the highway loss reduction

STATUS REPORT

INSURANCE INSTITUTE for Highway Safety

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PASSIVE RESTRAINTS: A DOT RETREAT

At the request of automobile manufacturers the National Highway Traffic Safety Administration has revised and measurably weakened its passive restraint standard issued last November.

Under what safety administration officials call a "phase-in" program, requirements for full passive protection in 30 mile per hour automobile crashes has now been postponed to coincide with the introduction of 1976 model cars.

EFFECTIVE DATES:

With this revision the safety administration has slipped the date for passive protection by more than three years since such protection was first officially proposed in July 1969. Federal interest in passive restraints surfaced in July 1968 when top level safety administration officials met with auto manufacturers' representatives to accelerate passive restraint development.

The first formal announcement, the Advance Notice of Proposed Rulemaking issued in July 1969, proposed that passive restraints be required in all seating positions by Jan. 1, 1972. That date was changed to Jan. 1, 1973, by another proposal issued in May 1970. Last November, when the safety administration finally issued its passive restraint rule, the date was slipped again to July 1, 1974. The most recent revision eases the deadline by another 13 months to Aug. 15, 1975. It will

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probably stay there unless auto makers go to court or someone conducts field trials, the results of which are insufficiently favorable and cause the NHTSA to further revise its rule.

Although full passive protection (at all seating positions and in head-on, side and roll-over crashes) is not required in passenger cars until Aug. 15, 1975, manufacturers will have to provide some passive protection in 1974 model cars. Automobiles manufactured from Aug. 15, 1973, to Aug. 14, 1975, will be required to have passive restraints that will protect front seat passengers from "serious injury" in a 30 mile per hour head-on crash.

During that two year period lap belts will also be required. Cars are to have warning devices that will signal both audibly and visually when the ignition is "on" and the vehicle is in any forward or reverse gear. The signals are to be activated when the two front outboard seats are occupied and seat belts are not fastened. Some observers feel that the warning system could easily be circumvented by simply pulling the seat belt out and tying it in a knot or by locking it behind the outboard seat occupants. Cars manufactured during the two year period will have to meet specified injury criteria when tested both with and without seat belts fastened.

Under the revised rule, convertibles are not required to meet the passive restraint standard until Aug. 15, 1977. Even then they must be equipped only with passive restraints supplemented by seat belts for front seat occupants and tested only in head-on barrier crashes at 30 miles per hour both with and without belts fastened.

Passive restraints are required on trucks and multi-purpose vehicles of less than 10,000 pounds gross vehicle weight manufactured beginning Aug. 15, 1977 — that is, on 1978 models.

The passive restraint rule does not require that trucks weighing more than 10,000 pounds gross vehicle weight be equipped with passive restraints. However, after Jan. 1, 1972, they must be equipped with seat belts in all seating positions. Buses are to have lap belts by the same date, but for drivers only.

INJURY CRITERIA:

As the rule has evolved since May 1970, the revisions have progressively allowed the level of occupant protection to be lowered. Criteria used to determine permitted injury levels are stated in maximum deceleration (forces) a test dummy may experience in a test crash.

For example, the notice issued last spring would have established maximum head deceleration at 80 "g's" for no longer than three milliseconds. Last November's rule allowed head decelerations as high as 90 "g's" but required that any forces higher than 70 "g's" be limited to not more than three milliseconds duration.

By adopting a Society of Automotive Engineers "Severity Index" of 1,000 in the revised standard, the safety administration now allows forces on the head to

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NADER ASKS DOT TO EXPLAIN POSTPONEMENT

Attorney Ralph Nader has demanded that Transportation Secretary John Volpe explain and give a "detailed justification" of DOT's action postponing passive restraint requirements. He has also pressed Volpe to "demand substantiating cost information from the motor vehicle companies" on actual passive restraint costs.

Nader told Volpe in a letter that DOT's recent revision of the passive restraint rule "cannot even be justified on the basis of the manufacturer comments to the rulemaking docket" and is a "clear example of selecting the lowest common denominator for government regulation."

Calling government and industry estimates of passive restraint costs "misleading" and "unsubstantiated," Nader said it is "mandatory" that Volpe issue "a straightforward statement . . . of the actual cost for these new standards."

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reach levels as high as 250 "g's" for one millisecond and progressively lower force levels for longer periods of time.

An SAE table shows that at a "Severity Index" of 1,000, allowed by the revised standard, peak force of 100 "g's" for 10 milliseconds on the skull produces "minor to moderate" injury. The SAE says, "Although many of these injuries may be medically classed as 'minor,' they may be disfiguring and have serious psychological effects on the individual. Also, such injuries may involve impairment of the eyes, ears, nose and mouth."

Injury criteria for the chest have been similarly relaxed. Last November's rule established a 40 "g" maximum chest deceleration for two milliseconds. The recent revision allows unlimited forces for up to three milliseconds, then sets 60 "g's" as the highest force that may be sustained for longer than three milliseconds.

Criteria for leg injury were not changed by the recent rule revision but had been weakened earlier during the rulemaking process.

DEPLOYMENT SPEED:

Earlier notices and the November rule had established minimum vehicle speeds at which, in a collision, crash-deployed passive devices — such as air bags — are actuated. The May proposal would have required that such actuation

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occur in crashes at 10 miles per hour or more. The November rule raised that speed to 15 miles per hour. The new revision sets no minimum actuation speed. This permits compromising of maximum occupant protection in lower speed crashes (for instance at 10, 15 or 20 miles per hour) by having crash-deployed systems actuate only when crash forces rise to the very liberal limits permitted by the standard.

PUBLIC SPLITS WITH CAR MAKERS, BUFFS ON SPEED CONTROL

Despite a high level of general public support for the Department of Transportation's proposed speed control standard, auto makers and members of car buff organizations are opposing the plan to limit car speeds.

The proposed standard (see Status Report, Vol. 5, No. 22, Dec. 15, 1970) has drawn the heavist outpouring of public comment generated by any proposed standard to date — more than 10,000 by latest count at the DOT. Of the more than 4,000 comments tabulated thus far (excluding, among others, numerous petitions by car buff organizations), 46 per cent favor the standard as proposed by NHTSA, 19 per cent urge that it be strengthened and 35 per cent oppose it.

Typical comments favoring the measure say there is "no valid reason why they (cars) need to go any faster (than would be allowed by the proposed standard)."

The American Automobile Association "supports the concept of limiting the maximum speed to 95 miles per hour provided that this will not adversely affect vehicle economy and engine efficiency at lower speed."

Those critical of the proposal call it "a gross error of judgement" and a "bad joke." One writer said, "I don't like it at all! If you people keep it up, our cars won't be fun at all."

Comments from auto makers have been no less critical:

"Ford believes that the proposal to limit arbitrarily the top speed of motor vehicles to 95 miles per hour is neither

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FIAT LOGIC

Fiat has told the safety administration that its high speed limitation proposal is "illogical." Supporting that statement, Fiat argues that:

- ". . . Limiting maximum speed . . . will make trips boring and dangerous inasmuchas alertness drops dangerously when traveling becomes tedious." This, Fiat says, "may induce drowsiness and finally be determinant in causing the accident;"

- ". . . a car can travel at 150, 160 kilometers per hour (93, 99 miles per hour) or even at a higher speed without this being prejudicial to its own safety or that of other cars;"

- "Finally, it should not be forgotten that, normally, the higher the speed designed into a car the safer it will be, as all of its components are developed and built to withstand high stresses."

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justified by available data nor would it attain the benefits envisioned by the (safety) administration," the company says.

Chrysler Corporation says that such a rule "could well penalize the entire safety program because of the adverse public reaction to it."

American Motors says there are "many reasons why such a step would be ill advised" and recommends that "a safety standard for a high speed control and warning device not be issued at this time."

Most manufacturers seem to agree on two points:

- They say there is no known device that is tamper-proof and some say that if the rule is issued a federal law would be needed making it illegal to tamper with the speed control devices.

- They foresee no resultant reduction in automobile prices. Indeed, American Motors said, "We feel that any method that could be devised will add substantially to vehicle cost." The safety administration has said that, "Issuance of the standard may result in substantial reduction in the cost of manufacturing vehicle power plants."

Nationwide Insurance Company, in a formal docket filing, meanwhile told the safety administration it supports speed control regulation. A Nationwide study of 400,000 cars showed that "super-powered" cars produced "56 per cent more losses than those with standard power," the company said.

"It is unconscionable for today's vehicles to be capable of speed levels which are so grossly overmatched with their headlight and braking effectiveness, and their occupant-restraint and crash-survivability design. Moreover, the speeds at which these vehicles can travel go well beyond driver reaction and skill levels," the insurance firm said.

STATE COURT CALLS PRE-ARREST BLOOD TESTS CONSTITUTIONAL

The Florida Supreme Court has ruled that pre-arrest testing of motorists for blood-alcohol content does not violate federal or state constitutional guarantees against compulsory self-incrimination and unreasonable search and seizure.

In a decision that may have far reaching implicatons, the court ruled unanimously that results of a blood test were admissible in evidence even though the defendant was not under arrest at the time the test was given.

The defendant had appealed his conviction of two counts of manslaughter (deaths which resulted from an auto crash) on the grounds that admission of pre-arrest blood test results as evidence had violated his constitutional rights. A lower appeals court ruled in his favor but Florida Attorney General Earl Faircloth filed a further appeal to the state Supreme Court (State of Florida vs. John Edward Mitchell, Case No. 39,223, March 3, 1971 — not yet reported).

The court, in an opinion written by Justice J. Boyd, stated that because blood test results can exonerate a defendant as well as be used as evidence against him, it "is unnecessary either under the Federal or Florida Constitutions or under Florida Statutes S322.261 (implied consent law) to place a person under arrest prior to administering a blood test as authorized under . . . the Act."

Blood alcohol testing in Florida is intended as a substitute for breath, urine or saliva testing when the condition of the suspected drunk driver involved in an accident makes the other tests impractical or impossible to administer. Such a condition, the court pointed out, could make arrest prior to blood testing "difficult, and often impossible."

Although the case involved only blood testing and was limited to circumstances within the specific language of the state's implied consent law, the broad language of the decision may be cited by other courts as precedent for upholding the constitutionality of pre-arrest breath test statutes now being considered by a number of state legislatures.

Baton Rouge, La., already has a local ordinance permitting pre-arrest breath tests; a court test of the constitutionality of that ordinance is pending. The ordinance, first of its kind, is based on a British law and was drafted with technical assistance from the Insurance Institute for Highway Safety.

NORTH DAKOTA ADOPTS LIMITED PRE-ARREST TEST LAW

The North Dakota state legislature has enacted a law permitting police to administer pre-arrest breath tests on any driver suspected of driving while intoxicated who has been involved in a crash that results in death or personal injury requiring hospitalization.

The law provides that if the driver is hospitalized and the "medical practitioner in immediate charge of his case" objects to the test as "prejudicial to the proper care or treatment of the patient," then a pre-arrest blood test can be administered.

Under the new law, refusal to submit to the pre-arrest test is "sufficient cause" for revocation of the driver's license for six months.

Police are empowered to administer the pre-arrest test only to determine whether or not a driver should be arrested and charged with DWI. Under North Dakota's earlier adopted chemical test-implied consent laws, once a driver is arrested the police are allowed to administer a test to determine blood-alcohol concentration, the results of which are admissible as evidence.

AMA GETS NEW PRESIDENT — Franklin M. Kreml, a vice president of Northwestern University, has been named president of the Automobile Manufacturers Association. Kreml was an organizer of Northwestern's Traffic Institute.

SAFETY 'REPORT CARDS' DRAW FIRE FROM THREE STATES

Three states that ranked low in the Department of Transportation's recent evaluation of state highway safety programs have complained to Transportation Secretary John Volpe about their ratings.

Texas Governor Preston Smith told Volpe that his state's rating was "unfair." The Governor's Safety Coordinator in Alabama called it "biased" and Georgia's State Coordinator of Highway Safety asked DOT for a "reevaluation" of what he termed, in a statement to Status Report, the DOT's safety "report card."

TEXAS:

DOT's evaluation showed that, in order to be in full compliance with federal standards, Texas must improve its programs in motorcycle safety, driver education, driver licensing, traffic courts, alcohol in relation to highway safety, accident location identification and surveillance, emergency medical services, traffic control devices and police traffic services.

Gov. Smith told Volpe, "I feel that your traffic safety staff is either grossly unaware of the implementation in Texas regarding these (National Highway Safety) Standards . . . or else you have been badly misinformed as to the work which has been going on (in Texas) . . . ."

The DOT evaluation ranked Texas close to the bottom in comparison with other states. Smith said that such a comparison is "very unfortunate" because "extremely unfair and inaccurate implications can be made against some states" that are ranked low.

He said that his state's program has a "concept" that "goes far beyond" DOT's 16 standards. "We place, for example, great emphasis on public information, public education and public support. In no instance do we recognize the federal program as having such a standard, which I personally feel should be the most important one."

Meanwhile, Smith sent a special "traffic safety" message to the Texas legislature urging correction of "serious deficiencies" in the state's program. He specifically asked the legislators to take action in all of the areas cited by the DOT evaluation, except for motorcycle safety. Legislators should, he said, pay particular attention to "the public menace of the chronic violator and the drunk driver."

ALABAMA:

In his letter to Volpe, Alabama Safety Coordinator Richard Payson said that, "as you have noted in your biased report, only token improvements have taken place to date. (But) Alabama, at the present time, could implement many of the federal requirements if funds were available . . ." from DOT. Alabama ranked lowest of all the states in the DOT evaluation.

GEORGIA:

State Coordinator of Highway Safety Ben Jordan asked DOT to reevaluate Georgia's program. Jordan told Status Report that DOT's recent evaluation "has done harm to the traffic safety" effort in Georgia because "we are trying desperately to win all the support we can get in the public and the private sectors."

He cited several examples of what he called "glaring misapprehensions" on the part of DOT.

- Driver Licensing: Georgia was the only state to be rated "deficient" (a grade of "D") but "a check . . . of the DOT Annual Report will show that Georgia is in greater compliance than some of the states receiving 'B' and 'C' ratings," Jordan said.

- Motor Vehicle Registration: Georgia received a "B"; according to Jordan, the state has been "in total compliance since 1969."

- Motorcycle Safety: Georgia received a "C" rating. According to Jordan, a report on standard compliance compiled by the Highway Users Federation for Safety and Mobility in July 1970 shows that Georgia is ahead of "several states" that received higher ratings.

Jordan's request for reevaluation by DOT was answered by a letter from James E. Wilson, acting associate administrator of traffic safety programs in NHTSA, which listed — without additional explanation — the same nine areas of deficiences in "major legislative and administrative actions" as was listed in Georgia's "report card."

GROWING BUMPER BILL CROP HIT BY BLIGHT

The number of states which have had "bumper bills" introduced during the current legislative year has grown to 33, but in at least five of these the legislation has effectively been quashed and in a sixth — Georgia — its provisions have been substantially weakened under auto industry pressure.

The future of the Florida bumper law, enacted last year and used as a model for most of the 1971 state legislative efforts, is also in jeopardy. A bill introduced in the Florida legislature this year seeks to amend that law by lowering from 5 to 2.5 miles per hour the "no-damage" barrier crash speed for rear bumpers on cars sold in the state after Jan. 1, 1973, and to eliminate altogether the law's 10 mile per hour no-damage provision, which is set to take effect Jan. 1, 1975.

In Georgia the legislature adopted a bumper bill which also tracks auto makers' requests that eased crash speed criteria be set for front and rear bumpers — five miles per hour for front bumpers and 2.5 miles per hour for rear bumpers, both beginning with automobiles manufactured on or after Aug. 1, 1973 (the 1974 model year).

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'MINIMUM DAMAGE' BILL INTRODUCED IN HOUSE

Rep. John E. Moss (D-Calif.) and two other congressmen have introduced a "Motor Vehicle Information and Cost Savings" bill (HR 4999) in the U. S. House of Representatives. The bill is identical to a Senate bill (S 976) introduced earlier by Sen. Philip A. Hart (D-Mich.).

Among other things, the bills would allow the Department of Transportation to set "minimum property loss reduction standards" for vehicle crash damage (see Status Report, Vol. 6, No. 5, March 10, 1971).

To date, hearings have not been set on the House bill. Senate hearings began March 10 with testimony from the Insurance Institute for Highway Safety on 1971 model low speed crash test results and are scheduled to resume the first week in May.

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As is proposed in the Florida bill, the Georgia act eliminates mention of 10 mile per hour protection, originally scheduled to go into effect Jan. 1, 1975.

The Georgia act also eliminates the "no damage" language first proposed and substitutes instead language prohibiting damage "exclusive of damage to the bumper itself." Auto industry lobbyists had requested language that would permit "dents and scratches" to the bumper. As written and enacted, the legislation does not set limits on how much damage the bumpers may sustain in low speed crashes.

The five states where bumper legislation was introduced but then defeated or tabled indefinitely are Arizona, Colorado, Mississippi, West Virginia and Wyoming.

Legislators in California, Delaware, Hawaii, Maine and Rhode Island have introduced bills tracking the Florida law as passed last year. They would all set no-damage requirements in a five mile per hour barrier crash, front and rear, for cars sold beginning Jan. 1, 1973, and raise the no-damage speed to 10 miles per hour on Jan. 1, 1975.

A bill introduced in Nevada would set no-damage requirements in a five mile per hour barrier crash front and rear by Jan. 1, 1973. The bill carries no provision for protection at higher speeds. A less ambitious bill in Pennsylvania would set no-damage requirements in a five mile per hour barrier crash front and rear for 1975 model cars and later.

Other states in which bumper legislation has been introduced include: Arkansas, Connecticut, Illinois, Indiana, Iowa, Kansas, Maryland, Massachusetts, Minnesota, Mississippi, Missouri, New Hampshire, New Jersey, New York, North Carolina, Ohio, South Carolina, South Dakota, Texas, Washington and Wyoming.

HERTZ, AVIS ASKED TO SHARE DEFECT DATA

The Hertz Corporation and Avis Rent A Car System, Inc., the nation's two largest vehicle rental companies, have been asked to share information from their "defect reporting system(s)" with the National Highway Traffic Safety Administration — an idea that acting safety administrator Douglas Toms says is "worth exploring."

Lowell Dodge, Director of the Center for Auto Safety, and an associate, Stephen Oesch, have written the two companies urging that they cooperate in the "identification and correction of safety defects in new cars" by the Department of Transportation.

Dodge and Oesch said that information gathered in the defect reporting systems of the companies is now "kept tightly within the 'club,' whose leading members are the automobile manufacturers and large fleet owners . . . ."

"We understand that a number of defects, both safety related and non-safety related, have been brought to Ford's attention and corrected through this system," they said in a letter to Hertz President Robert Smalley.

"If the NHTSA were aware of this information, it could check to make sure that these defects were corrected. Furthermore, the continual reports received through the course of the model year would enable the NHTSA to spot defect trends in particular vehicles."

A Hertz official told Status Report that a committee has been established by the Car and Truck Renting and Leasing Association to explore the possibilities of implementing the suggestion on an industry-wide basis.

'REVENUE SHARING' TO INCLUDE SAFETY FUNDS

President Nixon's "revenue sharing" plan would do away with grants earmarked for state and local highway safety programs under Section 402 of the National Highway Safety Act of 1966.

According to proposals drawn up by the Department of Transportation, $1.02 billion in federal tax money would be turned over to state and local governments in fiscal year 1972 for use as they see fit "in the solution of local transportation problems," the Department of Transportation says.

The revenue-sharing fund would consist of money taken from aviation and highway trust funds and from the general treasury. This money is now being distributed to states on a matching basis for predesignated use on airport improvements, highway safety programs, federal-aid highway construction (excluding Interstate projects) and highway beautification. Except for the $4 billion-a-year Interstate Highway System, the proposal would eliminate the matching grant predesignations, thus allowing each state to spend its money on any aspect of transportation it chooses.

DOT is proposing that the plan be implemented beginning Jan. 1, 1972 — in the middle of the fiscal year. Presumably half of the $130 million in highway safety funds requested for FY 1972 would be distributed in the form of matching grants, with the other half becoming part of the proposed "Special Revenue Sharing Fund for Transportation" to be made available after Jan. 1, 1972.

"No state would receive less money under Special Transportation Revenue Sharing than was its aggregate of categorical grants under existing programs," DOT says.

Legislation based on the proposal is now being drafted and is expected to be introduced in a few weeks. Staff members of the House and Senate Public Works Committees are adopting a "wait and see" posture on the proposal.

VERMONT STUDY RAPS STATE'S EMERGENCY MEDICAL SERVICE

A study on emergency medical service in Vermont has concluded that "almost a quarter of Vermont's highway fatalities die of definitely or possibly survivable injuries," largely as a result of inadequate emergency medical service.

The study recommends that proliferation of small ambulance services that serve limited areas be curbed in favor of "regional coordination" and that the quality of emergency medical training and equipment be improved.

The study, "Ambulance Service in Vermont," was conducted by Dr. Julian A. Waller, an epidemiologist and widely known loss reduction researcher, and Lee Jacobs, a medical student. Waller is on the community medicine faculty of the University of Vermont.

The researchers surveyed ambulance units in the state and studied records of 163 persons who were fatally injured on Vermont roads during 1966 and 1967.

They found that:

- Small volunteer rescue units serving "limited geographic area(s)" are likely to handle emergencies relatively infrequently . . . . This is not enough to maintain adequate levels of knowledge and skill."

- Training of ambulance personnel is "clearly . . . inadequate to the life saving functions that they are called upon to perform." In fact, "As of January 1970, one out of every three ambulance personnel had either no first aid training or only the standard Red Cross course or its equivalent."

- The "frequent absence" of "necessary equipment . . . can only be described as appalling." They found "at least four out of every ten primary ambulances and two out of every three backup vehicles are inadequately equipped to maintain airway (respiratory passages) and support respiration. Over half of the primary ambulances and six out of each seven backup vehicles currently are not equipped to handle the range of serious fractures that the ambulance crew is likely to see."

The study was funded by the Insurance Institute for Highway Safety. Single copies may be obtained from Dr. Waller, Associates in Community Medicine, Given Medical Building, University of Vermont, Burlington, Vermont, 05401.

REITZ JOINS IIHS STAFF — Ivan A. Reitz, former chief of the U.S. Postal Service Management Information Division, has joined the Insurance Institute for Highway Safety as acting vice president in charge of operations.

Reitz designed, developed and directed the operation of information services within the Postal Service. He has 17 years' civilian and military law enforcement experience in management, administrative and a variety of specialized roles and has held a wide range of management and investigatory positions with the Air Force and the Department of Defense. He is a Brigadier General and commanding general of the 97th U.S. Army Reserve Command, Ft. Meade, Md.

He is a graduate of the University of Washington and holds a masters degree from the University of Puget Sound. Reitz succeeds Nils Lofgrin who is now with the Institute's communications staff as assistant to the vice president.

CORRECTION — The March 10 issue of Status Report (Vol. 6, No. 5) reported the average crash cost for 1970 model sedans in the 10 mile per hour front-into-side test crashes as $449.36. The average cost actually was $499.36. We regret the error.

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