

## Council of Deputy Ministers Responsible for Transportation and Highway Safety

## Task Force on Vehicle Weights and Dimensions Policy

## **Minutes**

(Draft December 17, 2006)

Date: November 20, 2006

**Location:** Intercontinental Hotel, Montreal

Chair: John Pearson
In Attendance: (See Attachment 1)

### 1. Welcome and Opening Remarks

Mr. Pearson opened the meeting and welcomed participants. He provided a brief overview of the role of the Task Force, noting that the primary focus is on improving the national consistency of regulations and policies which affect vehicle weights and dimensions.

Mr. Pearson noted that the meetings are structured as open forums for discussion, and to provide an opportunity to identify concerns, discuss new technologies, and consider proposals for changes to the national standards contained in the Memorandum of Understanding endorsed by federal, provincial and territorial governments. With regard to process and decision making, he suggested it was important to recognize that:

- provincial and territorial legislation and regulations govern vehicle weights and dimensions in Canada
- each jurisdiction is represented on the Task Force, and a report on the meeting's discussions is provided to the Council of Deputy Ministers
- in most cases, decisions on proposals for changes in standards cannot be taken by the Task Force at the meeting, and will require consideration by each government individually, and collectively by the Council.

#### 2. Round Table Introductions and Adoption of the Agenda

Following round table introductions, Mr. Pearson drew attention to the agenda that had been circulated prior to the meeting, and invited comments or additions. There being none, the agenda was adopted.

#### 3. Vehicle Weight and Dimension Regulations in Canada - Update on Issues and Developments

## a) Provincial and Territorial Developments

In round table review the following reports were provided:

British Columbia

Mr. Elliot reported that in the past year changes in regulations had been introduced to:

- allow the use of "empty assist" liftable axles
- increase the weight limit on wide base single tires from 3000 kg to 3850 kg
- remove "non-TAC" vehicles from the regulations

He reported that a new special permit system was being implemented based on the TRAVIS system developed and used in Alberta, with roll out expected in 2007. He noted that discussions were planned with municipalities on the feasibility of integrating their special permit requirements.

He reported on a pilot project to evaluate Rocky Mountain Doubles between Vancouver and Kamloops. He noted that BC is involved with NORPASS, and will be installing Weigh in Motion scales and AVI readers at a number of locations.

#### Alberta

Mr. Moroz reported that regulations governing vehicle weights and dimensions regulations in Alberta were being revised, and would include tridem drive vehicles (removing the need for permits). He noted that steering axle weights would be permitted up to 9100 kg for vehicles with permanently mounted equipment.

He reported that the special permit system (TRAVIS) was being expanded to include municipal permit requirements, with participation by municipalities mandatory.

#### Saskatchewan

Mr. Cipywnyk reported that a web based automated special permit system was under development and would be launched in April 2007. He noted that the system would initially include only provincial routes, and that discussions were underway with municipalities to expand the system coverage. He reported that tridem drive configurations were being included in regulations.

He reported that the implications of increasing the GVW for B Trains to 63.5 tonnes, and increasing the medium spread tridem weight limit to 24 tonnes were being evaluated.

#### Manitoba

Mr. Catteeuw reported that regulatory changes had been introduced in Manitoba to accommodate lift axles and tridem drive tractors. He noted that a pilot project had been launched using Rocky Mountain Doubles on a two-lane road (without paved shoulders) in northern Manitoba.

He reported that an automated special permit system had been developed and recently launched, with further work underway to develop a consolidated permit involving the province and the cities of Brandon and Winnipeg.

#### Ontario

Mr. Madill provided an update on developments in Ontario, noting that Phase 4 of the Weight Reform Project was underway, which will address straight trucks, truck and trailer combinations and buses.

He noted that there were 35,000 semitrailers in Ontario with lift axles, and that recent regulatory changes had seen 25% of the fleet converted to SPIF.

He reported that testing of the impacts of single tires on pavements was being conducted, and that the Ministry was also following with interest research being done by NRC on aerodynamic devices on trailers. He reported that Ontario was also involved in an evaluation of Central Tire Inflation (CTI), which would be conducted over the next two years.

He noted that Ontario had not supported a request to allow a saddlemount configuration with four tractors, but currently allows three tractors to be moved in this configuration provided the overall length does not exceed 25 metres.

He reported that Ontario and Quebec had recently signed a cooperation agreement, which included VWD as an area for further collaboration.

## Québec:

Mr. Janelle reported on developments, noting that:

- In order to remain competitive, Québec offers special permits for the saddle mount tractors configuration to a maximum length of 30 m (on divided lane highways only and 9 months per year).
- In early 2007 Québec plans to implement new distribution of responsibilities between the operator and shipper when the gross vehicle weight limit is exceeded.
- Since 2002, special permits have been available for the new generation wide-base tires to ensure
  compatibility with weight limits in the United States during the spring thaw period. The cost of
  the special permit reflects the additional damage caused to roads. Québec plans to extend this
  special permit to a year round basis to harmonize the allowable weights for dual and single widebase tires.
- new regulations regarding oversize and overweight special permits are planned for introduction in 2007

#### New Brunswick

Ms. Lynch reported that the four Atlantic provinces had recently issued a proposal for harmonization of overdimenional permits, with a deadline for comment of December 1.

She noted that NB was giving consideration to expanding the operational evaluation of LCV's (twin 53' trailers), in light of the additional sections of four lane highway being completed. She indicated that by the fall of 2007 there would be a four-lane highway from the Quebec border to the Nova Scotia border.

She reported that NB would be adopting the same approach as Quebec in allowing tractor wheelbases up to 7.2 m, provided the wheelbase of the towed semitrailer is shortened to preserve offtracking performance. She indicated that the permit program for use of quad axle semitrailers was being expanded beyond the forest sector (with GVW up to 55,500 kg).

She reported that installation of Weigh in Motion scales in NB had been very successful, and that work was progressing on an automated special permit system.

#### Nova Scotia

Mr. Stonehouse noted that a consultant (John Billing) had been retained to evaluate the performance of a range of candidate new configurations including LCV's, quad axle semitrailers, and tridem drive tractors. He indicated that a pilot test of LCV's operating between the NB border and Halifax was being considered.

He noted that legislative and regulatory changes were planned for farm vehicles operating on public highways, and a regulatory change was being considered to further delay the removal of tolerances for another year. He reported that NS was also reviewing potential weight limit changes for the new wide base single tires.

## Transport Canada

Mr. Harbour reported that there had been no interest expressed, or VWD issues identified by stakeholders in either Canada or the United States, for discussion under the Security and Prosperity Partnership (SPP), and that it would likely be dropped from the agenda.

#### b) Status of Recommendations for Changes to MOU on Vehicle Weights and Dimensions

Mr. Pearson reported that the outcomes and priorities from the Task Force meeting held in November 2005 had been presented to the Council of Deputy Ministers at its meeting in April 2006. He noted that the presentation included two recommendations for changes to the MOU, as proposed by participants in the Task Force discussions:

- increase the maximum GVW for B Trains to 63,500 kg
- increase the weight limit for medium spread tridem groups to 24,000 kg

He reported that there had not been unanimous support for the proposed changes, due to concerns with the impacts of increases in weight limits for pavements and bridges in Manitoba and Saskatchewan.

### 4. Environmental Stewardship and Equipment Design

Mr. Dolyniuk (Manitoba Trucking Assn) provided copies of a submission (Attachment 2) on vehicle weight and dimension issues that are impacting efforts to improve the efficiency and reduce the environmental impacts of large commercial vehicles. He noted that there are 280,000 heavy trucks in Canada that consume 8 to 9 billion litres of fuel annually.

He reviewed a number of issues deserving of attention, including:

- weight allowances for particulate traps and anti-idling devices
- weight limit parity for wide base single tires as replacements for conventional dual tires
- dimension limit allowances for devices which improve trailer aerodynamics
- broader usage of Long Combination Vehicles, particularly with the expected completion of a four lane routing across western Canada in the near future
- removal of requirement for paved shoulders on Rocky Mountain Double routes
- increased overall length limit for LCV's to allow use of longer tractors equipped with sleeper berths

In concluding his remarks, Mr. Dolyniuk encouraged all jurisdictions to carefully review the proposals and adopt changes which will reduce the environmental impacts of trucks while preserving the productivity and safety imperatives.

In discussion, Mr. Robert (Transport Robert & Canadian Trucking Alliance) expressed strong support for the recommended measures, noting that broader usage of LCV's would also help with the current driver shortage, and further improve safety. He noted that in remote areas LCV's are generally required to travel 10 km/hr below the posted speed limit, which assists with providing passing opportunities for other traffic.

Mr. Wood (Ontario Trucking Association) noted that replacing two tractor semitrailers with a Turnpike Double configuration can reduce fuel consumption by 30 litres per hr.

Mr. Nelson (Atlantic Provinces Trucking Association) reported that APTA had prepared a submission to the federal department of finance calling for tax credits for purchase and installation of equipment on trucks that reduces environmental impacts.

Mr. Pearson reported that plans were being developed by the Council of DM's Policy and Planning Support Committee to convene a "summit" meeting on the future of trucks and trucking to gain a better understanding of current and expected changes in technology and business operations, in

support of a review of how policy development should be organized within Canada. Mr. Robert expressed strong interest in such a session and indicated that he would be pleased to participate.

In concluding the discussion <u>it was generally agreed</u> that national guidelines for the weights and dimensions of LCV's would be desirable, and that a Subcommittee would be formed for this purpose. It was suggested that the scope of the work also include driver qualifications, equipment specification and industry best practices.

<u>It was agreed</u> that persons interested in participating on the Subcommittee should contact the Secretary.

**Action: All participants** 

## 5. New Generation Wide Base Single Tires

## a) Update on Pavement Impact Research in Ontario

Mr. Madill (Ontario Ministry of Transportation) provided a presentation on the research program being undertaken by the University of Waterloo for the Ministry (Attachment 3). He reported that testing of the impact of different tires on pavement had initially been done in June 2006. He noted that large temperature variations encountered during the course of testing had posed some challenges in analyzing the data. He reported that additional testing had been done in October to resolve these uncertainties, with both cooler temperatures and through the use of two test vehicles. He reported that the University of Waterloo was analyzing the data, with results expected early in 2007.

In discussion, Mr. Robert noted that the majority of trucks are not operating at maximum legal weights, and that some configurations would not be suited to use of wide base single tires. He suggested that the current lower weight limits for single tires were penalizing efficiency and innovation. Mr. Madill indicated that about 15% of truck travel (VMT) occurred at maximum legal weights.

#### b) Minimum Track Width Requirements

Mr. Beaveridge provided a presentation (Attachment 4) on the implications of replacing dual tires with single tires. He noted that when dual tires are replaced by single tires on existing trailers, the track width (ie. distance between outside edges of tires) could be less than the 2.5 m minimum stipulated in the MOU. He indicated that use of larger rim offsets or spacers could resolve this issue, but noted that, in some cases this practice would not be recommended by the axle manufacturer due to higher stresses.

In discussion Ms. Lessard (Manac) noted that axle and/or trailer manufacturers would want to review, and possibly lower, the rated capacity of the axle with changes of this kind.

In concluding this item, Mr. Beaveridge proposed that jurisdictions consider providing relief from the minimum track width requirements for vehicles fitted with single tires.

## 6. Aerodynamic Devices on Trucks and Trailers

#### a) Rear Outswing of Aerodynamic Devices

Mr. Billing provided a presentation (Attachment 5) on the implications for rear outswing of trailers when aerodynamic devices are installed on the rear. He noted that deflector plates are generally installed such that they angle inward, and consequently do not have implications for increased rear outswing.

## b) Update on CTA Initiative

Messrs. Montague and Wood (Ontario Trucking Association) provided a presentation (Attachment 6) on the research being done by NRC in conjunction with the CTA and Transport Robert. In concluding the presentation, Mr. Montague proposed that consideration be given to allowing additional effective rear overhang to accommodate aerodynamic devices, noting that significant fuel savings could be realized with no detrimental impact on highway safety.

### 7. Weight Limit Accommodations for Emission Control and Anti-idling Devices

A discussion of developments affecting the design and weights of highway tractors and trailers occurred. It was noted that the minimum weight of highway tractors has increased from about 17,000 lb to 19.000 lb because of:

- additional structural strength needed to meet rollover standards (eg. steel cabs instead of aluminum), and
- additional and/or larger equipment (eg. radiators) needed to meet emissions standards and to adapt to low sulphur diesel fuel.

It was noted that the increasing tare weights of tractors and trailers were having impacts on payload capacity, which would be further reduced if anti-idling devices and particulate traps became mandatory.

## 8. New Vehicle Configurations

Mr. Michaelsen (Forest Engineering Research Institute of Canada) provided a presentation on new vehicle configurations being evaluated by the logging industry (Attachment 7). He invited comments from jurisdictions on whether these configurations would be acceptable, and if not, what conditions would have to be met.

With respect to the "J Train", it was noted that this configuration had been proposed previously, and was considered to be a B Train Double if the dimensions complied with the MOU requirements, including the provision that the sum of trailer wheelbases did not exceed 17 metres.

With respect to the hinged trailer design, concerns were raised with stability performance and cargo securement capabilities by a number of representatives.

#### 9. Harmonization of Overdimensional Permits in Atlantic Canada

Mr. Stonehouse provided an overview of the proposed harmonization agreement, and the consultation process being used to obtain comments from stakeholders (Attachment 8).

### 10. Requirements for Escort Vehicles/Pilot Cars

Ms. Murray (Sparrow Piloting Services) reported that she was assembling the pilot car/escort vehicle requirements from all jurisdictions, and would appreciate assistance in obtaining this information for Ontario and Quebec. Mr. Barsalou (ON) and Mr. Janelle (QC) agreed to provide assistance.

#### 11. National Guidelines for Additional Vehicle Configurations

Mr. Pearson reported that interest had been expressed in establishing "national guidelines" for a range of vehicle configurations which are not currently included in the MOU, but which are in use in one or more jurisdictions. He indicated that this would capture the benefits of research, evaluation and experience with such configurations, normally undertaken by jurisdictions in collaboration with industry. He suggested the concept would support national consistency by providing guidelines for both industry and jurisdictions in considering new configurations.

Support was expressed for this initiative, and it was proposed that twin steer trucks and trucks be added to the list of configurations

#### 12. Other Business

#### a. Roll Stability for Vehicles Transporting Bulk Liquids

A brief discussion occurred on the need for improved roll stability performance of vehicles transporting bulk liquids, particularly dangerous goods. It was reported that new vehicles are being equipped with stability control systems linked to the braking system, and that it was important to ensure that tractors and trailers are both fitted with compatible equipment.

#### 13. Next Meeting

Mr. Pearson noted that past discussions had resulted in the recommendation that the Task Force meet annually, preferably in the late fall.

In discussion, it was generally agreed that annual meetings were worthwhile, but better communications were needed following the meetings on what recommendations would be going forward to the Council of DM's and subsequently on decisions taken.

For planning purposes, it was agreed that plans would be made for a meeting in November 2007.

#### 14. Adjournment

There being no further business, participants were thanked for their contributions to a productive meeting.

**Secretary:** John Pearson

**Date Distributed:** December 20, 2006

#### **List of Attachments**

Attachment 1: List of Participants

Attachment 2: Paper: MTA - Environmental Stewardship and Equipment Design

Attachment 3: Presentation: Ontario – Wide Single Truck Tires

Attachment 4: Presentation: Michelin – Vehicle Track Width

Attachment 5: Presentation: John Billing – Rear Swingout of a Semitrailer with a Rear Mounted Device

Attachment 6: Presentation: CTA – Aerodynamic Fairings

Attachment 7: Presentation: FERIC – Alternative Vehicle Configurations

Attachment 8: Report: Atlantic Provinces Oversize Special Permit Conditions Proposal

## **Attachment 1:**

# Task Force on Vehicle Weights and Dimensions Policy Meeting – November 20, 2006 Montreal

## In Attendance:

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