



# Report of the

**GOVERNMENT-INDUSTRY**

**ADVISORY COMMITTEE**

**ON HEAVY VEHICLE**

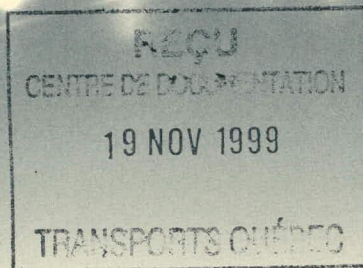
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**ADVISORY COMMITTEE**

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Submitted to the  
ministre des Transports du Québec  
Guy Chevette

June 1999

Québec 

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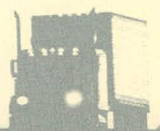
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# FOREWORD

The Government-Industry Advisory Committee on Heavy Vehicle Safety provided a unique opportunity for the main players in the truck and bus industry and related public organizations to work together.

The measures selected were developed during the course of our meetings and we are convinced that they will be instrumental in reducing the number of accidents involving heavy vehicles on our highways. Moreover, the measures selected can be implemented in the short term, that is, within a year.

As an endorsement of our belief in the pertinence of our recommendations, we have signed this report which represents the consensus of all members of the committee.



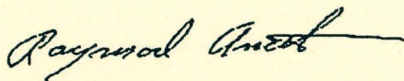
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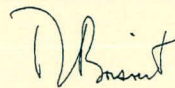
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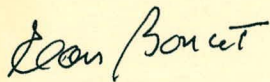
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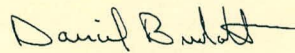
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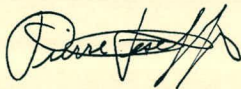
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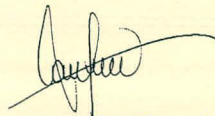
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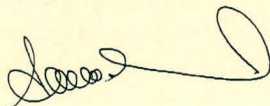
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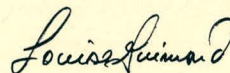
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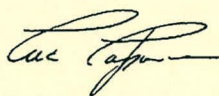
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## Background

An issue of unanimous concern in today's societies, is, without a doubt, human safety. Our participation in an Advisory Committee to deal with this issue underscores our conviction that we are on the right track.

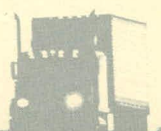
While statistics show a notable reduction in the number of victims over the years, motorists still feel insecure. This is due largely to the increase in traffic in general, the number of heavy vehicles on our roads, lack of knowledge about heavy vehicle manoeuvrability, as well as the impact of media reports of serious accidents involving heavy vehicles, which, unfortunately, still occur too frequently.

We are confident, however, that safety on our roads can be improved, despite several challenges, especially reducing the number of accidents involving heavy vehicles. Our first objective therefore is to improve the heavy vehicle accident situation.

Following the adoption of the Act respecting owners and operators of heavy vehicles (the "Act") in June 1998, the Advisory Committee constitutes an ideal means of supporting the implementation of the Act, since its members fully support it, and are counting on a successful outcome.

The Advisory Committee brings together representatives from several public- and private- sector organizations. The creation of this Advisory Committee has had the effect of improving the coordination of activities between the Commission des transports du Québec (CTQ), the ministère des Transports du Québec (MTQ), the Société de l'assurance automobile du Québec (SAAQ), the various police agencies and the heavy vehicles industry. In addition, the partners are contributing to road safety, each in their respective jurisdiction. In this way, the three public-sector bodies (CTQ, MTQ and SAAQ) can determine the general direction to be taken through policies, a legislative and standards framework, and administrative regulations. Thus, the Act empowers the Commission des transports du Québec to sanction offenders by, for example, revoking their licence. This legislative and standards framework governs heavy vehicle transportation of people and merchandise on Québec roads.

Police forces and the Société de l'assurance automobile du Québec enforce and sanction infringements of laws and regulations. Industry is responsible for integrating the standards established by government organizations into its operations and adopting behaviours consistent with transportation safety.





## The Advisory Committee

The Advisory Committee brings together the main government and industry players concerned with heavy vehicle transportation. This committee includes representatives of the main shipping and transport associations (truck and bus), the largest Teamster union (FTQ), the Sûreté du Québec and, as mentioned earlier, the three government organizations, the CTQ, the SAAQ and the MTQ, responsible for establishing, monitoring and enforcing standards. The Advisory Committee is chaired jointly by a representative of the Québec Trucking Association and by the assistant deputy minister responsible for transportation safety of the ministère des Transports du Québec.

Industry spokespersons represent the following associations:

- Private Motor Truck Council of Canada (PMTC)
- Canadian Industrial Transportation Association (CITA)
- Québec Trucking Association (QTA)
- National Association of Bulk Truckers Inc. (ANCAI)
- Québec Bus Owners Association (APAQ)
- Québec Independant Owners Operators Association (APCRIQ)
- Québec School bus Association (ATEQ)
- Fédération des travailleurs et travailleuses du Québec (FTQ)

The Québec Safety League and the Canadian Automobile Association (CAA) also participated in technical committees.

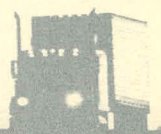
All the members of the Advisory Committee can take steps, each in their respective jurisdiction, towards improving road safety in Québec. The issues raised and the resultant recommendations outlined in this report reflect the diverse expertise at our disposal. Indeed, it is this diversity that underpins the precision and relevance of our analysis and recommendations.

## Activities of the Committee

On May 1, 1998, the ministre des Transports announced his intention to form a government-industry Advisory Committee on heavy vehicle safety. Work began in July, and in September, four working groups consisting of members of various associations focused their analysis in the following four areas: legislation and compliance, competence of the parties involved, possibilities of improving the road safety situation, and data on the causes of accidents. Industry representatives chaired the first three work groups, and the Sûreté du Québec chaired the group dealing with the causes of accidents.

The work groups have since tabled their reports each containing a series of proposals which can be implemented in the short (1 year), medium (1 to 3 years), and long term (3 to 5 years).

The members of the Advisory Committee then selected what they considered the priority recommendations, which could be implemented in the short term. These recommendations are outlined in this report.





## Recommendations

The measures selected for the short term are grouped under four themes: roadside safety inspection, expertise and research, implementation of road safety programs, and legislative framework.

First, coercive measures will have to be reinforced. Information campaigns seem to have no effect on a small group of road users and transportation service providers who persist in endangering safety on the road. The aim of dissuasive measures is to protect the majority of citizens and reward their efforts and investment in road safety. It means increasing **road-side safety inspections and police surveillance** while at the same time preserving fairness. Industry spokespersons represent carriers who already make a significant investment in compliance measures. They want the unfair competition of chronic offenders to cease permanently.

We then identified the areas of **expertise and research in road safety**. This is a matter of identifying more clearly the causes of and the factors involved in accidents. Indeed, human behaviour is the leading cause of accidents, much more than the poor condition of vehicles and road infrastructures.

The third set of measures consists of recommendations to ensure that training results in improved road safety. Enhancing the skills of heavy- and passenger-vehicle drivers, as well as heavy vehicle owners and operators, will lead them to adopt a safer road behaviour. In this regard, we recommend **the implementation of road safety programs in the short term**. These measures involve communication, incentives and cooperation.

Finally, the two measures dealing with the **legislative framework** are directed at evaluating the effectiveness of the Act and reviewing, existing road safety laws and regulations.

## **SUMMARY OF RECOMMENDATIONS**

# **Enforcement**

### **1- Improve enforcement activities.**

- Increase resources.
- Target offenders.

### **2- Crack down on heavy vehicle speeding.**

- Target areas where speeding is the leading cause of accidents.
- Increase human and technological resources for enforcing speed limits.

# **Expertise and Research**

### **3- Identify the advantages for businesses of safety**

#### **and of complying with safety standards.**

- Quantify safety management costs for a business.
- Quantify the costs of delinquency.
- Set up recognition of excellence programs as business incentives.

### **4- Make SAAQ and CTQ information more readily accessible**

#### **to heavy vehicle owners and operators.**

- Facilitate access to the most up-to-date information on heavy vehicle owners, operators and drivers.

### **5- Increase our expertise to improve our ability to counter the causes of accidents.**

- Analyze the causes of accidents and improve data sources (e.g. the accident report).





**6- Set up a team of experts to identify the causes of major heavy vehicle related accidents.**

- Implement a program to analyze and follow-up on major heavy vehicle related accidents.

## **Implementing Road Safety Programs**

**7- Enhance heavy vehicle driver skills.**

- Evaluate drivers on their behaviour and performance related to road safety.

**8- Enhance passenger-vehicle driver skills.**

- Include in the driver's licence examination questions on heavy vehicle manoeuvrability.

**9- Make heavy vehicle owners and operators aware of their obligations.**

- Set up a support system for businesses and an information program for future entrepreneurs.

**10-Elaborate an information campaign on the inherent limitations of heavy vehicle traffic.**

- Change the driving habits of motorists so that roads will be shared safely with heavy vehicles.

**11-Adapt road signs for heavy vehicle use.**

- Rectify road signs for curves and slopes.

## **12-Review government-industry consultation mechanisms.**

- Endorse the ongoing nature of the activities of the Advisory Committee.
- Broaden the Advisory Committee's mandate and establish a regional dynamic that takes into account the issue of transportation and heavy vehicle traffic.

# **Legislative Framework**

## **13-Implement the program to evaluate the effectiveness of the Act respecting owners and operators of heavy vehicles.**

- Develop performance indicators.
- Evaluate the effectiveness of the Act for 2001.

## **14-Revise legislation and regulations.**

- Improve safety standards within a North American context.

### **Priorities**

Five of the Advisory Committee's fourteen recommendations are considered priority items: recommendations 1, 2, 3, 7 and 10.

The members of the Advisory Committee would give precedence to enhancing roadside safety inspection (recommendations 1 and 2) and driver skills (recommendation 7) as well as promoting safety (recommendations 3 and 10). This without minimizing the importance of the other selected recommendations. This does not mean, however, that the other recommendations selected are any less important.



# Enforcement

## 1- Improve enforcement activities

### Issue

- Over the last few years, trucking industry associations have reported insufficient enforcement. Consequently, the largest carriers with service routes that go by inspection stations are subject to more frequent checks than other carriers. In the short term, delinquency costs turn out to be lower than compliance costs and result in a competitive imbalance. Under these conditions, commercial competition is enhanced to the detriment of the safety and integrity of our roads.
- The SAAQ study, carried out within the scope of a request for additional staff, indicates among other things that the lack of resources and the need to review, inspection strategies have created a situation where there are few road inspections during certain periods (e.g. nights, weekends and holidays), that facility audit inspections cover only 5% of all heavy vehicle owners and operators, and that mechanical inspection of vehicles is not sufficient.
- The most problematic and hazardous situations (i.e., mechanical fitness and pre-trip safety inspection, time driven, chronic offenders) require more systematic inspections than the other standards heavy vehicle users are expected to meet. While mechanical fitness is not a factor to be ignored, concerned parties agree the human element is by far the most important factor in accidents and that the direct intervention of an inspector has a positive effect on reducing the risk of accidents.
- Performance evaluation should be based mainly on a decrease in the number of accidents, an improvement in the annual SAAQ accident statistics report, and in better statistics on the improvement in the rate of compliance and in the quantity and quality of cases referred to the CTQ and the SAAQ. It should not be based solely on the amount of fines paid by offenders.



## **Medium- and long-term objective**

- Organize inspections in such a way as to act on highest risk factors, and bring compliance below delinquency costs. Ensuring safety and restoring equity within the industry are two essential elements that go hand in hand.

## **Short-term objectives**

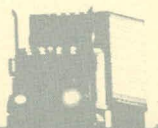
- Continue reviewing road safety strategies.

Without any increase in resources, the SAAQ has already made changes to its inspection activities by:

- improving day and night surveillance,
- increasing the number of on-road mechanical inspections;
- giving publicity to the results of inspection operations.

- Target interventions to control high risk situations (delinquency) by the following:

- analysing available data on offenses and accidents to determine which safety violations entail the greatest risks;
- using data from the administrative policy on the evaluation of heavy vehicle users to identify the most frequent offenders, and determine what on- and off-road inspection operations to implement;
- developing and promoting the use of new technologies for inspection purposes (e.g., on-board computers, transponders, GPS, Internet);
- identifying and promoting measures to enforce the limits on hours driven , as well as advocating these measures with North American public authorities in view of standardizing them;
- compiling information on drivers who violate regulations;
- improving regional partnerships between SAAQ inspectors and the SQ and municipal police agencies.





- Increase the resources allocated to inspections.
  - All the members of the Advisory Committee agree that there is an urgent need for new resources in order to improve inspections;
  - these resources must be allocated solely to inspection activities mainly with respect to road safety and the integrity of the road network;
  - These resources should be directed to the following priorities:
    - *application of the Act (law enforcement and sanctioning of offenders) and of the Highway Safety Code;*
    - *increased mechanical inspections and checks on hours driven;*
    - *off-road inspections of businesses that are never or rarely subject to on-road inspections.*
- Should the expected results not be achieved with the first increase in resources, it would be appropriate to consider further increases.

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## **Responsibility**

- SAAQ.

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## **Costs**

- \$10.1 million per year to create 125 full-time positions: 30 mechanical inspectors, 45 facility audit inspectors and 50 on-road inspectors.

## 2- Crack down on heavy vehicle speeding.

### Issue

Speeding is the leading cause of many accidents involving heavy vehicles, regardless of who is responsible. It is also a significant accident factor among road users in general.

■ Available data taken from supplementary accident reports indicate that "careless driving/speeding" accounts for:

- 41.6% of fatalities involving **only a heavy vehicle** (1990-1997);
- 27.3% of fatalities involving a heavy vehicle (1992-1996).

■ Reduced police surveillance might in part explain this situation (human and financial resources).

■ At the same speed, a heavy vehicle requires a greater distance to brake and come to a stop.

### Medium- and long-term objectives

- Identify the main parameters to better target areas where speeding is a contributing factor in accidents involving a heavy vehicle.
- Update speed data for each vehicle type on Québec roads (50 km/h, 70 km/h, 90 km/h and 100 km/h zones).
- Improve the image of the truck and bus industry. Road users' fears are often rooted in their perception of heavy vehicles and the speed at which they drive.





## **Short-term objectives**

- Determine, assess and implement the various technical means available to control speeding. Industry believes, however, that Québec businesses will be penalized to the benefit of foreign business if more restrictive technological measures are adopted. Speed control technologies complement police intervention, which remains indispensable on the road network.
- Better identify accidents involving heavy vehicles in which speed seems to be a determining factor.
- Make police officers aware of the importance of stepping up control of the speed of heavy vehicles, given the risks they represent.
- Work towards greater coordination between police agencies for monitoring the speed of heavy vehicles.
- Increase resources to enforce the legal speed limit.
  - All the members of the Advisory Committee agree that new resources are needed to improve enforcement of the legal speed limit.
  - These resources should be allocated in order of priority to the surveillance of roads that are considered main transportation corridors.

## **Responsibility**

- MTQ, SAAQ and police agencies. The police agencies should have the sole authority to control speeding; the role of the other organizations should be to lend their expertise in the study of accidents and high risk areas.

## **Resources**

- The organizations responsible need additional financial, human and material resources to carry out their mandate. Action must be taken immediately, and it should be relatively simple as long as the authorities are prepared to allocate the necessary financial and human resources.

# Expertise and Research

## 3 -Identify the advantages for businesses of embracing safety and of complying with safety standards.

### Issue

- Truck and bus operators and drivers must invest to implement safety programs and comply with the legislation, including those pertaining to the integrity of the road network. The implementation and management of such programs often requires additional human, material and financial resources, even though the benefits are not felt for a number of years.
- Concern about the magnitude of costs associated with implementing and maintaining safety and compliance measures seems to discourage some heavy vehicle owners and operators, who **prefer to reap short-term benefits** by turning a blind eye on certain aspects relating to the safety and integrity of road infrastructures. In the short term, these owners and operators can offer transportation services at better rates, thereby placing businesses which invest in safety and compliance programs at a disadvantage. Even though these businesses come out ahead in the long term, they nevertheless put up with unfair and uneven competition in the short term; a situation that brings everything down to the lowest common denominator.
- For heavy vehicle users, knowing the benefits associated with implementing standards compliance and safety programs **may encourage businesses to take action**. However, there is no extensive documentation available on the matter.
- Similarly, the lack of documentation on the adequacy between complying with standards and safety does not encourage businesses to invest in implementing safety programs. **Fear of investing in "paper" standards rather than producing real results represents an obstacle to be overcome.**





## **Medium- and long-term objectives**

- Conduct a study on the relationship between safety and standards compliance programs and road safety and on the advantages of implementing these programs.
- It would also be pertinent to promote the implementation of such programs in businesses, regardless of their size. This would mean establishing how safety-related objectives are in harmony with profitability objectives.

## **Short-term objectives**

- First, it is necessary to determine the size of the investment required to implement and maintain safety and compliance measures. **That is determining compliance and safety management costs.**
- Then, the costs relating to the absence of safety measures must be determined.
- Disadvantages related to non-compliance will be used to establish delinquency costs.
- Concurrently, it is important to develop a **recognition of excellence program**, to provide an incentive to carriers who respect safety standards or who break new ground in the field (e.g., more flexible and less frequent inspections or discounts on certain tariffs). Carriers who comply with standards should be rewarded so as to encourage them to continue, and to persuade other carriers to join them.

## **Responsibility**

- MTQ, in collaboration with the SAAQ and industry, would oversee studies dealing with the various aspects of the problem. Industry, in partnership with MTQ and SAAQ, would be responsible for managing the recognition of an excellence program. Cooperation is indispensable here, since certain benefits of the program require the approval of the authorities..

## **Costs**

- The research project would last 18-24 months with a budget estimated at \$80,000 to \$100,000.



## **4 - Make SAAQ and CTQ information more readily accessible to heavy vehicle owners and operators.**

### **Issue**

- In order to better assume their responsibilities, heavy vehicle owners and operators must, at all times, have ready access to complete and accurate information, so as to be able to make adjustments to their safety programs.
- The information system must provide access to the records of heavy vehicle owners and operators, as well as drivers. Driver performance records will include information pertaining to driving heavy and passenger vehicles.
- However, since the records of heavy vehicle drivers, owners and operators can change quickly, it is often difficult for businesses to obtain the most up-to-date information.

### **Medium and long-term objectives**

- Ensure a better distribution of information so that heavy vehicle owners and operators can take necessary corrective measures within their businesses.

### **Short-term objectives**

- Make known the information available at the SAAQ and the CTQ, and how to obtain it quickly.

### **Responsibility**

- SAAQ and CTQ.

### **Costs**

- None in 1999.
- \$30,000 in 2000.



## **5 - Increase our expertise to improve our ability to counter accidents.**

### **Issue**

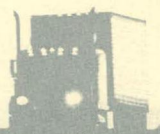
- Some information is barely or not known at all by the various players.
- It is difficult to obtain an overview of all the information available and to establish causal relationships.
- Given its specific and complex nature some information remains inaccessible and sometimes even misunderstood or not understood at all.
- For accidents involving at least one heavy vehicle, there is a lack of knowledge on the profile of drivers and vehicles involved, on whether the limits on hours driven were exceeded or not, and on the characteristics of the road infrastructure.
- Information in the accident report and the supplementary report is sometimes unclear, incomplete or does not facilitate isolation of certain elements.
- Police officers are unfamiliar with how accident reports are used. They receive little or no feedback on how they fill out the reports, and they are poorly informed of their use to help improve road safety.
- Technological resources to facilitate police work and improve the quality of information (computerized data collection, GPS, etc.) are seldom made available to police forces.
- Significant costs are incurred to implement new technologies (computerized data collection, GPS, etc.).
- Information and research are needed to document and support awareness campaigns on sharing the road and controlling speed.

### **Medium and long-term objectives**

- Enhance knowledge on road risks associated with accidents involving heavy vehicles.
- Improve the quality of information sources.

## **Short-term objectives**

- Use existing information to:
  - support inspection and speed control operations;
  - develop themes for a road-sharing campaign: overtaking, entering traffic, keeping safe distances, weather-conscious driving, yielding the right of way, tailgating, maintaining a safe distance from a heavy vehicle, turning widths, and heavy vehicle braking capacity;
  - compare and summarize existing information that can orient the intervention strategies of the responsible organizations. This information can facilitate, for example, the identification of groups at risk.
  
- Improve the quality of information in the accident report and the supplementary report by:
  - informing police officers about how the information in the accident report is used, and making them aware of the importance of properly completing certain sections of the report;
  - recommending to the permanent accident report working group modifications to the accident report and the supplementary report;
  - reviewing, if necessary, the writing guide, directives and so on;
  - making it easier for police agencies to locate an accident (setting up mileposts in isolated areas, promoting the implementation of modern technology, such as GPS);
  - promoting the implementation of technological applications (ATSR - Technological Developments, for Road Safety) to facilitate data collection and processing.
  
- Identify, plan and conduct or oversee additional studies to enhance current knowledge.





## **Responsibility**

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- SAAQ, MTQ and police agencies.
- SAAQ, MTQ, Colleges and the Institut de police du Québec for a continuing education program.

## **Resources**

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- SAAQ, MTQ and police agencies.
- SAAQ, MTQ, Colleges and the Institut de police du Québec for a continuing education program.
- SAAQ and MTQ will conduct research and develop plans and specifications for contract research. This will require few additional resources, since MTQ territorial officers and the police agencies have already met to discuss different issues, such as road closings, winter serviceability, etc. Similar meetings should be scheduled to discuss the accident report and the supplementary report.

## **6 - Set up a team of experts to identify the causes of major heavy vehicle related**

### **Issue**

- Accidents involving a heavy vehicle usually have more serious consequences than those involving two passenger vehicles.
- The number of accidents involving a heavy vehicle is not decreasing as rapidly as other types of road accidents.
- From 1992 to 1997, there were approximately 500 accidents involving fatalities or serious injuries annually.
- It is sometimes difficult to identify the leading cause of accidents since several factors come into play. In addition, accidents resulting from drivers exceeding the limits on hours driven are difficult to assess.
- The MTQ has adopted a management policy to follow up on fatal accidents: an on-the-spot report within 24 hours, follow-up and corrective measures if necessary.
- There is no collaboration between the government bodies concerned. Several investigators arrive at the scene of an accident. Investigations currently conducted do not always cover all the causes of accidents. Also, different experts intervene without consulting each other on the best investigation procedure to follow.
- In May 1998, a Senate committee studied a recommendation to extend the Canadian Transportation Accident Investigation and Safety Board's (TSB) mandate to major road accidents. The Senate did not follow through with the recommendation because it was considered, among other things, to be within provincial jurisdiction.

### **Medium and long-term objectives**

- Reduce the number of major accidents.
- Implement an integrated program to study and follow up on major accidents.
- Form an investigation team of experts from the organizations concerned.
- Take into account the driver's record (including hours driven), the condition of the vehicle, road conditions and the business record.





## **Short-term objectives**

- Define the concept of team of experts and develop the project
- Establish a memorandum of understanding between the SQ, SAAQ, MTQ, CTQ, Coroner's Office and insurance companies.
- Name experts and establish intervention criteria (types of accidents to be investigated).

## **Responsibility**

- MTQ, organizations bound by memorandum, truck and bus industry and a representative of the insurance industry, if their expertise is required.

## **Resources**

The organizations concerned already have experts and resources in this area:

- SQ conducts about 230 accident-related investigations every year.
- MTQ has experts in every region of Québec and in its central offices.
- SAAQ, which also conducts investigations, and CTQ will contribute, among others things, to providing information on drivers and carriers involved in accidents.
- The team of experts could begin by investigating fatal accidents occurring on numbered roads; in 1998, 89 accidents were reported..

# Implementing Road Safety Programs

## 7 - Enhance heavy vehicle driver skills.

### Issue

- Many heavy vehicle drivers do not understand their basic obligations. There are too many violations related to the mechanical fitness of a vehicle, legal limits to hours driven and securement of loads.
- New conditions were recently added for obtaining a driver's licence for heavy vehicles equipped with air brakes or standard transmission. Current Class 1, Class 2 and Class 3 licence holders have therefore not been evaluated on these aspects.
- The tasks of the trucking industry's labour force go beyond merely driving vehicles. Current training generally deals with a set of related tasks, while the SAAQ is mandated to evaluate only the road safety skills of heavy vehicle drivers. Moreover, the examinations, some of which date back several years, need to be updated regularly to effectively evaluate the abilities of future drivers.

### Medium- and long-term objectives

- Remind heavy vehicle driver's licence holders of their responsibilities and obligations.
- Establish an evaluation mechanism for heavy vehicle drivers based on their conduct and performance in relation to road safety and at the same time determine a gradual intervention mechanism. Consider the possibility of imposing periodical examinations to evaluate the skills of all the holders of heavy vehicle driver's licences.





- Quickly bring to a close the revision of the heavy vehicle driver's licence examinations, initiated in 1998, as soon as possible.

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### **Short-term objectives**

This measure only has medium- and long-term objectives.

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### **Responsibility**

- SAAQ, industry associations, Camo-Route, trucker training centres (e.g. highway transport training centres (CFTR)), and the Association Sectorielle Transport Entreposage (ASTE).

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### **Costs**

- \$500,000 for the 2000-2005 period.

## 8 - Enhance passenger-vehicle driver skills.

### Issue

- With the increase in road traffic, there are more situations of conflict involving heavy vehicles and passenger vehicles over the past few years.
- The manoeuvrability of a heavy vehicle is different from that of a passenger vehicle. For example, blind spots are wider, reverse manoeuvres are more difficult and acceleration and deceleration are slower.
- There are more than four million passenger-vehicle drivers who do not drive heavy vehicles. In addition to these, there are about 185,000 new passenger-vehicle drivers each year. The behaviour of these drivers with regard to heavy vehicles is due to their ignorance of manoeuvrability differences.
- In 1997, there were more the 12,000 accidents involving a heavy vehicle and a passenger vehicle. These accidents have a fatality rate greater than that of accidents involving two passenger vehicles. It has been shown that passenger-vehicle drivers were responsible in more than half the accidents reported. An American study puts forward that they are responsible in 73% of cases.

### Medium- and long-term objectives

- Introduce questions on heavy vehicle manoeuvrability into passenger-vehicle licence examinations.
- Make drivers aware of the manoeuvrability limitations of heavy vehicles.



### **Short-term objectives**

- Develop tools to familiarize passenger-vehicle drivers with the manoeuvrability limitations of heavy vehicles. A first step could consist in sending passenger-vehicle drivers a brochure with their driver's licence renewal notice. Radio and television ads as part of a road-sharing campaign might also be effective (recommendation 10).

### **Parties responsible**

- SAAQ, in collaboration with the truck and bus industry.

### **Costs**

- For 1999, in-house.
- \$220,000 for 2000 and 2001.

## **9 - Make heavy vehicle owners and operators aware of their obligations.**

### **Issue**

- Market conditions have changed; competition is fiercer due to globalization, competition, deregulation and just-in-time deliveries.
- Heavy vehicle owners and operators who do not respect safety regulations can still continue operating their businesses without penalty.
- Even though this situation is totally unacceptable, some owners and operators are hardly aware of their legal and financial obligations to respect existing safety standards. Over time, several violate regulations and skimp on safety measures. Their mismanagement can even lead them into bankruptcy. This situation particularly affects new heavy vehicle owners and operators.

### **Medium- and long-term objectives**

- Set up a support system for businesses in difficulty, using the evaluation mechanisms provided under the Act respecting owners and operators of heavy vehicles.
- Develop an information framework for prospective heavy vehicle owners and operators.
- In addition to existing programs, organize a sponsorship program for new heavy vehicle owners and operators through the associations representing the heavy vehicle industry.
- Design an examination to test prospective buyers of truck and bus businesses on their knowledge of the industry and of what obligations would be.
- Establish a concerted awareness program on a permanent basis. Some associations already provide such a service.



### **Short-term objectives**

This measure only has medium- and long-term objectives.

### **Responsibility**

- CTQ, truck and bus industry, MTQ and SAAQ.

### **Costs**

- \$100,000 per year, as the year of 2000.

## **10-Elaborate an information campaign on the inherent limitations of heavy vehicle traffic limitations.**

### **Issue**

- Motorists are generally ignorant of the manoeuvrability and visibility limitations of heavy vehicles.
- Québec and American studies indicate that nearly 75% of all accidents involving a heavy vehicle and a passenger vehicle are attributable to human factors, and often the passenger-vehicle driver is responsible.
- The amount of heavy-truck traffic (+30%) and the use of third-party tractor semi-trailers (+67%) increased continuously over the last 20 years (from 1978 to 1998). This trend reflects the needs of the trucking industry's clientele.
- Passenger-vehicle drivers need to learn about the limitations specific to heavy vehicles and buses so as to be able to adapt their behaviour when in proximity to these vehicles.
- Heavy vehicle-related accidents involving bodily injuries remained at about 2,200 a year (2,037 minimum 2,472 maximum) throughout the 1990s, despite the means implemented under conventional road safety programs.
- In 1998, the U.S. Department of Transportation (USDOT), with the support of the industry, launched a road sharing program under the slogan "NO-ZONE". The program will be in effect for a minimum of two years.
- Here in Canada, Saskatchewan and Manitoba, in collaboration with the CAA, launched a similar program in 1998. CAA Québec plans to establish a similar program shortly.

### **Medium- and long-term objectives**

- Change the driving habits of motorists driving in proximity to heavy vehicles.
- Reduce the number of accidents involving passenger vehicles and heavy vehicles.





## **Short-term objectives**

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- Design an information campaign on the behaviour to adopt when driving in proximity to a heavy vehicle, based on the American campaign model. Involve truck and bus associations and CAA Québec in the process.
- Choose a theme, e.g., "Drive risk-free" or "Share the road".
- Determine what dangerous driving behaviours to target in the information campaign. For example:
  - heavy vehicle danger zones;
  - tailgating;
  - sudden braking;
  - overtaking and sudden cutting in;
  - failing to yield the right of way.
- Assess the most appropriate manner to distribute this information.

## **Responsibility**

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- MTQ, SAAQ and CTQ.
- All industry partners and CAA Québec.

## **Resources**

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- In 1999, planning the information campaign and carrying out a number of activities using the internal resources of the partners.
- For the following years (up to 5 years), organizing the campaign and running ads in the major media, using the necessary internal and external resources.

## **Costs**

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- Approximately \$1,000,000 per year for 2000-2005.

## 11 - Adapt road signs for heavy vehicle use.

### Issue

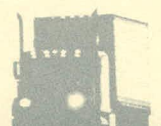
- The generally recommended speed limit on turns does not allow heavy vehicles, which have a centre of gravity greater than that of automobiles, to make the turn safely.
- The ministère des Transports uses a rolling-ball inclinometer to determine the recommended speed limit; this instrument is also used for automobiles.
- Research has indicated that pictograms with a curved arrow have a greater effect on a driver's behaviour than road signs indicating the recommended speed on the curve.
- Statistical data on this subject has been available since April 1999.

### Medium- and long-term objectives

- Adapt road signs for heavy vehicle traffic.
- Make the necessary corrections to road signs on curves, highways and road/highway ramps so as to encourage drivers to slow down.
- Reduce the number of heavy vehicle accidents on curves and road/highway ramps.

### Short-term objectives

- Determine the advantages and drawbacks of specific road signs for heavy vehicles.
- Analyze the performance of heavy vehicles on curves in light of the recommended speed and their centre of gravity.
- Study the relevance of posting signs on curves with a recommended speed specific to heavy vehicles.
- Carry out a summary analysis of the experiences of other provinces, states or countries on this issue.





## **Responsibility**

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- MTQ.

## **Resources**

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- The MTQ has the expertise in its regional offices and its central offices to define the elements of this problem.

## **Costs**

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- A budget of about \$50,000 would be required to carry out a study to propose the best solutions. The costs for implementing new road signs would also have to be determined, and, if necessary, assumed by the authorities responsible for maintaining the road network.

## 12- Review government-industry consultation mechanisms.

### Issue

- The Advisory Committee is the result of a government-industry partnership. It is essential to sustain this constructive alliance to:
  - follow up on the adopted measures;
  - propose long-term measures;
  - support the implementation of the Act respecting owners and operators of heavy vehicles;
  - strengthen the government-industry partnership.
- The current collaboration between the government and the industry on the issue of road inspection is based on the work of the permanent national, sectoral committees comprising the SAAQ, the MTQ and associations from each industry sector. There are, however, some weaknesses in the way these committees operate: the discussions do not take into account regional particularities; the transportation clientele and the agents of control do not all participate in the discussion, even though the issues discussed often deal with problems concerning several organizations (vehicle safety, driver fatigue, etc.).
- The need to resolve problems related to roadside safety inspection and adopt new regulations can be met through the implementation, in collaboration with the industry, of *ad-hoc* sectoral Advisory Committees.
- With regard to the collaboration between organizations with complementary road safety responsibilities, such as the MTQ, the CTQ and the SAAQ, there are weaknesses in the consultation and follow-up process concerning work to facilitate the acquisition of road safety knowledge, and in designing or modifying standards.
- Since safe travelling on the road network largely depends on harmonious road sharing, it is important that motorists be represented in the discussions of the consultation committee.

### Medium and long-term objectives

- Improve road safety interventions through collaborative efforts.





## **Short-term objectives**

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- Endorse the on-going nature of the activities of the government-industry consultation committee.
- Broaden the mandate of the Advisory Committee, which will:
  - meet twice a year to study reports from various sources (SAAQ, SQ, CTQ, road safety status report, road inspection results, progress report, etc.), in order to establish certain correlations, draw conclusions, adjust efforts, propose solutions and establish intervention priorities;
  - develop a plan for short-, medium- and long-term activities so as to acquire the necessary knowledge related to road safety and setting standards (research, studies, missions, etc.);
  - invite road-user representatives (CAA Québec) to participate in the consultation committee.
- Set up regional committees or use and extend the scope of existing sectoral consultation mechanisms relating to transportation. The committees should comprise carriers nominated by the associations, regional representatives of the SAAQ, the MTQ, the CTQ and the SQ, representatives of municipalities and municipal police forces, as well as representatives of transportation customers and other stakeholders.
- The purpose of this collaboration would be to find practical solutions to the various problems relating to compliance with standards. Regional committees could also study the causes of accidents in their region, propose solutions to the consultation committee and determine intervention priorities.

## **Responsibility**

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- MTQ and SAAQ.

## **Costs**

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- No new resources, but greater collaboration at the regional level.

# Legislative Framework

## 13-Implement the program to evaluate the effects of the Act respecting owners and operators of heavy vehicles.

### Issue

- Section 181 of the Act respecting owners and operators of heavy vehicles provides for an evaluation of the effectiveness of the Act.
- The ministère des Transports is responsible for preparing this evaluation for the Minister. The law was drafted in close collaboration with the SAAQ, the CTQ and associations representing the industry. The Advisory Committee is, certainly, the best body to prepare the evaluation report on the effectiveness of the Act, since it brings together all the main partners and enjoys the role of advising the Minister on the measures to take to improve road safety.

### Medium- and long-term objectives

- Assess whether the objectives set by the Act have been met and recommend to the National Assembly in 2001 the legislative and administrative modifications that are deemed necessary, based on the evaluation.

### Short-term objectives

- Develop performance indicators for evaluating the effectiveness of the Act.
- Compile and finalize the information necessary for carrying out the evaluation for 2001. The MTQ and its partners must complete the evaluation by then.

### Parties responsible

- MTQ, in collaboration with CTQ, SAAQ and industry.

### Costs

- To be determined.





## 14 - Revise legislation and regulations.

### Issue

- Over the past years, efforts have been undertaken jointly by government, industry and interprovincial standards organizations to improve certain standards, such as driving hours of service, pre-trip safety inspections, vehicle inspections, and so on. The possibility of easing regulations without compromising our objectives of improving road safety must also be examined.
- Michel Gou's study\* highlighted some improvements which could be made to the continuing evaluation of the mechanical condition of heavy vehicles.
- The adoption of the Act respecting owners and operators of truck and bus has led to changes in the Highway Safety Code; this has allowed the preparation of regulatory modifications that will improve safety standards.
- Global economic deregulation forces us to review and even reinforce safety regulations. In the open transportation market, the need for both harmonization and competition must be taken into account for all technical standards such as safety regulations.

### Medium and long-term objectives

Improve safety standards to the benefit both of society in general and of the truck and bus industry.

### Short-term objectives

- Identify those standards borne that require adjustment in order to improve the road safety situation or to lower the costs by industry. This analysis will be carried out in cooperation with the industry.
- Review the normative aspects of the decelerometer, the content of the pre-trip safety inspection record, and the content of the driving hours-of-service record .

\* See *Incidence de l'état mécanique des poids lourds sur la sécurité routière* (Effects of the mechanical condition of heavy vehicles on road safety), École polytechnique de Montréal, December 1997.

- Take steps to harmonize technologies, such as the pre-trip safety inspection record, with other North American jurisdictions.
- Promote the installation of equipment to enable the driver to monitor the condition of various mechanical components of the vehicle.

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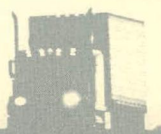
### **Responsibility**

- CTQ, SAAQ and MTQ.

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### **Costs**

- In-house.





## Long-Term Outlook and Conclusion

This report contains proposals which can be implemented in the short term (within one year). These proposals offer the best potential in terms of benefits and costs. In addition, they meet the expectations of road users who wish to be able to exercise their right to travel in a safe environment.

The Advisory Committee also proposes to put forward another series of recommendations to complement these short term proposals, and which will cover the next five years.

We must set an overall objective to reduce the number of accidents involving heavy vehicles on our roads. Such an objective will be based on, among other things, comparative data from neighbouring provinces and states. This objective will be included in the Policy on Road Safety in Transportation for the years 2000-2005.

Finally, we wish to underline how important it is for the Advisory Committee to continue with its work. The committee represents a form of partnership that is useful in itself. It allows government and industry representatives to work together in order to improve road safety and to support the implementation of the Act.

Partnerships are the distinguishing feature of states that post the best road safety results.



**GOVERNMENT-INDUSTRY ADVISORY COMMITTEE  
ON HEAVY VEHICLE SAFETY**

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