

## Canadian Belt Use Law Brings Mixed Results

A safety belt use law in Ontario, Canada – the first such law to be enacted and enforced on the North American continent – has produced mixed results in its first months of enforcement.

Data collected by the Insurance Institute for Highway Safety, show the law, which took effect January 1, increased overall belt use in Ontario's rural areas from 19 percent prior to the law to 66 percent in February, and in its urban areas from 22 percent to 72 percent.

However, the data show that in some rural areas belt use after the law took effect was as low as 60 percent, and in one urban area – just across the border from Detroit, Mich. – was only 53 percent.

The data are initial results from research by Dr. Leon Robertson, the Institute's senior behavioral scientist.

The data indicate that the law had the greatest effect on belt use of drivers estimated to be 60 years of age or older. "The law had no apparent effect on belt use by teenage drivers – a group disproportionately involved in severe crashes," Robertson said. For child and teenage passengers, he said, "only a small increase" in belt use was observed as a result of the law.

Although "reductions in vehicle occupant deaths and severe nonfatal injuries are expected in Ontario as a result of increased belt use," Robertson said, these can't be reliably measured. He pointed out that Ontario's belt use law was adopted simultaneously with a reduced speed limit of 50 miles per hour, and that fatality reductions from the two measures will be impossible to separate.

Robertson and a team of observers collected data at 36 sites on more than 15,000 Ontario motorists. Vehicle driver and right front seat passenger belt use was observed. The researchers also recorded the sex and estimated age of the occupants.

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More than 8,000 drivers were observed in rural and urban areas during December 1975, before the law went into effect. Robertson found that “14 percent were using lap and shoulder belts and 7 percent were using lap belts only – a total of 21 percent use. In February 1976, after the law went in force, 71 percent of 7,379 drivers observed were using lap or shoulder belts – 57 percent use of lap and shoulder belts and 14 percent use of lap belts only. Among right front seat passengers, 16 percent were using shoulder belts or child seats before the law and 62 percent were using shoulder belts or child seats after the law.”

Robertson found a sizeable difference in belt use from one Ontario city to another. Belt use “was highest in the Toronto area and lowest in the Windsor area with the Ottawa area intermediate both before and after the law. In the Toronto area after the law, driver belt use was 70 percent on rural roads, 85 percent in shopping areas, 89 percent on commuter roads during commuting hours and 91 percent on other urban roads. In the Windsor area after the law, driver belt use was 60 percent on rural roads, 53 percent in shopping areas, 56 percent on commuter roads during commuting hours and 55 percent on other urban roads. The pattern among passengers was similar to that of drivers.”

The Ontario law requires that belts be worn in all cars in which they were installed as original equipment. Persons exempted from mandatory use include rural mail carriers, police, taxi drivers and persons whose work requires frequent entry and exit from vehicles and who travel at 25 miles per hour or less, persons who obtain a physician’s certificate that belts cannot be used because of medical reasons or physical characteristics and children less than 2 years of age. Drivers are prohibited from operating a vehicle in which persons aged 2-16 years are not restrained.

## **Highway Act To Suspend DOT Penalty Authority**

House and Senate conferees on the 1976 Federal-aid Highway Act have recommended that the Congress suspend – at least for one year – the Department of Transportation’s authority to force states to comply with national highway safety standards that establish requirements for such things as driver education and motor vehicle inspection.

The moratorium on enforcement of the 18 standards is in the House-Senate conference version of the Federal-aid Highway Act of 1976, according to staff members of House and Senate Public Works Committees, who predict little or no opposition when the bill is voted on next week. (For provisions of the House and Senate versions of the Federal-aid Highway Act, see *Status Report*, Vol. 10, No. 21, Dec. 23, 1975.) The only thing standing in the way of the bill becoming law is the threat of a possible presidential veto. DOT officials cite that possibility because the bill authorizes more money for highway construction than the Ford administration requested. The administration considers the bill inflationary, DOT officials say.

If and when DOT’s authority to enforce compliance with highway safety standards is restored, much of the stick that it has used in the past to encourage state compliance with the standards will have been whittled away. The bill would allow DOT to withhold between 50 percent and 100 percent of the relatively small amounts of federal money that states get for their highway safety programs. It would not allow DOT to withhold any of the sizeable amounts of federal money for state highway construction, as it was able to do in the past, conference staff members say. Although it has threatened – with some success – to do so, DOT has never actually withheld money from any state because of highway safety deficiencies.

During the year’s moratorium on enforcement of the highway safety standards, DOT is supposed to document the effect that the standards have had on highway losses. The findings are to be submitted to the Congress by July 1, 1977.

## ***Kansas Repeals Helmet Use Law***

Kansas has become the second state to repeal its law requiring motorcyclists to wear helmets.

The law becomes effective if President Ford signs the 1976 Federal-aid Highway Act which forbids DOT to penalize any state that does not have – or repeals – a motorcycle helmet law, according to James Stevens, Kansas's Highway Safety Coordinator.

Stevens told *Status Report* that the law was repealed “strictly because of federal action on the elimination of sanctions” against states that don't have helmet use laws. The Kansas law requires motorcyclists who are 16 years of age or younger to wear helmets.

DOT's ability to design and implement a uniform highway safety program would be further impeded by a provision, retained from the House version of the bill, saying that the law “shall not be construed to require the Secretary to require compliance with every uniform standard, or with every element of every uniform standard in every state.”

One of the most controversial aspects of the bill would forbid DOT from withholding federal funds from a state that refuses to enact – or repeals – a law that requires motorcyclists over the age of 18 to wear helmets. South Dakota has repealed its motorcycle helmet law for everyone over 18 years of age. (See *Status Report*, Vol. 11, No. 5, March 19, 1976.) Kansas has repealed its law for everyone over 16 years of age. (See box above.)

This portion of the legislation has already been passed by both houses of congress despite at least two U.S. Supreme Court actions upholding the constitutionality of state laws requiring such use. Research has shown conclusively that such laws – currently in force in some 47 states – produce substantial reductions in deaths. (See *Status Report*, Vol. 10, No. 18, Nov. 5, 1975.)

The bill would also allow a six-inch increase in bus widths from 96 inches, which is the current maximum width, to 102 inches, staff members say.

## **NHTSA Outlines Action On 'Long Overdue' Rulemaking**

In response to congressional concern about the need for “long overdue” action on energy absorbing steering assemblies, flammable interior materials, exterior protrusions, child seats and hydraulic brakes, the Department of Transportation has outlined its plans for future work in those five areas.

In January, Congressman John Moss (D-Cal.), chairman of the House Commerce Committee's Oversight and Investigations Subcommittee, wrote Secretary of Transportation William Coleman, Jr., demanding to know the status of “five important rulemaking decisions” for which he said the National Highway Traffic Safety Administration's action was “long overdue.” Moss said that “action on these standards, together with a decision on the passive restraint rulemaking, would do much to put to rest growing concern that the administration – under the banner of regulatory reform – is seeking to slow

down or terminate not only dubious forms of price and market entry regulation, but also safety regulation determined by the congress to be vital for the protection of the public from unreasonable risks." (See *Status Report*, Vol. 11, No. 2, Feb. 3, 1976.)

In his response, Secretary Coleman said that as the department "moves forward with its comprehensive regulatory reform efforts" it "certainly recognizes the distinction between regulation which is primarily economic and that which is primarily safety." DOT, however, also believes "that safety and other types of federal regulation must be carefully examined to ensure that their costs to the taxpayer and the private sector are justified by the anticipated benefits."

Coleman said that, while requests for a timetable for completing action in the five rulemaking areas "cannot be answered with complete specificity," he could outline NHTSA plans for future action in those areas, as follows:

### **FMVSS 302 – FLAMMABILITY OF INTERIOR MATERIALS**

NHTSA has concluded "a more stringent limitation on burn rate of interior materials would be unjustified," Coleman said. The current requirements – which allows a burn rate of four inches per minute in a horizontal test – "are sufficiently stringent, to allow evacuation by vehicle occupants" in a fire, he said. "Deaths and injuries directly caused by fire are almost always attributable to fires that involve burning fuel. Since the burn rates or modes of testing interior materials do not significantly affect the intensity of these fuel-fed fires, the standard's present performance level and test procedure . . . are calculated to permit evacuation of a vehicle in those cases where fuel is not a factor and the burn rate can make a significant difference," Coleman said.

After investigating fires in Washington, D.C. transit buses, the National Transportation Safety Board and the National Bureau of Standards have cited shortcomings in the current standard, such as the failure to have a more stringent burn test, and called for its upgrading. NTSB focused on the need to provide adequate time for evacuation since, "It is one thing for vehicle occupants to evacuate a burning automobile and yet another for a bus full of panic-stricken passengers to escape from a burning bus, especially if it is lying on its side." (See *Status Report*, Vol. 10, No. 12, July 9, 1975.)

In its report on a 1968 crash in which a bus overturned and caught fire in Baker, Calif., NTSB pointed out that some people were pinned so that they could not escape. The nineteen people who could not escape "either due to injuries sustained, shock or disorientation, combined with limited routes of escape were quickly overcome by smoke, lack of oxygen and fire. They died in the bus," NTSB reported.

NTSB has previously pointed out that jammed doors and poorly designed seat back locks can lengthen the time needed by car occupants to escape a fire. (See *Status Report*, Vol. 9, No. 20, Nov. 11, 1974.)

Although research done for NHTSA has found that "use of rear exit doors and roof hatches in buses significantly reduces escape times" the agency did not adopt any requirements for roof hatches, either as standard or optional equipment, in its new school bus safety standard on emergency exits.

The current NHTSA flammability standard also does not set any limits on toxic gases given off by burning materials. NTSB has found that such gases, given off by burning materials in aviation crashes, have killed many people who might have otherwise survived.

### **FMVSS 203 AND 204 – ENERGY ABSORBING STEERING ASSEMBLIES**

Coleman said that while NHTSA had recently granted a petition from the Center for Auto Safety to commence rulemaking on FMVSS 203, the agency did "not at this time have a schedule for action in this *Status Report*

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area.” The center’s petition pointed out that researchers from the University of Birmingham, England, and the Calspan Corp. have found that some energy absorbing steering assemblies complying with the current standard perform poorly in real world crashes. (See *Status Report*, Vol. 9, No. 15, Aug. 16, 1974.)

In February 1975, James Gregory, NHTSA administrator, wrote Sen. Vance Hartke (D-Ind.) that NHTSA intended to issue new rulemaking on FMVSS 203 “within the next few months.” (See *Status Report*, Vol. 10, No. 9, April 28, 1975.) Coleman explained that the lack of a current schedule of action was due to “incomplete accident data” and the need to evaluate different performance levels to be set by the standard and the costs of those levels.

## **EXTERIOR PROTRUSIONS**

NHTSA is “holding in abeyance rulemaking on exterior protrusion protection until basic research is more advanced on the fundamental problems of pedestrian injuries and death from motor vehicles” and does not plan to issue “a proposal for general pedestrian protection” until 1979, Coleman said. Because accident data “indicate that the vast majority of pedestrian injuries caused by motor vehicles are ‘blunt trauma,’ we consider that the most reasonable rulemaking action would address the hostile aspects of the vehicle body as a whole and not establish arbitrary limits on sharp protrusions in the interim,” he said.

Coleman did not mention that NHTSA has recently begun rulemaking on a rule to eliminate hazards posed by bicycle carriers mounted on the exterior of motor vehicles and that the agency currently has two standards banning “sharp points or edges” on outside mirrors (FMVSS 111) and “wheel nuts, wheel discs and hub caps that constitute a hazard to pedestrians and cyclists” (FMVSS 211). (See *Status Report*, Vol. 10, No. 18, Nov. 5, 1975.)

## **FMVSS 213 – CHILD SEATING SYSTEMS**

Although it has been over two years since NHTSA proposed adding a test simulating a 30 mile per hour barrier crash to its child seating standard, the agency has not yet issued a final rule. (See *Status Report*, Vol. 9, No. 21, Nov. 20, 1974.) Coleman explained that NHTSA has recently completed an evaluation of two types of child test dummies for use in the child seating compliance test and that the agency intends “to issue final specifications for the one selected not later than April 1976.”

## **FMVSS 105 – HYDRAULIC BRAKES**

At present there is no federal standard for hydraulic brake-equipped trucks, multipurpose passenger vehicles (MPVs), and buses, except for school buses. The performance requirements set for hydraulic brake-equipped school buses are less stringent than those applying to passenger cars and air brake-equipped vehicles. All passenger cars and most school buses have hydraulic brakes; some school buses and most large, heavy trucks and trailers have air brakes.

Hydraulic brake-equipped school buses are permitted to stop in as much as 388 feet from 60 miles per hour. In February 1976, NHTSA relaxed its recently effective standard for air brake-equipped vehicles to allow them to stop in as much as 293 feet from 60 miles per hour. According to NHTSA, the average passenger car can stop from 60 miles per hour in approximately 200 feet. (See *Status Report*, Vol. 11, No. 4, March 3, 1976.)

NHTSA has previously adopted a standard covering hydraulic brake-equipped MPVs, trucks and buses, but revoked that standard in the face of considerable industry opposition. (See *Status Report*, Vol. 10, No. 10, May 12, 1975.)

## School Bus Manufacturers Seek Standards Delay

School bus manufacturers are seeking congressional action delaying the new bus safety standards recently adopted by the National Highway Traffic Safety Administration. The School Bus Manufacturers Institute, which represents the six major manufacturers, is asking Congress to allow nine additional months for compliance with the standards, which now are scheduled to take effect on Oct. 26, 1976.

A nine month delay, until July 26, 1977, could mean that more than half of the school buses produced in 1977 would not be covered by the standards, according to a SBMI document.

The new standards, which cover seats, joint strength, rollover protection, emergency exits and fuel system integrity, were mandated by Congress in the Motor Vehicle and School Bus Safety Amendments of 1974. Congress directed NHTSA to issue the standards within 15 months, with the effective date of those standards to be no longer than nine months after that. (See *Status Report*, Vol. 9, No. 19, Oct. 29, 1974.)

NHTSA, which recently completed action on its school bus rulemaking, has been criticized by several congressmen, the Insurance Institute for Highway Safety and others for ignoring its own research in setting those standards. (See *Status Report*, Vol. 11, No. 3, Feb. 18, 1976.)

The School Bus Manufacturers Institute statement requesting the extension was submitted for the record of the recent House Commerce Committee hearing on NHTSA activities. SBMI said it was seeking the extension from Congress since "NHTSA maintains that it has no authority to lengthen the effective period of the school bus safety standards" since it was specifically set by Congress in the 1974 amendments. SBMI argued, among other things, that although it is not "objecting to the need for these safety standards" its members have not been "afforded adequate time in which to design and build the best possible vehicle." The alleged lack of adequate leadtime means "it is likely that implementation methods will be selected solely with a view to rapid compliance rather than to the achievement of the best possible redesign," SBMI warned.

### 'MAJOR' TASK

In discussing the changes needed to meet the new standards, SBMI said the seating standard represents a "major task" since current "conventional seats are simply rigid structures made to provide support for the body . . ." while the new standard's performance requirements specify that seats must act "as a shock absorber – capable of taking the energy of a moving body and dissipating it." SBMI said "few major structural changes are anticipated in implementing" the joint strength and rollover protection standard and the fuel system integrity standard "is primarily of concern to chassis manufacturers."

Compliance with the emergency exit requirement means adding a left side emergency door, SBMI said. Although NHTSA funded research has found that "use of rear exit doors and roof hatches in buses significantly reduces escape times" the agency's standard on emergency exits does not require the use of any roof hatches. SBMI told Congress in early March that manufacturers were planning to add such hatches to "accommodate the planned state regulations" requiring them. A SBMI official recently, however, told *Status Report* that manufacturers will not have to follow through on those plans, since no state has adopted a roof hatch requirement.

SBMI, in its congressional statement, did not point out that if a delay to July 26, 1977, is allowed, then – based on SBMI's own estimates of past annual production figures – approximately 60 percent of the 1977 annual production of school buses could be built before the standards go into effect. According to SBMI, the combined annual production of its six members "exceeds 25,000" buses. Thus, a nine month delay could mean that 1978 would be the first full production year to be covered by the standards.

## House Panel Asks For Comments On NHTSA

Comments on the performance of the National Highway Traffic Safety Administration, among other agencies, have been requested by the House Commerce Committee's Subcommittee on Oversight and Investigations. The subcommittee is also asking for suggestions on improving the agencies.

According to a public notice, "The subcommittee is anxious to have the comments of interested members of the public, including businesses subject to regulation by the . . . agencies. The subcommittee intends to issue a report and recommendations on improvement of the regulatory process."

Individuals or organizations submitting comments may be asked to participate in a series of public hearings on regulatory reform to be held in mid-May.

Comments and suggestions for improvement may cover any area, the subcommittee notice said. According to a subcommittee staffer, however, the following questions are of special interest in the review process:

- Should public participation in the agency be strengthened, and if so, how?
- Are the statutory mandates under which the agency operates appropriate?
- Does the agency have the enforcement and information gathering power that it needs?
- What is the impact of industry representation on agency decision making?
- What should be the relationships between the agency and both Congress and the White House?
- Can the appointment of regulatory officials be improved?
- How should the quality of regulation be assessed?

Written comments should be sent to Rep. John Moss, Chairman, Subcommittee on Oversight and Investigations of the Committee on Interstate and Foreign Commerce, Room 2323, Rayburn House Office Building, Washington, D.C. 20515. The subcommittee has requested comments by May 2, 1976.

### 1975 *Status Report* Index Available

The Insurance Institute for Highway Safety has published an index for 1975 issues (Volume 10) of *Status Report*. Single copies of the index are available by writing to "1975 Index," Insurance Institute for Highway Safety, Watergate Six Hundred, Washington, D.C. 20037.

Also available are copies of indices, published earlier, for the 1971, 1972, 1973 and 1974 issues of *Status Report*. They can be obtained by writing to the above address.

## Correction

An article in Vol. 11, No. 3 of *Status Report* on school bus safety requirements indicated that the National Motor Vehicle Safety Advisory Council had included in a series of recommendations to the National Highway Traffic Safety Administration the proposal that seat backs in school buses be 24 inches in height. This recommendation was actually made to NHTSA by Physicians for Automotive Safety.

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## STATUS REPORT

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