

STATEMENT OF RAYMOND A. PECK, JR., ADMINISTRATOR, NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION, DEPARTMENT OF TRANSPORTATION, BEFORE THE SUBCOMMITTEE ON SURFACE TRANSPORTATION, SENATE COMMITTEE ON COMMERCE, SCIENCE AND TRANSPORTATION, MARCH 11, 1983

Mr. Chairman and Members of the Subcommittee:

I am pleased to be here, today, to discuss what the National Highway Traffic Safety Administration has been doing and can do to make improved automotive safety available to the public. This is a particularly exciting and challenging time for the Committee and the nation to be addressing this question.

It is an exciting time because our national highway fatalities for 1982 were at their lowest level since 1963. More importantly, the rate of fatality, which takes into account how much people are driving as well, has fallen from its 1979 and 1980 high level of 3.34 per hundred million miles to an all time low of 2.82 per hundred million miles.

It is also an exciting time because for the first time in the modern history of the question highway safety has become a national public issue of major importance. Media attention to the problem of the drunk driver and sharp Congressional and Executive Branch focus on this issue and that of safety belt usage have directed

new levels of public awareness to the single most important fact that drivers and occupants need to be aware of as they take to the roads: they are at great risk, they are vulnerable to accident, injury and death. They can in fact become, at virtually any moment on the road, a part of the national statistics that for years have represented one of the nation's most serious health problems.

This awareness, this healthy apprehension, has undoubtedly contributed much to the domestic declines we are seeing in all categories of fatalities.

And it is in this respect that the current highway safety question is a matter of the gravest concern to this Agency and the Department, and presents the greatest challenge. Current prevailing conditions can not and will not continue indefinitely.

As public attention wanes, as economic dislocation eases, as possible current constraints on the types of driving that present the greatest risk relax, we face the major threat that these statistics will again reverse themselves.

This Agency and the Department, are absolutely committed to

prevent this result. We are determined that NHTSA's own dire predictions of future fatalities, announced in 1981 and based on conditions which prevailed as recently as three years ago, not come true.

The NHTSA addresses its safety mission in three basic ways: through its grant program to states for their highway safety program activities, through its operations and research activity addressed to crash avoidance, and through its operations and research activity addressed to the crashworthiness of vehicles themselves. The last two functions, of course, include our rulemaking and enforcement responsibilities. These are addressed to new vehicles through our adoption or amendment of federal motor vehicle safety standards, and to vehicles in use through our defect and recall authority.

Each of these areas is important, each directly affects the survival and safety of the American public, and each is being addressed by the Agency with renewed vigor.

I understand the particular focus of today's hearings to be

what I have categorized here as crashworthiness. How safe the vehicles and equipment used in personal travel are now, and how safe they can be made in the future.

NHTSA helps to make improved automotive safety available to the public in two basic ways. The first is through the development of regulations which require the automotive manufacturers provide new levels of safety performance. The second is influencing the development and use of new technology. The process begins with detailed analyses of the causes of vehicle accidents, injuries, and fatalities and an investigation of practical countermeasures.

In determining which countermeasures should receive national attention and Federal funding, we examine the magnitude of the major safety problems facing the traveling public, analyze accident data, consider national trends, look at the impact of existing safety measures, and evaluate the potential for alleviating each specific problem. Those safety measures which promise the greatest payoff and are cost-effective are then

selected for priority attention. Based on this planning effort, I might note that our current top motor vehicle priorities include improvements in occupant restraints, glazing, steering assemblies, side impact protection, lighting, instrument panels, and heavy vehicle braking.

This record expresses the degree to which NHTSA is committed to automotive research and demonstration projects which assure continued progress towards reliable and cost-effective auto safety technology for the American car-buying public.

Much of the work and progress you will hearing about today from subsequent witnesses is the result of, or has been stimulated or managed by, a series of research initiatives undertaken by the Rulemaking and Research and Development offices of NHTSA over the past two years. I would like to submit for the record copies of the work products of these efforts: the technical papers presented at the February 1982 and March 1983 International Congresses of the Society of Automotive Engineers.

I would like to submit as well copies of the technical papers

presented by Agency representatives at the bi-annual Experimental Safety Vehicle conference in Kyoto, Japan in November, 1982, and the keynote address in which Deputy Secretary of Transportation Darrell Trent reaffirmed the Agency's and the Department's commitment to technological advances towards safety.

AIRBAGS

Mr. Chairman, when I appeared last March at a hearing held by the Subcommittee on Taxation and Debt Management on a bill to encourage the installation of airbags in new cars by American automobile manufacturers through the use of a tax system, I emphasized how encouraged I was to see the serious consideration being given to non-regulatory alternatives to encourage the availability of air cushion restraints in the near future. As I noted then, although the Administration opposed that proposal (which you have reintroduced this Congress), it in fact helped to change the focus of the airbag debate from whether the government could or should attempt to mandate such technology--it should not--to the

question of how best to encourage its introduction.

I also reported at that time what NHTSA was doing to see that this technology is made available to any American consumer who may want to purchase it. I am pleased to be able to report major progress in this effort.

In late 1981, I began negotiations with manufacturers to gain their voluntary commitments to continue developing advanced occupant restraint technologies, and to offer some airbags as options. As you know, formal contracts to that effect had been negotiated by former DOT Secretary Coleman in 1976, but were abrogated when the Agency's passive restraint standard was adopted in 1977. In response to this initiative, and without the need for any formal argument, Mercedes-Benz of North America recently announced that, beginning with the 1984 model year, it will offer a combination driver-side airbag and passenger-side pretensioned belt system as an optional supplementary restraint system in the American market.

This will be the first public offering of airbags as optional equipment since GM offered early airbag technology in model years 1974, 1975, and 1976.

Within NHTSA two air cushion restraint demonstration programs have been underway to demonstrate and ensure the availability of the lifesaving potential this technology represents.

The first project is a joint effort of the General Services Administration and NHTSA. The GSA has agreed to seek the procurement of 5,000 compact sedans for model year 1985 with equipment driver air cushion restraints. NHTSA will fund the incremental purchase cost of these driver-only systems and will closely monitor their performance.

This demonstration is an effort to pursue automotive safety by means of incentive and example. By specifying such safety devices on vehicles purchased by GSA for government use, we believe the manufacturers will have the necessary major incentive and capacity to offer them to the general public as well.

In addition, NHTSA announced last November a second

demonstration program by which driver-side airbags would be installed in 100 to 1,000 police vehicles to determine the feasibility of retrofitting systems into existing automobiles. The retrofit kits involved will be adaptable with minor hardware changes to Ford, Chrysler, and General Motors police fleet vehicles. Late model cars will be selected, since it is desirable that the systems remain in service for at least two years for evaluation purposes. The kits will be supplied by a government contractor and will be available for installation by the end of the year.

NEW CAR ASSESSMENT PROGRAM

These efforts are addressed to one particular technology, and one part of the crashworthiness problem. On a broader basis, NHTSA's programs to generate and disseminate safety information are basic to the Agency's ability to encourage making improved motor vehicle safety available to the public. Our goal is to capitalize on the manifest interest of the American consumer in motor vehicle safety issues by helping to ensure in the marketplace the kind of

specific information needed to make informed decisions about purchases. Based on our experience to date, we have good reason to believe that success in this area fosters a healthy and necessary competition among manufacturers to produce equipment that is safer, more resistant to damage and less costly to service and repair.

For example, pursuant to Title II of the Motor Vehicle Information and Cost Savings Act, NHTSA has established the New Assessment Program. This is an experimental program of the comparative safety characteristics of motor vehicles. The program consists of 35 mph frontal barrier crash tests of a series of approximately 25 passenger cars each year. For model year 1983, we are expanding the program to include a small number of light trucks and multi-purpose vehicles.

Various injury-related measurements are recorded from instrumented dummies in the vehicles, and these data are published for consumers to use for comparing the relative crashworthiness of the vehicles.

Substantial improvement in crash test performance has been achieved since this program was initiated in 1979. For example, the program shows more impressive results for 1982 model cars than those produced in crashing 1979, 1980, and 1981 vehicles. In addition, a number of manufacturers that had vehicles which did not perform well in crash tests have subsequently modified their production vehicles to enhance their performance. Such voluntary modification by the industry of vehicle designs to improve vehicle performance in these experimental crash tests is an encouraging sign with respect to consumer influence in the marketplace.

This program has been controversial from the start, and much of the controversy has centered on the validity and value of such crash tests to predict on road performance. There are two important points which must be mentioned in this regard. First, the program consists of the data generated in a test environment and as such, may not be directly relatable to real world accident performance. Accordingly, we are conducting

studies to assess the real world performance of vehicles as compared to their crash test performance.

Second, we have found some degree of variability in crash testing. To address this problem, we are conducting a Repeatability Program to assess the repeatability and reproducibility of 35 mph frontal crash barrier testing. The results of the Repeatability Program will help us to identify motor vehicle, test dummy, and test procedure parameters which contribute to the variability in crash test results.

COORDINATED AUTOMOTIVE RESEARCH

More directly focused on the auto manufacturers is our joint government-industry effort in automotive research which we initiated with the Motor Vehicle Manufacturers Association (MVMA). The principal reason for this program, which was first recommended in former Secretary Goldschmidt's January 1981 Report to the President on the U.S. Automobile Industry, 1980, was to expedite the development of practical solutions to highway safety problems. Additionally, by sharing motor

vehicle safety research results and improving communication between the government and the private sector, we hope to avoid duplicative research. This effort is in addition to NHTSA's own research program, where priorities reflect both the latest accident data and projected fleet trends and our own rulemaking priorities.

It should be abundantly clear to most interested observers that far too many auto safety debates have in the past been conducted on a rhetorical instead of a factual level. Late in 1981, we began discussions with foreign and domestic auto manufacturers to explore ways of reducing the level of rhetoric and increasing the flow of facts. This project is the result, and the first concrete program that grew out of these initiatives was a program of coordinated research activities with the domestic manufacturers.

Early in 1982, after some preliminary discussions between the Agency and the Motor Vehicle Manufacturers Association, it was decided to approach the prospects for coordinated research

"tentatively." Areas were identified where both parties intended to pursue research, and an attempt is underway to coordinate such efforts. For example, each party has agreed to conduct a test program on side crash protection research, an activity that is a high safety priority for everyone. A program of work was established that would ensure that both the Agency and the manufacturers would be able to share results of each other's research as it was completed. As information is produced, it is placed in the public docket.

The program is oriented toward the establishment of procedures which could be used to assess side impact crashes. It did not, of necessity, address vehicle improvements in this forum since such activities would on the one hand deal with proprietary data of the manufacturers, and on the other hand involve the development of the government's own regulatory priorities.

By June 1982, it was clear that the approach selected for the side impact program was productive and should be applied to other

research projects. After exploring a number of possible projects, eight were agreed upon as worth pursuing:

1. Side Impact Research Project--Initiated March 1982
(accident data analysis, test effectiveness, injury criteria)
2. Truck Exposure Data Research Project--Initiated July 1982
(GVWR, engine type, brake type, cab type, axles, configuration, miles traveled, etc.)
3. Simulator/Instrumented Vehicle Research Project--
Initiated August 1982
(analysis of man-in-the-loop performance measurement requirements)
4. CRASH/SMAC Review and Update Project--Initiated August 1982
(The velocity changes in the National Crash Severity Sampling Program will be reviewed and updated.)
5. Harmonization of FMVSS 108 Project--Initiated September 1982
(tail-light/stop-light intensity--expanding to other lighting areas)
6. Biomechanics Accident Reconstruction Research Project--
Initiated September 1982
(development of a biomechanics accident reconstruction model underway)
7. Biomechanics Research Project--Scheduled to begin February 1983
(charter still under discussion)
8. Steering System Research Project--Scheduled to begin March 1983
(Project will be discussed after Phase I of Side Impact Research Project is completed)

Most of these projects are underway and detailed work plans are being entered into the docket as they are developed. With this program in place in the United States, we have approached Japan

and governments in Europe to see if similar cooperative research activities could be pursued internationally.

Since there has been some concern and even some misunderstanding expressed regarding this program, I would like to conclude this discussion by assuring you that this program does not in any way compromise the Agency's independent role. No industry representatives contribute to or share in the Agency's efforts, and Agency involvement in industry efforts occurs. Only results shared, to produce a more efficient, reasoned approach to the difficult problems we have before us.

EXPERIMENTAL SAFETY VEHICLES

At your request, we have made available for your inspection this morning two of NHTSA's Research Safety Vehicles (RSV). The various features and specifications of the vehicles are described in the attached Fact Sheet (ATTACHMENT A).

NHTSA has been at work for a number of years on improvements in vehicle design or construction that could compensate for some or all of the adverse safety consequences that flow from designers

having to plan for managing crash energies in smaller and lighter structures. The RSV was an attempt to demonstrate that smaller size, relative safety, and levels of styling, comfort and performance commonly expected by owners are not mutually exclusive. It was a program which consisted of a series of contracts to design a small vehicle essentially from the ground up, with totally integrated safety systems.

The Agency's expectation was that the development of vehicles with these advances in safety would lead to the enhancement of safety in production vehicles. It was hoped that the example set by the RSVs would be adopted by the auto manufacturers world-wide.

We believe this program was successful in developing a vehicle which provided significant improvements in occupant crash protection using state-of-the-art technology. While we do not now and never really did anticipate that a totally integrated safety vehicle will necessarily be produced commercially, we have seen a number of RSV features that have been or are being adapted to production vehicles.

These features are:

- Design applications and production methods for use of high strength lightweight steels in unibody type structures to reduce weight while maintaining crash-worthiness.
- Various body structure design details such as side door and hood interlocks that improve crash performance of lightweight cars.
- Automatic restraint systems, including movable belts and multi-celled airbags.
- Windshield glazing that provides protection against facial lacerations.
- High-mounted rear brake lights that reduce rear-end collisions.
- Expanded use of plastics in bumpers and body panels that reduce low-speed collision damage.

The results of the RSV program, augmented by field enabled us to take the next step we had always planned effort: to focus on specific components and sub-systems of that can be improved within the context of present or foreseeable manufacturing operations. I emphasize the phrase "next step" in this effort because of an unfortunate misconception that the RSV program was somehow terminated prior to its completion. This is not the case. The program was completed. Now we are working to improve vehicle safety on a component-by-component basis rather than continuing to design new cars from the ground up. This "next step" will enable us to see improvements

in safety adopted much more quickly than has been the case with the RSV program.

LAMINATED WINDSHIELDS

The National Traffic and Motor Vehicle Safety Act of 1966 empowers the Secretary of Transportation to establish motor vehicle safety standards to accomplish the Act's purposes of reducing traffic accidents and deaths and injuries resulting from such accidents. Exercise of this authority is a continuing dynamic process. A recent example of the exercise of this authority concerns the possible installation of new, plastic-coated windshields and windows in motor vehicles designed to prevent most of the facial scarring and disfigurement that results from shattered glass.

The existing requirements of Safety Standard No. 205, Glazing Materials, do not permit the use of glass-plastic glazing in certain locations mainly because of an abrasion resistance requirement. After conducting an extensive evaluation of this glazing material, I am pleased to announce that last

Monday (March 7) we issued a Notice of Proposed Rulemaking that would establish performance requirements specifically designed to ensure the safety and performance of such glazing material.

Such windshields are composed of laminated glass to which a layer of polyurethane is bonded on the inner side. The windshield reduces the risk of lacerations to car occupants who strike the window in an accident, because the plastic inner prevents the occupant from coming into contact with the edges that are formed when the glazing is struck and .

In late February I approved the pilot use of the winds in a field evaluation of 2,500 Chevrolet Cavalier and Pontiac 2000 sedans and station wagons. The main objective of this field test is to investigate the durability, scratch resistance and any tendency of the glazing to become hazy and thus reduce visibility. While plastic glazed windshields have been in use in Europe, driving in North America includes a much wider range of temperature, humidity, and dusty conditions, which makes a U.S. field

test of the windshields necessary.

My testimony today has, I hope, illustrated by specific example what the Agency has done and continues to do to help make improved safety options available to the public. Neither we nor the industry have ever had, or will ever have, all the answers. As far as the Agency is concerned, however, our commitment of resources and ingenuity to the search for constant improvement continues to be among our highest priorities.

This concludes my prepared statement. I would be pleased to answer any questions you may have.

