

NHTSA Discloses Automatic Restraint Lead-Time Analysis

The question of when auto makers will be able to provide automatic restraints in all new cars, in compliance with a federal court order, has been raised anew with the belated disclosure of a National Highway Traffic Safety Administration (NHTSA) lead-time analysis that seems to contradict earlier assertions.

NHTSA was forced to release the analysis after it was demanded by Rep. Timothy E. Wirth (D.-Colo.), chairman of the House subcommittee with oversight responsibility for the agency. Administrator Ray Peck sent Wirth copies of an agency analysis that concluded that by Sept. 1, 1984, 85 percent of the cars to be produced could comply with the automatic restraint requirement.

Court Told 1985 'At the Earliest'

On October 1, NHTSA had notified the U.S. Court of Appeals for the District of Columbia that new cars could not be equipped with automatic restraints until Sept. 1, 1985, "at the earliest." (See *Status Report*, Vol. 17, No. 15, Oct. 21, 1982).

In releasing the analysis, Peck said it had appeared in the General Counsel's office after the agency had submitted its compliance estimates to the court. He said he had been assured by a NHTSA official that "it was not, in fact, new, was not in any way inconsistent with the agency's submission, and had been appropriately considered throughout the preparation of our response."

Attorneys for State Farm Mutual Automobile Insurance Co., who had successfully challenged NHTSA's rescission of the automatic restraint standard in federal court, submitted the controversial analysis and the Wirth-Peck correspondence to the Appeals Court for its consideration. They stated to the court: "The reason for Associate Administrator Price's refu-

Another Delay Granted On Bumper Appeal

For the second time, the National Highway Traffic Safety Administration (NHTSA) has been granted a delay in responding to a legal attack on the abandonment of the 5 mph bumper standard. This time the U.S. Court of Appeals for the District of Columbia has given NHTSA until November 15 to reply to requests filed by the State Farm Mutual Automobile Insurance Co. and the Center for Auto Safety for judicial review of the agency action. (See *Status Report*, Vol. 17, No. 12, Sept. 2, 1982.)

Again NHTSA told the court that it had not had sufficient time to study the petition from the Insurance Institute for Highway Safety to reconsider the order changing bumper impact test requirements to 2.5 mph. Under the normal NHTSA procedures, action on that petition should have come before September 13. Attorneys for State Farm and the Center for Auto Safety did not oppose the new delay.

"This additional time is necessary because more time than had been originally anticipated was needed for staff analysis of the petitions for reconsideration due to the complexity of the issues raised," NHTSA told the appeals court.

sal to endorse under oath the 1985 deadline is now apparent: NHTSA's own lead-time experts had recognized that, even accepting the auto makers' own estimates, substantial compliance was achievable well before that date." (The NHTSA filing with the Appeals Court had included an affidavit from Courtney M. Price, NHTSA associate administrator, saying that compliance by September 1983 was impossible, but avoiding a statement on a September 1984 compliance date.)

(Cont'd on next page)

Alcohol Bill Sponsor Sees Vehicle Design Equally Important

Efforts to curb highway fatalities by cracking down on drunk drivers are aimed at only part of the problem, Rep. Michael Barnes (D.-Md.), a leading proponent of drunk-driving legislation, has told colleagues.

“Another major part of the problem that must be addressed is the safety design of the automobile itself, and how automobile occupants involved in crashes can be best protected from potential death and critical injuries,” said Barnes.

Member of Presidential Commission

Barnes was a chief architect of anti-drunk driving legislation recently signed into law by President Reagan, and he serves on the President’s commission

NHTSA Discloses Automatic Restraint Lead-Time Analysis

(Cont’d from Page 1)

Wirth circulated copies of the NHTSA lead-time analysis and his correspondence with Peck to members of his subcommittee. “I believe these documents warrant your attention as they will undoubtedly be part of the Subcommittee’s future oversight efforts,” he told members.

The NHTSA paper at the heart of the lead-time dispute is labeled, “Analysis of Manufacturers Comments on the Lead Time Required to Install Automatic Restraints in Cars (FMVSS 208),” and was prepared by Charles Westphal, Jr., senior cost and lead time specialist, and Richard C. Carter, program analyst. They were working under the supervision of Dr. Carl E. Nash, director of the engineering systems staff.

“The authors of the Lead Time Report are expert engineering analysts,” the State Farm attorneys told the federal court. “It was not their responsibility to weigh the consequences of further delay in the standard against the lives that will be lost and serious injuries that will be suffered. The agency, however, has a statutory obligation to accord those consequences great weight. Nevertheless, NHTSA takes the position before this Court that the standard should be delayed for an additional year beyond the date on which its own experts believe substantial compliance is feasible, merely to benefit the tidiest or most recalcitrant members of the industry.”

on drunk driving. (See *Status Report*, Vol. 17, No. 5, Oct. 21, 1982.)

Barnes’ remarks introduced an article by *Washington Post* columnist Richard Cohen in the October 20 *Congressional Record*. Cohen noted recent efforts throughout the country which have been directed toward punishing drivers who violate drinking and driving laws. The writer went on to say:

“... at virtually the same time that state after state (27 in all) is cracking down on drunk drivers — raising the penalties, insisting on jail, or raising the legal age for driving — the nation as a whole is forgetting some hard-learned lessons about highway safety and ignoring what it already knows about human nature.

“For instance, in the press accounts of that San Francisco accident [involving actresses Janet Gaynor and Mary Martin] not one article I saw mentioned if any of the cab’s passengers were wearing seat or shoulder belts....

“This is not some back-door attempt to blame the victims of the accident for their own injuries. They were certainly not at fault and drunk driving is a serious problem. It takes some 26,300 lives a year and clearly no safety device is either going to stop an accident from happening or help some poor kid about to get run down by a boozed-up driver. This is only to say that we are dealing with just one half the problem: the driver, not the car....

A Two-Fold Approach

“You cannot deal with the problem by either pretending it doesn’t exist or by thinking that ... human nature will undergo a profound change. One way to deal with accidents is to try and avoid them; another way is to recognize they will happen anyway and try to limit the damage. The best way is to do both....

“To hold the individual accountable for his actions ... is fundamentally right and moreover conforms nicely with conservative doctrine. But it has its limitations, not to mention a high degree of uselessness. To put a drunk driver in jail is all well and good. But it does nothing for the people he either killed or maimed. An air bag might have, though....

“And, when you think about it, it doesn’t much matter if the guy who broadsided you was drunk, has a heart attack, or had taken his eye off the road to watch some pretty girl water her lawn. What matters most to you is the condition you’re in after the accident. Putting drunk drivers in jail will certainly help matters. But putting safety devices in cars will help even more.”

Test of Retrofitted Air Bags Planned

The federal government will sponsor an air bag demonstration test using state police cars retrofitted with air bags.

The reason for the test, said the National Highway Traffic Safety Administration (NHTSA) in a request for proposals from contractors, is to demonstrate and evaluate the feasibility of air bag systems designed for installation in U.S.-built cars after they leave the factory.

"The results from this effort will hopefully encourage other fleet operators to install the system in their vehicles," said NHTSA.

Following initial testing and evaluation, NHTSA said it expects to retrofit from between 100 to 1,000 police cars in one or more fleets.

The cars will be fitted with air bags on the driver side only, said NHTSA, in order to increase the cost-

effectiveness of the study. Studies have shown that most of the time, only a driver is present in such vehicles.

In a statement describing the work to be performed, NHTSA said the air bag kits will be evaluated in sled and crash tests before they are installed in police fleets.

NHTSA said one of the design goals of the program will be to develop an air bag system that can be used in a variety of vehicles with a minimum of alteration to vehicle interiors.

The deadline for contractor bids is December 9, with work on the contract to be completed within 10 months after the contract award, said NHTSA. Participating police agencies will be expected to provide the agency with maintenance records and crash data in return for NHTSA's supplying of the retrofit air bags.

(Reprinted by permission from Automotive News. Copyright, 1982.)

State police cars and U.S. vehicles considered

NHTSA eyes 2 fleet tests of air bags

By Helen Kahn

Washington Bureau Chief

WASHINGTON — Two separate air-bag fleet test programs are being explored by NHTSA. One involves retrofitted driver-only state police cars; the other is to have the federal government buy and drive 1985-model compact cars with driver-only air bags as original equipment.

As part of its research effort, NHTSA will seek bids on retrofit kits, with prices for 100 and 1,000 units and 100-lot increments in between.

These kits would be for state police departments interested in putting air bags in police cars. So far, Arizona — whose Department of Public Safety is convinced of the efficacy of bags — is thinking in terms of 138 new Ford LTDs. NHTSA believes several more states would also be interested.

NHTSA research money would buy the kits and the agency would ship them to state police units which would install them after NHTSA engineers showed them how. The states would keep records for NHTSA on maintenance and performance.

NHTSA might also do a separate testing and

evaluation. This is being viewed as a relatively cheap way to get data from several air-bagged fleets — possibly up to 1,600 vehicles.

- The second program — a continuation of an idea initiated by former NHTSA head Joan Claybrook — would involve government purchase of air-bagged cars.

Since these vehicles would have the air-bag system as original equipment, the '85 model year would be the earliest possible time. Compacts are the most popular size. The number would depend on the number of units being bought at that time — probably somewhere between 2,000 and 5,000 units.

The cost would be shared by the government's purchasing agency — the General Services Administration — and NHTSA. Safety Chief Raymond Peck and GSA Administrator Gerald P. Carmen have held initial talks, and working-level talks are now under way.

A first draft of a memo of understanding now exists. Informal speculation is that Ford Motor Co. may be the supplier.

(Cont'd on next page)

NHTSA eyes 2 fleet tests of air bags (Cont'd from Page 3)

Federal purchase of new cars should prompt industry to retain some technology for OE systems, and using retrofitted police cars should help retain parts in the component industry. Although volume will be small, accident data will be kept, and at least some idea of cost will result.

The idea of retrofitted air-bag systems is one that has received relatively little attention, although former NHTSA head John Snow thought it was practical.

Somewhat over a year ago, NHTSA decided to take two cars it owned plus some hardware it had on the shelf and plug in some computer work to see how efficient and effective retrofitting of air bags could be. The results were spectacular.

- After John Z. DeLorean left General Motors, he did some work on air bags for NHTSA. The agency, then under Claybrook, worked out a cooperative arrangement.

NHTSA did some computer work on tailoring air-bag systems for various models and DeLorean provided some input plus two of his own cars for which he had planned air-bag systems to be effective at 35 MPH barrier speeds — 5 MPH more than required by Safety Standard 208.

The DeLoreans eventually were produced without air bags, but with some idea of their crash pulses although they had not been crash tested. NHTSA had available to it inflator systems made by Thiokol for Mercedes-Benz which had been scheduled for air bags.

It also had sensors from General Motors, Bosch and a small company planning to start sensor production.

Using computers to adjust the amount of propellant in the inflators and setting the timing of the electronic switch for all three sensors (only one of which was attached to the air-bag system), NHTSA figured out what size air bag it needed and ordered it stitched up.

- The DeLorean steering column was retained but the steering wheel was replaced by one from an air-bagged Volvo. Dynamic Science (a division of Talley Industries) added an aluminum-covered honeycombed structure for a knee restraint. Fitzpatrick Engineering put the whole package together. Dynamic Science planned the first test in Phoenix.

The test on the first DeLorean with a retrofitted system was done at 36 MPH barrier on Sept. 24, 1981. The HIC (head injury criteria; 1,000 or lower means a non-fatal-injury) was 404 for the driver and 371 for the passenger. Chest deceleration (60 Gs is considered passing) was 44 Gs for the driver and 42.5 Gs for the passenger.

The results were so astonishingly good that the second DeLorean was tested on Oct. 15, 1981, at 40.6 MPH barrier. HIC numbers for the instrumented dummies were 366 driver and 684 for passenger; chest decelerations were 46 Gs for driver and 52.5 for the passenger.

Now, more than a year later, NHTSA plans to take a state police car to its Ninth Technical Conference on the Experimental Safety Vehicle Conference in Kyoto, Japan, to show how effective retrofitting using computer techniques with off-the-shelf components adjusted for a vehicle's crash pulse can be.

Automatic Restraint Benefits 'Enormous' In Preventing Injuries

The injury prevention benefits of automatic restraints in cars could be "enormous," a background paper prepared for the Congressional Office of Technology Assessment (OTA) has concluded.

The report became available at the same time President Reagan signed a Congressional joint resolution designating October as "National Spinal Cord Injury Month."

The resolution notes that over 500,000 Americans are now paralyzed by spinal cord injuries, and thousands of new spinal cord injuries occur each year. Most

are the result of motor vehicle crashes. Other causes are sports or recreational injuries and injuries occurring during military service.

Despite attempts to quantify such losses, "the true costs of handicaps vastly exceed those that can be readily measured in dollars and cents," Kenneth E. Warner, Ph.D., of the University of Michigan's School of Public Health, said in the OTA paper. "The physical and psychological suffering that accompanies handicaps are costs for which no technology can ever fully compensate.

"But some technologies, like motor vehicle passenger restraints, can prevent this suffering," said Warner. "The full value of this benefit, included in none of the passive restraint cost benefit analyses, must be enormous. Thus regardless of its purely fiscal implications, the prevention approach warrants especially careful attention."

Last year the administration cancelled a requirement for automatic restraints in new cars and is now fighting a court order reinstating the rule. (See *Status Report*, Vol. 17, No. 15, Oct. 21, 1982).

Estimates on the life-saving potential of automatic restraints range from 6,000 to 12,000 highway deaths prevented each year, the OTA paper noted. There are roughly 27,000 front-seat occupant deaths every year so that a savings in that range "would constitute a truly major public health victory," the paper said.

"Less dramatic than lives saved, but more numerous, would be injuries avoided," the paper said. Some experts have estimated that from 20,000 to 40,000 severe injuries could be avoided with automatic restraints in place and another has suggested as many as 120,000 moderate-to-critical injuries could be avoided.

The paper is part of a series on technology and handicapped people and is titled, "Background Paper No. 1: Mandatory Passive Restraint Systems in Automobiles: Issues and Evidence," by Kenneth E. Warner, Ph.D. Copies may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Ask for Library of Congress Catalogue No. 82-600546.

California Strengthens Child Restraint Law

California drivers must provide child restraints to protect child passengers less than four years old or weighing less than 40 pounds, according to a recently approved state law which takes effect Jan. 1, 1983.

The new requirement strengthens an advisory law passed in 1980, which called for a statewide public education program to "advise and urge" the use of car seats for young children and seat belts for passengers under age 15. (See *Status Report*, Vol. 15, No. 16, Nov. 5, 1980.)

The new law includes the following provisions:

- Parents and guardians who transport their children in their own cars or small trucks will be required to provide a federally approved car seat for each child covered by the law.
- If parents are transporting their children in a vehicle they don't own, the children must be secured in either an approved car seat or available seat belts. This requirement also applies to persons transporting other people's children, if a parent is not present.
- Charges against violators will be dismissed if a child restraint system is obtained.

- The courts may develop exemptions if restraint use is impractical because of physical unfitnes, medical condition, or size of the child.

California becomes the 18th state to enact a mandatory child restraint law. (See *Status Report*, Vol. 17, No. 12, Sept. 2, 1982.)

FHWA to Review Trucker Licensing

The Federal Highway Administration (FHWA) has announced it will study tighter qualifications for commercial truck drivers.

In a *Federal Register* notice, the agency said it would consider modifying its regulations in response to evidence that some commercial drivers involved in crashes have managed to conceal poor driving histories from both their employers and state licensing bureaus.

Specific changes under consideration for which FHWA is seeking comment include:

- Disqualification of drivers from operating a commercial vehicle if convicted for certain types of offenses — such as driving under the influence of alcohol or drugs — regardless of whether the individual committed the offense while on or off duty.
- Setting up a cumulative point system, whereby drivers convicted of offenses such as speeding or reckless driving would be automatically disqualified once enough points had been accumulated over a given time period.
- Revision of screening procedures. Currently, drivers are required to provide their employers with a list of all driving violations (except parking) once every 12 months. FHWA said it would consider asking motor carriers to seek copies of their employees' driving records directly from the motor vehicle department.
- Revision of pre-hiring practices. FHWA also noted that while motor carriers are required to conduct an investigation of a prospective driver's employment history, the rule does not specifically say what kind of information the motor carrier should seek. The agency asked what information should be sought during the candidate screening process.

Comments on possible revisions should be submitted to the docket on or before Jan. 27, 1983, the notice said. They should refer to BMCS Docket No. MC-104; Notice No. 82-8, Qualifications of Drivers, and be submitted to Room 3404, Bureau of Motor Carrier Safety, 400 Seventh St., S.W., Washington, D.C. 20590.

On The Inside

- **NHTSA DISCLOSES** a staff analysis of lead time necessary for installation of automatic restraints that seems to contradict earlier reports. ...Page 1
- **ANOTHER DELAY** is granted to NHTSA to respond to legal challenges in federal court against abandonment of the 5 mph bumper standard. ...Page 1
- **VEHICLE DESIGN** is an equally important safety factor, a leading proponent of federal drunk-driving legislation tells Congress. ...Page 2
- **RETROFITTED AIR BAG** systems will be tested in some state police car fleets, NHTSA reveals in seeking contractor proposals. ...Page 3
- **AIR BAG TEST PROGRAMS** of at least two different types are planned by NHTSA, the *Automotive News* reports. Reprinted by permission. ...Page 3
- **AUTOMATIC RESTRAINTS** could provide "enormous" benefits in injury prevention, the Congressional Office of Technology Assessment concludes. ...Page 4
- **CALIFORNIA** strengthens its law on child restraint use from an advisory program to mandatory requirements for state drivers. ...Page 5
- **TIGHTER QUALIFICATIONS** for licensing commercial truck drivers are under study by officials of the Federal Highway Administration. ...Page 5

If you are not now receiving *Status Report* on a regular basis, but would like to, simply drop a note to the Communications Department at the address below and we will add your name to the mailing list.

(Contents may be republished whole, or in part, with attribution.)

insurance
institute
for
highway
safety

the highway loss reduction

Status Report

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

Editor: Paul C. Hood

Writers in this issue: Mark Andrich, Rea Tyler

Production: Ron Bevilacqua