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STATUS REPORT

INSURANCE INSTITUTE
for Highway Safety

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Air Bag Test Failure Laid To Obsolete Parts

The recent, widely publicized test of an air bag passive restraint system at Wayne State University was conducted with "obsolete . . . left-over elements," according to an official of the Eaton Corp., one of the nation's leading air bag developers.

The failure "received so much notoriety in the press . . . that it could have a very far-reaching effect on the main current of air bag development," the official said.

"It is incredible that a test run under highly questionable conditions and employing obsolete, experimental hardware never used by any car company can cast such a shadow over the excellent results achieved by the Ford Motor Co. and demonstrated in the tests conducted by Allstate with Ford vehicles," the Eaton official said.

It was the second such failure to mar official attempts to publicly demonstrate the lifesaving and injury-reducing potential of the controversial passive restraint system. The first public failure occurred during a crash test demonstration of a Department of Transportation experimental safety vehicle in Phoenix, Ariz., earlier this year. DOT has attributed that failure to an "error in wiring a switch" that occurred when two wires were "reversed in original assembly by the manufacturer."

Inside

Both the Phoenix and Wayne State demonstrations were heavily attended by newsmen and government and industry officials. Numerous news reports cast doubts on the future of the air bag as a result of the failures.

In a six-page letter to Judson B. Branch, chairman of DOT's National Motor Vehicle Safety Advisory Council, W.R. Ryburn, marketing manager of Eaton Corp. Safety Systems Division, outlined his company's view of the Wayne State failure, which he called an "unfortunate event." The test was sponsored by the advisory council under the direction of council member Lawrence Patrick, a professor at Wayne State University.

The Eaton official said that four days prior to the scheduled demonstration Patrick

requested that Eaton supply its "air bag display unit" for the demonstration. Ryburn said that Eaton declined because of "short notice and corporate policy."

According to Ryburn, Wayne State officials said that they originally planned to conduct the demonstration with "a Volkswagen vehicle outfitted with an American Safety (Equipment) experimental after-market air bag system." Ryburn said that Eaton officials learned later that the demonstration had been postponed for a day after Wayne State personnel "had encountered considerable difficulty" with "test runs" on the night prior to the re-scheduled press demonstration. The Volkswagen vehicle had been "hurriedly" replaced with a Chevrolet vehicle, he said.

Ryburn said that the Chevrolet had been equipped with an air bag system using a gas generator that had been manufactured by Rocket Research Corp. and sold to Wayne State by Eaton almost two years ago. He said that the design of the generator was "obsoleted . . . more than a year ago" by the "rapid advance" of technology and that "no such systems have been supplied for automotive manufacturer activity." The system was used without Eaton's "knowledge and consent," he said.

According to Ryburn, Eaton officials told Wayne State representatives prior to the test that they were "extremely apprehensive" about the use of the generator because of its "experimental" nature. However, they decided against a "formal request that the test be aborted" because the company was "not officially" party to the test, he said.

Ryburn said that in view of these facts the council should "properly present the true state-of-the-art air bag development" to the media and to the public.

According to a report submitted to Transportation Secretary John A. Volpe by the advisory council, the failure was caused by a short circuit which "probably occurred at the time of fabrication (by the manufacturer)." The report concluded, "It was the type of defect which could have been detected by simple quality control procedures during manufacturing or assembly or by suitable tests prior to use." Wayne State did not have the equipment necessary to test the device, the council report said.

In another account of the failure, Lowell Dodge, director of the Center for Auto Safety, said, "There is no evidence that this failure was intentionally rigged. The degree of negligence on the part of those conducting the experiment, however, was so great as to maximize the chances of failure."

Nader Group Attacks Pace Of Defect Probes

The Ralph Nader-affiliated Public Interest Research Group has charged that the National Highway Traffic Safety Administration's Office of Defects Investigation "is one of the most understaffed, under-financed and low priority units within the NHTSA."

Clarence Ditlow, an attorney for PIRG, told the Senate Commerce Committee during recent authorization hearings that investigatory action by NHTSA's defects office "has slowed to a snail's pace." He claimed that from Oct. 27, 1967, through May, 1969, the agency completed 111 investigations "with an average pendancy of 3.2 months." However, he said, "The second 19 months of defect investigation (June, 1969, through December, 1970) resulted in the completion of only 72 defect investigations with an almost doubled average pendancy of 5.8 months."

Since 1970 the record has grown even worse, Ditlow charged: "Even if all these investigations were completed as of today, the average pendancy would be an incredible 27.9 months, over two years." At this rate "the potential defects may well eliminate many of these motor vehicles from the road" before the investigations are completed.

According to Ditlow, NHTSA suffers "from its dependence on the manufacturers for defect information" and needs additional funds from the Congress to free it from that relationship.

Under questioning at the Senate hearing Safety Administrator Douglas Toms said that his agency's defects investigation office is adequately staffed and its activities sufficiently financed. "The major problem is a lack of raw data . . . and an inability to find the information because it just basically is not available, and we cannot make an adequate decision (on whether a defect exists) that would stand up under scrutiny," he claimed.

Center For Auto Safety Demands Ford, GM Recalls

The Center for Auto Safety claims that Ford engineers knew as early as 1962 that Ford lower control arms were "unsafe," and that they "initially proposed" that the critical suspension element should be thicker than those actually used on 1965 through 1969 model year Ford and Mercury vehicles.

The arms are currently being investigated as a possible safety defect by the National Highway Traffic Safety Administration because of numerous reports of arm failures, which can cause drivers to lose control of their cars.

In a letter to Ford Motor Co. Chairman Henry Ford, Lowell Dodge, director of the Center for Auto Safety, and Bernard P. O'Meara, a center staff member, said that they "have been in separate contact with two former employees of the Ford Motor Co. who worked on the design of the arm in question."

According to the letter, the two engineers, who "essentially verified each other's facts," said that "the design initially proposed for the 1965 front suspension specified metal of .156 inches thickness. Subsequently, however, Ford's chief engineers decided to reduce the thickness of the control arm at the mounting point of the lower ball joint . . . from the proposed .156 inches to the final .125 inches." The letter said that the engineers voiced "strong objections" over the decision to a ranking Ford official.

The center officials claimed, "This compromise in material strength was a cost benefit decision, sacrificing safety for presumed dollar profit."

The NHTSA has asked Ford for details on the engineering dispute, according to an agency official.

Earlier in its two-year-old Ford lower control arm investigation, the safety administration found that Ford made a mid-production year design change on 1970 models that strengthened the control arm by thickening the component from .125 inches to .146 inches. (See *Status Report*, Vol. 7, No. 1, Jan. 17, 1972.)

GM STEERING DEFECT

In another letter, this one to Edward N. Cole, president of General Motors Corp., the center demanded that GM recall "all 1971 and 1972 full sized GM cars in the Chevrolet, Buick, Oldsmobile and Pontiac lines" for repair of a "steering lock-up defect."

The letter said that GM "has been aware of this problem . . . for several months." It claims that in May of this year the company described the defect in a bulletin to its dealers and gave instructions on how to install a "power steering shaft coupling shield" to correct the problem.

An earlier "Evaluation of the Steering Obstruction Problem" on 1971 full size Chevrolets, conducted for the Insurance Institute for Highway Safety by an independent testing laboratory, concluded that

"gravel can lodge in the gap between the steering coupling and frame and obstruct the steering to an extent which seriously impairs the driver's ability to control the vehicle, even with fully operable power steering," the center told Cole. The Institute first reported the problem to NHTSA in March of this year. (See *Status Report*, Vol. 7, No. 5, March 13, 1972.)

Center spokesmen said that they have "letters describing 14 cases of steering lock-up which may have resulted from this defect. In six of these cases a crash resulted; there were reports of five injuries."

The center called on Cole, as the first recipient of the National Motor Vehicle Safety Advisory Council's "Excalibur Award" for "outstanding contributions in the field of automobile safety" (see story, page 11), to "show greater concern for the safety of your customers and their passengers" by recalling the cars.

NHTSA Closes Seven Probes, Opens Ten Since March

Since March 28, 1972, when *Status Report* last published the National Highway Traffic Safety Administration's list of defect investigations, the agency has initiated ten new investigations and completed seven others.

Newly initiated investigations are indicated in the charts on pages 5 through 8. Completed investigations include:

- Flammability of dash panels and trim in 1971 Chevrolet Vegas (C2-29). The agency discontinued its investigation without declaring a defect. "The dash panel material of the 1971 Vega will burn, however, at a rate well below that established in FMVSS No. 302 (the agency's flammability standard). Three instances of 1971 Vega dash panel fires have been reported out of a total production of 391,870 vehicles for that model year," the agency said.

- Handling and stability of the U.S. Army's M151 quarter-ton vehicle, commonly known as the "Army jeep" (C2-13). NHTSA recommended against sale of such surplus vehicles for public use.

- Axle wheel hubs on boat trailers manufactured by Aros Mfg., Fife Metal, Tacomo Wheel, Trailrite Trailer Co. and Wallstrong Mfg. (C2-17). The agency found that a defect exists because "wheel bolts become loose after installation in (the) axle hubs of boat trailers." It said that 2,185 trailers are being recalled by the manufacturers.

- Shoulder harness locking pawl grommets on all 1970 and 1971 Ford vehicles (265). Ford Motor Co. is recalling approximately four million affected vehicles to correct the defect.

- Faulty engine mounts on vehicles manufactured by American Motors Corp., Checker Co., Chrysler Corp. and Ford Motor Co. (258). After witnessing manufacturers' tests of potentially affected vehicles, the agency concluded that "there appears to be no problem associated with broken motor mounts" on vehicles manufactured by the four companies.

- Wheel cylinder failures on GMC school buses manufactured between 1965 and 1970 (233). Although the investigation has been discontinued, details of NHTSA's findings are not available.

- Michelin tire failures (236). The case was started and closed since *Status Report's* last publication of defect investigations. Details of the agency's findings are not yet available.

Subjects Of Current NHTSA Safety-Related Defect Investigations

Priority I

July 17, 1972

CASE	MAKE	MODEL	YEAR	COMPONENT	POSSIBLE PROBLEM
C2-21	All manufacturers	All models	Pre-1968	Frame	Rusting
161	American Motors, Chrysler, Ford, General Motors	All models	1963-1971	Power brake vacuum check valve	No power assist with loss of valve cover
289†	British Leyland	Austin America, all models	1971	Exhaust system	Excessive heat transfer from exhaust system to tunnel area
297	Firestone	Front tires on GMC parcel delivery vans 4903 and 4905	1969-1970	Tires	Excessive heat buildup
098	Ford	Mustang, Cougar	1968-1969	Ford drop-in fuel tank vent	Certain vents exposed to rupture by shifting luggage
140	Ford	Mustang,Cougar	1968-1969	Seat back pivot arm	Inboard pivot failure
212	Ford	Full size	1965-1969	Lower control arm	Possible fatigue failure
266	Ford	Full size	1969	Ignition switch	Poor connection between harness plug and switch
287	Ford	Galaxie	1968-1969	Front wheel spindle	Possible fatigue crack in heel area
279	Chevrolet	Corvair	1960-1963	Chassis and suspension	Handling and stability
C2-35†	Chevrolet	Vega	1971	Throttle solenoid bracket	Bracket breakage
C2-40†	Chevrolet	Full size and Chevelle	1971-1972	Steering mechanism	Possible lock-up due to foreign objects
252	Chevrolet	½-ton van and passenger cars	1969	Tie rod	Suspected fatigue failure in thread section
258	General Motors	Buick,Cadillac, Oldsmobile and Pontiac	1965-1969	Engine mount	Secondary effects from shearing of engine mount
132	General Motors	All models	1965-1966	Quadrajet carburetor	Fuel leakage at plug

CASE	MAKE	MODEL	YEAR	COMPONENT	POSSIBLE PROBLEM
283†	International	Loadstar	1969	Rear axle housing	(None listed)
C2-23	Mack trucks	Mack truck tractor	1969-1970	Front suspension, saddle block and U-bolt	Breakage
C2-10	Peterson Manufacturers	Model 63	All	Child seating	Possible inadequate restraint security
249b	Volkswagen	All models	Pre-1963	Heater	Engine fumes in passenger compartment
278	Volkswagen	All models	1965-1971	Seat and seat track	Seat track separation during crashes
060†	Volkswagen	All models	1958-1969	Windshield wiper arm	Loss of wiper arm lock to transmission shaft
228	Volvo	140,164 and P-1800	1969	Accelerator linkage	Throttle valve sticking

Priority II

CASE	MAKE	MODEL	YEAR	COMPONENT	POSSIBLE PROBLEM
190	All manufacturers	Travel trailers	1965-1970	Wheels, axles and tires	Possible overloading of suspension components
C2-09	All manufacturers	All models	All	Motorcycle helmets	Possible units providing inadequate protection
C2-05	American Motors	Jeepster	1971	Service brakes	Rear brake lock-up
C2-51*	Avco Motor Homes	Grand Lodge	1971	Gas tank location	Possible fume intrusion into electrical circuitry box
169	Bonanza	15', 17' trailers	Various	Wheel lug bolts	Lug nuts not compatible with wheels
150	Budd, Firestone, Kelsey-Hayes	RH5° wheels for medium trucks	Various	Wheels	Accidental explosive disassembly

CASE	MAKE	MODEL	YEAR	COMPONENT	POSSIBLE PROBLEM
209	Chevrolet	Biscayne	1969	Rear track bar	Possible failure under load
264	Dodge	S500 Chassis	1964-1967	Brake drum	Flawed contact surface
128	Ford	16" two-piece wheels	Various	Wheel	Lock ring gutter failure
C2-53*	Ford	All models	1967-1971	Brake master cylinder	Corrosion in cylinder
291	Ford	Capri	1971	Evaporative emission system	Possible charring of air cleaner element
C2-50*	Ford	School Bus	1971	Air brake hose	Incorrect routing of air lines
C2-25	Ford	School Bus	1966	Brake line	Corrosion failure
C2-46*	Ford	LTD	1972	Power steering hose	Possible hose failure
C2-31	Ford	Standard size	1971	Steering tie rod	Separation
C2-37	Ford	Standard size	1969	Master cylinder	Total failure
282††	Ford	Standard size	1965-1970	15x5 wheel	Inner bead seat and/or spider failure
282b††	Ford	Ford sedan	1968-1971	15x6.5 wheel	Inner bead seat and/or spider failure
280	General Motors	GMC School Bus	1955-1971	Exhaust system	CO intrusion
C2-20	General Motors	Oldsmobile Cutlass	1971	Service brake	Excessive heat buildup
C2-32	General Motors	GMC, Chevrolet pick-up	Various	15",16" single-piece wheel	Inner bead seat failure
C2-33	General Motors	Pontiac Firebird	1972	Lower B-post	Possible inadequate support welding
215*	Goodyear	KB-KW wheels used on medium & heavy trucks	Various	20" 2-piece wheel	Accidental explosive disassembly
C2-45*	Hamill Manufacturing Co.	Protecta-tot Model 9013	Various	Child seat	Potential restraint problem
C2-52	Holland Hitch Co.	Various trucks	Various	Fifth wheel	Crack in sliding fifth wheel

CASE	MAKE	MODEL	YEAR	COMPONENT	POSSIBLE PROBLEM
C2-49*	International Harvester	Travelall	1971	Lower control arm support bracket	Insufficient welding
248	International Harvester	1600, 1700S 1800 bus	1958-1970	Brake shoe	Shoe separation from reinforcement web
276	International Harvester	1200D	1970	Front spring U-bolt	Breakage
C2-08	International Harvester	Step-in van	1970-1971	Steering linkage	Wheel oscillations over rough surfaces
C2-30	Mack trucks	Various	Various	Rear spring retention	Progressive cracking and breakage
C2-54*	Norton Villiers, Ltd. Motorcycle	Commando 750cc	Various	Yoke	Cracking
C2-55*	Open Road Motor Home	Chevrolet 350 Chassis	1970-1972	Front axle	Possible overloading
C2-39	Pullman, Inc. Trailmobile Division	40-ft. trailer	1966	Axle	Spindle breakage
C2-18	Rockwell Standard	Various trucks	1970-1971	Front axle hub	Failure to meet manufacturer's specifications
C2-19	Rockwell Standard	Tandem axle trailers	1960-1963	Axle spindle	Overstress condition
296	Rockwell Standard	Various size trucks	Various	Torque arm	Fatigue failure
C2-28	Warner Electric Brake Co.	Various	Various	Electric brakes	Magnet clutch failure
C2-38	Webb Wheel Div.	Various	Various	20" wheel	Possible flaw in casting
307	Western Unit Corp.	Butler trailers	Various	Drawbar and dolly-bar	Failures due to possible overloading
303*	Volkswagen	Microbus	1970	Brakes	Brake fade
051	(In litigation)			3-piece wheel	

* Initiated since March 28, 1972
† Moved from Priority II to Priority I
†† Moved from Priority I to Priority II

NHTSA Seeks Stronger Defect Alerts, More Data

Recently the National Highway Traffic Safety Administration moved to improve what it called "inadequate measures taken by manufacturers to alert car owners of possible dangers that exist when defects are found in motor vehicles or motor vehicle equipment."

In a notice of proposed rule making, NHTSA has proposed among other things that defect notification letters sent by manufacturers give owners "a clear description of the defect" along with "an evaluation of the risk to traffic safety reasonably related to the defect"—including whether "the defect can cause the driver to lose control of his vehicle without any prior warning."

The proposal would also prohibit manufacturers from making "any statement or implication that the problem discussed in the letter is not a defect or that it does not relate to motor vehicle safety."

(Last year, in a defect notification campaign conducted by General Motors Corp., the company sent letters to Corvair owners saying that it disagreed with NHTSA's determination that a safety defect exists in Corvair heaters.)

Many of the proposed requirements are identical to suggestions that safety administrator Douglas Toms submitted to manufacturers in a letter more than a year ago, in which he urged that their defect notification letters "create an incentive in owners to have their vehicles repaired as quickly as possible." (See *Status Report*, Vol. 6, No. 11, June 7, 1971.)

In issuing the proposed rule, the agency said that at that time, sentiment within the agency was that "manufacturers should be provided an opportunity to voluntarily make their notification letters more consistent with the spirit and intent of the National Traffic and Motor Vehicle Safety Act (of 1966)." However, it says that "there has not been . . . a sufficient improvement in letters sent by manufacturers" and "the public interest would best be served" if the suggestions were issued as requirements.

GOVERNMENT AGENCIES

NHTSA is also trying to broaden its defect information base through a proposed agreement with seven other government agencies. Under the agreement they would provide the safety agency with reports of potential defects experienced in government owned vehicles. Details of the procedure have not been worked out, according to a safety agency official. The participating agencies would be the Department of Defense, the General Services Administration, the Department of Interior, the Atomic Energy Commission, the Department of Justice, the U.S. Postal Service and the Department of Agriculture.

AUTOMOBILE CLUBS

In another program, NHTSA has entered into agreements with automobile clubs in Missouri and California to provide the agency with defect information from two segments of the clubs' operations. Both of the clubs, affiliates of the American Automobile Association, have diagnostic facilities and insurance subsidiaries. According to defects investigation chief Andrew Detrick, the clubs will provide NHTSA with a "pool of vehicles" owned by club members to be inspected once NHTSA identifies possible defects.

The clubs will also supply NHTSA with "trends that come out of (their) insurance statistics" to aid the agency in identifying potential safety defects. Detrick told *Status Report* that there is "no reason why other insurance companies couldn't join the same approach" in providing "trend data" on possible defects. He "actively solicits" such support, he said. (See related story, page 10.)

PERIODIC INSPECTION

In still another project, NHTSA has given $2.4 million to the Washington, D.C., Department of Motor Vehicles to develop a five-year demonstration inspection program. As part of that program, the city's inspection units are checking vehicles to determine if they have been involved in a defect recall campaign and whether the defect has been corrected. Vehicle Identification Numbers (VINs) of cars that are being inspected are checked against a computerized list of DOT-supplied VINs to determine if the cars have been involved in selected recall campaigns. The cars are then checked to determine whether the defect has been corrected.

Wiley W. Godsey, chief of vehicle safety research for the District, told *Status Report* that the program is limited to those defects that "can be checked by visual inspection." The information is gathered by NHTSA as part of its recall monitoring procedure.

Insurer Role Seen In Defect Notices

A major auto insurance company has proposed that insurers assist the National Highway Traffic Safety Administration in seeing that safety defect notices get to the widest possible number of affected car owners, including second and third owners who might not otherwise receive them.

In correspondence to NHTSA Administrator Douglas Toms explaining the proposal, State Farm Mutual Automobile Insurance Co. has indicated that it is ready and willing to implement the proposal right away.

The defect notification plan is described in letters to Toms sent earlier this year by State Farm's vice president, Thomas C. Morrill, and Wayne Sorenson, the company's assistant vice president for research. "The use of insurer data resources to reach all owners of defect recalls," Morrill says, "should significantly increase the response of all owners, and be uniquely valuable in reaching cars now in the hands of second and third owners. . . . (We are) confident of our ability to put an urgent message for this purpose in the hands of each such policyholder."

The proposal would make use of insurance company facilities to carry out the government's recall notification responsibilities by following these steps:

- Vehicle Identification Numbers (VINs) of all cars in a defect notification campaign would be supplied to participating insurance companies, either by NHTSA or the notifying auto manufacturers. (NHTSA currently is supplying such numbers to the District of Columbia as part of a project to research the utility of having motor vehicle inspection systems reject any vehicle for which a recall notice has been issued but not acted on by the owner. See related story above.)

So that no single company would have "exclusive access to the VIN data," a letter from Morrill explains, "we have proposed that it be channeled through the Insurance Institute for Highway Safety for use by all insurers. . . ."

- A participating insurance company would compare the VINs with those of its policyholders' vehicles. For each policyholder found to be in possession of a vehicle covered by the defect notification the company would send out the appropriate notice.

Morrill notes in his letter to Toms that auto insurers who maintain VINs in their data banks "have a superior means of knowing the present ownership and location of both new and old insured vehicles. No

matter how many owners a car has had, or in how many states it has been licensed, the VIN . . . will be in our records if we are its insurer, and we will know the name and address of its owner. . . . No other source of which we are aware is as current as insurer data."

Morrill referred to a *New York Times* article of April 23 that "reports that 40 per cent of cars and trucks sold in this country since 1966 have been recalled for a safety-related defect, and that only 50 to 85 per cent of such vehicles actually have been returned for correction of the defect."

State Farm's insured vehicles include 9.5 million that are six years old or less, he said, so "if 40 per cent of these have been recalled, that figure would be 3.8 million cars, and if 50 per cent have responded to the recall, that means that State Farm is now insuring 1.9 million cars with a safety-related defect that has not been corrected."

State Farm knows the names and addresses of the owners of these cars, Morrill said. "We just don't know which ones they are in our 13 million-member family."

GM's Cole Gets Council's Sword Award

Edward N. Cole, president of General Motors Corp., has been named the first recipient of the National Motor Vehicle Safety Advisory Council's annual "Excalibur" award for "outstanding contributions in the field of automotive safety."

As a result, Walker Sandback, executive director of Consumers Union, has resigned from the council in protest, and attorney Ralph Nader has called the award "outrageous . . . (and) more serious than a mockery of justice."

The council was created by the National Traffic and Motor Vehicle Safety Act of 1966, which requires that the Secretary of Transportation "consult" with it on motor vehicle safety matters. NHTSA is not bound by the council's recommendations, however, nor does the council have any operational or executive authority over the agency.

In a telegram to Judson B. Branch, chairman of the council, Sandbach said, "The naming of Cole, known in the automotive industry as the 'father of the Corvair,' one of the most dangerous cars produced in recent years, makes a mockery of the council's efforts to stimulate the development of safer cars." Cole was general manager of GM's Chevrolet division when the Corvair was introduced in 1959.

Nader said the award "reveals conflicts of interest within the advisory council, and the final takeover of that council by automotive interests. The fact that this move was led by Trevor Jones, a council member in the employ of Mr. Cole, muddies the waters even further."

The award was presented at the council-sponsored First International Congress on Automotive Safety in San Francisco. It was described in an earlier press release from the National Highway Traffic Safety Administration as a "silver broadsword thrust into a solid rock of cut crystal," whose design was inspired by "one of the great Arthurian legends." Asked whether NHTSA concurs in the council's selection of Cole to receive the award, an agency spokesman said, "It's the council's ball game," and stressed that NHTSA is issuing no press statement of its own on Cole's selection.

The Center for Auto Safety organized a picket of the presentation in San Francisco while a center staff member attempted to present Cole with what was described as a counter-award "comprised of remnants of defective GM parts."

New Members Appointed To Safety Committee

The Department of Transportation has appointed 12 new members to its National Highway Safety Advisory Committee.

The 35-member committee was created by the Highway Safety Act of 1966 to advise and consult with the Secretary of Transportation on federal standards for state and community safety programs.

The new members are John Almeida, Jr., chairman of the board, Almeida Bus Lines, New Bedford, Mass.; Vincent Paul Brevetti, attorney, Forest Hills, N.Y.; Mark Donohue, race car driver, Newtown Square, Penn.; Mary Emrick, public relations specialist, Standard Oil of California, San Bruno, Calif.; Mildred Gnau, president, National Association of Women Highway Safety Leaders, Cleveland Heights, Ohio; Clarence Hoffman, truck driver, Raymond Motor Corp., Inc., Minneapolis, Minn.; Cooper T. Holt, executive director, Veterans of Foreign Wars of the U.S., Washington, D.C.; Henry F. McQuade, chief justice, Idaho State Supreme Court, Boise, Idaho; J.W. Stevens, chairman, Board of County Commissioners of Broward County, Fort Lauderdale, Fla.; Paul J. Sullivan, attorney, Washington, D.C.; Thomas Miller Thompson, chairman of the board, General American Transportation Corp., Chicago, Ill., and Leota M. Westfall, Highway Traffic Safety Center, Michigan State University, East Lansing, Mich.

Fulmer Joins Institute

Daniel W. Fulmer has joined the Institute staff as assistant vice president for program evaluation on the operations staff. Fulmer, former director of the Office of Consumer Affairs and Public Information for the National Highway Traffic Safety Administration, managed the agency's press, public relations and consumer relations activities.

During the same period he was NHTSA's executive secretary, in which capacity he directed the agency's staff support for and liaison with its presidential- and secretarial-level advisory groups.

Previously, Fulmer was executive secretary of the Peace Corps, and prior to that served in various congressional and cabinet staff assignments. He holds a law degree from Harvard Law School.

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