

Seat Belt Promotion Delayed

The official kick-off of the National Highway Traffic Safety Administration's (NHTSA) \$5.5 million seat belt campaign has been postponed indefinitely, NHTSA spokesman Edmund Pinto has told *Status Report*. A press conference had been scheduled to coincide with the Labor Day weekend, but officials familiar with the project estimate the media effort won't begin until at least November.

Pinto partially blamed the air controllers' strike for the delay, saying it pushed back for three weeks a meeting between Transportation Secretary Drew Lewis and NHTSA head Raymond Peck, throwing the campaign off track. "We just couldn't make the deadlines," Pinto said. "This is a big project."

Motivational Study Results Awaited

An additional element in the delay, said Pinto, was Lewis' "deep felt desire" that NHTSA wait for the results of a motivational study to assess the campaign plans. Another NHTSA source said Lewis did not want to rely solely on "intuition" in devising ads and promotional materials.

Pinto said preliminary results from the month-old study have been promising. Conducted under a contract with Lance Tarrance & Associates, the study is designed to assess motivations affecting belt use and identify approaches that would induce motorists to wear belts. Pinto said the study is considered an internal working document which will not become public for some time. Additional motivational studies will be conducted during the course of the belt-use campaign, Pinto said. *(Cont'd on next page)*

British Adopt Seat Belt, Child Restraint Laws

The British Parliament last month voted to approve long-proposed authority for a compulsory seat belt law in England, and in a companion measure also approved a child restraint requirement.

An implementation plan for the two measures must now be submitted to Parliament by the Secretary of State for Transport, an action expected this fall. The final regulations probably will be published early next year, with the laws taking effect by the middle of 1982.

It was the eighth time in the last 10 years that a plan to require seat belt use had been submitted to Parliament. This time, it gathered a 77-vote majority in the House of Commons after earlier passage by the House of Lords. The approved plan calls for compulsory use of seat belts

(Cont'd on page 7)

Seat Belt Promotion Delayed (Cont'd from page 1)

Some misgivings about the campaign have been voiced internally by Department of Transportation (DOT) officials, who cite its cost and the demonstrable lack of impact previous campaigns have had on belt use. (See *Status Report*, Vol. 16, No. 9, June 24, 1981.) However, a DOT spokesman said officially that Secretary Lewis continued to "enthusiastically" endorse Peck's seat belt campaign.

The spokesman added that Lewis is "still actively involved in looking at the whole campaign, making sure that it's well-planned, well-coordinated, and can be effectively carried out."

The \$5.5 million cost figure publicly mentioned by Peck is "in the ball park," the spokesman also said, but he added that it is premature to say what the actual funding will be. (Some people close to the campaign planning effort have indicated privately that NHTSA may ask for more money.)

The \$5.5 million reportedly would be taken partially from money already set aside for seat belt promotion. The rest would come from Section 403 highway safety grants and the agency's highway safety research budget. Ultimately, all the funds would come from the Highway Trust Fund.

Any diversion of current program funds to the seat belt campaign would have to be cleared by the House and Senate Appropriations committees, DOT sources said.

Double-Barreled Approach Indicated

A June 9 "draft" description of the belt-use program earlier leaked to the press, still remains unavailable officially. There have been some changes in the draft, Pinto said, but it remains the basic document.

The proposal indicates that NHTSA plans a double-barreled approach. In addition to drafting a public relations campaign, the agency intends to use what it calls a "network" approach to bring business, the health care community, safety groups, and private citizens into the effort.

According to the draft, the stated objectives of the belt use campaign are to:

- Increase the public's awareness of the probability of being involved in a crash.
- Increase public awareness of the benefits of belt use.
- Provide information and assistance concerning specific actions individuals and organizations can take to increase belt use.

The objectives make no actual commitment, *per se*, to producing increases in belt use in the United States. Agency sources have predicted seat belt use figures will go up in any case, because the small-car population is rising and small-car occupants tend to use seat belts more often.

Motorcycle Maker Asks For Modulated Headlights

Harley-Davidson Motor Co., Inc., a major producer of motorcycles, has petitioned the National Highway Traffic Safety Administration (NHTSA) to permit the use of modulated headlights on motorcycles for day-light use.

"Due to the success of the modulated headlight in increasing motorcycle conspicuity. . . Harley-Davidson would like to be able to introduce headlamp modulation as an option," the company said in its petition.

Modulation, a pulsing intensity in the headlight, appears from some research to contribute to ready recognition of the vehicle. Yet flashing lights, except for turn signals, warning lights, and emergency vehicle lights, may not be permissible under the applicable standard, Federal Motor Vehicle Safety Standard 108.

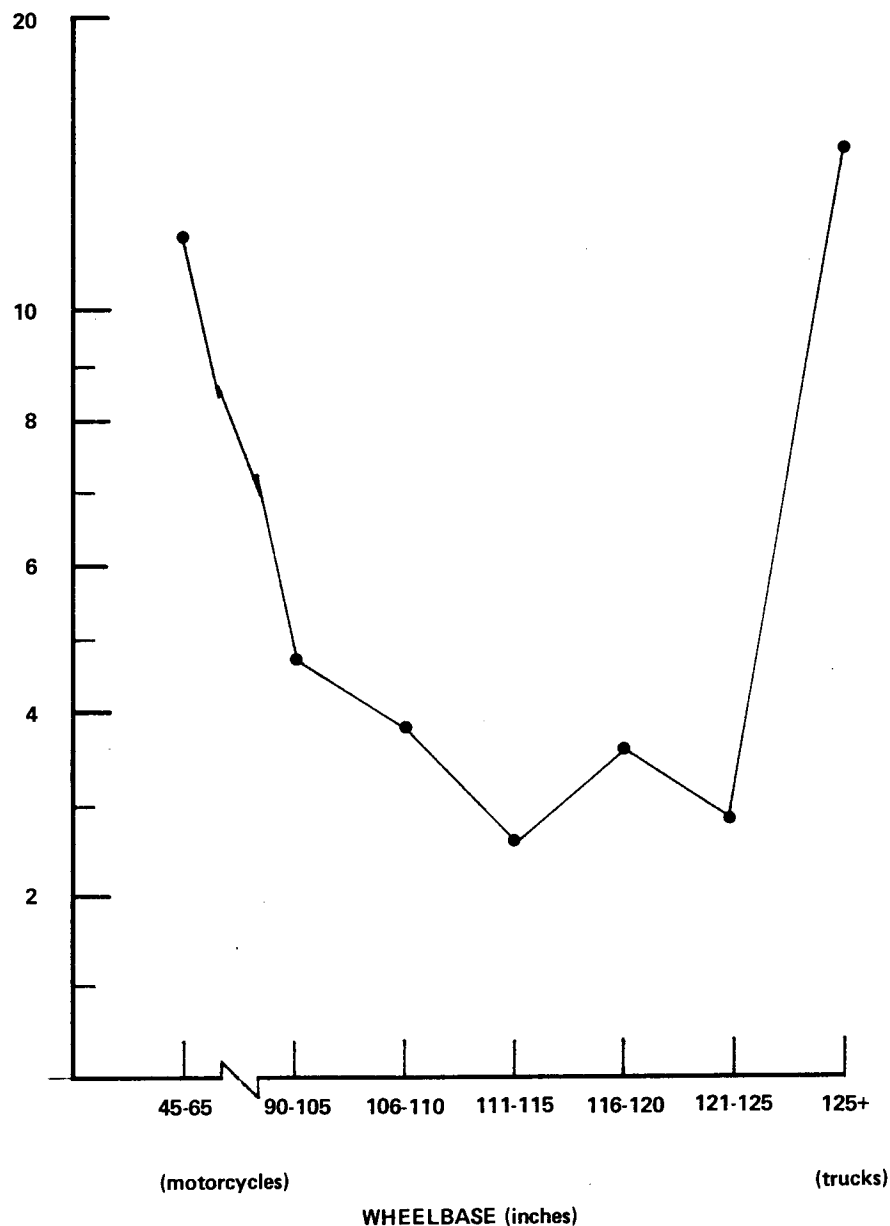
Small Car Trend Increases Severity of Spinal Injuries

The trend to smaller, lighter cars will bring an increase in the severity of spinal cord injuries suffered by vehicle occupants, a researcher has predicted after studying the human damage produced in vehicle crashes.

Jess F. Kraus, professor of epidemiology in the School of Public Health, University of California at Los Angeles, noted an association of more severe spinal injuries with the use of lightweight vehicles in a survey of crash-related spinal cord injuries in 18 northern California counties. The study dealt with the 56 percent of reported spinal cord lesions found to be crash-related. *(Cont'd on page 4)*

Figure 1

Average Annual Spinal Cord Injury Crash Involvement Rates
per 100,000 Registered Motor Vehicles by Wheelbase
18 California Counties, 1970-1971



Small Car Trend Increases Severity of Spinal Injuries (Cont'd from page 3)

Kraus found that rates of crash-related spinal cord injury declined for passenger cars as the size of the car increased, and were particularly high for motorcycles and heavy trucks. (See Figure 1.) A similar pattern prevailed when the crash-involved vehicles were classified by increasing weight.

"More intensive work on methods of occupant packaging, including better vehicular deformation properties on impact, will be needed if less human suffering is to prevail," Kraus said.

Rollover crashes were found to account for a disproportionately high number of spinal cord injuries in the California study. While rollovers accounted for only 7 percent of all injury crashes, they were involved in 23 percent of the crashes resulting in spinal cord injury.

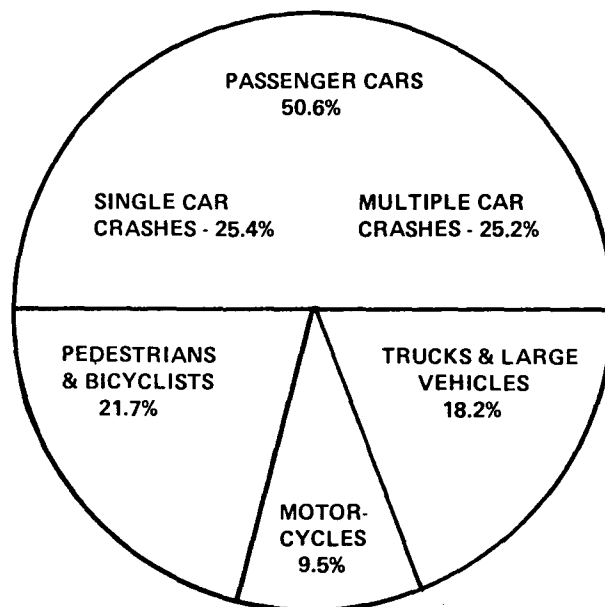
While Kraus found all types of motor vehicle crashes contributing significantly to spinal cord injury, he was particularly concerned by the role motorcycles play. "The highest occurrence of complete lesions, that is, tetraplegia and paraplegia, are from motorcycle crashes, illustrating the greater vulnerability to energy transfer to riders of these vehicles when they crash," he said.

While motorcycle crashes accounted for less than 10 percent of the spinal cord injuries studied in the 18-county data (see Figure 2), when they occurred they were much more frequently of the more serious variety, resulting in tetraplegia or paraplegia.

The study, "Vehicle and Crash Factors in the Incidence of Motor-Car-Related Spinal-Cord Injuries" by Jess F. Kraus, was supported by a grant from the Insurance Institute for Highway Safety and was presented at a scientific meeting of the International Epidemiological Association in Edinburgh, Scotland, in August.

Figure 2

**Percent Motor Vehicle Crashes by External Cause
Resulting in Spinal Cord Injury
18 California Counties, 1970-1971**



Studies Argue Continuing Hazards of Multipiece Wheels

The number of multipiece wheel explosions reported to the Insurance Institute for Highway Safety now approaches 400, the Institute has told the National Highway Traffic Safety Administration (NHTSA). However, two new studies favoring continued use of the lethal wheels have been filed in the rulemaking docket.

One study, by Failure Analysis Associates for the National Wheel and Rim Association, "Multipiece and Single Piece Rims: The Risk Associated with Their Unique Design Characteristics – Phase III," claimed that multipiece wheels pose no more risk of death or injury from explosion than single-piece wheels. Another report, "Multipiece Rims for Trucks, Buses, and Trailers – Economic Effects Caused by Further Regulation of Rims in Standard 120," prepared by South Coast Technology for NHTSA, concluded that manufacturers and truck fleet operators would suffer severe economic losses as a result of converting from multipiece to single-piece wheels.

These conclusions are erroneous, the Institute pointed out in a recent filing in the NHTSA docket.

Danger in Multipiece Design

In multipiece wheels a heavy metal ring may be blown off the wheel rim by the tire's air pressure and cause a highway crash or workplace danger. In contrast, the single-piece wheel, now used on passenger cars and available for use on most sizes of heavier vehicles, has no detachable locking ring and therefore does not pose the same hazard. "The physical characteristics of the two types of wheel thus render one – the multipiece – inherently more likely to cause injury than the other," the Institute said in its comments.

The Institute noted that many truck fleet operators, including Greyhound Lines and the Texaco Corporation, have eliminated multipiece wheels from their operations or refused to service them. (See *Status Report*, Vol. 14, No. 6, April 9, 1979.) Texaco switched its entire fleet to single-piece wheels in 1975, stating that the change was made "primarily because of safety."

Failure Analysis concluded in its study that "the risk of single-piece rims is comparable to that of multipiece rims." However, the Institute's analysis of the data used to support this statement indicated that only 12 percent of the 627 incidents of rim failure studied by Failure Analysis involved single-piece wheels, even though these wheels account for about 20 percent of the wheels in service. Thus, "the risk of fatalities associated with single-piece wheels is substantially lower than the risk associated with multipiece wheels," the Institute said.

Higher Initial Costs Pay Off

The Institute analyzed the costs and benefits of using single and multipiece wheels and interviewed truck fleet operators about the relative economy of these wheel types. "Single-piece wheels cost more to purchase than multipiece wheels; however, the higher purchase cost (even for expensive aluminum wheels) is paid off in about a year, because the lighter weight of the single-piece variety allows for increased payloads and/or fuel savings for truck operators," the Institute told NHTSA.

The report by South Coast Technology carefully itemized the cost of converting from single to multipiece wheels, but largely overlooked the considerable benefits of conversion including increased payloads, fuel savings, longer wear, and decreased maintenance associated with single-piece wheels. Another important benefit involves avoiding costly injury suits and compensation payments resulting from multipiece wheel explosions, the Institute pointed out.

These economic savings became clear when the costs and benefits of converting one tractor trailer rig

(Cont'd on page 6)

Studies Argue Continuing Hazards of Multipiece Wheels (Cont'd from page 5)

to single-piece wheels were calculated by the Institute. According to South Coast Technology, the cost of purchasing single-piece steel wheels instead of the multipiece variety would be \$475 for an 18-wheel rig. The Institute calculated the first-year economic benefits of using the single-piece wheels at \$503 for fuel savings and increased payloads. Thus, “the cost of converting to single-piece wheels would be paid off in only one year of operation,” the Institute said, adding that “in ten years of use, truck operators would realize a significant savings as a result of using single-piece wheels. And the country as a whole would save a huge amount of scarce fuel.”

These comments expand the information in earlier Institute submissions to NHTSA regarding the hazards of multipiece wheels and superior safety and economy of single-piece wheels. (See *Status Report*, Vol. 14, No. 4, March 8, 1979; Vol. 14, No. 6, April 9, 1979; and Vol. 15, No. 14, Sept. 17, 1980.) The latest of these submissions, raising the number of reported multipiece wheel explosions from 383 to 391, was entered by the Institute on Aug. 18, 1981.

HLDI Reports on 1981 Model Collision Coverages

Collision insurance claims for 1981 model cars have been less frequent than for 1980 models in the same period, but the average payment per claim has increased, the Highway Loss Data Institute (HLDI) has reported in its initial study of the current models.

The claim frequency for the 1981 models was 5 percent below that for the preceding year's cars, but the average loss payment per claim was up 7 percent. As a result, the average loss payment per insured vehicle year increased by 2 percent.

Two of the principal findings of the study confirmed trends noted in previous studies:

- Sports and specialty models had the worst results and regular two-door models had higher collision coverage losses than regular four-door models and station wagons.
- There were large variations in the loss experience of individual vehicle series, even among vehicles of the same size class and body style.

Copies of the report, “Initial Results for 1981 Models,” are available from Highway Loss Data Institute, Watergate 600, Washington, D.C. 20037.

FAA Proposes Drunken-Flying Restrictions

Stiffer rules against flying an airplane while impaired by alcohol – similar to but more stringent than the laws most states apply to motor vehicle operators – have been proposed by the Federal Aviation Administration (FAA).

The proposed rules would bar anyone from operating a plane if he or she has a blood alcohol concentration of 0.04 by weight, compared to the maximum 0.10 concentration stipulated in most state laws for automobile drivers. In addition to the proposed rule, current standards for controlling drinking by commercial pilots would remain in force. The present rule bans the consumption of any alcoholic beverage within eight hours prior to piloting a commercial plane.

The FAA also is proposing an "implied consent" provision in the new rule, similar to what is used in most states to enforce drunken driving laws. This provision would require that any person accepting a pilot's certificate would by so doing agree to take a breath test when requested by an FAA representative. Should the certified pilot refuse to take a breath test the refusal would be grounds for one-year suspension or revocation of the license.

Drinking is known to be a contributing factor to many general aviation crashes, although the exact extent cannot be determined because of the lack of authority now to test blood alcohol concentrations of surviving pilots. However, the National Transportation Safety Board has reported alcohol was a cause or a factor in 50 general aviation (non-commercial and non-military) crashes in 1978, of which 46 involved fatalities.

Comments on the proposed rule are due by November 25 at the FAA Office of the Chief Counsel, 800 Independence Ave. S.W., Washington, D.C. 20591. They should be directed to Rules Docket No. 21956.

"Car Book" Won't Be Reprinted

The Car Book, a consumer guide to car buying produced during the Carter administration, won't be reprinted when the current supply runs out, the National Highway Traffic Safety Administration (NHTSA) has said.

With 500,000 copies left on the shelf in a government facility in Pueblo, Colo., the books will be given to consumers on a first-come-first-served basis until they run out, a NHTSA spokesman said. The book is now in its second printing and some 1.25 million have been mailed to consumers since it was first published late last year. (See *Status Report*, Vol. 16, No. 1, Jan. 19, 1981.)

The book has been controversial, partly because it contains the results of NHTSA's new car assessment program. Auto makers have criticized the program, which evaluates the relative crashworthiness of new models in 35 mph barrier crashes, in part because the test criteria exceed NHTSA's current, modest regulatory test requirements.

The new car assessment program itself is continuing, and two-thirds of the tests are completed, Michael Brownlee, head of the Office of Automotive Ratings, has reported. NHTSA has tested about a dozen 1981 models and has plans to test some 1982 models, but how the information will be released is still a question, Brownlee said. NHTSA sources agree that it's highly unlikely there will be another book resembling the document now on the shelves.

Free copies of *The Car Book* can be obtained by writing: "The Car Book," Consumer Information Center, Box 46, Pueblo, Colo. 81009.

British Adopt Seat Belt, Child Restraint Laws (Cont'd from page 1)

by all front-seat occupants other than those granted a special certificate of exemption. Exemption criteria are yet to be worked out, but it is expected that special consideration may be given to unusually large or small persons, deliverymen, and others. The seat belt legislation carried a provision that it be reviewed in three years.

The child restraint law also will apply only to front-seat occupants, in this case those under 14 years of age. A driver may satisfy the legal requirement either by placing children in specially designed restraints or by buckling them up in regular seat belts. Children traveling in the back seat are not required to be restrained.

On The Inside

- **NHTSA'S SEAT BELT** campaign, subject of much speculation in recent months, has been delayed until at least November. . . . Page 1
- **THE BRITISH PARLIAMENT** has adopted both a mandatory belt-use law and a requirement for child restraint use. . . . Page 1
- **A MAJOR MOTORCYCLE** manufacturer has petitioned NHTSA to permit the use of modulated headlights on motorcycles. . . . Page 2
- **SPINAL CORD INJURIES** become more severe with the trend to smaller, lighter cars, a new research study indicates. . . . Page 3
- **MULTIPIECE WHEEL** studies favoring their continued use are rebutted by an Institute filing in the NHTSA docket. . . . Page 5
- **HLDI REPORTS** that preliminary studies of '81 models show less frequent — but larger — collision insurance claims. . . . Page 6
- **THE FAA PROPOSES** stiffer general aviation rules against flying an airplane while impaired by alcohol. . . . Page 6
- **THE CAR BOOK**, a much-in-demand consumer guide to car buying, will not be reprinted by NHTSA. . . . Page 7

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Status Report

Watergate 600 • Washington, D.C. 20037 • 202/333-0770

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