage point estimates for those tasks.

Type of secondary Task	Odds ratio	Population Attributable Risk Percentage
Reaching for moving object	*8.8 (2.5-31.2)	1.1 (1.0-1.3)
Looking at external object	*3.7 (1.1-12.2)	0.9 (0.8-1.0)
Reading	*3.4 (1.7-6.5)	2.9 (2.6-3.1)

Type of secondary Task	Odds ratio	Population Attributable Risk Percentage
Applying make-up	*3.1 (1.3-7.9)	1.4 (1.2-1.6)
Dialing hand-held device	*2.8 (1.6-4.9)	3.6 (3.3-3.9)
Inserting/retrieving CD	2.3 (0.3-17.0)	0.2 (0.1-0.3)
Eating	1.6 (0.9-2.7)	2.2 (1.9-2.5)
Reaching for non-moving object	1.4 (0.8-2.6)	1.2 (1.0-1.5)
Talking/listening to a hand-held device	1.3 (0.9-1.8)	3.6 (3.1-4.1)
Drinking from open container	1.0 (.03-3.2)	0.0 (-0.1-0.2)
Other personal hygiene	0.7 (0.3-1.5)	na
Adjusting radio	0.6 (0.1-2.2)	na
Passenger in front seat	*0.5 (0.4-0.7)	na
Passenger in rear seat	0.4 (0.1-1.6)	na
Child in rear seat	0.3 (0.0-2.4)	na

95% confidence intervals are given in brackets

* odds ratio is significantly different than 1.0

Source: Klauer, et al. (2006)

6. Public Perception

Driver distraction is a concern to Canadian road users, but survey results indicate that the public may not recognize the full scope of the issue. A public opinion survey conducted by the Traffic Injury Research Foundation (Beirness, Simpson and Pak, 2002) found that 37 percent of Canadians believe that distracted drivers represent a “serious or extremely serious problem”. However, public concern about driver distraction seems to be focused on the use of cellular phones, with 64 percent of respondents rating them as a serious or extremely serious problem.

B. THE MANAGEMENT OF DRIVER DISTRACTION AND ROLES OF KEY PARTNERS

1. Data Collection, Research and Monitoring

a) Data Collection

Each province and territory is responsible for the collection of traffic collision information, through its various police agencies. The data collected are compiled by the provinces and territories and provided to Transport Canada for consolidation at the national level. Not all jurisdictions collect data that address the role of distraction in collisions. Some provinces have implemented recent changes to collision report forms to include distraction elements, or are working toward such implementation. A table summarizing the current status

with respect to data elements addressing driver distraction and inattention is found in Appendix A.

There is a need for consistency if the data are to be used to monitor the problem. Now that the National Collision Database (NCDB) Data Dictionary has been approved by the CCMTA Board of Directors, the provinces and territories should be working toward implementing these data elements when introducing changes to their respective collision report forms. Consultation and input from enforcement agencies will be critical to this process. To the degree that this essential information can be improved, our understanding of the role of distraction in crashes will benefit. These data are essential to establish the extent of the distracted driver problem and to monitor progress toward the objective. It should be noted that the NCDB data element represents the minimum information required. Jurisdictions are encouraged to collect more detailed information that can be mapped to the NCDB element, if they so desire. The NCDB data element on driver distraction is included as Appendix B.

Key Players: Police, Provincial/Territorial governments, Federal government

Supporting Players: Industry, Non-government safety organizations (NGSO)

Recommendations:

- To the extent feasible, provincial and territorial governments should work toward implementing the NCDB data element on the contributing factor of driver distraction.
- Guidelines should be developed for incorporation into collision reporting manuals to ensure consistency of interpretation and recording of the driver distraction contributing factor.

b) Research and Monitoring

The Federal government has been actively investigating the issue of driver distraction for several years via a program of research (both in-house and contracted out). A number of provinces have also contributed to our knowledge of distracted driving by conducting or sponsoring original research. Industry and non-government safety organizations (NGSO) also have a role to play in sponsoring or supporting research.

Research needs to be conducted to determine the magnitude of driver distraction as a contributing factor to collisions, as well as to determine

best practices in monitoring driver distraction over time. This should involve specific research projects outside of the data collected on provincial collision report forms.

Research also needs to keep pace with the rapid technological development of electronic devices for use in vehicles, as well as those brought into vehicles that have the potential to distract drivers. As noted by delegates to the International Conference on Distracted Driving, it is critical to assess the distracting potential of current and emerging technologies, working hand-in-hand with manufacturers and other industries that utilize the technologies. Ultimately this research may lead to performance standards or guidelines to minimize any distracting effects.

Research on any distraction issue should be coordinated with the federal government, provinces and stakeholders to ensure that best practice information is shared and duplication of effort is eliminated.

Key Players: Federal government, Provincial/Territorial governments, Industry, NGSOs, research organizations

Recommendations:

- Develop a baseline measure of driver distraction as a contributor to collisions for the purpose of monitoring
- Consolidate best practice/resource material on methods to protect road users from the risks of distraction and identify gaps in the information
- Conduct or support new studies to determine the role of driver distraction in traffic collisions, and the crash risks posed by different distractions
- Study the effects (of different distractions) on specific high-risk groups, such as novice and older drivers
- Assess the distracting potential of current and emerging technologies for devices designed as original equipment, as well as after-market devices
- Monitor public opinion, attitudes and behaviour regarding the issue of driver distraction (needs to be done on a regular basis as behaviours change and market penetration of telematics devices)

2. Public Education and Awareness

Drivers must realize that driving is their primary responsibility. With an increasing number of stimuli competing for a driver's attention, drivers need to be made aware of the danger of taking their attention away from

driving to perform other activities. Awareness programs can inform the public of how to avoid distraction and stay focused on the driving task. Education and awareness programs have taken a variety of forms: websites, educational programs, public service announcements, as well as policies and procedures that have been implemented by companies, organizations and governments.

For the past several years, the Canadian Wireless Telecommunications Association (CWTA) has developed and managed a dedicated web site regarding the issue of driver distraction. The newest website, *Focus on Driving* uses an interactive quiz to educate consumers about the dangers of distractions, as well as provides various resources and links that the industry actively promotes. The CWTA has just released a new public service announcement aimed at young and novice drivers.

Transport Canada and some provinces have posted information concerning a variety of driver safety topics, including telematics use, on their websites.

Organizations such as the Canadian Automobile Association (CAA), Canada Safety Council (CSC) and Canadian Wireless Telecommunications Association (CWTA) have engaged in extensive educational driver distraction programs and are committed to educating Canadians on making safety their first priority when they are behind the wheel.

An example of such a successful partnership was the launch during the Canada Safety Council's *National Safe Driving Week* of a far-reaching safety awareness program called "Driven to Distraction". This program, a partnership between the CSC and the CWTA's Responsible Driving Committee, addresses all aspects of driver distraction – from eating or fiddling with the radio/CD when behind the wheel – to talking with other passengers in the car – to taking in the sights instead of focusing on the driving task. Other initiatives such as a bilingual Public Service Announcements (PSA), brochures, a dedicated web site on the issue of driver distraction were also developed in conjunction with this campaign.

Transport Canada has recently produced a short video, which educates Canadians about the impact of distraction. The video touches on a number of distracters ranging from food to technology. The campaign has been designed so that other safety partners will be able to utilize the video, once production is complete.

Driver education cannot be overlooked as an important part of reducing the risks of distracted driving. In 2003, the CAA conducted an informal review of provincial/territorial driver handbooks and noted that driver distraction as an issue gets very little attention. The CAA has developed a

“model driver license section” on distracted driving that could be used in provincial/territorial handbooks.

The CSC and the CWTA continue to distribute the “Driven to Distraction” program to employers and driver training organizations across the country as an addition to their fleet training programs, defensive driving courses or on-line learning initiatives

Large firms, as substantial employers that may also have fleets, can play an important role in promoting driver safety by educating their employees and creating awareness of the problem of distraction while driving, and encouraging responsible driving habits. As employees may feel pressure to conduct business while driving, for example, formal employee policies play an important role in alleviating any potential pressure, and hence encouraging safety.

A variety of firms, including Canada’s wireless carriers (Bell Mobility, TELUS Mobility, Rogers Wireless, MTS Mobility, SaskTel Mobility and Aliant Mobility) have enacted policies or procedures specifically related to promoting safety among their fleet drivers by addressing in-vehicle telematics use.

In addition, a number of companies (e.g., Mobil EXXON, Esso Imperial Oil) and organizations (e.g., the Industrial Accident Prevention Association) have implemented specific policies prohibiting cell phone use while driving. Transport Canada has also issued an official recommendation against the use of in-vehicle devices to its employees.

Key players: Federal government, Provincial/Territorial governments, Industry, Non-government organizations, Safety organizations, Police

Recommendations

- Use best practice information to develop key messages and awareness materials for both new and experienced drivers.
- Develop a plan to monitor the effectiveness of public education and awareness campaigns.
- Develop educational materials specifically to guide the use of emerging telematic systems in vehicles.
- Evaluate the effectiveness of existing programs, such as “Driven to Distraction” and pilot test any new materials prior to implementation.
- Based on best practice information, develop strategies to implement training methods/programs which support life-long

learning principles as part of both driver education and school programs.

- Provincial and territorial authorities should include a section on distracted driving in their driver's license manuals and educational curricula.
- Employers with fleets are an important audience for public awareness campaigns. A review of best practices for fleet policies is recommended.
- Invite industry and other stakeholders to take part in a developing focused national driver distraction campaigns. Such campaigns could comprise of an advertisement program, PSA (print, television and radio).
- Implement a national coordinated campaign sponsored by all levels of government and with support of industry.

3. Legislation and Regulation

In Canada, all three levels of government can legislate or regulate and all have a potential role when it comes to driver distraction.

The federal government has responsibility for original equipment in new or imported vehicles. The provinces are responsible for the conduct of drivers on roadways and the installation of equipment in vehicles after purchase. Municipalities may impose by-laws with respect to vehicle and pedestrian traffic on municipal roads, as specified under provincial highway or motor vehicle acts

There are currently no federal standards or regulations that restrict or prescribe the provision of telematic devices as original equipment in vehicles. Transport Canada is in the process of developing a memorandum of understanding with the vehicle manufacturers to address this issue. This process is described in the section on self-regulation and voluntary agreement.

a) Provincial/Territorial Legislation and Regulations

A summary of provincial regulations and legislation relevant to driver distraction is provided in Appendix C. This information was gathered through a survey sent to the members of the Standing Committee on Road Safety Research and Policies of the CCMTA in July 2005 and updated in February 2006. The results are based on responses from 12 of the 13 provinces and territories (Nunavut is not represented).

Television screens

Most provinces and territories have regulations restricting the use of certain types of visual display devices in vehicles, most commonly, television screens. For most jurisdictions, these regulations have been in place for many years; some have been updated to reflect modern types of display screens; others have not.

- 11 jurisdictions prohibit or restrict the use of television screens in vehicles .
- 9 of these stipulate that the television screen may not be visible to the driver.
- 5 of these also stipulate that the television screen must be behind the driver.
- 3 stipulate that the screen must be securely mounted in the vehicle.
- 1 states that the set cannot be in operation while in the vehicle (no restriction on placement, but set must be turned off).

There are also differences in the definition of the type of visual display specified;

- television set
- television screen
- display screen
- television set, video screen or computer screen
- cathode ray tube display screen or similar viewing screen

Exemptions to regulations prohibiting the use of television screens include use:

- in the safe operation of the vehicle, load or passengers
- to navigate
- to reach a destination in due timeliness,
- to display time
- by peace officers
- by ambulance drivers
- to assess fees
- closed circuit system used to operate vehicle

This is a list of all exemptions, by all jurisdictions, but no jurisdiction has all exemptions, and a number of jurisdictions list none.

Cellular telephones

The province of Newfoundland and Labrador is the only jurisdiction in Canada to ban the use of hand-held cellular telephones while driving. No other jurisdiction bans the use of any type of two-way communication device.

At the time of writing, no other jurisdiction in Canada is actively considering introduction of legislation to restrict the use cellular telephones. A private member's bill to ban hand-held cellular telephones has passed second reading in the Ontario legislature. However it appears unlikely that the law will be passed. A number of jurisdictions are monitoring the situation internationally and with respect to the research literature. The possibility of restricting the use of cellular telephones in the learner stage, as part of a graduated licensing program has been considered or discussed by a few jurisdictions. The similar restriction has been enacted by some states in the United States (McCartt, et al., 2006).

Headphones

Only one jurisdiction (Manitoba) prohibits the use of headphones for listening to a radio or a recording while operating a motor vehicle or bicycle. The regulation does not apply to headphones used for listening to a cellular telephone conversation. Some municipalities have enacted bylaws to prohibit the use of headphones while riding a bicycle.

Driver Behaviour

A number of jurisdictions have legislation that prohibits certain types or general categories of behaviour that involve crowding or interfering with the driver or performing stunts. These are summarized in Appendix C. Note that these offences address visual or physical interference, rather than cognitive interference. Where distraction is specifically mentioned, it is aimed at behaviour that could startle or distract other road users, rather than self-distracting behaviours. In some cases, the legislation is aimed at road users *other than* the driver.

Careless Driving

All jurisdictions have a section to address a general category of, "driving without due care and attention" and "driving without consideration". The wording of these sections is remarkably similar from one jurisdiction to the next. It has been argued that these

sections are adequate to deal with instances of distracted driving posing a danger to safety; however that question must be considered in relation to enforcement and adjudication.

The penalties for contravening these sections can be quite hefty in comparison to most other traffic offences. See Appendix C for a summary of penalties for conviction under provincial/territorial careless driving legislation. The lowest minimum fine among jurisdictions is \$100; however most jurisdictions mandate a court appearance and the court-imposed fine can be up to \$2,000. In addition, the court can impose a jail sentence of up to 6 months. Those jurisdictions that do not mandate a court appearance have automatic fines of \$270-\$400. Demerit points range from 4-6, with 6 demerit points being the most usual. This compares with 2-3 points for the majority of motor vehicle/highway traffic act offences. In some jurisdictions, the offence of driving without due care and attention is frequently used as a plea bargain for a Criminal Code impaired driving offence. This practice may also influence the perception that careless driving is a relatively serious offence.

b) Conclusion on Legislation and Regulation

In looking to legislative and regulatory approaches to manage the problem of distracted driving, one should recognize the need for balance. We live in an era where there is pressure on governments to deregulate. An all-out ban, prohibiting the use of telematic devices in vehicles is not likely to be a realistic or acceptable approach. Laws intended to reduce distracted driving should be well written without loopholes or unintended consequences, place minimal burden on law enforcement and have full support of prosecutors and judges. While laws may be improved in certain areas, a legal approach has limited potential to reduce distracted driving. However, in an ever-changing world where technology is posing increasing demands on a driver's attention, we should try to ensure that legislation and regulation are keeping pace and are in tune with the modern world.

Key players: Federal government; Provincial/territorial governments, municipal governments, Industry, Police

Industry has a key role to play because voluntary self-regulation and cooperation will lessen the need for a regulatory approach. The police are essential in determining what form of legislation or regulation is realistic and enforceable.

Supporting players: non-government safety organizations
Non-government safety organizations can encourage and support government actions, as well as helping to inform and advise the public about current and future regulatory/legislative initiatives. They can also provide input to regulatory authorities in the service of best public interest.

Recommendations

- Review existing provincial/territorial legislation and determine applicability to existing and emerging driver distraction issues.
- Determine and recommend best practices for provincial regulations to address dangerous instances of distraction and the use of after-market telematics devices in vehicles.
- Consider prohibiting use of cell phones and other electronic communication and entertainment devices by new drivers under graduated licensing schemes.
- Initiate/continue dialogue between Transport Canada and provincial/territorial governments on regulatory options, to ensure consistency of information/legislation/regulation and practice across Canada.
- Implement regulations to restrict use of portable entertainment devices in vehicles.

4. Self-Regulation and Voluntary Agreement

Canada's industry sectors have an important stake in ensuring that their consumers use their products and services in a sound and safe manner. Various industries have developed extensive public awareness and educational campaigns for numerous public safety initiatives. Obviously different strategies will apply depending on the industry. For the automobile manufacturing industry, the wireless industry and other manufacturers of telematic devices, equipment design and ergonomics is an essential consideration to safe use. It is recognized that driver distraction does not occur independently; distraction requires a distracter. The interaction between the driver and the distracters must be considered to optimize countermeasures. Designers must understand user needs, capabilities and limitations with regard to in-vehicle telematics and to put those principles into practice.

The Federal government has released a discussion document and solicited input from the provinces and territories and industry on potential strategies for limiting distraction. The discussion document and consultation report are available at www.tc.gc.ca/roadsafety/cell/cell_e.htm

Consensus from stakeholder consultations indicated that driver distraction from telematics devices was a safety concern and that a government-industry MOU was the preferred option to address this problem. It was also agreed that any guidelines and standards should apply equally to original equipment and aftermarket devices. Both industry and public groups expressed strong support for public awareness and education initiatives related to distracted driving.

A MOU working group, consisting of Transport Canada and the Canadian automotive industry associations (CVMA, AIAMC), was established in the fall of 2004 to negotiate the terms of a voluntary agreement. Transport Canada proposed a MOU on the safety of in-vehicle telematics devices, with two parts: 1) a code of practice (e.g., AAM guidelines) and 2) a safety-oriented design process for developing these devices. The second part would outline general process elements that should be followed during product design, development and testing. This was intended to compensate for uncertainties and limitations with the voluntary code of practice that is currently being developed by industry. It would also accommodate for the rapidly changing in-vehicle technology and evolving knowledge of driver distraction.

An agreement on the terms of the MOU was expected in fall 2005, however, discussions have now extended beyond that date. The main point of discussion is the definition and introduction of the safety design process. If no agreement can be reached on the terms of the Telematics MOU, Transport Canada will consider implementing a regulation.

Complementary measures will be needed from the provinces and territories to address the problem of distracting aftermarket and portable devices. This could entail exemptions for aftermarket equipment that meets federal requirements (e.g., MOU or regulation). Restrictions could also be established to prevent drivers from using portable devices that are not designed to these same requirements (e.g., legislation and labelling).

Key players: Federal government, Industry;

Supporting players: NSGOs, Provincial/territorial governments

Recommendations:

- Joint government-industry memorandum of understanding on the safety of telematics devices.
- Complementary provincial/territorial measures extending these same requirements to the aftermarket and portable devices.
- Best practice guidelines for manufacturers should continue to be developed, and manufacturers should be encouraged to follow these guidelines

5. Enforcement

There is a need to determine how effectively existing laws are being used to address distracted driving. We should investigate if there is a need for training that could sensitize law enforcement officers to the issue of distraction, and the applicability of existing laws. There will also be a need to sensitize the court system (lawyers and judges) to the issue of distracted driving.

Enforcement would need to be addressed should new regulations targeting driver distraction be enacted in the provinces or territories. Consultation and coordination with provincial police services through the provincial ministries responsible for policing will be required to ensure their participation in the development of an enforcement strategy

Insurance providers may also have a role to play in terms of the limitations they place on their policies or pricing-based incentives. For example, are there situations in which a driver would be in breach of his or her policy, if it were determined that a distracting behaviour or prohibited use of an after-market device contributed to a collision? Could insurance discounts be offered to those who do not engage in certain distracting behaviours – perhaps with the aid of vehicle data recorders? While such notions are speculative at the moment, they should be explored with the auto insurance industry as part of this strategy.

As mentioned in the section on public education and awareness, some major employers with vehicle fleets have implemented policies prohibiting the use of cellular phones while driving. There may be other opportunities for employers to minimize distraction of employees driving company vehicles through by policies that restrict certain behaviours while driving.

Recommendations

- Obtain support and involvement of policing organizations for the Strategy
- Encourage law enforcement officers to enforce existing legislation on careless and inattentive driving in cases where distracted drivers cause collisions or otherwise compromise safety
- Review existing enforcement practices of current legislation and regulations for their applicability to current and emerging driver distractions
- Recommend training for police officers and sensitization of court system, if warranted
- Consider the enforcement of (as yet undeveloped) regulations and guidelines governing the development, installation and use of various types of technology.

- Coordinate enforcement actions with public education campaigns to optimize effectiveness of key messages
- Explore with the insurance industry the possibilities of limiting coverages for distracting behaviour contributing to a collision, as well as pricing-based incentives
- Encourage employers to adopt policies for their employees to reduce potential driving distractions (these policies may include regulations, as well as education and awareness, depending on best practices review)

C. COORDINATION AMONG KEY AGENCIES

The objective of the STRID Strategy to Reduce Impairment by Distraction will only be achieved through the joint commitment and co-operation of the partners involved. This is particularly important in light of how the federal government covers original equipment and provinces/territories cover the aftermarket industry. Industry cooperation has a particularly important role to play in this strategy because of the fact that many sources of distraction originate from manufactured devices or products. Industry's commitment to safety and willingness to self-regulate will lessen the need for legislation, and will promote the implementation of the Strategy's work plan.

Co-operation between all partners is essential to achieving a better understanding of the problem of distraction (through research) and in working towards methods to reduce driver distraction and improve road safety. Coordinated joint action will reduce duplication of effort and ensure that scarce resources are utilized in the most cost-effective manner.

Key Players: Federal government, provincial/ territorial governments, industry, NGSO's, police

Recommendations:

- Ensure that the Strategy has the full support and commitment of all key players
- Engage key players in implementation of the Strategy work plan
- Encourage cooperation among stakeholders in the sharing of resources and in order to reach as broad an audience as possible

D. RECOMMENDATIONS FOR IMMEDIATE ACTION

The STRID Subgroup on Driver Distraction has selected the following recommendations from the complete set for immediate implementation or action:

1. Assess the distracting potential of current and emerging technologies for devices designed as original equipment, as well as after-market devices

2. Monitor public opinion, attitudes and behaviour regarding the issue of driver distraction on a regular basis
3. Develop educational materials specifically to guide the use of emerging telematic systems in vehicles
4. Provincial and territorial authorities should include a section on distracted driving in their driver's licence manuals
5. Initiate/continue dialogue between Transport Canada and provincial/territorial governments on regulatory options to ensure consistency of information/legislation/regulation and practice across Canada
6. Determine and recommend best practices for provincial regulations to address dangerous instances of driver distraction and the use of aftermarket devices
7. Encourage employers to adopt policies for their employees to reduce potential driving distractions
8. Support a joint government-industry memorandum of understanding on the safety of telematic devices
9. Ensure that the strategy has the full support and commitment of all key players and engage key players in the implementation of the strategy work plan
10. Encourage cooperation among stakeholders in the sharing of resources and in order to reach as broad an audience as possible

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APPENDIX A

Information in police collision reports regarding fatigue and distraction

Province	Fatigue		Distraction	
	Section	Item (s)	Section	Item (s)
AB	Driver/pedestrian condition	-Fatigued/asleep		
BC	Contributing factor: Human condition	-Extreme fatigue -Fell asleep	Contributing factor: Human condition Contributing factor Human action	-Driver inattentive -Driver internal/external distraction -use of communication/video equipment
NT	Human condition	-Extreme fatigue/apparently fell asleep		
YK	Human condition	-Extreme fatigue -Fell asleep	Human action	- Inattentive/distracted
NL	Major contributing factors	-Extreme fatigue -Fell asleep	Major contributing factors	-Driver inattention -Driver distraction
PE	Major contributing factors: Human condition	-Extreme fatigue -Fell asleep	Major contributing factors: Human condition	-Driver inattention -Driver distraction
NS	Major contributing factors	-Extreme fatigue -Fell asleep	Major contributing factors	-Driver inattention -Driver distraction
NB	Major contributing factors	-Extreme fatigue -Fell asleep	Major contributing factors	-Driver inattention -Driver distraction
QC	État d'un ou des usagers de la route	-Fatigue, sommeil ou malaise soudain	État d'un ou des usagers de la route	- Inattention/distracted
ON	Driver/pedestrian condition	-Fatigue	Driver/pedestrian condition	-Inattentive
MN	Human condition	-Extreme fatigue/fell asleep	Human condition	- Distraction/inattention
SK	Major contributing factors: Human condition	-Extreme fatigue -Fell asleep	Major contributing factors: Human condition	-Driver inattention -Driver distraction

APPENDIX B

NCDB Data Element: Contributing Factor, Driver Distraction

Data Element No. : 73

Data Element Name : Contributing Factor, Driver Distraction

Variable Name : P_CFDD

Format Name : \$P_CFDD.

Raw Data Location : Column 158

Variable Length : 1

Definition : The driver distraction that may have contributed to the collision.

This field is used for drivers only. Code as “not applicable” for other persons.

Source : Collected

Utility : Important for research, countermeasure programs, and development of safety standards and regulations.

Code	Description
1	Not distracted
2	Distracted, inattentive
3	Distracted by communication device e.g. cell phone, pager
4	Distracted by entertainment device e.g. DVD player, CD player, radio
5	Distracted by vehicle displays e.g. telematics, guidance systems
N	Not applicable e.g. not a driver
Q	Other than the preceding values
U	Unknown
X	Jurisdiction does not provide this data element

APPENDIX C

Regulations on Television Sets, Display Screens and other Electronic or Entertainment Devices

Jurisdiction	Has Regulation	Types of Displays Included	Location and Mounting Specifications	Exemptions	Act and Section	Other Types of Devices Regulated
BC	Yes	television set	<ul style="list-style-type: none"> - image must not be visible to driver - equipment must not obstruct driver's view - equipment must be mounted safely & securely 	if image displays information solely to: <ul style="list-style-type: none"> - assist in safe operation of vehicle or safety of load or passengers - to reach destination in due time - by peace officer to carry out duties - to assess fees to passengers 	Motor Vehicle Act Regulations 7.18 (1) (2) (3)	--
AB	Yes	video entertainment system	<ul style="list-style-type: none"> - screen must not be visible to driver when vehicle is moving 	None specified	Vehicle Equipment regulation 75	--
SK	Yes	television set, video screen, computer screen	<ul style="list-style-type: none"> - image must not be visible to driver - equipment must not obstruct driver's view - equipment must be mounted safely & securely 	if image displays information solely to: <ul style="list-style-type: none"> - assist in safe operation of vehicle or safety of load or passengers - to navigate - to display time - by peace officer to carry out duties - to assess fees to passengers 	Highway Traffic Act 71 (1) (2)	--
MB	Yes	television set	<ul style="list-style-type: none"> - screen must not be directly or indirectly visible from driver's seat - set mounted/positioned behind driver's seat - no one in vehicle can operate set unless it complies 	None specified	Highway Traffic Act 214 (3) (4)	headphones for radio/recording prohibited for motor vehicle and bicycle operators
ON	Yes	television-	<ul style="list-style-type: none"> - must not be visible to driver 	None specified	Highway	--

Jurisdiction	Has Regulation	Types of Displays Included	Location and Mounting Specifications	Exemptions	Act and Section	Other Types of Devices Regulated
		receiving set	while operating vehicle - no part may be located forward of driver's seat back		Traffic Act 78 (1) (2)	
QC	Yes	television set, display screen	- image broadcast from screen must not be directly or indirectly visible to driver	- closed circuit system used to operate the vehicle - peace officer, ambulance driver in performance of duties	Highway Safety Code 439	--
NB	No	NA	NA	NA	NA	--
PE	Yes	television set	- set must not be in operation while vehicle is being driven (applies to any location in vehicle)	none specified	Highway Safety Act (133)	--
NS	Yes	television viewer, screen or other means of receiving a television broadcast	screen can't be located beyond the back of the driver's seat or at a point visible to the driver while operating a motor vehicle	none	Motor Vehicle Act 184(7)	--
NL	Yes	television set	- set must not be visible to driver - no part may be located forward of driver's seat back	closed circuit television system consisting of camera & monitor used to assist driver in operating vehicle	34 (1) (2)	hand-held cellular telephones prohibited
YT	Yes	television set	- must not be visible to driver by any means while vehicle is in motion	None	Motor Vehicle Act 132 (1) (2)	--
NT	Yes	cathode ray tube display or similar viewing screen	- screen must not be visible to driver while operating vehicle - screen may not be located in front of driver's seat	used only for prescribed purposes	Motor Vehicles Act 145 (1) (2)	--

Legislation Applicable to Distracted Driver Behaviour (Careless Driving Laws)

Jurisdiction	Careless Driving Prohibited	Act and Section	Fine 1 st Offence	Fine 2 nd Offence	Fine Subsequent Offence	Demerit Points	Other Penalties
BC	Yes	MVA 144(1)(a)	set fine \$100 up to \$2000 court-imposed	NA	NA	6	Jail up to 6 mos at court's discretion
AB	Yes	TSA 115(1)(2)	\$402	NA	NA	4	
SK	Yes	HTA 44.1	\$270	NA	NA	4	
MB	Yes	HTA 95(3)	\$155 set fine up to \$2000 court may impose licence suspension up to one year.	NA	NA	2	
	Yes	HTA 188	Up to \$5,000 fine. Court may impose suspension up to one year	N/A		6	New penalty provision under HTA which applies when offence arises from incident involving death of a person – no ceiling on the maximum fine, two years imprisonment, and up to five years license suspension.
ON	Yes	HTA 130	\$200-1000 court-imposed	NA	NA	6	Jail up to 6 mos and licence suspended up to 2 years at court's discretion
QC	Yes	HSC 327	\$300-600	NA	NA	4	
NB	NB	Yes	MVA 346(1)(a)	amount is decided by court	NA	NA	5
PE	Yes	HTA 176 (1)(b)	\$100-400	\$200-800	NA	5	
NS	Yes	100(1)	\$250-500	NA	NA	6	The court may impose a license suspension of up to 1 year
NL	Yes	110(1)(a)	\$100-135	\$135-180	\$180-360	?	Licence suspension 2-5. 3-6, 4-12 days depending on offence number
YT	Yes	MVA 186	\$200-1000 court-imposed	\$500-2000	NA	6	Jail up to 90 days for first offence and 6 months for second offence at court's discretion
NT	Yes	MVA 154	\$115	NA	NA	6	

Legislation Applicable to Specific Types of Distracting Behaviours (Other Laws)

Jurisdiction		Crowding	Exchanging Places	Performing Stunts
BC	Yes	Vehicle may not be in motion if driving mechanism or view is obstructed, Passenger must not occupy position that interferes with driver's view or control over driving mechanisms		
AB	Yes	Driver may not permit person, animal or thing to impede free access & use of vehicle controls or to obstruct driver's vision	- Driver may not exchange places with other person when vehicle is in motion - Passenger may not exchange places with driver	TSA 115(2)(e), (f) No person shall perform or engage in any stunt or other activity that is likely to distract, startle or interfere with users of the highway; or drive a vehicle so as to perform or engage in any stunt or other activity on a highway that is likely to distract, startle or interfere with other users of the highway;
SK	Yes	While vehicle is in operation: -Passengers may not sit to left of driver -Driver must not allow compartment containing steering wheel to be over-crowded		HTA 45 (2) No person , whether as a pedestrian, passenger or driver, shall, whether or not with the use or aid of any vehicle or thing, perform or engage in any stunt or other activity on a highway that is likely to distract, startle or interfere with other highway users
MB	Yes	- Passenger shall not occupy a position that interferes with the driver's view to the front or sides of the vehicle or with his control over the driving mechanism of the vehicle. - No driver of a vehicle shall permit more than two passengers on the front seat or permit a passenger to occupy any other portion of the vehicle in such a way that the view of the driver is blocked		
ON	No			
QC	No			
NB	Yes	Must not drive vehicle when it is so loaded or		

Jurisdiction		Crowding	Exchanging Places	Performing Stunts
		<p>when there is such a number of persons in front seat as to obstruct driver's view or interfere with driver's control</p> <p>May not drive when there are more than 3 persons in front seat</p> <p>Passengers prohibited from obstructing drivers view or interfering with driver's control</p>		
PE	No			
NS	No			
NL	No			
YT	Yes	<p>Driver shall not permit front seat passenger to impede access to or use of vehicle controls, or permit any passenger to cause obstruction to driver's vision</p> <p>Passenger may not ride in position that interferes with driver's control of vehicle or obstructs driver's vision</p>	<p>If the vehicle is in motion, the driver shall not exchange places with any other person; and no person shall exchange places with the driver</p>	<p>No person, whether as a pedestrian or driver, whether or not with the use or aid or any animal, vehicle or thing, shall perform or engage in any stunt or other activity on a highway that is likely to distract, startle or interfere with other highway users</p>
NT	No			