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Climate Change Other Café/Clean Cars/Fuels [2]

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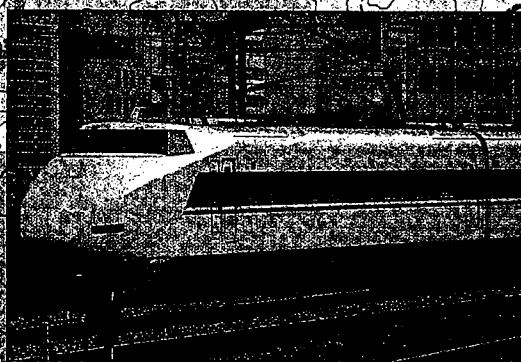
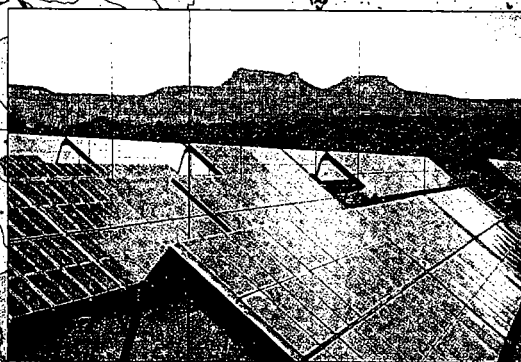
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Michigan's Global Warming Solutions



PNGV Car Event

Federal Triangle, Courtyard between the Ronald Reagan and Ariel Rios Buildings
10:00 AM (TBD) March 30, 2000

Briefing prepared by Nathan Hurst

MESSAGE

Seven years ago, under the leadership of Vice President Gore, the Administration launched an historic research partnership with the U.S. automakers to develop by 2003 vehicles that get three times the mileage of today's models with no sacrifice in safety, comfort, or affordability. This partnership has now reached a major milestone: all three automakers have produced concept cars that achieve the 80-mpg goal.

We propose that the Vice President:

- Salute PNGV's success to date by displaying the three concept cars.
- Expand PNGV to focus on the challenges of SUVs
- Significantly advance our policy objectives with the announcement of new commitments by the automakers to begin mass production within the three years of high-efficiency vehicles incorporating PNGV technologies. While details are still being negotiated, our aim is for mass production of vehicles at 30 percent more fuel-efficient than today's models
- Urge Congress to pass the Administration's auto tax credit proposal
- Possibly have the Vice President announce the Administration's 21st Century Truck and Bus initiative
- Inspire a New Generation of Scientists, Engineers and Entrepreneurs

SUVs?

VENUE

Vice Presidential Advance has signed off on the Federal Triangle as the site for the PNGV event. This is the outdoor courtyard area between the Ronald Reagan and Ariel Rios Buildings in downtown Washington, DC. The courtyard provides a nice outdoor setting that can easily be controlled from a security and crowd standpoint. If it rains the event will be moved inside to a ballroom in the Ronald Reagan Building. The rain call will most likely need to be made 36 hours in advance to allow appropriate prep time to build an indoor site.

Chrysler, Ford, and GM have agreed to cover the cost for stage, risers, lights, and some sound. They have contracted "Presentation Works" a vendor out of Michigan to build the event site.

The options for staging are as follows:

1. Place the three concept cars lifted off the ground at an angle in front of the toast lectern. This way the three cars will always be in the press shot. On stage behind the speaking program could be the info/message boards (see attached) prepared by USCAR describing the PNGV Partnership and Technology. The Federal Triangle courtyard will serve as a nice backdrop to frame the partnership.
2. Place the concept cars flat on the ground stage left. The Vice President could view the cars and take a photo before proceeding to the stage. The same backdrop options listed in option 1 above could apply here.
3. Elevate the concept cars behind the speaking program on stage. Again this would allow the cars to always be in the press shot. The backdrop in this option would be the cars and the Federal Triangle courtyard. Info/Message boards could be placed stage right on the ground. This may not be an option because of the delicacy of these vehicles; the autos initially seemed turned off to this option. The staging costs could increase dramatically.

PROGRAM (TBD)

- The Vice President arrives and proceeds to hold for briefing.
- The Vice President proceeds to a brief meet and greet with Auto Executives.
- The Vice President proceeds outside with Auto Executives to view the concept cars and discuss briefly for a photo op.
- The Vice President proceeds to the stage.

The options for the speaking program are as follows:

1. Real Person; Secretary Daley/Slater; VP
**One idea for the real person is a science teacher involved in the PNGV school education program that works to educate the next generation on hybrid electric technology and building vehicles of the future.*
2. DaimlerChrysler Exec.; Ford Motor Exec.; GM Exec.; Secretary Daley/Slater; VP
3. USCAR Representative; Secretary Daley/Slater; VP
**Remarks will probably be made from a toast lectern.*

- Following remarks the Vice President could possibly work a ropeline before departure.

CROWD (approx. 300)

Auto Industry	70
USCAR	5
Daimler Chrysler	20
Ford	20
General Motors	20
United Auto Workers	5

Industry Press 40

National & Local Press

Members of Congress and Staff (TBD)

Federal Agencies/Federal Labs

PNGV Secretariat
Dept. of Commerce
Dept. of Energy
Dept. of Transportation
Dept. of Defense
Enviro. Protection Agency
NASA
National Science Foundation

White House Staff

OVP
OSTP
CEQ

Environmental Community (TBD)

Associations (TBD)

Aluminum Association
American Plastics Council
American Iron and Steel Institute
Society of Automotive Engineers
Engineering Society of Detroit
Others

Academia (TBD)

University- Participate in Future Car Competition
High School
Elementary

DRAFT DRAFT DRAFT DRAFT DRAFT

THE WHITE HOUSE

Office of the Vice President

Today the Vice President salutes the Partnership for a New Generation of Vehicles as it celebrates the results of the first six years of hard work by bringing together recently introduced concept cars from DaimlerChrysler, Ford and General Motors.

Representatives from the industry stated their commitment to move PNGV technology out of the lab and onto the road by putting with significant improvements in fuel economy vehicles into volume production and into dealers' showrooms within the next three or four years. In order to help with this effort, the Vice President called for bipartisan support of the administration's tax credit worth up to \$3000 to consumers who buy cars or trucks with these advanced technologies.

The Vice President said, "I congratulate the ingenuity of everyone who has worked on this project--it holds the promise for the future of reducing our dependence on foreign oil by significantly increasing the fuel efficiency of cars and trucks."

In light of high consumer demand for SUVs, minivans and light duty trucks, the partnership also announced that they will expand PNGV research to include technology addressing the unique challenges of this class of vehicles. Toward this goal, government and industry have agreed to increase funding for PNGV research program to be used for such things as advancements in truck tires, aerodynamics, light-weight body and chassis components. While cost and affordability remain a challenge, this display proves that it is technically feasible to build cars that get up to three times the fuel efficiency of contemporary vehicles.

The Partnership for a New Generation of Vehicles also recommitted itself to ensuring that they meet the original targets of PNGV by continuing to examine challenges of commercialization, engine technology, controlling emissions, and reducing manufacturing costs.

DODGE



FORD



GM



UNPRECEDENTED PARTNERSHIP FOR EXTRAORDINARY C

USCAR

DAIMLERCHRYSLER *DaimlerChrysler* General Motors

In 1992, DaimlerChrysler, Ford and General Motors joined together to form USCAR.

USCAR's goal is to strengthen the technology base of the domestic auto industry by leveraging the research efforts of the participating automotive companies in non-competitive areas.

Historically, the domestic automakers had viewed each other strictly as competitors. USCAR marked their first, large scale, coordinated effort.

One year later, ongoing government and industry research efforts were aligned under the Partnership for a New Generation of Vehicles (PNGV) program.

USCAR has 11 research consortia, each with specific goals.

- Automotive Composites Consortium (ACC)
- Electrical Wiring Component Application Partnership (EWCAP)
- Environmental Research Consortium (ERC)
- Low Emissions Technologies R&D Partnership (LEP)
- Low Emission Paint Consortium (LEPC)
- Natural Gas Vehicle Technology Partnership (NGVP)
- Occupant Safety Research Partnership (OSRP)
- Supercomputer Automotive Applications Partnership (SCAAP)
- United States Advanced Battery Consortium (USABC)
- United States Automotive Materials Partnership (USAMP)
- Vehicle Recycling Partnership (VRP)

Federal Labs
Suppliers
Small Businesses
Universities

Capabilities Technologies

Prioritized Needs
Technologies
Resources

PNGV
PARTNERSHIP FOR A NEW GENERATION OF VEHICLES

Technologies
Resources

PNGV TECHNICAL TEAMS

Electrical / Electronics
Electrochemical Energy Storage
Four Stroke Direct Injection Engines
Fuel Cells
Manufacturing
Materials
Mechanical Energy Storage
Systems Analysis
Gas Turbine
Vehicle Engineering

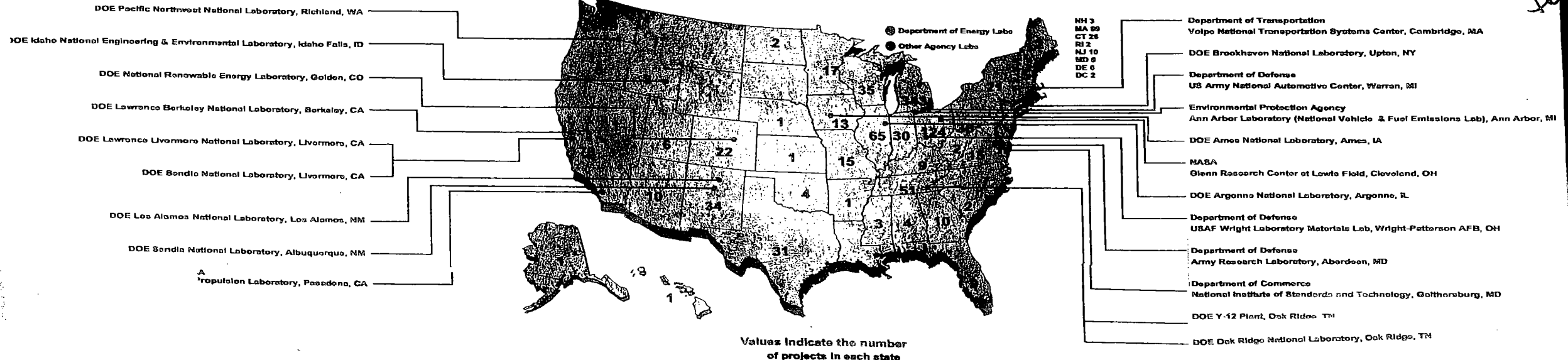
U.S. Government



A National Research Effort

The historic PNGV partnership between the U.S. Government and USCAR has grown since 1993 to include hundreds of suppliers, small businesses and universities.

1,201 Projects at 622 Sites
(Including 21 Federal Labs and 51 Universities) in 47 States



STRETCH RESEARCH GOALS

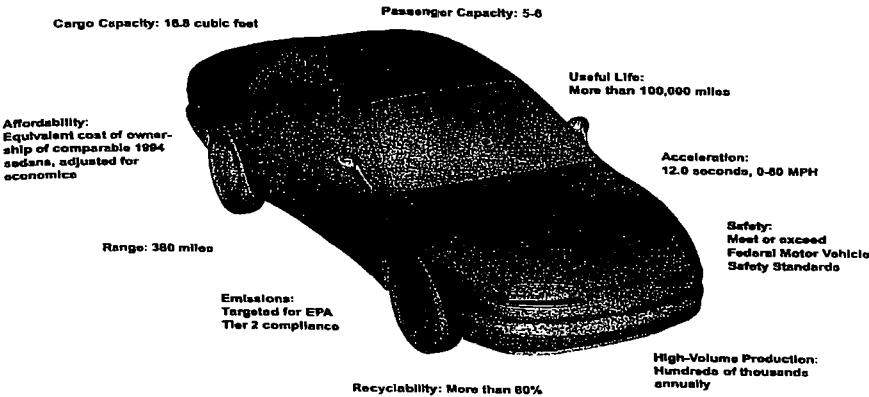
"This new partnership represents a technological venture as ambitious as any America has attempted, coordinating the efforts of America's best scientists and engineers to develop vehicles it would have been hard to imagine even a few years ago - a technological challenge comparable to or greater than that involved in the Apollo project."

President Clinton
September 29, 1993

PNGV Declaration of Intent

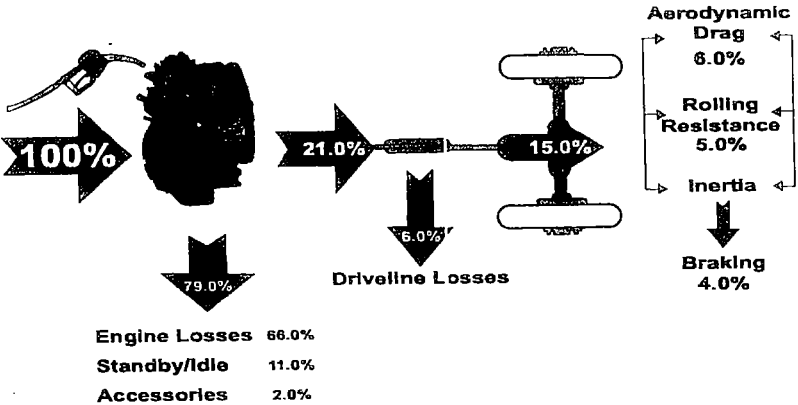
"The goal is the development of commercially-viable vehicle technology that, over the long term, can preserve personal mobility while further reducing the impact of cars and light trucks on the environment, and reducing the dependence on imported petroleum. Such a vehicle, that meets applicable safety and emission standards, and provides the performance, affordability and comfort the public has come to expect from American automobiles, can help assure world leadership for the U.S. auto industry."

The PNGV "Supercar" Goals: up to 80 MPG in a family sedan



Challenge: Reduce energy consumption and emissions

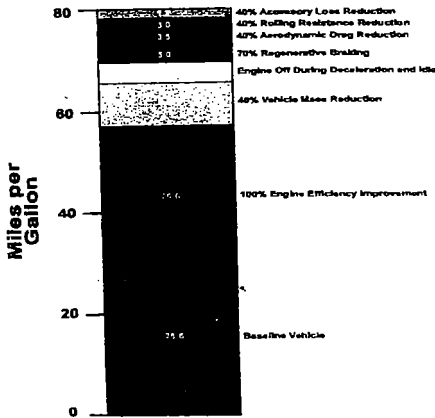
Energy distribution in a conventional family sedan



- Strategy:
1. Reduce the energy demand from the vehicle
 - lightweight materials
 - low rolling resistance tires
 - low aerodynamic drag
 - low accessory power
 2. Convert energy more efficiently
 3. Implement regenerative braking to recapture energy

Putting It All Together:

A Sample Set of Improvements



KEY AREAS REQUIRING INVENTION

- Hybrid-Electric Drive
- Low Emission Direct-Injection Engines
- Fuel Cells
- Lightweight Materials

FUEL CELLS

Fuel cells are efficient, zero-emission power sources that use hydrogen to create electricity via an electrochemical reaction with oxygen. The challenge is to provide the on-board reaction system in a compact and cost effective design. The requirement for hydrogen can be addressed either through advanced storage systems or an on-board conversion device to manufacture hydrogen from more readily available automotive fuels.

2000 Progress Report

**Integrated fuel-flexible fuel cell power system demonstrated at 10kW.
(Epyx and Plug Power)**

Significant advancement in performance of fuel-flexible fuel processors:

- Microchannel steam-reformer, vaporizer and heat exchangers demonstrated (Pacific Northwest National Laboratory)
- Water-gas shift catalyst with 50% less precious metal loading demonstrated (Argonne National Laboratory)

Significant advancement in performance of fuel cell stacks:

- Stack tolerance of 500 ppm CO in reformed fuel demonstrated with new catalysts and reconfigured anode (Los Alamos National Laboratory)
- High-volume Membrane Electrode Assembly (MEA) fabrication demonstrated (3M)
- Molded composite graphite bipolar plate meets performance targets and projected costs (IGT)



LIGHTWEIGHT MATERIALS

Reducing mass increases fuel economy and lowers emissions, regardless of propulsion system.

To achieve PNGV's goal of up to 80 MPG, researchers are working to reduce overall vehicle weight by 40% from 1994 levels, down to 2,000 pounds for a family size vehicle. This goal places new challenges in the forming and joining of dissimilar materials. The increased usage of polymeric composite plastics and lightweight metal structures will present both design and manufacturing challenges. Vehicle safety must be ensured.

2000 Progress Report

Demonstrated the capability of continuous-cast aluminum for reducing the cost of lightweight aluminum bodies.
(USAMP, Reynolds Metals)

Developed new carbon foam material with order-of-magnitude improvement in heat transfer for cooling power electronics and other applications.
(Oak Ridge National Lab)

Programmable Powder Preform Process (P4) developed to enable less expensive complex composite structures with reduced cycle times.
(National Composites Center, ACC, Applicator Systems AB, Owens-Corning Fiberglass, Textron, USAMP)

Using very high speed electromagnetic forming, demonstrated feasibility of forming deep sections without tearing in aluminum parts.
USAMP, Ohio State University)



PNGV Hybrid Material Body Structure



PNGV Hybrid Material Body Structure

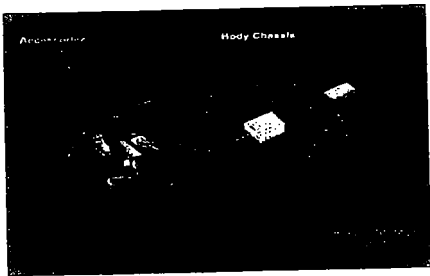
In 1987 the PGOV Vehicle Engineering Tech Team contracted with Multimate to design and build a body structure to push the absolute boundary of passenger car weight reduction. The result was the PGOV Hybrid Material Body Structure that was 57% lighter than the equivalent Dodge Stratus body from which it was derived. Not only was the PGOV Hybrid Material Body Structure significantly lighter than the current production Stratus steel body, the hybrid body analytically and empirically demonstrated stiffness properties exceeding the steel structure.

THE MOST PROMISING TECHNOLOGIES

HYBRID-ELECTRIC DRIVE

The challenge for hybrid-electric drive is to combine a small, efficient internal combustion (IC) engine or fuel cell with an electric traction motor to provide an integrated, seamless propulsion system.

Incorporation of two on-board energy sources (fuel and highly efficient batteries) and two propulsion systems presents significant control challenges. However, hybrid systems offer the potential to recover a significant percentage of the energy lost in stop-and-go driving as well as optimize the IC engine for efficiency and reduce emissions.



2000 Progress Report

Lithium Ion high power 50-volt battery modules tailored for hybrid electric vehicles have met performance targets. (Saft-America and Polystor)

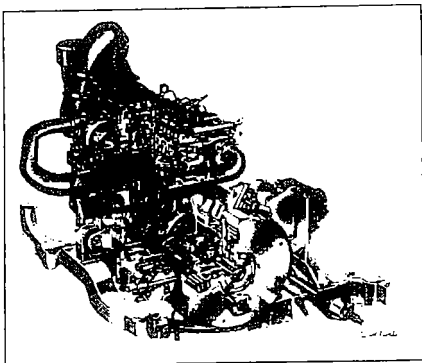
Novel approaches for enhancing battery life and reducing manufacturing costs are being explored. (Saft-America, Polystor, Delphi Automotive Systems, Ovonic, Varta, and National Laboratories)

Advanced Technology Development program at National Laboratories adapts unique diagnostic techniques to investigate advanced lithium ion electrochemistries and low-cost materials processing.

Programs underway for the creation of Automotive Integrated Power Modules (AIPM) and Automotive Electric Motor Drive (AEMD) systems to achieve necessary power density and cost targets. (AIPM: Silicon Power, SatCon, and Semikron; AEMD: Delco Remy, Delphi Automotive Systems, Electricore, and Lynx Motion Technology)

LOW EMISSION DIRECT- INJECTION ENGINES

The challenge for direct-injection (DI) engines is to maximize efficiency while providing clean operation. The SiDI engine is a direct-injection engine derivative of today's common spark ignition engine. While offering the potential for low emissions, its efficiency is insufficient to reach PNGV fuel economy goals. The CIDI, or advanced diesel engine, uses a high pressure direct-injection fuel system and compression ignition to provide the highest thermal efficiency of any of the candidate DI engines.



2000 Progress Report

Built and evaluated state-of-the-art all-aluminum advanced CIDI engines that provide 20% greater fuel efficiency. (USCAR Companies and their suppliers)

Developed aftertreatment technologies capable of up to 50% NOx emission reductions under the high-efficiency lean burn conditions of advanced diesel engines. (Los Alamos National Laboratory, Sandia National Laboratory, Pacific Northwest National Laboratory, LEP)

Developed an advanced optical engine and analytical methods to increase understanding of fuel combustion under high temperature and pressure conditions of engines. (Sandia National Laboratory)

Tested several new fuel formulations to evaluate effect on diesel engine efficiency and emissions. (Southwest Research Institute, Ad-Hoc Fuels Group)

PNGV CIDI Technology Improvements

Engine Feature	Old Diesel	PNGV CIDI	Improvements				
			Decreased:	Reduced:	Reduced:	Power Density	Fuel Economy
	Two Valve	Four Valve	✓	✓		✓	✓
	Rotary Pump	Common Rail	✓	✓	✓	✓	✓
	Oxidation Catalyst	Lean NOx Catalyst/PM Trap	✓	✓			
	Fixed-geometry Turbocharger	Variable-geometry Turbocharger	✓	✓		✓	✓
	Diesel Fuel	Low Sulfur-Alternative Fuels	✓	✓	✓	✓	
	Pneumatic	Electric	✓	✓			
	Cast-Iron Aluminum	Aluminum +				✓	

2000 CONCEPT CARS - CREATIVE INTEGRATION OF TECHNOLOGIES

"These cars represent the automakers' successful integration of a wide variety of both proprietary and collaborative technologies. The day-to-day involvement and research support from all of our partners -- the federal agencies and laboratories, our suppliers and universities -- has been instrumental in achieving this progress. The entire PNGV team can take pride in these accomplishments."

Don Walkowicz
Executive Director
USCAR



DaimlerChrysler Dodge ESX3

- Features "mybrid" (mild hybrid) powertrain that minimizes demands of electric motor and batteries, therefore lowering the cost and weight of hybridization
- An all-aluminum, 1.5-liter direct-injected diesel is the primary propulsion, with additional power coming from a lightweight, high power, lithium ion battery
- Dodge ESX3 weighs in at only 2,250 pounds, while meeting all federal safety standards and providing the roominess and comfort of today's family sedan
- Unique thermoplastic injection-molded body system is estimated to reduce weight by 45% and cost by 15% compared to steel structures
- Interior systems are optimized for light weight and efficiency, including seats that heat and cool the occupant
- 72 miles per gallon (gasoline equivalent) and 400-mile driving range
- Reduces the estimated cost penalty for a high mileage, five-passenger sedan to \$7,500

"With the ESX3, we really are converging on the reality of an 80-mile-per-gallon family car that has the comfort, the utility, the performance and the affordability that our consumers demand. PNGV is working -- but there is still more work to be done. Consumers want us to produce 'moon-shot' technology at down-to-earth prices."

James P. Holden
President
DaimlerChrysler Corporation

TARGET - 2004

Today, each manufacturer has benefitted from PNGV-developed technologies to create concept cars that approach the Partnership's stretch research goals.

However, the continuing challenge is to translate current and future technology concepts into vehicles meeting all goals, including affordability.

"Prodigy goes a long way toward meeting our goal of an extremely fuel-efficient family vehicle. It represents an interim stage between our P2000 research programs and our plans for an affordable, production hybrid."

Neil W. Ressler
Vice-President and Chief Technical Officer
Ford Motor Company

Ford Prodigy

- Prodigy provides family transportation with 80 MPG and 660-mile driving range on diesel fuel; 72 MPG gasoline equivalent
- Prodigy is designed with a Low Storage Requirement (LSR) hybrid electric powertrain with high-volume market approach
- Primary propulsion is provided by a 1.2L direct-injection, aluminum (DIATA) engine with 74 horsepower and 35% efficiency improvement
- An integrated starter-alternator system provides instant restart allowing fuel shut off when coasting or stopped
- 30% weight reduction is achieved through computer optimization and lightweight materials (40% without HEV)
- Aerodynamic drag is improved 33% (Cd = 0.199) through cameras/monitors, grille shutters, bellybars, etc.
- An automatically shifted manual transmission provides the convenience of an automatic with 20% efficiency gain



GM Precept

- Dual-axle hybrid-electric propulsion system integrates a 1.3L 3-cylinder CIDI engine with two electric motors and an automatically shifted manual transaxle to deliver 80 MPG gasoline equivalent.
- With a Cd of 0.163, the Precept is the world's most aerodynamic five-passenger family sedan. Such an efficient design accounts for 15% of the vehicle's fuel economy performance.
- Three-camera rear vision system integrated into a single, central instrument panel display eliminates the need for both inside and outside rearview mirrors.
- Highly intelligent heating and cooling system anticipates when fog could form on the windshield, and works to prevent it.
- Four-wheel brake-by-wire system incorporates blended regenerative braking to recover energy from all four wheels.
- Lightweight construction, including aluminum exterior panels and carbon fiber bumper beams, results in a body that is nearly 400 pounds lighter than its typical production counterpart.
- Energy efficient chassis design, including metal matrix composite mounting brackets and low rolling resistance tires, accounts for more than 15% of the Precept's fuel economy performance.



"Innovation and creativity cannot be forced. They must be allowed to flow freely, giving shape to the wants and needs of the consumer. Above all else, product leadership senses and responds to the demands of the market -- and then offers more."

Harry J. Pearce
Vice Chairman
General Motors Corporation

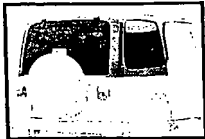
KEY CHALLENGES AND UNCERTAINTIES

Technology Implementation

The 2000 concept vehicles demonstrate the capabilities of numerous advanced technologies. The true benefit of PNGV is realized when these technologies are transferred into the marketplace.

Before this migration can occur, the technology must be commercially viable. In other words, it must be proven, and customers must realize some added value from the technology.

The most effective way for this process to occur is at the component and/or system level, not by designing a completely new vehicle. As these examples illustrate, the migration of technologies has already begun.



A new throttle-body housing for the 2000 Chevrolet is 30% lighter than the 1994 version. The new design also allows for 25% more airflow and is made from only two injection-molded pieces.



The 2000 Lincoln LS contains 475 pounds of steel and aluminum. The 1994 Lincoln LS contains 500 pounds of steel and aluminum. The 2000 LS is 10% lighter than the 1994 LS.



General Motors' new composite plastic fuel tank, available on the 2000 Chevrolet, is 30 pounds lighter than a comparable steel tank. It offers the same strength and durability, resists rust and corrosion, and is easier to install.

Affordability

The PNGV challenge is to deliver highly fuel-efficient vehicles to the marketplace that cost families no more to own and operate than comparable vehicles on the road today.

The concept cars have demonstrated technical feasibility to achieve up to 80 miles per gallon. However, significant challenges remain to make these technologies affordable. Achieving affordability will require further invention, technical maturation, systems integration, and short-term incentives to pull these technologies into the marketplace.

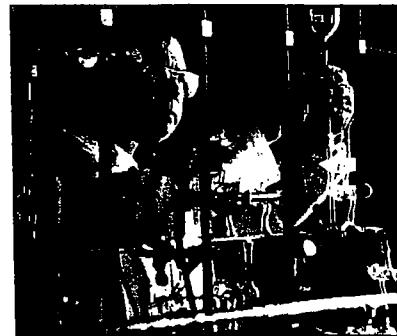


Advanced Fuels

Optimizing fuel economy while minimizing emissions requires both advanced engine technology and new fuels.

Highly efficient lean burn engines, a technology focus of the Partnership, operate with proportionately more air than fuel compared to most of today's engines. While lean burn engines enable greater fuel economy, they also make it more difficult for catalytic converters to decrease emissions of oxides of nitrogen (NOx) with conventional fuels.

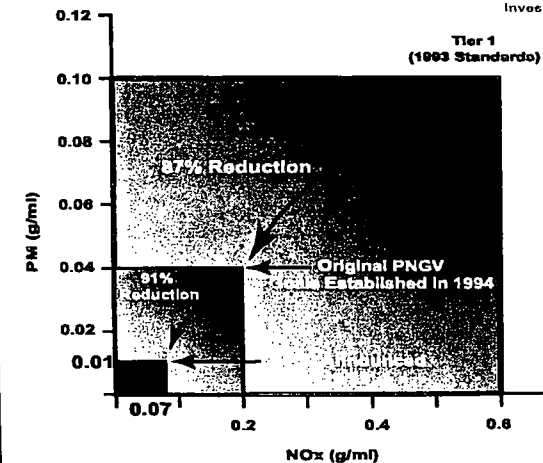
The need for new and reformulated fuels is now recognized as a key enabler for meeting the dual PNGV goals of higher fuel economy and lower emissions.



Emissions Technology

In December 1999, EPA finalized the Tier 2 standards that will govern automobile emissions well into the future. These new standards are significantly more stringent in the regulation of oxides of nitrogen (NOx) and particulate matter (PM) than the default Tier 2 standards adopted by the Partnership as its initial research goals in 1994. As a result, PNGV faces a much greater challenge in meeting emission requirements while preserving the potential fuel economy benefits of lean burn engines.

The new standards will require advances in combustion, aftertreatment, propulsion system controls, and fuels, especially for efficient CIDI engines. Promising new technologies such as lean NOx reduction and advanced particulate traps are being pursued by the PNGV team. For the longer term, PNGV continues aggressive research on fuel cells, which have the potential for emissions-free mobility.



GOVERNMENT & INDUSTRY WORKING TOWARD COMMON SOCIETAL GOALS

THE ROAD AHEAD

THE NEED FOR BALANCE

The ultimate success of PNGV depends on a balanced approach to technical, policy and strategy considerations.

Technical Systems - maturation of PNGV-developed technologies; focused research and development in fuels, combustion, aftertreatment and controls

Policy Perspective - policy initiatives to accelerate the commercialization of these technologies; balance of fuel economy, air quality and emissions goals

Strategic Perspective - interdependence of technical strategy, public policy and investment

SATISFIED CUSTOMERS

- Functional & Safe
- High Mileage
- Low Emissions
- Affordable



Research is the Foundation

A strong, collaborative research program has been the foundation of the Partnership. As we move forward, this foundation must be reinforced with accelerated research that is focused on the key challenges that lie ahead.

Q: Why is the federal government giving money to highly profitable car companies?

A: More than 93 percent of all PNGV funding goes for technology research in supplier firms, universities, and national laboratories and not to Ford, GM or Daimler-Chrysler. The big three spend much more of their own money on the PNGV partnership than the federal government. A recent GAO report estimates that in 1998 they spent \$980 million on PNGV compared to \$240 million spent by the federal government. The small amounts of federal funding spent directly by the big three is used for partnerships working on designs of integrated vehicle designs.

Federal funding is essential to encourage development of technologies which have large environmental benefits or long term benefits to US energy security when these technologies do not represent near-term market opportunities that can attract private investors. The long term importance of automotive fuel efficiency technologies is obvious but current US markets do not give companies a strong incentive to develop new fuel economy approaches. There is no regulatory requirement to reduce greenhouse gas emissions.

Q: Why PNGV when Toyota and Honda already have hybrids on the market?

A: The Japanese programs were launched as a direct response to PNGV and while the Japanese cars are the first hybrids on the market, the PNGV concept cars are technologically superior. The Honda Insight two-seater, currently sold in limited volumes in the US, is about 2 times more fuel efficient than cars with similar performance. The Toyota Prius subcompact, currently only sold in Japan, is about 1.1 times more efficient than cars with similar performance. On the other hand, PNGV cars will be family midsize sedans with up to 3 times higher fuel economy. Moreover, the PNGV has developed technology that can work in a full sized American car using automatic transmission while the Japanese cars are small 2 and 4 passenger vehicles and the Insight relies on manual transmission. The PNGV designs succeeded in the much more difficult challenge of providing high fuel economy in a car acceptable to typical American buyers.

This is a long term race, however, and all producers will benefit from competition. PNGV has ensured that the participating firms are at the world state of the art.

Q: If Toyota and Honda made their achievements with no government money why did the US firms need help?

A: The Japanese companies sell products in markets where fuel is 3-4 times more expensive than US gasoline prices making it easier for the Japanese firm to invest in fuel efficiency technology. The PNGV cars represent a more high-risk technology than is used in the Japanese vehicles; federal funding is essential for basic research and development.

Q: Why support dirty diesel cars which can't meet emission standards?

A: The PNGV cars can all qualify under the new Tier 2 regulations. It would clearly be desirable to achieve further emission reductions from the advanced diesels used by most of the concept vehicles and this issue has received priority in this year's PNGV research

funding. In addition to improving engine and aftertreatment devices, PNGV cars can achieve very low emissions, at some loss in efficiency, if they use gasoline instead of diesel engines. New fuel technologies (such as liquid fuels made from natural gas) would allow the high-technology diesels in the current PNGV concept cars to operate at very low emissions. In the long term, of course, PNGV is exploring use of fuel cells which could achieve extremely low emissions.

Q: Did you make a deal with the auto industry to back off CAFE in return for PNGV.

A: No. PNGV is a research agreement aimed at producing production prototypes of efficient, affordable cars. The partners recognized at the beginning that would need to "agree to disagree" about many regulatory matters -- including CAFE and Tier 2 emission standards.

Q: EPA's Tier 2 regulations seem out of sync with PNGV's goal of reducing petroleum consumption and greenhouse gas emissions. Isn't EPA a PNGV partner?

A: EPA establishes regulations following criteria required in the Clean Air Act. The PNGV partners recognized from the onset that regulations would change during the course of a ten year research effort. The goals of the original agreement were to "meet applicable safety and emission standards"

Q: Will these technologies ever actually be sold in commercial vehicles?

A: While early models are likely to cost somewhat more than comparable vehicles, all three PNGV industry partners have plans for large scale production in 2003-2004. The administration's tax credit is designed to make the first vehicles sold more affordable to customers.

Q: Aren't fuels an important part of achieving PNGV goals? Where is the fuel industry's participation? Where's the PNGF?

A: The partnership has worked hard to test a variety of different fuel, engine, and after-treatment technologies and this work would expand under the proposed FY2001 budget. The research team has worked closely with their counterparts in the petroleum industry. Over the long term, the least-cost approach to meeting ambitious emission and fuel efficiency goals may require new kinds of fuels.

Q: Why are you focusing on cars when it's the SUVs that are guzzling all the gas?

A: PNGV technologies can be used in SUVs and other light trucks. The original declaration of intent established the goal of "reducing the impact of cars and light trucks on the environment, and reducing dependence on imported petroleum." Some of the first PNGV technologies sold may well be in SUVs instead of cars. This year's budget has funds specifically targeted on resolving the small number of unique problems raised when PNGV technologies are used in SUVs (for example, the unique aerodynamics of SUVs)

Q: Wouldn't a CAFE increase force car companies to do this same work faster and introduce the technologies sooner?

A: CAFE has been highly controversial for many years. The administration has unsuccessfully opposed Congressional proposals to prevent federal agencies from considering any change in these regulations. The PNGV research, however, is important regardless of the outcome of the CAFE debate. It introduces a new class of technologies that can allow high fuel economy at an affordable price without sacrificing driving amenities.

Q: What will make the auto industry use the benefits of these technologies to improve fleet fuel economy, as opposed to improving the profitability of their fleet mix or for adding increased performance or electronic gadgetry in the absence of a CAFE increase?

A: All three auto producers plan to introduce a highly fuel efficient PNGV vehicle in the next 3-4 years. In order to increase fleet fuel economy, manufacturers must have the necessary technology and consumers must be willing to pay for that technology to be used for fuel economy rather than for other vehicle attributes. The administration has acted on both fronts, with PNGV to develop new technologies and proposed tax credits to encourage consumers to buy advanced technology vehicles. This combination has the potential to raise fleetwide fuel economy beyond current levels.

THE WHITE HOUSE
WASHINGTON
January 6, 2000

Beth
Elliot
Shelley
Roger B.

INFORMATION

MEMORANDUM FOR THE PRESIDENT

FROM:

NEAL LANE *neal*

SUBJECT:

New PNGV Concept Vehicles To Be Unveiled at Detroit Auto Show

As you know, the Partnership for a New Generation of Vehicles (PNGV) that you and the Vice President launched in 1993 with the CEOs of Ford, GM and Chrysler (now DaimlerChrysler) set out a ten-year goal of increasing the fuel economy of cars by a factor of up to three in a safe, affordable, and attractive vehicle. The R&D program will cross a major milestone during the next few months as each company unveils concept vehicles that achieve the 80-mpg goal. Next week, two concept vehicles will be unveiled at the Detroit Auto Show -- General Motors' Precept and Ford's Prodigy. DaimlerChrysler is planning to unveil their concept car in the next 1-2 months. The Ford and GM vehicles have been in the press during the past week.

These are one-of-a-kind concept vehicles, as opposed to production vehicles, that exhibit major achievements in both engineering and design and that fulfill the auto companies' PNGV concept car commitment of a 2000 delivery. These concept cars have revolutionary hybrid propulsion systems (which we believe are technically superior to the existing Japanese hybrid propulsion systems), have low wind resistance, are stylish, and fun to drive.

GM PRECEPT: On January 11, General Motors Corp. will formally display the Precept (photo attached), a five-passenger, four-wheel drive, hybrid vehicle that gets the equivalent of 80 miles per gallon of gasoline. Its Isuzu-built three-cylinder diesel engine is rear mounted to improve airflow around the vehicle (note the air intakes at the rear of the vehicle in the photo). One electric motor powers the front wheels while a "multi-purpose unit" built onto the diesel engine acts as both an electric motor and a generator, charging a battery pack under the seats when the vehicle is braking. The electric motors help power the 54-horsepower engine during acceleration and capture energy during braking, while the battery allows the engine to be turned completely off altogether during idling and deceleration.

My staff along with staffers from CEQ and OMB met with GM's Advanced Technology Division last Spring to review the Precept's progress. The Precept's technology could also end up in similar GM vehicles in the years ahead.

cc: The Vice President
Chief of Staff

FORD PRODIGY: Achieving about 70 mpg, the Prodigy uses a small, four-cylinder turbocharged diesel engine and an electric motor linked to a battery pack in the trunk (attached photo). Like the Precept, Ford's engineers designed a slippery new exterior for the Prodigy using video cameras in place of rearview mirrors, a smooth underbody, special wheel covers, and vents in the front grill that open only when the engine needs extra air. It will be formally unveiled Monday, January 10.

Ford's car also saves energy given its reduction in weight. Built mostly of aluminum, with some magnesium and titanium components, the Prodigy weighs 2,387 pounds — about 1,000 pounds less than today's production mid-size sedans.

HONDA INSIGHT: Honda hopes to sell 4,000 of its 2-seat, subcompact hybrid vehicles for under \$20,000 each in the US this year. The principle power comes from a lightweight 1-liter, three-cylinder gasoline engine with a 5-speed transmission; an electric motor serves as a secondary power source. This 1760 lb. vehicle, made of aluminum and composites, can travel from New York City to Detroit on a tank of gas (70 mpg). Using gasoline, it meets the ultra-low vehicle emissions standards.

TOYOTA PRIUS: The Toyota Prius, with a hybrid gasoline engine, is currently sold in Japan and looks very similar to a Toyota Corolla. The Prius was the first hybrid car on the market and will be sold in the US this year. The Prius is a compact car with fuel economy of about 50 mpg, somewhat better than today's subcompact vehicle (Geo Metro, for example). Toyota plans to sell more than 12,000 Priuses in the US starting this Spring for about \$20,000.

IMPORTANT POINTS: An obvious difficulty is that all of the PNGV concept vehicles use advanced diesel engines and, therefore, produce levels of NOx and particulates higher than comparable gasoline powered vehicles. This propulsion system choice is causing some controversy because of the recent release of the Tier II clean air standard. While we do not have precise data to date, we believe that all of the PNGV concept vehicles would be permitted under the new standard, albeit, in one of the higher emission "bins." We should not be concerned about the emission levels of these concept vehicles, as active efforts are underway to refine technologies that could be integrated into the PNGV production prototypes due in 2004. The emission levels set by the final Tier 2 standard are considerably below those which were used as design goals early in the partnership — we used the default Tier 2 goals in the Clean Air Act. Nor is it a surprise that we haven't met every goal of the program with these first concept vehicles. PNGV is a *research* initiative, and we are actively pursuing a number of strategies that have a high probability of achieving both high fuel economy and low emissions, including fuel cells that are still in the early development stage.

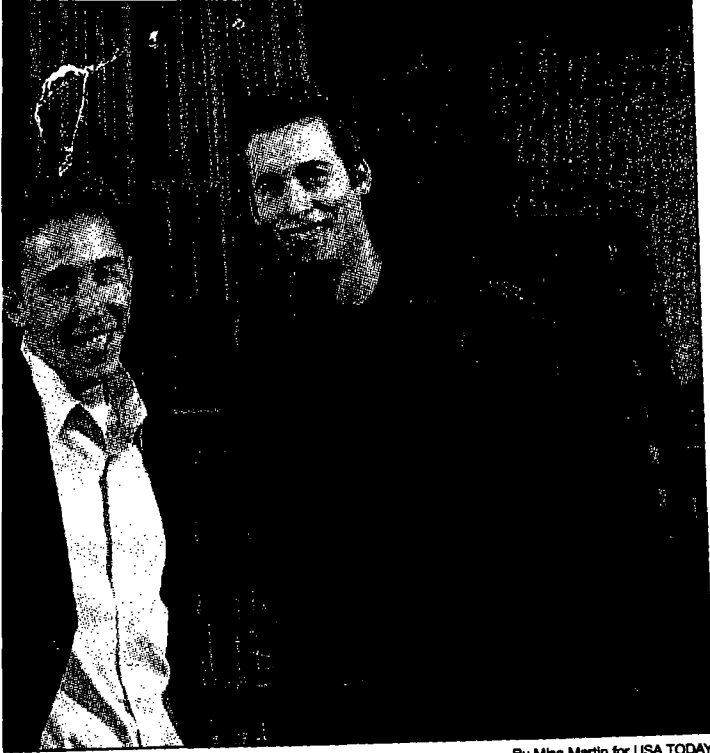
You and the Vice President can be proud of the progress made to date in PNGV both for its technical achievements and for forging stronger and more positive interactions between the Federal government and the automobile industry. The partnership has survived strains over disagreements about emissions and continues to receive high marks from industry leaders, as well as the National Academy of Engineering team that has conducted detailed annual reviews.

This government-industry- university-national laboratory collaboration has greatly spurred the pace of advanced research by the US automakers. Another form of flattery is evident from Japanese and now European manufacturers scrambling to imitate and develop competitive products. While the Americans will see Japanese hybrid vehicles on the market this year, it is important to keep in mind that Japan has a very different strategy for introducing new technologies, namely, a willingness to sustain losses to gain market share and experience. There is also a greater demand for fuel economy in Japanese domestic markets (gasoline prices are several times higher than those in the US) while US car buyers do not put a high premium on fuel economy. In addition, the U.S. industry has traditionally been much more conservative about introducing innovative technologies unless they can be assured of their profitability in the first year.

Enclosures:

GM Precept Photo

Ford Prodigy Photo



By Miss Martin for USA TODAY

com co-CEOs Todd Krizelman and Stephan Paternot, whose office is looking steps to keep their company afloat.

RY

eglobe.com turns

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a day in November
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disappointment as the
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globe, which soared from \$9 to \$97 its first day of trading, has lost more than 80% of its value since the IPO and is now priced around \$8. Many investors cut their losses and moved on to the next new thing.

Theglobe's fall from dizzying heights serves as a reminder to investors who poured more than \$30 billion into Internet start-ups last year that those investments are no better than the underlying business. While profits might not matter the first day, investors eventually want a company to show them the money.

Those familiar with Theglobe say the company, which is not profitable and had \$5.5 million in revenue last year, is languishing for several reasons. They include:

► Lack of definition about what the company does and who its audience is.

► Uncertainty that the business model, which relies on advertising for almost 100% of its revenue, can ever make money. In the latest quarter, Theglobe lost \$14 million and generated \$4.9 million in revenue instead of the \$5.7 million Wall Street was expecting. It has also missed target dates for certain products, including a home-page building tool and

Please see COVER STORY next page ►

cellation of 300 flights.
► American Airlines' ground workers union was ordered Dec. 29 to discontinue a slow-down at Chicago O'Hare and Dallas/Fort Worth.

► Comair's pilots union was ordered Dec. 21 not to slow operations at the Delta Connection airline's Cincinnati hub.

The airlines' actions come almost a year after a federal judge ordered American Airlines' pilots union to end an "unofficial" sickout that forced American to cancel hundreds of flights over the 1999 Presidents Day weekend. The union was fined \$45.5 million for not

Others point out that labor leaders have less control over their members because the Internet makes it possible for the rank and file to bypass their officers and organize unsanctioned actions.

"Slowdowns and sickouts are a test of union leaders," says Jerry Glass of J. Glass and Associates, a labor consultant to management.

"Union leaders have to walk a fine line between whipping up their members and getting into a situation that can very quickly get very expensive," Bartholomew says.

Ford to reveal plans for Think brand

'Green' cars
use electricity

By James R. Healey
USA TODAY

DETROIT — Ford Motor plans to announce today that it has set up an independent brand to develop and market low-pollution and electric-powered vehicles.

The brand, Think, will begin marketing battery-powered cars and bicycles this year while pushing to have fuel-cell vehicles on the road in 2004.

To dramatize the announcement, scheduled at the North American International Auto Show here, Ford plans to roll out a small Focus four-door with a fuel cell, labeled "Powered by Think."

The automaker hopes that phrase evokes the technology world's powerful "Intel inside" pitch as a way both to promote Think-brand power plants and to resonate with tech-savvy potential buyers.

The Think Focus is remarkable in that Ford has packaged the cumbersome fuel-cell hardware underneath, instead of stealing trunk and rear-seat space as is usually done. Ford says Think will begin selling electric bikes in the USA in June, priced about \$1,000 for a conventional style and about

\$1,200 for a folding travel bike. In November, it plans to introduce the Neighbor, basically a fancy golf cart, for about \$6,000. Ford sees it replacing golf carts used as runabouts by retirees and in other applications where vehicles don't need to meet federal regulations.

The vehicles let Ford test Internet selling. Neighbor and the bikes will be available via the Web, at www.thinkmobility.com, with factory-to-door delivery available. Or customers can buy through Ford dealers who've elected to handle the electrics.

The brand already is marketing a battery-powered mini-car in Norway, called Think City, priced about \$25,000. It's available through Ford's Hertz rental-car network there. City, built in Norway, will be modified to meet U.S. safety standards and brought to the USA in about two years, Ford says. "Someday, petroleum-based, internal-combustion engines will go away, whether we run out of petroleum or get legislated out of existence," says Think spokesman Glenn Ray, explaining Ford's interest in the moribund electric-vehicle market.

Think is the creation of John Wallace, veteran of a decade of electric-vehicle research and development at Ford, and Ford Chairman Bill Ford, a self-described environmentalist.

SEARCH ASSISTANCE: USA TODAY RESEARCHLINE, 703-276-5864

USA Today Jan 10, 2000 1B

Concept vehicles now grow

By James R. Healey and Earle Eldridge
USA TODAY

DETROIT — Concept cars no longer are just "what-if" models crafted exclusively for auto shows. They have become serious stalking-horses for their manufacturers, putting forward styles, ideas, gadgets meant for eventual production. There isn't time or money in today's leaner auto business to fool around with useless mock-ups. "Everything I show has something for production, maybe not in that vehicle," says Volkswagen CEO Ferdinand Piech. The trick, of course, is to divine which parts are intended for production, which are gingerbread or camouflage. Here are the most interesting concept cars on the auto-show circuit. Some were unveiled last week at the Los Angeles show, others this week here, at the North American International Auto Show.



More room: The Ford Equator is based on the F-150 pickup, but has a wider interior.

Ford Equator: Ford plans to slip this on to the show floor here without fanfare, creating an unhyped environment for testing reactions.

Ford already has two sport-utility trucks — F-150 Super Crew and Explorer Sport Trac, both on sale this month — and Equator would be another take on the theme.

It is based on the popular F-150 pickup, but has the 6-inch-wider interior of Ford's Super Duty pickups for more space and comfort.

The concept is indestructible comfort. The suspension is designed to move much farther up and down than

an off-road racing truck, to swallow huge holes and hills without tossing the passengers like a dinner salad. And the lower body panels are Kevlar, which is literally bulletproof and virtually indestructible at the hands of other invasive items. Door bottoms are high, for fording streams without flooding the interior.

Why would Ford contemplate another sport-utility truck?

Because the segment is about to get so hot that laggards will burn.

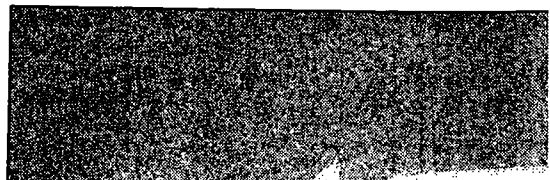
To hold Ford's No. 1 position in the truck market, "We need to be constantly in-

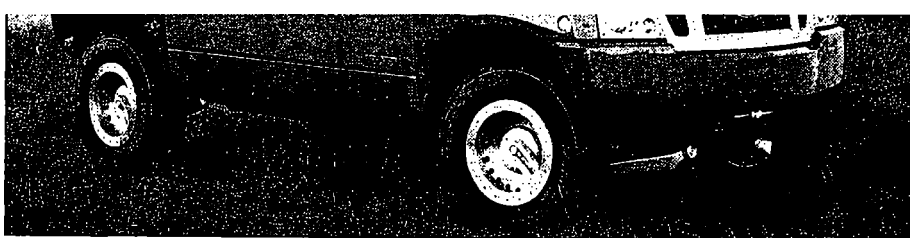
Chevrolet Avalanche: It's real and arrives next year as the biggest, boldest member of the growing new family of sport-utility trucks, which are blends of sport-utility vehicle passenger cabins and short pickup cargo beds.

John Cafaro, high-ranking General Motors designer who did the latest Corvette, styled Avalanche. He won't say whether the production model will retain the concept truck's array of plastic panels and other trim.

Avalanche is based on GM's smooth-riding Chevy Suburban sport-utility vehicle, so its cargo bed is an integral part of the body, not a separate crate out back, as in a pickup. The box is 5-feet, 3-inches long, and it can be expanded to full pickup size by folding the rear passenger bulkhead and back seat so the cargo can stick into the back-seat area.

Avalanche would be the only sport-utility truck with a folding bulkhead that allows the in-





Ford Motor

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To hold Ford's No. 1 position in the truck market, "We need to be constantly innovating," says design boss J Mays.



General Motors

Riders: Chevrolet SSR's seat holds three.

Chevrolet SSR: You've seen this notion before, in the El Camino light-duty pickups of the 1960s: a sporty, carlike machine with a useful cargo hold. This time, though, Chevy reverses the approach.

A truck frame sits underneath, not a car platform. But its behavior is gentrified by suspension pieces from Chevy's sporty Corvette and Camaro cars, and SSR — Super Sport Roadster — sports a 6-liter V-8, presumably from the heavy-duty Silverado pickup. The hardtop folds down, and the gearshift is near the steering wheel, so that three, not just two, can ride in the bench seat.

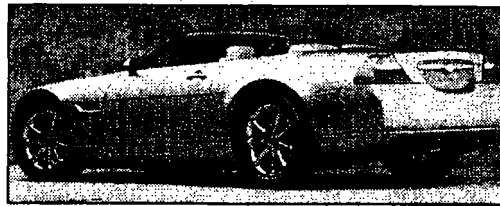
Is it bound for showrooms? Ed Welburn, SSR advocate and director of what GM clumsily calls its Corporate Brand Character Center, grinned and quickly accepted a reporter's \$5 wager that GM never would manufacture SSR.

Chrysler 300 Hemi C: Glory days!

"Hemi" is shorthand for the dominantly powerful V-8 engine that made Chryslers of the 1950s and '60s feared at stoplights and racetracks. It is short for "hemispherical," an especially efficient shape for a combustion chamber that squeezes more go from each drop of gasoline. So evocative is "Hemi," Chrysler says, that it has trademarked the name.

Chrysler wants to reintroduce a hemi like the 5.7-liter, pushrod-style, hemi V-8 in the concept car. 353 horsepower and 353 foot-pounds of torque.

No word on when such a fire breather would come, however. The concept car wrapped around that robust heart is a sexy, rear-drive convertible with room for four. Showroom-bound? "You know our track record" of frequently manufacturing show cars, says Tom Gale, Chrysler executive vice president. "Keep your eye on this one."



Chrysler

Hot, hot, hot: 353-hp car is a fire breather.

growing new family of sport-utility trucks, which are blends of sport-utility vehicle passenger cabins and short pickup cargo beds.

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Ford 24.7: A reference to all-day, every day, which is how Ford apparently thinks you should be linked to work and the outside world. The concept vehicle is offered in coupe, station wagon or pickup, each with telephones, voice-controlled instruments, Internet access, stock-market updates, weather reports and "help-I'm-lost" assistance. Instead of mirrors, tiny cameras see and display the rear panorama onto a screen for better visibility.

The technology is real. Ford will begin installing the telephone and satellite links in U.S. Lincolns and European Focuses this fall. CEO Jacques Nasser promises that "within a few years" all Ford Motor vehicles will have at least that much.

Full of gadge
and a display

CEOs, head coaches share similar skills

Both jobs require team leadership

By Gary Strauss
USA TODAY

How tough is it being the head coach of a professional football team? These days, about as difficult

an innate ability to motivate employees and attract talent. And they have to be sufficiently nimble and flexible to develop alternatives if battle plans don't work, says Edward Marshall, author of *Transforming the Way We Work* and *Building Trust at the Speed of Change*.

To be sure, some head coaches would make natural CEOs. Mike Sha-

If CEOs wanted to play a c

NFL head coaches were on the hot seat last week, with three fired and a fourth quitting. Their departures had as much to do with their abilities to manage,

lead, motivate did with their w compare in styl



Mike Ditka



Ex-coach

New Orleans Saints (3-13) Iron Mike's reputation tarnished by team's flailing three-year performance. Volatile, unpredictable style grated on players. Sacrificed future by trading away draft picks.



Al Dunlap

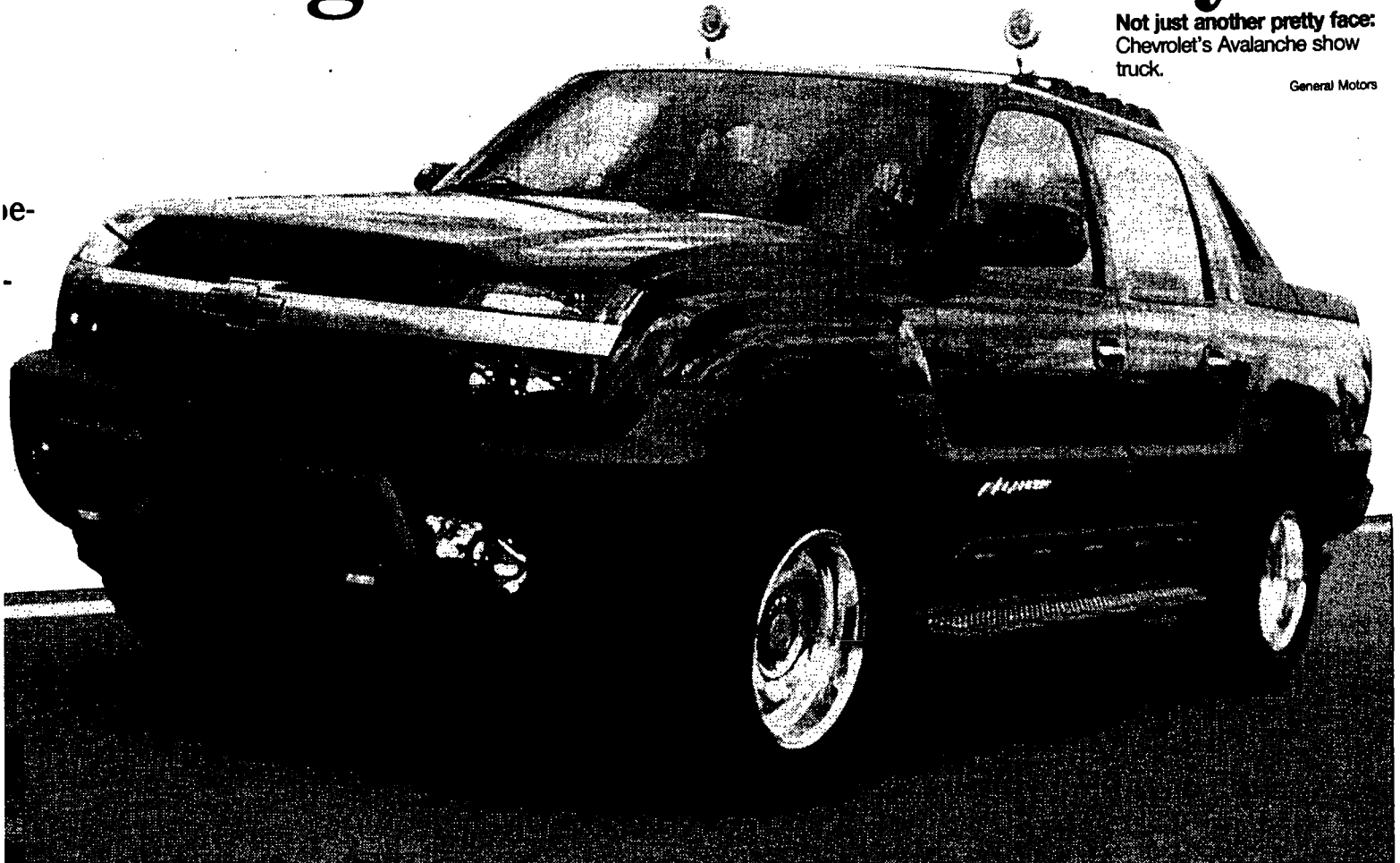
New York Jets (8-8)

THE FUTURE OF THE WORLD ON WHEELS

s now grounded in reality

Not just another pretty face:
Chevrolet's Avalanche show
truck.

General Motors



Chevrolet Avalanche: It's real and arrives next year as the biggest, boldest member of the growing new family of sport-utility trucks, which are blends of sport-utility vehicle passenger cabins and short pickup cargo beds.

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side and outside to flow together. GM engineers concede it will be a challenge to make sure the back panels don't rattle and squeak. The other trick feature is the cargo cover. Its three panels are hinged for access from the front or rear, and it is light enough that one person can remove it and store it inside the cargo bed.

GM thinks it has such a good idea that the Cadillac luxury brand is in line for a version of Avalanche, which it will need to battle rival Lincoln's Blackwood sport-utility truck, adapted from the big Lincoln Navigator sport utility.

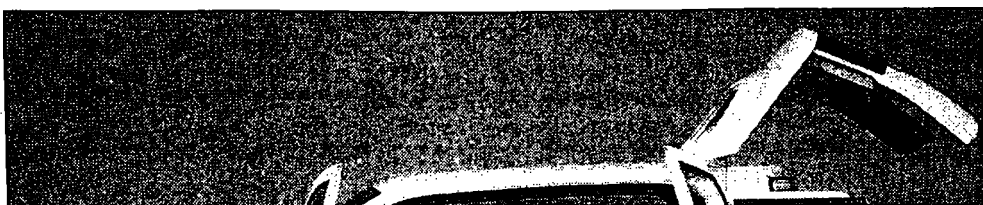
Avalanche is about the same size as the Suburban, on which it's based. Chevy says it will have a 5.3-liter V-8 engine, four-speed automatic transmission and Autotrac full-time four-wheel drive. No price has been hinted. Suburban starts about \$30,000.



Fuzzy future: Infiniti's XLV eventually could move into the brand's entry-level slot.

Infiniti XLV: Nissan's luxury brand appears to showing us its eventual entry-level model. The rear-drive XLV slots between the G20 and I30, and could initially join those, then replace the G. It's a pretty fuzzy future, though. It probably would be configured and priced to battle rival Lexus' imminent IS 300, a rear-drive sport sedan coming in July, powered by a 215-horsepower, 3-liter six-cylinder engine.

If XLV becomes a production Infiniti, it probably won't keep the concept car's continuously variable transmission (CVT). In Japan, Nissan is gunge-ho for CVTs, but they are



Chevrolet Avalanche: It's real and arrives next year as the biggest, boldest member of the growing new family of sport-utility trucks, which are blends of sport-utility vehicle passenger cabins and short pickup cargo beds.

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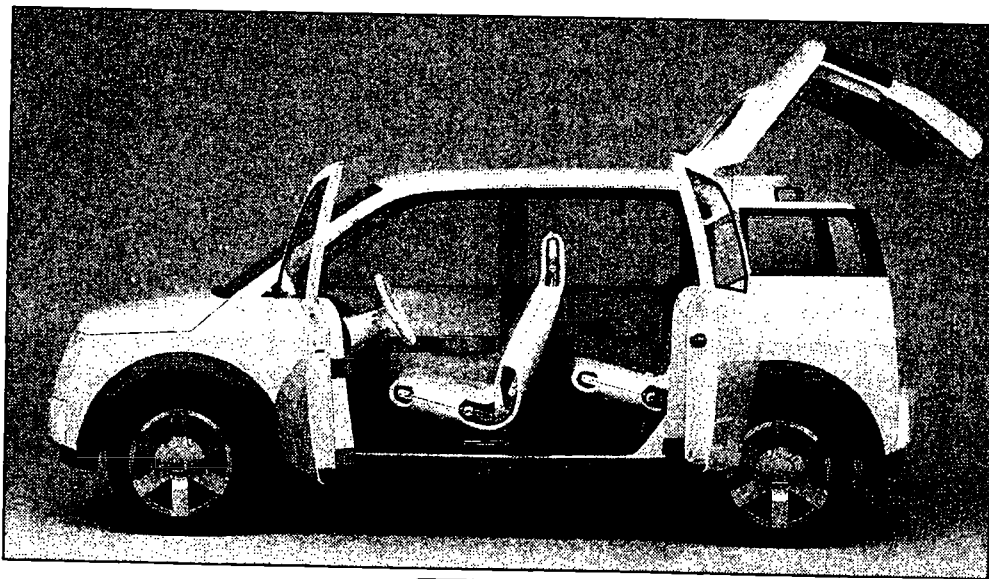
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The technology is real. Ford will begin installing the telephone and satellite links in U.S. Lincolns and European Focuses this fall. CEO Jacques Nasser promises that "within a few years" all Ford Motor vehicles will have at least that much.



Full of gadgets: 24.7 has Internet access and cameras and a display screen instead of rear-view mirrors.



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If XVL becomes a production Infiniti, it probably won't keep the concept car's continuously variable transmission (CVT). In Japan, Nissan is gung-ho for CVTs, but they are exotic, pricey and so probably unsuited to a moderate-price car. Too bad. Nissan CVTs driven in Japan recently performed delightfully. CVTs don't step through a series of gear ratios as normal automatic transmissions do. Instead, they use spheres and curves or pulleys and belts to continuously pick the right ratio to keep the engine in the spot between best performance and best fuel economy.

Lexus Sport Coupe: The likely replacement for the aging SC models sold by Toyota's luxury brand, the concept model has an aluminum hardtop that disappears into the trunk, yet leaves enough space there for golf clubs. It also features a V-8 and oversize wheels.

The coupe-to-be is intended to remind you of a luxury yacht, says its exterior designer, Sotiris Kovos, who works at Toyota's — no kidding — European Office of Creation (EPOC).



Sailing memories: The Lexus Sport Coupe should remind drivers of a luxury yacht.



Henry C. Kelly
01/06/2000 10:26:00 AM

Record Type: Record

To: Morley A. Winograd/OVP@OVP, Roger S. Ballentine/WHO/EOP@EOP, Linda Lance/CEQ/EOP@EOP
cc: Kelly Kirkpatrick/OSTP/EOP@EOP
Subject: GAGGH!

The call with PNGV directors today averted complete collapse of SUV negotiations by a whisker -- and lots of scar tissue on my tongue. It's clear that some kind of political fix is in and the auto guys were under instructions to try to kill the deal. They talked to us from a room in Detroit where they were apparently sitting with a lot of the Washington Office and political types. Their opening points (this is how it began as I was trying desperately to absorb caffeine at 8am):

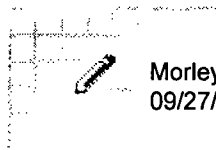
- 1) They were interested in an SUV deal contingent on getting what they wanted in Tier II and didn't get it.
- 2) We had failed to give them anything on fuels.
- 3) They are unwilling to negotiate further and will not support even a modest budget increment targeted on SUVs.
- 4) They think that there is little possibility of an agreement and no point in even further discussing goals or working on goals until at least March when the Diesel ANPRN comments are due.

I'll spare you a painful discussion (assume a stirring defense from our side on all that we'd done for them in Tier II and fuels and our patient recitation of the agreements that we'd already made). Here's where we came out:

- 1) They will support modest increments to our budget focused on the priority list we've been discussing for months contingent on our agreement that they wouldn't be linked to any new truck initiative. They hold open the possibility that we will use the funds to support a new initiative if one is begun but we will not use the funding to "trap them into a truck agreement" -- more scar tissue.
- 2) They will not name people to a technical team to review our differences in calculations about goals (as we agreed to do when we met in Detroit last month) but will agree to return to the topic in two weeks.

My major concern at this point is that whatever is driving the politics of this discussion not interfere with our opportunity to take a PNGV victory lap in the Auto Show. I'd guess that at least three things are at work 1) don't want to do the VP any favors, 2) the guys in the trenches are fuming about having to say nice things about Tier II in public and want to get in a few last licks in private, and 3) the PNGV engineers who have actually worked hard on the concept cars for many years are having their moment of triumph clouded by the fact that they're not meeting tier II goals.

2x → 5yrs
3x → 10yrs.



Morley A. Winograd@OVP
09/27/99 03:13:20 PM

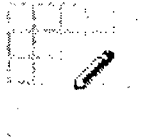
Record Type: Record

To: George T. Frampton/CEQ/EOP@EOP
cc: charles w. burson/ovp@ovp, linda lance/ceq/eop@eop, roger s. ballentine/who/eop@eop
bcc:
Subject: Re: cafe - - transportation sap 

George:

So long as the last paragraph is there (and possibly it could come sooner), I'm OK with this statement.
morley

George T. Frampton@EOP



George T. Frampton@EOP
09/27/99 02:20:23 PM

Record Type: Record

To: Charles W. Burson/OVP@OVP, Linda Lance/CEQ/EOP@EOP, Roger S. Ballentine/WHO/EOP@EOP, Morley A. Winograd/OVP@OVP
cc:
Subject: cafe - - transportation sap

POSSIBLE STATEMENT OF POSITION AND/OR SAP LANGUAGE ON CAFE

The House bill prohibits any work on the corporate average fuel economy (CAFE) standards. These standards have resulted in a doubling of the fuel economy of the car fleet, saving the Nation billions of gallons of oil and consumers billions of dollars. In the past ten years, however, the overall fuel efficiency of our domestic passenger fleet has declined, in spite of technological advances. Increases in fuel efficiency would not only save drivers money, they would also help clean the air and reduce harmful greenhouse gas emissions.

Because of prohibitions such as the House rider, the Department of Transportation has been unable to analyze or address this serious issue for the past five years. The Administration has repeatedly expressed its opposition to anti-environmental riders such as this one, which have not been subject to the full legislative process. Therefore, if the bill is enacted with the rider in its current form, the President's senior advisors would recommend that he veto it.

At the same time, the Administration recognizes that the CAFE standards approach to achieving a more efficient passenger transportation fleet has been criticized for being discriminatory and inefficient. If the rider is removed, the Administration is prepared to work with the Congress, the automobile manufacturers, and other interested groups including health and environmental organizations to revise the CAFE approach and/or develop a new strategies for improving the efficiency of our passenger fleet.

FOR IMMEDIATE RELEASE:
September 13, 1999

Michael Ross
michael.ross@wwfus.org
202.778.9565

Jennifer Morgan
Jennifer.morgan@wwfus.org
703.623.2527

New Poll: SUV Owners Call for Cleaner Vehicles ***Support higher fuel efficiency standards***

WASHINGTON-Nearly three out of four drivers who own minivans, pick-up trucks or sport utility vehicles (SUVs) think that automobile manufacturers should be required to make cleaner, less polluting vehicles, and more than two-thirds would pay significantly more for their next SUV if it polluted less, according to a new nation-wide poll of light truck owners.

Conducted for World Wildlife Fund (WWF) by the Mellman Group, the survey of light truck owners from 31 states also found that nearly all of the respondents believe that increasing gas mileage and lower pollution emissions from light trucks should be a top priority, ranking second only to safety improvements, for light truck manufacturers.

While most of those surveyed--84%--believe that auto manufacturers already have the technology to make cleaner, more fuel efficient light trucks at no extra cost, two-thirds of the 800 respondents said they would be willing to pay \$400 more than what their vehicles actually cost them to get an SUV, minivan or pick-up truck that met the same gas mileage and emissions standards as passenger cars. Nearly half of the respondents said they would pay up to \$1,000 more for cleaner, more fuel efficient light trucks.

"This survey shows that, like other segments of the population, light truck owners are concerned about pollution and the effects of car emissions on the environment and they both want and expect automotive manufacturers to make cleaner and more efficient vehicles in the future," said Jennifer Morgan, WWF climate policy officer.

Mirroring earlier WWF research showing that most Americans are concerned about the effects of global warming, the new survey found that a majority of light truck owners share this concern and believe that auto makers should do more to address it by making cleaner vehicles that emit less of the carbon dioxide that produces global warming. Nearly 70% of the respondents, however, also indicated that they did not believe the auto industry would manufacture cleaner, less polluting vehicles unless mandated to do so.



Higher Corporate Average Fuel Economy Standards (CAFE) would significantly reduce global warming pollution. In fact just requiring light trucks to meet the same fuel efficiency standards as cars would slash oil consumption by 1 million barrels per day and reduce carbon dioxide emissions by 240 million tons per year. The Senate will have the opportunity to vote on this issue in the upcoming days when the Clean Car Resolution is introduced on the Senate floor as part of the Transportation Appropriations bill. This resolution would pave the way for the Department of Transportation to assess CAFE standards.

“It is time that Congress listen to the American public’s support for higher miles-per-gallon standards and vote for the Clean Car Resolution, a critical vote which will make clear which Senators stand for a clean and safe environment,” stated Morgan.

Conducted between August 28 and Sept. 1 of this year, the SUV survey also found that:

- Light truck owners would look more favorably on a car company that voluntarily produced SUVs, minivans and pick-up trucks that met the same or stricter gas mileage standards and emitted the same or less CO₂ as other passenger cars. Nearly three -quarters (73%) say they would have more favorable impression of such a car company and 52% said their feelings would be much more favorable.
- Two-thirds of light truck owners recognize that automobile emissions contribute to the pollution that causes global warming – a finding consistent with an earlier WWF poll which showed that 70% of all Americans believe global warming to be a serious problem.



TO: World Wildlife Fund

FROM: The Mellman Group

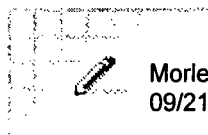
RE: Summary of Findings From A Survey Of Light Truck Owners

DATE: September 13, 1999

This memorandum summarizes the findings from a survey of 800 owners of light trucks, that is, sport utility vehicles, minivans and pick-up trucks. The sample was drawn from DMV records for the 31 states which include vehicle type in residential car registration records. The 31 states are: AL, AK, AZ, CO, DE, FL, ID, IL, IO, KY, LA, ME, MD, MI, MN, MS, MO, MT, NE, NH, NY, ND, OH, OR, SD, TN, TX, UT, WV, WI, and WY. Telephone interviewing was conducted August 28 to September 1, 1999. The statistical margin of error for the sample as a whole is plus or minus 3.5 percentage points at the 95% confidence level. The margin of error for subgroups is larger.

- Nearly three-quarters (72%) say that auto manufacturers should be required to make SUVs, minivans and pick-up trucks that emit the same level of CO₂ pollution per mile as cars. Fifty-two percent (52%) support this strongly while only 13% are opposed and 15% are undecided. Support for reducing the CO₂ emissions of light trucks is overwhelming across all parties with 70% of Republicans and 84% of Democrats supporting limiting emissions on these cars to those of other passenger cars.
- By a 40-point margin, light truck owners favor Congressional action to require auto manufacturers to meet the same gas mileage per gallon standards for SUVs, minivans and pick-up trucks as they do for other passenger cars. Sixty-two percent (62%) support such action (50% strong support), while only 21% are opposed and 17% are undecided. Support for Congress taking action crosses party lines with 59% of Republicans and 74% of Democrats supporting stricter gas mileage standards for SUVs, minivans and pick-up trucks.
- At the same time, 84% think it is likely (44% say it is almost certain) that automakers already have the technology to make SUVs, minivans and light trucks that meet these standards at NO additional cost to consumers. This view may be based in part on the widely held belief (69%) that auto manufacturers do only what is required to meet the minimum standards for pollution emissions and gas mileage. Far fewer (19%) think car companies use the best available technology to reduce pollution emissions and improve gas mileage.

- Even so, two-thirds (67%) would pay an additional \$400 above the purchase price they paid for their vehicle in order to get a vehicle that meets the same gas mileage standards and emits only as much CO₂ as other passenger cars. Almost half (46%) would pay as much as \$1000 more than they paid for their vehicle.
- Three-quarters (75%) of light truck owners say that forcing automakers to produce SUVs, minivans and pick-up trucks that meet the same gas mileage standards as cars is an important thing to do and 41% say it is "very important." Sixty-two percent (62%) say doing so would be an effective way to combat global warming.
- In addition, light truck owners would feel far more favorably toward a car company that voluntarily produced SUVs, minivans and pick-up trucks that met the same or stricter gas mileage standards and emitted the same or less CO₂ as other passenger cars. Nearly three-quarters (73%) say they would have more favorable impression of such a car company and 52% said their feelings would be much more favorable.
- While light truck owners say that improving safety technology (56%) should be automakers' number one priority for research and development, fully 35% say that increasing gas mileage and reducing pollution emissions should be automakers' top priority. This compares to only 2% who say the top R&D priority should be improving anti-theft systems or passenger comfort.
- Over half (55%) of sport utility vehicle (SUV), minivan and pick-up truck owners believe global warming is serious environmental problem and 70% say that global warming is an environmental problem that is happening today (43%) or will happen in the future (27%). Only 13% think global warming will not happen. Believing in the reality of global warming is not an ideological issue. Two-thirds of Republicans (66%) and 74% of Democrats say global warming is happening now or will happen in the future.
- Two-thirds (66%) of light truck owners say that emissions from automobiles are an important cause of the pollution that causes global warming.
- Hearing an argument against increasing gas mileage standards and forcing light trucks to emit the same, lower levels of CO₂ as other passenger cars does not erode support for these measures. Even after hearing an argument that meeting stricter standards will raise the price of these vehicles, force automakers to make the cars smaller and less safe, and will cause American automakers to lose market share, 60% favor forcing automakers to meet the same gas mileage standards for light trucks as they do for other passenger cars, and 71% say these vehicles should be allowed to emit only as much CO₂ as other passenger cars.



Morley A. Winograd@OVP
09/21/99 02:45:03 PM

Record Type: Record

To: Charles W. Burson/OVP@OVP
cc: George T. Frampton/CEQ/EOP@EOP, David W. Beier/OVP
Subject: CAFE and VP

Charles:

I outlined to you why I think it would be wrong for the VP to advocate a veto of the overall transportation bill over the specifics of the CAFE rider, although I don't see any problem with his continuing to object to the idea of riders generically on appropriations bills. But I think there is a larger opportunity for him to show his commitment and leadership on the environment on this issue if we act now. Here's how:

The VP should call Bill Ford, Jr. to follow up on his conversation with him last week. He should use the content of that conversation to suggest he is once again being put in the untenable position of having to prove his environmental credentials by advocating a veto over the CAFE rider or else be seen as a tool of the auto industry. He should say that he knows neither solution, implementing CAFE and upsetting the market dynamics for a command and control fiat, or letting the market work its will without consideration for the larger environmental consequences, is the right one. But that to get to an alternative to either one, he will need to tell the President that there is an opportunity to do something about mileage efficiencies short of mandatory CAFE that the industry will support. He believes that solution is "voluntary CAFE standards" negotiated with the auto industry in the same way that the industry worked it out in Europe. But to advocate that kind of alternative, he will need the support of Bill Ford within the industry. He should specifically solicit Ford's support for such a proposal and assure him that if he has it he will not lobby POTUS to veto the current bill and its rider which would be made moot by such an agreement.

I believe this will allow the VP to stay true to his goals while finding a truly innovative way to achieve them that reflects his reinvention principles as well. I would be happy to write the call sheet if everyone is on board with the idea.

morley

Hybrid Electric Vehicle Program - What is an HEV?

A Hybrid Electric Vehicle (HEV) is a vehicle that has two sources of motive energy. There are many hybrid system concepts using fuel cells, gas turbines, diesels, and lean burn gasoline engines in combination with flywheels, batteries, and ultracapacitors. No matter which concept is used, there are two ways to build the electric and fuel system of an HEV; using a Parallel configuration or a Series configuration.

HEVs have several advantages over traditional internal combustion engine (ICE) vehicles. Some of these follow:

- Regenerative braking capability, which helps minimize the energy lost when driving.
- Engine is sized to average load, not peak load, which reduces the weight of the engine.
- Fuel efficiency is greatly increased, while emissions are greatly decreased.
- HEVs can be operated using alternative fuels, therefore they need not be dependent on fossil fuels.

The auto manufacturers' goal is to achieve these benefits with no appreciable loss in vehicle performance, range, and safety. With two drive trains (ICE running on gasoline or alternative fuels and a battery-driven electric drive train) the HEV is able to operate approximately two times more efficiently than traditional ICE vehicles. This is because the energy loss of an HEV is much less than that of a traditional ICE vehicle.

OFF DOE HOMEPAGE

Hybrid Electric Vehicle Program - Why Hev's

ENERGY SECURITY AND CLEAN AIR

Contents

1. Advanced Vehicles
2. Urban Air Problems
3. Benefits of HEVs
4. Progress Needed
5. What Can You Do Now?

1. Advanced Vehicles

It has been observed by the U.S. auto industry that consumers are no longer demanding vehicles with improved gas mileage. The number one concern of new car buyers is now safety. However, more efficient cars provide broader benefits to society, and the serious deterioration of urban air has motivated regulators to require cleaner cars. The ultimate clean, efficient car is an Electric Vehicle (EV), especially if the power plant generating mix is heavily weighted toward hydroelectric and natural gas or other renewable energy sources such as solar and wind. But here are questions about the mid-term viability of EVs. This is due to unresolved technical issues of on-board energy storage capacity, high vehicle cost, and infrastructure limitations (e.g., lack of public charging stations, repair/replacement facilities, battery-recycling centers).

Hybrid Electric Vehicles (HEVs) are almost as clean as EVs and have vehicle performance comparable to that of today's standard internal combustion engine vehicles. More important, such performance appears to be available in the mid-term future (e.g., 2001), and therefore represents a practical, technically-achievable alternative approach. Prudence suggests we develop both EVs and HEVs in parallel, because many of the technical advancements can be shared and because either or both will be needed to achieve efficiency and clean air goals.

2. Urban Air Problems

Markets for EVs/HEVs are presently being driven by national and regional clean air legislation. The national air quality picture appears to be foreshadowed by events in California. To better understand these air quality issues is to better understand the broader demand for more efficient vehicles with greatly reduced emissions. Some of the background facts:

Motor vehicles account for more than half of the ozone precursor and CO emissions in California

- L.A. currently exceeds ambient air quality standards for
 - ozone
 - carbon monoxide
 - particulates
 - nitrogen dioxide

- L.A.'s air is considered to be more than 5 times as dirty as that of their nearest "rival" in the U.S.
- Of the 25 American cities with the worst ozone levels, 5 are in California:
 - L.A.
 - San Diego
 - Bakersfield
 - Fresno
 - Sacramento
- Over 20% of the national population living in areas not in attainment of one or more pollutant standards live in California.

Analysis by the California Air Resources Board (CARB) shows that with the projected growth in vehicle miles traveled, recent improvements in air quality could soon be cancelled out. The only apparent solution is to introduce and make available to consumers a large number of vehicles that have virtually no emissions.

To speed the access to such vehicles, regulations have been passed in California requiring the gradual reduction in emissions from new vehicles. These sets of related regulations are referred to as the Low Emission Vehicle (or LEV) Regulations, and consist of increasingly lower limits from the Transition Low Emission Vehicle (TLEV), to the Low Emission Vehicle (LEV), to the Ultra Low Emission Vehicle (ULEV), to the Zero Emission Vehicle (ZEV).

The LEV Regulations continue a course of emission reductions that have already resulted in typical levels that are a factor of ten lower than levels seen in the sixties. The graphic below also shows allowable limits for LEV vehicles.

Since even an electric vehicle can have emissions associated with it (from the power plant that makes its electricity) a very low level of pollutants is associated with the ZEV. The ZEV close-up chart shows the nearly-zero "ZEV Equivalent" level that CARB has proposed. It reflects power availability in the Los Angeles air basin itself, two thirds of which is imported from outside with no local emission consequences. The balance of power available in the basin is relatively clean because of the high reliance on natural gas as a generating fuel. The other "ZEV" level shown is more characteristic of power plant emissions in areas of the country in which coal is the predominant fuel.

While incremental improvements can be made in standard vehicles, regulators and automakers have defined at least two new vehicle classes that may provide a step-wise improvement in emissions. These are the Electric Vehicle and the Hybrid Electric Vehicle. Unlike an EV, an HEV utilizes the intermittent operation of a small engine to assist a typically battery-powered electric propulsion system.

3. Benefits of HEVs

Initially, HEVs are not expected to compete directly with standard vehicles on performance alone (e.g., acceleration and range), but they are expected to offer benefits that a standard vehicle does not offer. Compared to today's standard vehicles, for example, HEVs will:

- reduce local/regional pollution, by means of:
 - increased vehicle mileage (2X) per gallon of fuel
 - lower emissions per vehicle mile travelled
 - propulsion systems that can be cycled off during stop-and-go driving, producing no emissions fuels or fuel systems with reduced fuel evaporation and refueling losses
- reduce atmospheric pollution (CO₂), by:
 - improving energy efficiency directly, and indirectly with systems that can be cycled during stop-and-go driving, which reduces fuel use (the impact is put into perspective by the startling fact that 20 pounds of CO₂, a "greenhouse gas," are produced for every gallon of gasoline burned)
 - switching to fuels with fewer or no carbon-based emissions (e.g., natural gas, hydrogen or other blends) or that incorporate renewable carbon (e.g., ethanol and biodiesel, both products of short-cycle carbon storage processes)
 - improve the nation's energy security (easing military and other foreign policy options) by substituting alternative domestic fuels (e.g., ethanol, methanol, natural gas, propane, and biodiesel) for gasoline and diesel
 - reduce the nation's trade deficit, a quarter of which is derived from imported oil, by substituting alternative domestic fuels
 - revitalize the domestic energy industry, creating jobs, by substituting alternative domestic fuels

These advantages are shared by Electric Vehicles, but in comparison, the HEV has another major advantage: even with high market penetration of HEVs, few or no infrastructure changes will be required. In addition, consumers may be more likely to accept future HEVs since their operational differences are more likely to be "transparent" to the vehicle operator than those of an EV.

4. Progress Needed

As with any new technology, there are obstructions to its ready acceptance by consumers. Initially there may be resistance to the vehicles' higher price and slightly reduced performance. The acceptance of HEVs as ultra low emission vehicles (ULEV), under California's stringent definition of reduced emissions, may be the key to its wide acceptance in the California market. This is because its recognition as such a pollution-reducing vehicle is likely to attract the support of regulators and public interest groups. Such support could be reflected in purchase rebates, favorable tax treatment, preferred driving lanes and parking, and other financial incentives to prospective buyers and operators.

Regulator acceptance of an HEV as a ULEV, or even as a zero emission vehicle (ZEV) is possible if HEV emissions can be reduced to the level of power plant emissions associated with an EV. Current resistance to such acceptance is related to the potential for deterioration of the HEV's engine with the accumulation of time and mileage. Rugged and durable systems will be needed to provide credibility to a claim of long life with low emissions.

Hybrid Electric Vehicle Program

Frequently Asked Questions (FAQs) about HEVs

Q:

I'm interested in building my own HEV. Where can I find more information and examples of how to convert a conventional gasoline vehicle to be an HEV?

A:

During the HEV Challenge student competitions in 1993, 1994, and 1995, vehicles converted Ford Escort station wagons, Saturn SL2s, and Chrysler Neons into HEVs. Their conversions are detailed in papers written by the students in 3 publications from the Society of Automotive Engineers (SAE). These publications, which can be purchased from SAE are entitled Innovations in Design: 1993 Ford Hybrid Electric Vehicle Challenge (SP-980), 1994 Hybrid Electric Vehicle Challenge (SP-1103), and 1995 HEV Challenge (SP-1170).

Q:

After reading the Master Memorandum of Agreement outlining the recent ZEV mandate issued by CARB I was disappointed to find no recognition of hybrid electric vehicles within the document. Has CARB made a decision on the proposal that HEVs qualify for credit toward the state's ZEV regulations?

A:

CARB has not made any decision on the proposal that HEVs qualify towards ZEV credit. CARB is planning on issuing a separate proposal which will be considered in September or October. To see more on the recent CARB vote [click here](#).

Q:

Will HEVs have performance characteristics equal to or better than conventional vehicles?

A:

Because the research and development of HEVs by industry is currently market driven, as opposed to mandate driven, HEVs are expected to meet or exceed current performance characteristics in all respects. Both domestic and foreign automobile manufacturers are working on HEVs because they feel that in the next decade there will be a market need for cleaner, more efficient vehicles. The car companies know that a new vehicle that is not as good or better than the previous year's vehicles will not sell, so when they begin selling hybrids, there will be equal or better performance. The electric drives possible in HEVs in the next few years also allow the potential for higher power drive systems.

Q:

What stage of HEV development are the auto manufacturers currently in?

A:

Each auto manufacturer has its own schedule for completing the development of a production feasible HEV. General Motors and Ford each initiated their subcontracts with DOE in 1994 and the program activities are scheduled for 5 years. Chrysler's subcontract was just signed in March, 1996 and the program will last four years.

Since Chrysler recently initiated work, current activities focus on simulation modeling and packaging studies for several HEV configurations. Chrysler is in the first stage of its program. General Motors, on the other hand has completed its Concept Definition Phase and is nearing completion of its System Design Phase. Currently, GM is assembling and testing mule vehicles. Similarly, Ford has completed Phase I of its program and is half way through Phase II. Ford is working on packing requirements and testing of mule vehicles.

If you would like more detailed information on the recent activities under each subcontract, please click [HEV Program Information](#).

Q:

How does the DOE HEV Program relate to the Partnership for a New Generation of Vehicles (PNGV) Program announced by President Clinton and the Chief Executive Officers of the Big Three U.S. Automakers in September 1993?

A:

As summarized in a DOE/Office of Transportation Technologies fact sheet, the HEV Program is complementary to the PNGV Program. The PNGV Program is a wider-scope, broad-based partnership among several federal agencies and the automotive industry, developing new technologies with the goal of creating advanced vehicles that are three times more efficient than today's automobiles, but have the same level of comfort, safety, and performance. PNGV also addresses other aspects of vehicle operation and development including aerodynamics, advanced lightweight materials, accessories, manufacturing technologies and other critical aspects. In contrast, the HEV effort is more specifically focused, seeking to develop a hybrid propulsion system using existing technologies in the short term and focusing on 2X fuel economy improvement. HEV program representatives formally interface with PNGV committees and it is expected that HEV Program elements will be folded into the PNGV effort upon its scheduled completion in 1998.

Q:

Where do HEV accessory loads draw their power from and how are the accessory loads different in an HEV than in a conventional vehicle?

A:

Accessory loads in HEVs will provide the same function as in conventional vehicles. Accessories with small loads (less than 200 W) such as lights, windshield wiper system, defroster/defogger, radio/stereo will still continue to draw their power from the 12 Volt starting, lighting and ignition battery. Accessories with larger loads will draw power from the energy storage system. Unlike in a conventional

vehicle, the climate control (heating and cooling) system cannot "piggy back" on the hybrid power unit (engine). This is because the engine is not always in operation, in which case, the vehicle is powered by its energy storage device only. Therefore, the climate control system is designed to draw its power from the energy storage system (HEV batteries). The power steering in a conventional vehicle is enabled by a continuously operating hydraulic pump driven engine. Inversely, HEVs have a noncontinuously operating engine (HPU), which requires a new power steering control strategy such as electric or electro hydraulic power steering, which will draw its power from the accessory 12-V battery. See Accessory Loads section for more detail.

Q:

What is the difference between the energy storage devices (batteries) for HEVs and EVs?

A:

EVs need "high energy" storage devices while HEVs need "high power" energy storage devices. In EVs, the only energy source is the energy storage device. Since having a sufficiently long range is one of the most important EV attributes, the energy storage device has to have "high energy." To have good performance on the hills and reasonable acceleration, the energy storage device has to have reasonable power too. However, energy is more important to EVs. The power to energy ratio for EVs is expected to be around 2 (W/Wh).

In HEVs, the hybrid auxiliary unit (engine) provides the majority of the energy to achieve long ranges. The energy storage device in an HEV provides the additional power for climbing hills and acceleration. Therefore, the energy storage devices for HEVs have to be "high power." They may also have to have reasonable energy capacity for the series HEV to have a large ZEV range. The power to energy ratio for HEV energy storage devices is expected to be about 15 80 (W/Wh). See Energy Storage section for more detail.

Q:

Is an HEV simply a transition vehicle between a conventional vehicle and a pure EV?

A:

No. Most experts agree that the car of the future, that has the same versatility as a conventional vehicle, will be an HEV of some kind. The energy density of electric batteries will never equal that of liquid or gaseous fuels (see energy storage), necessitating that these fuels remain a critical part of future vehicles to maintain the driving range and quick refueling found in today's conventional vehicles. Even fuel cells, which are a promising long term technology for personal transportation, will most likely still be put in an HEV configuration with a high power energy storage/buffer device onboard. Rather than having only one propulsion system choice when buying a future vehicle, it may be possible to select the propulsion system in the same way that one selects a 4 cylinder engine or a V 8. In the future, you may be able to select a vehicle, and then choose if you want a conventional engine, batteries only, or an energy storage device (batteries, flywheels, ultracapacitors, or some combination) and an HPU (fuel cell, turbine, diesel engine, Stirling engine, or conventional internal combustion engine).

Q:

How much do today's cars contribute to air pollution and how much less will HEV's likely pollute?

A:

According to the U.S. Environmental Protection Agency (EPA), vehicle emissions currently contribute between one third and one half of the total U.S. atmospheric burden of three major pollutants: carbon monoxide (CO), nitrogen oxides (NOx), and hydrocarbons (HC). Their impact is even greater in many U.S. urban areas. The pollution from hybrid vehicles will depend on the type of hybrid power unit and fuel used. At a minimum, DOE has specified that the propulsion systems developed in the HV Propulsion Program will meet Federal Tier II standards, which are 1.8, 0.16, and 0.13 g/mile for CO, NOx, and HC, respectively (versus the current Federal standards of 4.2, 0.60, and 0.31 g/mile). The ultimate HEV from an emission standpoint might be one that runs on hydrogen, which would emit only water vapor and perhaps very low levels of NOx.

See the following sections of this Web site for more information on emissions:

- [Why HEV's?](#)
- [Emissions](#)

Q:

Are HEVs going to be as safe as today's conventional vehicles?

A:

Yes. HEVs will be manufactured using the same stringent rules, standards, and restrictions as today's conventional vehicles. Of course, some modifications to the standards may have to be made because the propulsion system will consist of different components (batteries, smaller internal combustion engine, controller, etc.). All components of an HEV will be thoroughly tested and approved by the National Highway Traffic Safety Administration prior to being sold to the public. [See the Safety section for more detail.](#)



[DOE] [NREL] [EREN]

DEPARTMENT OF TRANSPORTATION AND RELATED AGENCIES APPROPRIATIONS
ACT--CONTINUED (Senate - September 15, 1999)

[Page: S10892]

AMENDMENT NO. 1677

(PURPOSE: TO EXPRESS THE SENSE OF THE SENATE CONCERNING CAFE
STANDARDS FOR SPORT UTILITY VEHICLES AND OTHER LIGHT TRUCKS)

Mr. GORTON. Mr. President, I send an amendment to the desk and ask unanimous consent that it be considered to be in order.

The PRESIDING OFFICER. Is there objection?

Without objection, it is so ordered.

The clerk will report.

The legislative clerk read as follows:

The Senator from Washington [Mr. Gorton], for himself, Mrs. Feinstein, Mr. Bryan, Mr. Lieberman, Mr. Reed, Mr. Moynihan, and Mr. Chafee, proposes an amendment numbered 1677.

Mr. GORTON. I ask unanimous consent further reading of the amendment be dispensed with.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment is as follows:

At the appropriate place in title III, insert the following:

SEC. 3XX. SENSE OF THE SENATE CONCERNING CAFE STANDARDS.

(a) **Findings:** The Senate finds that--

(1) the corporate average fuel economy (CAFE) law, codified at chapter 329 of title 49, United States Code, is critical to reducing the dependence of the United States on foreign oil, reducing air pollution and carbon dioxide, and saving consumers money at the gas pump;

(2) the cars and light trucks of the United States are responsible for 20 percent of the carbon dioxide pollution generated in the United States;

(3) the average fuel economy of all new passenger vehicles is at its lowest point since 1980, while fuel consumption is at its highest;

(4) since 1995, a provision in the transportation appropriations Acts has prohibited the Department of Transportation from examining the need to raise CAFE standards for sport utility vehicles and other light trucks;

(5) that provision denies purchasers of new sport utility vehicles and other light trucks the benefits of available fuel saving technologies;

(6) the current CAFE standards save more than 3,000,000 barrels of oil per day;

(7)(A) the current CAFE standards have remained the same for nearly a decade;

(B) the CAFE standard for sport utility vehicles and other light trucks is 3/4 the standard for

S. FLOOR
9/15/99

automobiles; and

(C) the CAFE standard for sport utility vehicles and other light trucks is 20.7 miles per gallon and the standard for automobiles is 27.5 miles per gallon;

(8) because of CAFE standards, the average sport utility vehicle emits about 75 tons of carbon dioxide over the life of the vehicle while the average car emits about 45 tons of carbon dioxide;

(9) the technology exists to cost effectively and safely make vehicles go further on a gallon of gasoline; and

(10) improving light truck fuel economy would not only cut pollution but also save oil and save owners of new sport utility vehicles and other light trucks money at the gas pump.

(b) **Sense of the Senate:** It is the sense of the Senate that--

(1) the issue of CAFE standards should be permitted to be examined by the Department of Transportation, so that consumers may benefit from any resulting increase in the standards as soon as possible; and

(2) the Senate should not recede to section 320 of this bill, as passed by the House of Representatives, which prevents an increase in CAFE standards.

[Page: S10893]

Mr. GORTON. Mr. President, this amendment is offered on behalf of myself, Mrs. **Feinstein**, Mr. **Bryan**, Mr. **Lieberman**, Mr. **Reed** of Rhode Island, Mr. **Moynihan**, and Mr. **Chafee**. I ask unanimous consent that Senator **Boxer** be added as a cosponsor of the amendment.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. GORTON. Mr. President, this is an amendment that has been widely discussed relating to CAFE standards; that is to say, the fuel efficiency standards of automobiles and small trucks sold in the United States. Now, I want to quote an argument against this proposal made in a committee hearing on CAFE standards.

In effect, this bill would outlaw a number of engine lines and car models, including most full-size sedans and station wagons. It would restrict the industry from producing subcompact-size cars or even smaller ones.

Mr. President, you may well ask me when that hearing took place because you were unaware that hearings on this subject had taken place. That question would be well put because that hearing took place in 1974, 25 years ago. That statement was made by automobile manufacturers in connection with the fuel efficiency standards that were discussed during that year and were implemented. As a result of the implementation of those standards, we are saving 3 million barrels of oil per day in the United States as compared with the 17 million gallons per day that cars and trucks, in fact, use.

In other words, even from the point of view of a relatively conservative Senator, as I consider myself, we have an example of a highly successful regulatory action on the part of the Government of the United States, a regulatory action that took place 25 years ago and was, for all practical purposes, fully implemented within 6 years of the time of its implementation. That is the first notable point about the subject we are discussing today.

The second is that the argument I quoted turned out to be wholly inaccurate. The evidence of that inaccuracy, of course, is on every street, road, and highway in the United States. The genius of American manufacturers created an automobile that met all of the fuel efficiency standards that were implemented a quarter of a century ago without a substantial downsizing of our automobiles' weight, with a tremendous contribution to cleaner air, and with the contribution of saving 3 million gallons of gasoline

each and every day of each and every year, every single gallon of which, where we are using it, would come from imports and from overseas, further exacerbating our trade deficits.

I find it particularly curious that we should look back at an experiment so totally successful in every respect, in cleaning up our air, in reducing our use of petroleum products, in reducing our trade deficits, and in saving money for the American people, and say: Not only are we not going to repeat that experiment, we are not even going to study whether we ought to repeat that experiment. What we have done in the Congress is to tell our Federal agencies that they may not pursue studies and come up with rules and regulations and recommendations as to a second round of improving our automobile fuel efficiency either for regular passenger automobiles or for small trucks or for SUVs.

The status, in connection with this bill, of course, is relatively simple. This Senate bill does not prevent the Federal Government from going ahead with such studies and making such recommendations. The House bill does, once again, as we have for the last several years, prohibit even these studies.

The amendment before us now is a sense-of-the-Senate resolution that the Senate should not accept that House provision. It is neither more nor less than that. Every one of the 98 Senators, in addition to you and me, has been deluged by statements from opponents to this modest sense-of-the-Senate resolution, stating, first, that it would make our highways less safe, even though our death rate on our highways is remarkably lower now--I think three times lower than it was before we

went through this experiment the first time--that there is no way the automobile manufacturers can meet the requirements that would be imposed if we allowed these studies to go forward without going back to sub-subcompacts--an argument that was shown to be totally fallacious and without reason some 25 years ago.

In short, there is not a single argument being presented against this amendment that was not presented 25 years ago to this body and to the other body and to the people of the United States and proven to be without merit.

Can we learn nothing from the past? Are we so frightened, as Members of the Senate, that we are not even going to try to determine in an orderly fashion whether or not we can do better with respect to the fuel efficiency of the internal combustion engine? The proposition, I think, is bizarre, that we should prohibit even a study and a set of proposed regulations on this subject.

There could possibly be more bite to this argument if what we were faced with was the imminent imposition of new requirements that were highly unreasonable in nature and about which it might be argued that they were impossible to attain. If we were faced with a proposed amendment that said the Federal Government could use no part of this appropriation to enforce such standards, that would be one thing. But what the opponents to this sense-of-the-Senate resolution are saying is: Don't even look into the question. Don't do anything. Don't try to learn whether or not we can come up with more efficient internal combustion engines. Let's just ignore it.

Mr. BRYAN. Will the Senator from Washington yield for a question on that point?

Mr. GORTON. I am happy to yield.

Mr. BRYAN. Do I understand the thrust of the Senator's argument is not to advocate some new standards for CAFE but simply to permit those who are charged with that responsibility to make a basic inquiry as to whether or not there is room, based upon science, safety, and other considerations, to consider an increase in fuel economy standards?

Mr. GORTON. My dear friend from Nevada is entirely correct, as, of course, he knows, having been a cosponsor of this amendment and a companion with the Senator from Washington in this cause for many years in the past.

Mr. BRYAN. I thank the Senator.

Mr. GORTON. I was about to say, for the benefit of my friend from Nevada, isn't it fortunate that the Congress of the United States, in the first decade of the 19th century, didn't prohibit the development of a steam engine because it might explode?

That is basically what the arguments against the amendment the Senator from Nevada and I have proposed amount to. My gosh, something bad might happen if you did something. But, of course, the argument against the steam engine in 1810, or 1812, or 1814 would have been stronger because they knew nothing about it. We have gone through this process before, and it was a complete success. But we are now told, not only should we not go through the experiment again, we should not even study it; we should not even try to come up with facts that would justify it or--and I think it is very unlikely--perhaps not justify making any change in the present system.

Now, I think both the Senator from Nevada and I believe such a study would come up with more significant CAFE standards. But I don't think the Senator from Nevada, even more than I, has any idea what they would be, how far they would go, what we would find to be totally successful or not. We just want to find out whether or not we can't do something that would reduce our dependence on foreign oil, help clean up our air, and save money for the American purchaser of automobiles, small trucks and, of course, the fuel required to run them. That is all.

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Mr. BRYAN. It strikes the Senator from Nevada that the argument the Senator is making is a win-win. It is a win for the consumer, for the environment, and in terms of the trade imbalance we currently face in this country.

Would the Senator not agree with the proposition that everybody comes out a winner if the Senator's resolution would simply ask that an inquiry be made into the practicality of increasing fuel efficiency standards?

Mr. GORTON. The Senator from Nevada is entirely correct. If we can only take a quick vote on it with the Senators on the floor now, we would probably succeed. Unfortunately, we have yet to persuade all of our colleagues of this matter. The question the Senator puts--and he knows the answer--is a very profound and a very serious question.

Mr. BRYAN. I enjoyed the Senator's reference to the steam engine in the 19th century. The younger members of my staff say they are not familiar with this reference, but as the Senator from Washington will recall, the Industrial Revolution was born in Great Britain. Just as then, seemingly now, there are those fearful of progress.

The first manifestation of the Industrial Revolution was when we changed the textile production from a cottage industry to the floors of the factory, and machinery and technology made that possible. I know the Senator from Washington State, who is in my generation, will recall this reference. But a group of people called Luddites went about the country breaking up the machines, trying to prevent progress, fearful of the consequences. It seems to me--perhaps the Senator might want to comment--that in a very modern-day sense, we have neo-Luddites who are fearful of the consequences of what new technology might make possible, and in my view, the improvement of technology throughout the vast expanse of history has improved a lot for mankind. Does the Senator agree with that observation?

Mr. GORTON. The Senator from Nevada is as learned as he is wise, and his reference to Luddites in the late 18th and early 19th century England is entirely correct. The word has come down to us today, referring to those who are so fearful of changes in our technology that in one way or another they would prevent it.

The point he makes is particularly important, and it is one that I want to continue to emphasize to Members. We are not debating a law that will mandate a specific new set of fuel economy standards for automobiles and small trucks. We are not even debating whether or not a specific set of standards should

be imposed after a study of their feasibility and desirability is completed. We are debating a proposition that says we should go forward in an orderly fashion, have this determination made by people who are expert in the field and who study it carefully and must follow all of the procedural requirements for setting rules and regulations, all of which will be vulnerable to future debates in the Senate should proposals be made that seem somehow or another unreasonable.

There is not a single Member of the Senate, from the most conservative to the most liberal, who has not at one time or another been critical of some rule or regulation imposed by some agency of the Federal Government. Every Member of the Senate--and for that matter, the House of Representatives--knows how to bring up debate on that subject, the debate over this appropriations bill, or some other bill relating to transportation. But what we have today from the opponents to this sense-of-the-Senate resolution is a statement that we are ignorant of what might happen if we engage in another round of fuel efficiency standards and we want to remain ignorant. That is essentially what they are talking about.

Mr. BRYAN. Mr. President, if the recollection of the Senator from Nevada is correct, in the mid-1970s, the distinguished Senator from Washington was the attorney general of that State. As the attorney general, he was a leading advocate on behalf of consumer issues in his State. Perhaps the Senator will recall when the legislation, referred to as CAFE, the corporate average fuel economy standard, was offered on the floor of the Senate and in the other body. Those from the automobile industry said at the time: if these CAFE standards are imposed upon us, everybody in America will be driving an automobile smaller than a Pinto or a subsize Maverick.

That was at a time when fuel economy for passenger vehicles averaged less than 14 miles per gallon. As a result of the Congress taking that action, fuel economy, from 1973 to 1989, doubled.

Does the Senator recall the essence of the testimony offered by one of the automotive manufacturers? I wonder if he might want to comment on what actually occurred over those intervening 16 years when we were supposed to be driving around in Pintos and subsize Maverick automobiles.

Mr. GORTON. Just before my friend from Nevada came to the floor, I began my remarks with a quotation, which sounded so remarkably similar to what we have heard in the last few days about this amendment, and it is particularly appropriate. For the Senator's benefit and for others, I will repeat it:

In effect, this bill would outlaw a number of engine lines and car models, including most full-size sedans and station wagons. It would restrict the industry to producing subcompact sized cars, or even smaller ones.

That was a statement by the duly authorized representative of the Ford Motor Company in 1974 in the hearings on the bill that allowed for the first corporate average fuel economy standards to take place. Now the Ford Motor Company, of course, was far more resourceful in its technology than it was in its language. And when these requirements were imposed, the Ford Motor Company, General Motors, Chrysler, and the rest of the manufacturers met them, and they met them gratefully to the advantage of the people of the United States, who ended up with far cleaner air. It is impossible to imagine what our air would be like today if we were all driving 1974 model automobiles--saving billions of dollars in fuel costs, saving the economy of the United States all of the costs of that extra fuel, all of which would have ended up coming from overseas, given our dependence on foreign oil at the time.

One of the interesting things as we go into this debate right now, I tell my friend, is that a recent issue of the Wall Street Journal reported that the same company, the Ford Motor Company, is currently developing technology to increase fuel economy of its truck fleet by as much as 15 percent.

The article in the Wall Street Journal said that internal documents posted on the world wide web show--I am quoting now:

Ford could significantly increase its fuel economy on some of its biggest and most popular trucks without losing the things people buy trucks for, horsepower and pulling power.

That is another illustration of the fact that an argument which was utterly invalid in 1974 is utterly invalid in 1999.

Members of this body 25 years ago might have been excused for giving great credence to that argument. After all, we didn't know what was going to happen. It is very difficult to give credence to that argument given the tremendously positive results of the regulations which were adopted in 1974.

Mr. BRYAN. Mr. President, may I inquire further of the distinguished Senator, my friend from Washington, with another question.

Has the Senator had an opportunity to see this morning's issue of Congress Daily? On the back, there is an ad designed to uphold the thoughtful and well-considered resolution which the Senator from Washington, and our able colleague, the distinguished Senator from California, I, and others are going to be offering for consideration. But the text of the ad says:

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We work hard all year so our family can go fishing and camping together. We couldn't do it without our SUV--

Sport utility vehicle. It shows the man leaning on the hood of the SUV.

I guess my questions to the Senator would be twofold: No. 1, before the automobile manufacturers developed the sport utility vehicles, was it not possible for families in America to enjoy fishing and camping? Perhaps the Senator might be able to respond to that question.

Mr. GORTON. Mr. President, the question, of course, answers itself. It was.

Americans have acquired far greater choice today after the implementation of those fuel efficiency standards than they had previously. The interesting part of the ad, which was just handed to me--I had not previously seen it--says: Say yes to consumer choice and say no to a CAFE increase. In fact, the consumer can't choose a fuel efficient SUV at the present time. There isn't any consumer choice there. They are not competing over that proposition, though we may hope that someday in the future the Ford Motor Company, if it is thought correct, will do so. But as consumer choice increased after the last CAFE standards were imposed, so am I confident they will increase the next time around.

I greatly enjoyed this conversation with my friend from Nevada. I suspect he has more to say on the subject. I know the Senator from California wishes to speak on this subject. I don't want to monopolize the conversation, even on the pro side, and we will have opponents.

With that, I yield the floor.

The PRESIDING OFFICER. The Senator from California is recognized.

Mrs. FEINSTEIN. Mr. President, I first began to believe that global warming was a major threat in 1998 when a 92-mile long and 30-mile wide iceberg broke loose from the Antarctic Ice Shelf. It was 1 1/2 times the size of Delaware. NOAA said it was a possible indicator of global warming.

I began to take a look at some of the other things that have happened in the last few years. I find that we have the first species extinction in Costa Rica because of it. I find that it now has an impact on the El Nino cycle in the Pacific Ocean. I find that there is a serious degradation of coral reefs in the Indian Ocean, and 70 percent of the existing coral reefs are affected.

I am a SUV owner. I own three jeeps. I love my jeeps. I have no doubt, though, that my jeeps can have the same kind of fuel efficiency standards as my automobile.

Then you have to look and say, well, if my three jeeps have the same kind of fuel efficiency, what would

that do for global warming?

Carbon dioxide is the main culprit in global warming. Our country is the largest emitter and producer of carbon dioxide in the world. The United States saves 3 million barrels of oil because of fuel efficiency standards. If SUVs, similar to my jeeps, had fuel efficiency standards equal to those of automobiles, we would save another 1 million barrels of oil a day. If the 8 million or so of the other SUVs around the United States and the light trucks had these same standards, it would eliminate 187 million tons of CO₂ from the air. The experts have said it is the largest single thing, bar none, that we can do to influence global warming in a positive way.

It seems so easy to do it. We know it can be done. We know it need not influence the efficiency of the engines. And we know there is technology that can make it so.

So raising these so-called CAFE standards or fuel efficiency standards so the SUVs are equal to other passenger automobiles at about 27 miles per gallon instead of 20 miles per gallon does not seem to me to be an unrealistic thing to ask Detroit to do. But instead, since 1995, there has been a rider in this bill which says to the Government that we can't even look, we can't even study, and we can't even make any findings to see whether, in fact, it is possible to bring SUVs up to automobile standards with respect to fuel efficiency.

I believe very strongly that this is the largest single positive environmental step this Congress can take to reduce carbon dioxide emissions in the atmosphere. To have a rider in a bill which says you can't even study it, you can't even see if what I am saying is true, I think makes no sense whatsoever.

As I say, I love my three jeeps. But I will tell you, I am going to look for a sports utility vehicle that has equal fuel efficiency standards in the future.

Additionally, what would this do for the consumer? It is estimated that by simply requiring SUVs to meet the same average CAFE requirements as automobiles would save the consumer more than \$2,000 in fuel costs over the life of each vehicle. It seems to me that is a pretty easy way to give people almost a kind of tax rebate. You save money buying fuel for your car because you buy less of it over the life of the car. And it is estimated those savings are \$2,000 per vehicle.

More importantly, 117 million Americans live where smog sometimes makes the air unsafe to breathe where asthma is on the increase and where respiratory problems are developing. Almost one-half of this pollution is caused by so-called nonpoint sources. That means the automobile. Attempting to improve the efficiency of vehicles we drive helps address this problem as well.

There is no substantive evidence to support the fact that this would provide technological problems that Detroit cannot meet.

I hasten to point out, we do not include in this amendment, and the intent of this amendment is not to include, agricultural equipment that works on agricultural products in fields. However, with this amendment we would learn a couple of things. One, the air would be cleaner. Consumers would save significant money in fuel costs--\$2,000 over the life of each vehicle--and we would go a long way to address the problem of global warming.

I am hopeful that this measure will pass today.

I view with some surprise the degree to which this measure is being lobbied by automobile interests in this country. As an SUV car owner, as a jeep lover, as someone who would like to buy additional cars, this is an important point to me. It seems to me some automobile company ought to be willing to address it, to bring these SUVs up to automobile standards.

I stand strongly in support of the amendment. I thank my colleagues, Senator **Bryan**, Senator **Gorton**, and others, who also support the amendment. I am hopeful there will be enough Senators to say: Let's not go about this with blinders; let's take one good look and see if this is really possible; let's do the

necessary studies; let's work together to do the largest single thing we can do, relatively painlessly, to reduce global warming.

I yield the floor.

Mr. BRYAN. Mr. President, I thank my able colleague from California for her thoughtful and well-considered statement. I associate myself with her observations and the conclusions she makes.

This issue has been framed on a false premise, that somehow Members, including the able Senators from California and Washington who support this amendment, are interested in depriving the American public of their choice of automobiles.

I know firsthand, having seen the vehicles of my colleague from California--she is the proud owner of a sport utility vehicle--she would defend as vigorously as would I her right to own such a vehicle.

This has absolutely nothing to do with whether or not the American public chooses to purchase a minivan, a light truck, or a sport utility vehicle. My son and his wife and our first grandchild are in the Nation's Capital today. As a family, they have chosen a sport utility vehicle. I defend his right as vigorously as I defend the right of my colleague from California.

This is not what this debate is all about. That is a false premise. I think some Members are not only offended by the intellectual dishonesty of this kind of advertising that suggests the senior Senator from California and I somehow seek to deprive American families of their opportunity to go fishing and camping. That is just ludicrous. That defies any kind of rational argument.

Mrs. FEINSTEIN. Will the Senator yield?

Mr. BRYAN. I am happy to yield to the Senator.

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Mrs. FEINSTEIN. I have not seen that particular ad. I am most interested. Would the Senator read it?

Mr. BRYAN. It shows two angelic children sitting on the hood of a sport utility vehicle. Strapped to the top of that vehicle looks to be a canoe, a boat of some type. Now we see a gentleman, perhaps the father of these two children, leaning on the hood. He is saying to them, 'You know, we work hard all year as a family so our family can go fishing and camping together. We couldn't do it without our sport utility vehicle.' Then the tag line is: 'Say yes to consumer choice. Say no to a CAFE increase.'

I was explaining before my colleague's thoughtful question, the implication is that those who advocate simply taking a look at the standards, simply allowing those within the Department of Transportation to take a look at the standards--and I will comment later in my remarks as to the criteria involved--that somehow we are opposed to this family's right to camp and to go fishing. That is outrageous. It is not true. This Senator is greatly offended by the text of that ad.

Mrs. FEINSTEIN. Will the Senator yield?

Mr. BRYAN. I am happy to yield to the Senator.

Mrs. FEINSTEIN. One of the things I have found is the use of 'CAFE' which we bandy around so much--most people don't know exactly what that means. We are really talking about the efficiency of a gallon of gas to go farther. Therefore, the efficiency of a gallon of gas is what we are talking about and applying those standards to SUVs as you would to passenger sedans.

Mr. BRYAN. The Senator from California is absolutely correct. She has the clarity of expression that sometimes escapes those who had the misfortune to go to law school. We get caught up with acronyms. CAFE means nothing to the average person. We are trying to get greater fuel efficiency.

In my colloquy with our colleague from Washington State, it was pointed out that this is a win-win-win for the American public.

The Senator from California and I represent two States that currently are experiencing enormous increases in the cost of gas. That takes money out of the pocket of America's families. That means less discretionary income. In the Senator's State as well as my own, an automobile is virtually a necessity to move from one place to another, to go to work, to enjoy the recreational opportunities we want to have with our family, to do the sort of thing that is part of our lifestyle in America.

If we can improve the CAFE standards for jeeps, sport utilities, minivans, and light trucks, we put more dollars in that family's pocket; we clean up the air, as the Senator from California pointed out; we reduce our dependence on foreign oil--it currently is about 50 percent; it drives some of the geopolitical policy debates in which the good Senator from California has taken a lead--and we help to reduce the trade deficit.

Our economy is performing magnificently, but one of the areas of concern to everyone is the mounting trade deficit. About \$50 billion of that annual trade deficit is attributed to what we as Americans pay for oil that we import from around the world to fuel our economy, a good segment of which is transportation.

Mrs. FEINSTEIN. Will the Senator yield?

Mr. BRYAN. The Senator from Nevada is always pleased to yield to the senior Senator from California.

Mrs. FEINSTEIN. One of the things that I think is particularly disingenuous about the opposition is that if SUVs and light trucks had the same fuel efficiency or even an increased fuel efficiency, it would impair the functioning of the car and the vehicle would not be able to function at optimal standards.

Would the Senator reflect on this for the Senate?

Mr. BRYAN. That is, as the Senator from California knows, an argument that has been raised. It is a specious argument.

The Senator from California hails from a jurisdiction which has been on the cutting edge of so much of the technology of the post-World War II era. Because of the Senator's own interest in technology and moving her own economy forward in California, I know she is deeply committed to that.

The Senator from California and many of our colleagues reflect that great confidence that the ingenuity and the entrepreneurial spirit of the American business community responds to challenges. But now there is a disconnect. The automobile industry didn't think they could ever do anything to improve economy. We couldn't suggest they look at that--somehow that would deprive us of our choice.

As the Senator from Washington responded to my question, these arguments were made back in 1974 when a representative at that time from the Ford Motor Company, testifying in opposition to the first fuel economy standards, said--without in any way belying the Senator's own youthful appearance, I think she may recall 1974, as the Senator from Nevada does. At that time, one of the leading automobiles that Ford produced was what I call a pint-sized Pinto. The Senator I am sure will recall that.

This is what the auto industry was arguing in 1974, should the first CAFE standards be enacted:

That the product line [referring to the product line for automobile manufacturers in America] would consist of either all sub Pinto sized vehicles or some mix of vehicles ranging from a sub sub compact to perhaps a Maverick.

That statement was made in this century--in fact, the latter quarter of the 20th century.

This is a tribute to the industry and its ingenuity. The Lincoln Town Car, if not the largest automobile produced by the Ford Motor Company, gets better fuel economy today than the Pinto did in 1974. That is technology. It does not deprive one of choice. It seems to me for some reason the industry has created this facade that they cannot do these sorts of things.

We are saying--and I believe the Senator from California would agree--let's just take a look and see if we can't achieve these benefits we have just talked about.

Mrs. FEINSTEIN. I commend and thank the Senator for answering my questions. I appreciate it very much. If he would allow me one brief comment.

I think one of the reasons that for awhile the American automobile had lost the cutting edge was the reluctance to do research and development to develop those kinds of automobile products that became very popular, that were produced by the Japanese marketplace. Since then, the American automotive companies have changed dramatically. The very kind of innovation that was absent for so long has now been restored. So it would seem to me any innovation in weight or size or engine capacity could very easily overcome these problems and that these vehicles could function as efficiently. I will point out it is the largest single thing we could do to alleviate global warming. So I thank the Senator from Nevada.

Mr. BRYAN. I thank the senior Senator from California for her very thoughtful comments and excellent presentation.

Mr. President, I rise in support of the Gorton-Feinstein-Bryan amendment that would permit the Department of Transportation to consider whether fuel efficiency for SUVs and light trucks should be improved. The vote on this amendment will be one of the key environmental votes of this Congress. I think it is helpful for our colleagues to understand the context in which this debate occurs.

In 1995, the House of Representatives inserted an antienvironmental rider in the Department of Transportation appropriations bill that prohibited, that is precluded, the Department of Transportation from even considering whether an increase in automobile fuel efficiency made sense. That environmental rider has been added to each of the appropriations in years 1996, 1997, 1998, and currently we face the same situation.

I think the important thing to emphasize is that those of us who support the resolution are not arguing for a specific numerical standard. We are simply saying shouldn't the people who have the ability to make these judgments, under very carefully considered circumstances, have the opportunity to even inquire? In effect, what the rider accomplishes is a technology gag rule. It precludes consideration. So our amendment is an effort to show there is substantial support in this body that we should not prejudge the issue and, instead, let the experts study the issue and decide what is in the Nation's best interests.

A bit of history may be instructive. Fuel efficiency standards are known, in the jargon of the Congressional and Federal professional bureaucracy, as CAFE standards, the acronym standing for corporate average fuel economy. Those standards have been on the decline in recent years, as automakers build bigger and bigger gas guzzlers.

This chart will be instructive. Prior to the enactment in 1974 of the fuel economy standards, the average fuel economy for a passenger vehicle in America was slightly less than 14 miles per gallon. As a result of the enactment of that legislation, over the intervening 15 years, fuel economy doubled to 27.5 miles per gallon. This chart reflects that.

What has occurred, in the late 1980s and 1990s, is the vehicle mix has shifted dramatically. We have seen a decline in overall fuel economy. Not that the vehicles referred to as 'passenger vehicles' are less fuel efficient, but the American public, by choice, has included in its purchase agenda light trucks, sport utility vehicles, and minivans. These were not terms that were familiar in America in 1974, and millions of families have chosen light trucks or sport utility vehicles and minivans. As I indicated in my colloquy with the distinguished Senator from California, my own son and his family have such a vehicle in Nevada. A daughter and a son-in-law have such a vehicle in upstate New York. So nothing in this debate

is in any way about limiting choice. But we cannot ignore the reality that the fleet mix has changed.

Today, nearly 50 percent of the vehicles sold in America for family use are sport utility, minivans, or light trucks. That reflects the percentage. If the chart went 1 more year, they would reflect basically about 50 percent of the vehicle mix.

When the legislation was enacted in 1974, there was a different standard for light trucks, which included minivans and the sport utility vehicle. So what this debate is all about is simply permitting--it is permissive. It in no way mandates, dictates, directs, commands; it simply is permissive. I think it may be helpful to read the language of the resolution itself. This is a sense-of-the-Senate resolution. The resolved paragraph says:

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It is the sense of the Senate that,

(1) the issue of CAFE standards should be permitted to be examined by the Department of Transportation, so that consumers may benefit from any resulting increase in the standards as soon as possible.

Let me repeat.

The issue of CAFE standards should be permitted to be examined by the Department of Transportation. .
..

There is no attempt to fix a precise numerical standard. This simply would permit an inquiry by the Department of Transportation. The effect of this would be to override the technology gag rule that has been imposed by the House since 1995 that prohibits or precludes its consideration.

Part 2 of the resolution simply says that:

The Senate should not recede to section 320 of this bill, as passed by the House of Representatives.

That is the technology gag rule.

As fuel efficiency declines, oil consumption, trade deficits, and air pollution go up. Few actions have as many beneficial effects on our economy as improving fuel efficiency standards. As I said before, the amendment in no way seeks to restrict choice. For millions of Americans, that is their vehicle of choice and in some geographical climes it would be the only sensible choice.

We recognize, fully respect, and endorse the concept of choice. Contrary to all the foreboding in the 1974 testimony before the Congress, in point of fact, as my colleague from Washington State pointed out, we had greater choice in America after the fuel economy legislation was enacted a quarter of a century ago by the Congress.

So the real question is not whether Americans want and need a larger four-wheel-drive vehicle but whether these vehicles can be made more fuel efficient. That is what the amendment is attempting to find out. Many of us believe that answer will be yes. Others disagree. But all we are asking is to allow the experts to make that determination.

The current law provides a strict criteria to the Department of Transportation in considering what process needs to be involved before a CAFE standard could be increased. It requires the DOT to consider four factors:

First, the technical feasibility. My friend and colleague from Washington State mentioned an article in the Wall Street Journal and cited one of the automakers on the technology they currently have available. There are many of us who believe technology is there but that is not for us to determine. That is for the

experts in the Department of Transportation, the technical feasibility.

Second, the economic practicability.

Third, the effect of other motor vehicle standards on fuel economy.

Finally, the need of the Nation to conserve energy.

These are four criteria, each of which must be found before the Department could be authorized to go forward with second fuel economy standards that build upon the 1974 legislation.

The auto industry, for all of its achievements in recent years--and I applaud them for this--for some reason has this myopic view of the future. Whereas most Americans are confident about the future, we recognize that changes in technology that are sweeping across the country are more vast and more pervasive than anything in the history of civilization, and there is no reason to believe the auto industry itself would be immune from these current changes, and that new technology will make it possible to do things more efficiently than we have in the past.

For some reason--and I do not understand the corporate mentality--there is this knee-jerk reaction: We don't want anybody to take a look at it; we couldn't possibly do it.

That was reflected in the debate the Congress had for a quarter of a century.

Who would be the beneficiaries? What public policy would be served if, indeed, the Department took a look at the evidence and concluded that some increase was warranted?

I can speak of my own State of Nevada, having spent 26 days in rural Nevada. If there was one question that came up in every townhall meeting, it was the price of gas. For reasons that are not altogether clear to me, and I have not been persuaded as to those that have been asserted to be the cause of it, gas prices in the West have skyrocketed. In central Nevada, gasoline prices are approaching \$2 a gallon. I realize that is not the situation of my colleagues from the East and other parts of the country.

Who would be an immediate beneficiary of improved fuel economy standards? Those individuals who currently own sport utility vehicles would be purchasing another vehicle that would be more fuel efficient. That would put dollars back in the pockets of America's families. America's families would benefit.

What does the public think about this? In a recent poll conducted by the Mellman Group, nearly three out of four drivers who own minivans, pickup trucks, or sport utility vehicles think the automobile manufacturers should be required to make cleaner, less polluting vehicles, and more than two-thirds say they would be willing to pay a significant amount more for their next sport utility vehicle if it polluted less.

Opponents of our amendment will cry wolf and say our amendment will cause people to drive around in tiny subcompacts. This is kind of deja vu. We have been there before. We have heard that, and an earlier Congress had the courage to go forward. As a result, we save 3 million barrels of oil each day that we otherwise would be consuming as a result of those fuel efficiency standards that were first enacted.

To give perhaps the most graphic and encapsulated insight into the corporate culture that seems to pervade the automobile industry, the 1974 testimony before the Congress is the milestone.

As my colleagues will recall, the Congress was being asked for the first time to consider these fuel economy standards, and the auto industry, as one, came forward with this dire projection of doom and gloom. As I was saying earlier in a colloquy with the distinguished senior Senator from California, the Pinto was one of the smallest, if not the smallest, products the Ford Motor Company produced that year. The testimony offered by the representative from Ford concluded that the 'product line consisting of either all sub-Pinto-sized vehicles or some mix of vehicles ranging from a sub-subcompact to perhaps

a Maverick' would be the consequence of that action.

That is absolutely unbelievable, but that was the testimony. Indeed, the refutation of that is today fuel economy has doubled as a result of this legislation, and the largest automobile the Ford Motor Company makes, the Lincoln Town Car, gets better mileage than the smallest car that Ford manufactured in 1974. That is efficiency. That is technology.

Indeed, 86 percent of the increases in fuel efficiency came from improved technology. And why not? This is the country that believes in technology. It has fueled our economy. It has made us the most productive society in the history of civilization and has produced the highest standard of living known in the history of the world.

The Union of Concerned Scientists estimates that using off-the-shelf technologies--that is, existing technology--that SUVs, or sport utility vehicles, could improve fuel efficiency by 50 percent to 28.5 miles per gallon.

The authors of this resolution do not ask you to believe that. That is a responsible assessment. This group of scientists may be right and they may be wrong, so this debate is not about whether they are correct in their conclusion. This debate is about whether or not the Department of Transportation should be allowed to consider that testimony, that evidence, and any other evidence that bears on point in making a determination as to whether or not improved fuel efficiency standards can be achieved. This can be done without shrinking the vehicle size or sacrificing safety.

I invite my colleagues' attention to this chart because safety does sometimes get into this debate. This chart depicts two trend lines: One is fuel economy, which has increased dramatically, as you see, from the 1970s, and the fatality rate. This is the rate of automobile deaths based on the vehicle miles traveled each year. We all know, without being a statistician or having a masters or Ph.D. in statistics, that there are more people in America today than in the 1970s, many more million automobiles and sport utilities and light trucks and minivans on the market, and today the average motorist travels further each year in his or her vehicle. But notwithstanding that enormous increase in traffic, vehicles, and further driving, the fatality rate has dropped precipitously, and that is a good news story.

The bottom line of that story is it came about because of technology improvements, and the auto industry has always reluctantly, for some reason, done a marvelous job with respect to improved safety standards. Those over at NHTSA have done a wonderful job in making sure we have sidebar protection and rollover standards and a whole host of other things, including seatbelt technology and airbags that today make our cars the safest in the world and traveling by vehicle safer today than at any time in our history. And that comes a quarter of a century after these dire prophecies of the consequences of enacting a CAFE standard.

What other benefits do we get? By raising the CAFE or the fuel efficiency standards for sport utility vehicles, we save up to 1 million barrels of oil a day, and that will save consumers money at the gas pump, as we just discussed, and reduce annually by 240 million tons the amount of carbon dioxide that is produced each year.

Carbon dioxide is the main culprit involved in what many may believe to be global warming. One does not have to embrace the concept of global warming. I know not everybody agrees. But virtually everyone agrees we ought to try to reduce the amount of carbon dioxide going into the atmosphere.

I had the privilege a couple of years ago of being in London and meeting with some of my colleagues with British Petroleum, one of the large petroleum producers in the world. They have come around to recognize that the role of carbon dioxide and a potential impact on global warming is something that they as a company, as part of its corporate responsibilities, need to address.

I know not all oil companies agree, but the vast majority of scientists would tell you that it is clearly in our best interest to reduce the amount of carbon dioxide emitted and going into the atmosphere. And

most of them--not all--would draw that link between carbon dioxide and global warming and some of the implications it has for us in the future. But, again, you do not have to embrace the concept of global warming to agree with the vast majority, virtually all the scientific community, that it makes sense, as a matter of public policy, to reduce or to curtail the amount of carbon dioxide going into the atmosphere.

Finally, the good news on the economy continues: As inflation remains under control, the economy expands, unemployment is low. The stock market has been a little skiddy the last few days, but, by and large, the stock market has performed extraordinarily well. That is a good news story for the American people.

The only cloud on the horizon, the only shadow that may be casting a darker light on the economic future for us in America, is the trade deficit. We are importing far more than we are exporting, and ultimately there reaches a point in time in which we have to atone for that enormous imbalance.

Fuel economy standards play a part in that debate as well because part of that trade deficit--about \$50 billion a year, a very substantial part--is attributed to what we in America pay those foreign countries that produce the oil we import into the United States. We would be reducing our dependency on that. That is why I conclude, as I said in my opening colloquy with the distinguished able Senator from the State of Washington, this legislation is a win-win-win for everyone.

So I urge my colleagues to support the amendment. It does not, as I have observed, require radical change. It simply permits the experts to look at what can be done and to make adjustments, if feasible, after engaging in a thorough and well considered rulemaking process in which all sides are able to be heard.

Mr. President, I urge my colleagues to end the technology gag rule that has ensnarled this piece of legislation since 1995.

I yield the floor.

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Mr. SHELBY. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The legislative assistant proceeded to call the roll.

Mr. REED. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded so I can speak on the pending amendment.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. REED. Mr. President, I rise in strong support of the Gorton-Bryan-Feinstein-Reed sense-of-the-Senate resolution that is being considered today.

As my colleagues have stated, our resolution calls on the House of Representatives to drop a rider which they have incorporated in the Transportation appropriations bill that effectively blocks the Department of Transportation from studying ways to improve the corporate average fuel economy standards for vehicles in the United States. These standards are currently referred to as the CAFE standards.

The current CAFE standard for passenger cars is 27.5 miles per gallon, while the standard for the so-called light trucks is just 20.7 miles per gallon.

A few years ago, this lower standard for trucks might have been less critical, but what we have seen over the last several years has been an explosion in the popularity of SUVs, sport utility vehicles. They are seen in places that are more akin to shopping malls than the rugged terrain for which originally they

were designed. SUVs and minivans are everywhere.

As a result, we have to take a serious look at whether this light truck exemption makes sense, given the current

marketplace. Their impact--these SUVs and minivans--on the air we breathe and on the amount of gasoline we consume, including increasing amounts of imported gasoline, cannot be ignored.

We know this is a simple law of supply and demand. When you have many more vehicles subject to lower CAFE standards on the road, the demand for gasoline goes up, the price of gasoline goes up, and the amount of gasoline that is consumed goes up, all of which ultimately affects our atmosphere.

In my State of Rhode Island alone, it is estimated that consumers face about \$39 million in excess annual fuel costs because of this light truck loophole. Nevertheless, the CAFE freeze rider has been inserted into the House DOT spending bill every year for the past 4 years. Each time that happens, Congress denies the American people the benefits of fuel-saving technologies that already exist, technologies that the auto industry could implement with no reduction in safety, power, or performance.

The existing CAFE standards save more than 3 million barrels of oil every day. If we did not have these standards, we would be paying much more for oil and strategically we would be much more vulnerable in terms of our oil supply from around the world. Each year, these CAFE standards reduce pollution by keeping millions of tons of carbon dioxide out of our atmosphere.

Shouldn't we at least give the Department of Transportation the chance to study this issue? That is at the essence of our request--not that we should move immediately or precipitously to the adoption of new standards but at least give the Department of Transportation the opportunity to study particularly this light truck loophole.

The House version wrongly precludes any consideration, study, or analysis. That, to me, is the wrong way to approach a public policy issue. Let's at least study it. It is time we lift this somewhat gag order that has been placed on our ability to consider the costs and benefits of higher CAFE standards. I believe, by readjusting the CAFE standards particularly in terms of these light trucks we can make significant progress in terms of fuel oil economy and also environmental quality. But at least we have to begin this analysis.

I urge my colleagues to support this important amendment. I commend the sponsors for their work and hope it will be incorporated in this legislation.

Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The legislative assistant proceeded to call the roll.

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Mr. LAUTENBERG. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER (Mr. **Crapo**). Without objection, it is so ordered.

Mr. LAUTENBERG. Mr. President, I rise to deliver a short statement, because I know there are other matters pending that we would like to hear fairly promptly. While on the subject of the CAFE standards, I will register my support for the position outlined by the senior Senator from California and the Senator from Washington.

For the last 4 years, the Senate has accepted the House's CAFE freeze rider. The result has been serious

consequences for the environment, for employment and for the health of people across the country.

There is a myth floating around that CAFE standards hurt consumers. The truth is, good CAFE standards help consumers. It's a simple concept. If your car or SUV uses less gas, you save money. Between 1975 and 1980, when the fuel economy of cars doubled, consumers with fuel-efficient cars saved \$3,000 over the lifetime of the car. And that translated into \$30 billion of savings in annual consumer spending.

Another benefit of CAFE standards is reduced pollution. Air pollution from cars has been a major environmental problem.

In fact, gas-guzzling cars and light trucks are responsible for 25 percent of this country's output of emissions that cause global climate change.

Few can hear those words, 'climate change,' and not be concerned about the impact of the severity of storms and poor air quality we are seeing, such as the current hurricane threat, one of massive proportions, which seems to have mitigated a little bit. The fact is, there is concern that changes in our climate, changes that are created in the atmosphere as a result of pollution, are in some way responsible. We have to take a serious look at this, as we consider the question in front of us at the moment.

A Congressional study by the House Government Reform minority staff found that, from 1995 to 1998, exposure to the hazardous air pollutants measured in Los Angeles' air quality caused as many as 426 additional cancer cases per million exposed individuals.

When CAFE standards were first passed in the late 1970s, light trucks made up only 20 percent of the market. Back then, light trucks were used mainly for hauling. They didn't often travel through congested urban and suburban areas.

All that has changed. Today, light trucks--a category that includes SUV's and minivans--represent half of all vehicles sold. They produce 47 percent more smog-forming exhaust and 43 percent more global-warming pollution than cars. And each light truck goes through an average of 702 gallons of gas per year. Compare that to 492 gallons per year for cars, more than 200 gallons per year.

Mr. President, if CAFE standards for light trucks were increased from 20.5 miles per gallon to 27.5 miles per gallon--the standard for cars--then carbon dioxide emissions would drop by 200 million tons by the year 2010.

Jobs are also an important part of this discussion. The other side keeps insisting that CAFE standards will hurt employment, especially in the auto industry.

However, a study by the American Council for an Energy Efficient Economy says that money saved at the gas pump, and reinvested throughout the economy, would create 244,000 jobs in this country--that includes 47,000 in the automobile industry.

These statistics support the Feinstein-Gorton amendment. I think in the interest of our society, the one thing we can do is make sure we are treating the environment for human habitation in as friendly a fashion as we can. We know it is an accomplishable feat, and we ought to get on with it.

I urge my colleagues to join in favor of this sense of the Senate resolution.

With that, I yield the floor.

Mr. CHAFEE addressed the Chair.

The PRESIDING OFFICER. The Senator from Rhode Island.

Mr. CHAFEE. Mr. President, I ask unanimous consent that the pending amendment be laid aside.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. CHAFEE. Mr. President, I am extremely concerned about a provision in the Shelby amendment to H.R. 2084, the so-called Department of Transportation appropriations bill. This provision I am referring to is located on page 21, line 1, through page 22, line 11, of the committee-reported bill. It would reopen the distribution of funds agreed to in the Transportation Equity Act for the 21st century, which is the so-called TEA 21.

TEA 21 provides a process for distributing any additional gas tax receipts beyond those that were projected to be received when TEA 21 was passed. In other words, we made an estimate of what the funds would be, but we expected we might receive less than our anticipated receipts. The appropriations bill, as it stands, would change that process--in other words, the way the anticipated surplus or losses would be distributed. It is my view that the distribution of the highway trust fund moneys should not be revisited in annual appropriations bills.

As Members know, the dollars affected by this amendment are those that have come in because, as I said, gas tax receipts were higher than projected when we passed TEA 21. How much higher were they? They were about \$1.5 billion higher than projected.

We anticipated that actual receipts might be different--as

I said before, higher or lower than projected receipts. Therefore, TEA 21 says that a surplus, or a shortfall, should be distributed evenly across all the programs funded by TEA 21; in other words, in accordance with the formulas that existed in TEA 21. It is good news that receipts are ahead of projections and that we have a surplus rather than a shortfall to distribute.

But our colleagues should remember that when the administration discovered--who am I referring to? I am talking about the administration--there was a surplus, the administration tried to set aside the TEA 21 formula, as is being attempted under this appropriations bill, except that when the administration was dealing with it, the list of programs which would have benefited from the end run that President Clinton proposed in his budget is quite different. The President wanted to increase the moneys for transit and to spend more money fighting environmental problems such as air pollution and urban sprawl. In other words, he got way out beyond what we were thinking about.

The day President Clinton's budget proposal came to Congress, I joined with Congressman **Bud Shuster**, who chairs the House Transportation Committee, in strong objection to any change in the TEA 21 formula. I would like to personally spend more money on transit and air quality and other items that would have benefitted from the President's proposal. As my colleagues can easily understand, these things are more important to Rhode Island than more dollars for highway construction. But I went on record the very day the President made his proposal strongly opposing any change in the TEA 21 formula.

Senator **Shelby** is proposing to ignore TEA 21 in the same way, but his priorities are quite different. He wants all the money to go to the States for highway construction.

This is my point. Both the appropriations subcommittee and the President wanted to do different things with this money. When this bill leaves here, we have to remember that it will go to conference. I presume there will be some dickering between some members of the conference and the administration to produce a bill the President can sign. If the Senate endorses this proposed change to the formula, we will be opening the door to a deal on the allocation of this money--some of it for the President's priorities, some for the appropriators' priorities.

We can't really know what is going to come out of the conference once we get into that kind of action. If you vote with the appropriations subcommittee, you are giving them permission to ignore the TEA 21 formula. But that is not the end of the story. Your vote will merely trigger a real struggle between the conference committee and the White House, the administration, on the reallocation of these funds.

The PRESIDING OFFICER. The clerk will call the roll.

The legislative assistant proceeded to call the roll.

Mr. ABRAHAM. Mr. President, I ask unanimous consent that the order for the quorum be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. ABRAHAM. I inquire of the Chair what the pending business before the Senate is.

The PRESIDING OFFICER. Two amendments have been set aside to the Transportation appropriations bill. Therefore, an amendment is appropriate at this time.

Mr. ABRAHAM. I am not here to present an amendment. I am interested in knowing if the pending amendment is the Gorton amendment.

The PRESIDING OFFICER. The Gorton amendment was the first amendment set aside.

Mr. ABRAHAM. I am interested in speaking on that amendment at this point, if that is in order.

The PRESIDING OFFICER. Without objection, it is so ordered.

AMENDMENT NO. 1677

Mr. ABRAHAM. Mr. President, there are a number of us on the floor who want to speak about this issue. Earlier we heard from the proponents of the amendment. They brought it to the floor at a time when those of us who opposed the amendment were not in position to respond. I know there is a desire, and we certainly are amenable, to get to a vote in the next hour and a half, or so. We would like to have an opportunity to present our side of this debate, at least for a reasonable period of time, and if there needs to be a further time agreement, then we will be able to enter into one.

I see Senator **Levin** on the floor and Senator **Ashcroft**. I know they would like to follow. I ask unanimous consent that following my remarks, Senators **Ashcroft** and **Levin** be permitted to speak prior to any other speakers on this amendment.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. ABRAHAM. I thank the Chair.

Mr. President, I rise to oppose the amendment offered by Senators **Gorton**, **Feinstein**, and **Bryan**.

I oppose this amendment because it will impose an unnecessary and unacceptable burden on the working men and women of this country, and of my state in particular.

Throughout Michigan, men and women are working hard every day to produce the cars that make our economy and our nation move. They and their families depend on the jobs produced by our automobile manufacturing industry, just as the rest of us depend on the cars they produce.

But those jobs and Michigan's economy are jeopardized by efforts to increase standards for corporate average fuel economy or CAFE.

I have come to the floor because I want to make certain that my colleagues are aware of the extremely serious impact of increased CAFE standards, not just on Michigan, but on every state in the union. And make no mistake, increased CAFE standards are the intention of the amendment we are debating today, and will be the result should it be adopted.

The Federal Government currently mandates that auto manufacturers maintain an average fuel economy of 27.5 miles per gallon for cars, and 20.7 miles per gallon for sport utility vehicles and light trucks.

Since 1995 Congress has prohibited federal transportation funds from being used to unilaterally increase these standards. We have recognized that it is our duty, as legislators, to make policy in this important area of economic and environmental concern.

Now, however, a number of my colleagues are calling for an end to this congressional authority. This sense-of-the-Senate urges the Senate conferees to the Transportation appropriation bill to reject the House funding prohibition on raising CAFE standards.

It does not call for the Department of Transportation to study the benefits and costs of raising CAFE standards, as some proponents of this amendment have suggested. Rather, the amendment states: 'The Senate should not recede to section 320 of this bill, as passed by the House of Representatives, which prevents an increase in CAFE standards.'

Make no mistake and I reiterate this, if the House funding prohibition is stripped from this bill, the Department of Transportation will raise CAFE standards. Current law requires D.O.T. to set CAFE standards each year at the 'maximum feasible fuel economy level.' And the Secretary is not authorized to just 'study' CAFE. He must act by regulation to set new CAFE standards each year.

In 1994, the last year prior to the CAFE freeze, the administration began rulemaking on new CAFE standards. Department of Transportation's April 6, 1994 proposal referenced feasible higher CAFE levels for trucks of 15 to 35 percent above the current standard.

So let us be clear, this is not and never has been about a study. This proposed sense-of-the-Senate amendment is a precursor to higher CAFE standards on Sport Utility Vehicles and light trucks.

Mr. President, this action is misguided. It will hurt the working families of Michigan. It will undermine American competitiveness. And it will reduce passenger safety.

Higher CAFE requirements cost jobs. It really is that simple. Let me explain what I mean.

To meet increased CAFE requirements, automakers must make design and material changes to their cars. Those changes cost money, and force American manufacturers to build cars that are smaller, less powerful and less popular with consumers.

In addition, the National Academy of Sciences found that raising CAFE requirements to 35 mpg would increase the average vehicle's cost by about \$2,500. And that is just a low-end estimate.

Japanese automakers have escaped these costs because sky-high gasoline prices in their home markets forced them to make smaller, lighter cars years ago. Increased CAFE requirements will continue to favor Japanese auto makers. And that means they will continue to place an uneven burden on American automobile workers.

Increased CAFE standards also reduce consumer choice, contrary to the assertions made in the earlier debate.

For example, the principal reason full sized station wagons have disappeared from the market is the need to meet fleet mileage requirements under the CAFE program.

Full-size station wagons, long popular with the American public, simply cannot be engineered economically to achieve high enough gas mileage to make them worth selling.

Consumers suffer when their choices are narrowed. and auto makers and their employees suffer when they are forced to make cars the public simply does not want.

In a statement before the Consumer Subcommittee of the Senate Commerce Committee, Dr. Marina Whitman of General Motors notes that in 1982:

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We were forced to close two assembly plants which had been fully converted to produce our new, highly fuel-efficient compact and mid-size cars. The cost of these conversions was \$130 million, but the plants were closed because demand for those cars did not develop during a period of sharply declining gasoline prices.

This story could be repeated for every major American automaker, Mr. President. And the effects on our overall economy have been devastating.

The American auto industry accounts for one in seven U.S. jobs. Steel, transportation, electronics, literally dozens of industries employing thousands upon thousands of American depend on the health of our auto industry.

Our automakers simply cannot afford to pay the fines imposed on them if they fail to reach CAFE standards, or to build cars that Americans will not buy. In either case the real victims are American workers and consumers.

Nor should we forget, that American automakers are investing almost \$1 billion every year in research to develop more fuel efficient vehicles.

Indeed, we do not need to turn to the punitive, disruptive methods of CAFE standards to increase fuel economy for American vehicles.

Since 1993, the Partnership for a New Generation of Vehicles has brought together government agencies and the auto industries to conduct joint research--research that is making significant progress and will bridge the gap to real world applications after 2000.

By enhancing research cooperation, the Partnership for a New Generation of Vehicles will help our auto industry develop vehicles that are more easily recyclable, have lower emissions, and can achieve up to triple the fuel efficiency of today's midsize family sedans. All this while producing cars that retain performance, utility, safety, and economy.

We have made solid progress toward making vehicles that achieve greater fuel economy without sacrificing the qualities consumers demand.

Finally, I wish to address the issue of vehicle safety. For a number of years now, the federal government has taken the lead in mandating additional safety features on automobiles in an attempt to reduce the number of lives lost in auto accidents.

How ironic to learn that federal CAFE requirements have been costing lives all this time.

The Competitive Enterprise Institute recently estimated that between 2,600 and 4,500 drivers and passengers die every year as a result of CAFE-induced auto downsizing.

USA Today, in a special section devoted to the issue of CAFE standards and auto safety, calculated CAFE's cumulative death toll at 46,000.

I ask unanimous consent that the July 2, 1999, USA Today series on CAFE be printed in the Record.

There being no objection, the material was ordered to be printed in the **Record**, as follows:

From USA TODAY, July 2, 1999

[FROM USA TODAY, JULY 2, 1999]

Death by the Gallon

(BY JAMES R. HEALEY)

A USA TODAY analysis of previously unpublished fatality statistics discovers that 46,000 people have died because of a 1970s-era push for greater fuel efficiency that has led to smaller cars.

Californian James Bragg, who helps other people buy cars, knows he'll squirm when his daughter turns 16.

'She's going to want a little Chevy Cavalier or something. I'd rather take the same 10 to 12 thousand bucks and put it into a 3-year-old (full-size Mercury) Grand Marquis, for safety.

'I want to go to her high school graduation, not her funeral.'

Hundreds of people are killed in small-car wrecks each year who would survive in just slightly bigger, heavier vehicles, government and insurance industry research shows.

More broadly, in the 24 years since a landmark law to conserve fuel, bug cars have shrunk to less-safe sizes and small cars have poured onto roads. As a result, 46,000 people have died in crashes they would have survived in bigger, heavier cars, according to USA TODAY's analysis of crash data since 1975, when the Energy Policy and Conservation Act was passed.

The law and the corporate average fuel economy (CAFE) standards it imposed have improved fuel efficiency. The average of passenger vehicles on U.S. roads is 20 miles per gallon vs. 14 mpg in 1975.

But the cost has been roughly 7,700 deaths for every mile per gallon gained, the analysis shows.

Small cars--those no bigger or heavier than Chevrolet Cavalier or Dodge Neon--comprise 18% of all vehicles on the road, according to an analysis of R.L. Polk registration data. Yet they accounted for 37% of vehicle deaths in 1997--12,144 people--according to latest available government figures. That's about twice the death rate in big cars, such as Dodge Intrepid, Chevrolet Impala, Ford Crown Victoria

'We have a small-car problem. If you want to solve the safety puzzle, get rid of small cars,' says Brian O'Neill, president of the Insurance Institute for Highway Safety. The institute, supported by auto insurers, crash-tests more vehicles, more violently, than all but the federal government.

Little cars have big disadvantages in crashes. They have less space to absorb crash forces. The less the car absorbs, the more the people inside have to.

And small cars don't have the weight to protect themselves in crashes with other vehicles. When a small car and a larger one collide, the bigger car stops abruptly; that's bad enough. But the little one slams to a stop, then instantly and violently accelerates backward as the heavier car's momentum powers into it. People inside the lighter car experience body-smashing levels of force in two directions, first as their car stops moving forward, then as it reverses. In the heavier car, bodies are subjected to less destructive deceleration and no 'bounce-back.'

The regulations don't mandate small cars. but small, lightweight vehicles that can perform satisfactorily using low-power , fuel-efficient engines are the only affordable way automakers have found to meet the CAFE (pronounced ka-FE) standards.

Some automakers acknowledge the danger.

'A small car, even with the best engineering available--physics says a large car will win,' says Jack Collins, Nissan's U.S. marketing chief.

Tellingly, most small-car crash deaths involve only small cars--56% in 1997, from the latest government data. They run into something else, such as a tree, or into one another.

In contrast, just 1% of small-car deaths--136 people--occurred in crashes with midsize or big sport-utility vehicles in '97, according to statistics from the National Highway Traffic Safety Administration, the agency that enforces safety and fuel-efficiency rules. NHTSA does not routinely publish that information. It performed special data calculations at USA TODAY's request.

Champions of small cars like to point out that even when the SUV threat is unmasked, other big trucks remain a nemesis. NHTSA data shows, however, that while crashes with pickups, vans and commercial trucks accounted for 28% of small-car deaths in '97, such crashes also accounted for 36% of large-car deaths.

Others argue that small cars attract young, inexperienced drivers. There's some truth there, but not enough to explain small cars' out-of-proportion deaths. About 36% of small-car drivers involved in fatal crashes in 1997 were younger than 25; and 25% of the drivers of all vehicles involved in fatal wrecks were that age, according to NHTSA data.

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GAS SHORTAGE WORRIES

U.S. motorists have flirted with small cars for years, attracted, in small numbers, to nimble handling, high fuel economy and low prices that make them the only new cars some people can afford.

'Small cars fit best into some consumers' pocketbooks and drive-ways,' says Clarence Ditlow, head of the Center for Auto Safety, a consumer-activist organization in Washington.

Engineer and construction manager Kirk Sandvoss of Springfield, Ohio, who helped two family members shop for subcompacts recently, says that's all the car needed.

'We built three houses with a VW bug and a utility trailer. We made more trips to the lumber yard than a guy with a pickup truck would, but we got by. Small cars will always be around.'

But small cars have an erratic history in the USA. They made the mainstream only when the nation panicked over fuel shortages and high prices starting in 1973. The 1975 energy act and fuel efficiency standards were the government response to that panic.

Under current CAFE standards, the fuel economy of all new cars an automaker sells in the USA must average at least 27.5 mpg. New light trucks--pickups, vans and sport-utility vehicles--must average 20.7 mpg. Automakers who fall short are fined.

In return, 'CAFE has an almost lethal effect on auto safety,' says Rep. Joe Knollenberg, R-Mich., who sides with the anti-CAFE sentiments of his home-state auto industry. Each year, starting with fiscal 1996, he has successfully inserted language into spending authorization bills that prohibits using federal transportation money to tighten fuel standards.

Even if small cars were safe, there are reasons to wonder about fuel-economy rules:

Questionable results. CAFE and its small cars have not reduced overall U.S. gasoline and diesel fuel consumption as hoped. A strong economy and growing population have increased consumption. The U.S. imports more oil now than when the standards were imposed.

Irrelevance. Emerging fuel technologies could make the original intent obsolete, not only by making it easier to recover oil from remote places, but also by converting plentiful fuels, such as natural gas, into clean-burning competitively priced fuel.

And new technology is making bigger, safer cars more fuel efficient. The full-size Dodge Intrepid, with V-6 engine, automatic transmission, air conditioning and power accessories, hits the average 27.5 mpg.

'Improving fuel economy doesn't necessarily mean lighter, inherently less-safe vehicles,' says Robert Shelton, associate administrator of NHTSA.

Cost. Developing and marketing small cars siphons billions of dollars from the auto industry. Small cars don't cost automakers much less to design, develop and manufacture than bigger, more-profitable vehicles. But U.S. buyers won't pay much for small cars, often demanding rebates that wipe out the \$500 to \$1,000 profit.

Consumers pay, too. Though small cars cost less, they also depreciate faster, so are worth relatively less at trade-in time. And collision insurance is more expensive. State Farm, the biggest auto insurer, charges small-car owners 10% to 45% more than average for collision and damage coverage. Owners of big cars and SUVs get discounts up to 45%. 'It's based on experience,' spokesman Dave Hurst says.

CAFE has been 'a bad mistake, one really bad mistake. It didn't meet any of the goals, and it distorted the hell out of the (new-car) market,' says Jim Johnston, fellow at the American Enterprise Institute in Washington and retired General Motors vice president who lobbied against the 1975 law.

HERE TO STAY

CAFE is resilient, although concern over its effect on small-car safety is neither new nor narrow.

A 1992 report by the National Research Council, an arm of the National Academy of Sciences, that while better fuel economy generally is good, 'the undesirable attributes of the CAFE system are significant,' and CAFE deserves reconsideration.

A NHTSA study completed in 1995 notes: 'During the past 18 years, the Office of Technology Assessment of the United States Congress, the National Safety Council, the Brookings Institution, the Insurance Institute for Highway Safety, the General Motors Research Laboratories and the National Academy of Sciences all agreed that reductions in the size and weight of passenger cars pose a safety threat.'

Yet there's no serious move to kill CAFE standards.

Automakers can't lobby too loudly for fear of branding their small cars unsafe, inviting negative publicity and lawsuits. And Congress doesn't want to offend certain factions by appearing too cavalier about fuel economy. Nor, understandably, does it want to acknowledge its law has been deadly.

'I'm concerned about those statistics about small cars, but I don't think we should blame that on the CAFE standards,' says Rep. Henry Waxman, D-Calif., who supported CAFE and remains a proponent.

Pressure, in fact, is for tougher standards.

Thirty-one senators, mainly Democrats, signed a letter earlier this year urging President Clinton to back higher CAFE standards. And environmental lobbyists favor small cars as a way to inhibit global warming.

Although federal anti-pollution regulations require that big cars emit no more pollution per mile than small cars, environmental activists seize on this: Small engines typical of small cars burn less fuel, so they emit less carbon dioxide.

Carbon dioxide, or CO₂, is a naturally occurring gas that's not considered a pollutant by the Environmental Protection Agency, which regulates auto pollution.

But those worried about global warming say CO2 is a culprit and should be regulated via tougher CAFE rules.

Activists especially fume that trucks, though used like cars, have a more lenient CAFE requirement, resulting in more CO2.

'People would be much safer in bigger cars. In fact, they'd be very safe in Ford Excursions,' says Jim Motavalli, editor of E: The Environmental Magazine, referring to a large sport-utility vehicle Ford Motor plans to introduce in September. 'But are we all supposed to drive around in tanks? You'd be creating that much more global-warming gas. I demonize sport utilities,' says Motavalli, also a car enthusiast and author of the upcoming book *Forward Drive: The Race to Build the Car of the Future*.

Not all scientists agree that CO2 causes global warming or that warming is occurring.

SEEKING ALTERNATIVES

Worldwide, the market is big enough to keep small cars in business, despite the meager U.S. small-car market of 2 million a year. Outside the USA, roads are narrow and gas is \$5 a gallon, so Europeans buy 5 million small cars a year; Asians, 2.6 million.

Automakers are working on lightweight bigger cars that could use small engines, fuel-cell electric vehicles and diesel-electric hybrid power plants that could run big cars using little fuel.

But marketable U.S. versions are five, or more likely 10, years off. That's assuming development continues, breakthroughs occur and air-pollution rules aren't tightened so much they eliminate diesels.

Even those dreamboats won't resolve the conflict between fuel economy and safety. Their light weight means they'll have the same sudden-stop and bounce-back problems as small cars. Improved safety belts and air bags that could help have not been developed.

IIHS researchers Adrian Lund and Janella Chapline reported at the Society of Automotive Engineers' convention in Detroit in March that it would be safer to get rid of the smallest vehicles, not the largest.

Drawing on crash research from eight countries, Lund and Chapline predicted that if all cars and trucks weighing less than 2,500 pounds were replaced by slightly larger ones weighing 2,500 to 2,600 pounds, there would be 'nearly 3% fewer fatalities, or an estimated savings of more than 700 lives' a year. That's like trading a 1989 Honda Civic, which weighs 2,000 pounds, for a '99 Civic, at 2,500 pounds.

Conversely, the researches conclude, eliminating the largest cars, SUVs and pickups, and putting their occupants into the next-size-smaller cars, SUVs and pickups would kill about 300 more people a year.

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MARKET SKEPTICISM

U.S. consumers, culturally prejudiced in favor of bigness, aren't generally interested in small cars these days:

Car-buying expert Bragg--author of *Car Buyer's and Leaser's Negotiating Bible*--says few customers even ask about small cars.

Small-car sales are half what they were in their mid-'80s heyday. Just 7% of new-vehicle shoppers say they'll consider a small car, according to a 1999 study by California-based auto industry consultant AutoPacific. That would cut small-car sales in half. Those who have small cars want out: 82% won't buy another.

To Bragg, the reasons are obvious: 'People need a back seat that holds more than a six-pack and a pizza.'

And, there's the safety issue.'

That hits home with Tennessee dad George Poe. He went car shopping with teenage daughter Bethanie recently and, at her insistence, came home with a 1999 Honda Civic.

'If it would have been entirely up to me, I'd have put her into a used Volvo or, thinking strictly as a parent, a Humvee.'

Mr. ABRAHAM. Mr. President, even the National Highway Traffic and Safety Administration, which runs the CAFE program, has recognized the deadly effects of CAFE standards.

In its publication 'Small Car Safety in the 1980's,' NHTSA explains that smaller cars are less crash worthy than large ones, even in single-vehicle accidents. Small cars have twice the death rate of drivers and passengers in crashes as larger cars.

And smaller light trucks will mean even more fatalities. These trucks and SUV's have higher centers of gravity and so are more prone to rollovers. If SUV and truck weights are reduced, thousands could die.

I believe it is crucial that we get the facts straight on the true effects of CAFE standards so that we can come to the only rational conclusion available: safe, economically sensible increases in gas mileage require cooperation and research and technology, not Federal mandates.

Therefore, I urge my colleagues to oppose the Gorton-Feinstein-Bryan amendment.

Mr. President, it is very simple. When Washington makes these dictates, when unelected bureaucrats make these decisions and impose them on an industry, the ramifications can and will be serious. We have seen that before in the auto industry. If this were to go forward, we would see it again. The autoworkers in my State and around this country, and the people who work in other industries that are related to the sale of automobiles, will have their lives in jeopardy, as well as their jobs in jeopardy, if we move in this direction.

Mr. SHELBY. Will the Senator yield for a UC request?

Mr. ABRAHAM. Let me conclude in 10 seconds.

For those reasons, I urge opposition to the amendment.

I yield the floor.

Mr. SHELBY addressed the Chair.

The PRESIDING OFFICER. The Senator from Alabama.

Mr. SHELBY. I ask unanimous consent that the vote occur on or in relation to the pending amendment at 6:40 p.m. with the time allocated as follows: 30 minutes under the control of Senator **Gorton**, 40 minutes under the control of Senator **Abraham**, and 10 minutes under the control of Senator **Levin**. I further ask that no other amendments be in order prior to the 6:40 vote. I also ask that immediately following that vote, a vote occur on amendment No. 1658, with 2 minutes for explanation prior to the vote. I understand this request has been cleared.

The PRESIDING OFFICER. Is there objection?

Without objection, it is so ordered.

Mr. SHELBY. Therefore, it is my understanding the next two votes will occur on a back-to-back basis at 6:40 p.m. this evening.

The PRESIDING OFFICER. The Senator from Missouri.

Mr. ASHCROFT. I thank the Chair.

Mr. LEVIN. Will the Senator yield for an inquiry?

Mr. ASHCROFT. I certainly will.

Mr. LEVIN. Have the yeas and nays been ordered?

The PRESIDING OFFICER. They have not been ordered.

Mr. LEVIN. I ask for the yeas and nays.

The PRESIDING OFFICER. Is there a sufficient second?

There appears to be a sufficient second.

The yeas and nays were ordered.

Mr. LEVIN. I thank my friend.

Mr. ASHCROFT. I thank the Senator from Michigan and the Chair. I also thank the Senator from Michigan, Mr. **Abraham**, for his enlightening remarks about this important challenge we face --a challenge which would seriously undermine and erode America's competitive position in the production of automobiles.

I want to focus on a different aspect of the corporate average fuel economy debate.

Most Americans, if you talk about CAFE standards, think you will be talking about health standards in a restaurant or cleanliness in corporate a local coffee shop. In this particular setting, CAFE means average fuel economy. Basically, it is the average fuel economy of the car produced by a particular company. A company that had a car that had a very high corporate average fuel economy also would have to build very small vehicles because it takes less fuel to run a small vehicle than it does a large vehicle.

The concept of a corporate average fuel economy standard was developed during the oil crisis of the 1970s. It required automobile manufacturers to develop vehicles that could travel further with less gas. This was due to the shortage of the gasoline that had been imposed by the oil industry cartel which had curtailed the availability of energy resources to this country.

The CAFE standards at that time required automakers to maintain, fleetwide, an average fuel efficiency of 27.5 miles per gallon for cars and 20.7 miles per gallon for trucks.

This is how the CAFE standards got started. It was to try to help the United States get past the energy embargo imposed in the 1970s. It was not instituted--I repeat--it was not instituted for clean air purposes. Rather, it was adopted to conserve gasoline.

In fact, Federal regulations require that big cars emit no more pollution per mile than small cars. I have to confess, with all Americans, that our air is cleaner today than it was 5 years ago or 10 years ago, and we are pleased that we continue to make progress. The air continues to get cleaner and that is a good thing.

I will focus on the safety impact of increasing CAFE standards. In doing so, I will talk about the consequences of imposing CAFE standards--but not in terms of making sure we have enough gas to burn in the country because the embargo was lifted decades ago.

I want to focus on the safety aspects of what happens when you demand that cars get more and more

efficient--that somehow they must be able to go farther and farther on a gallon of gas. It does not take any special level of intelligence, you do not have to be a rocket scientist to understand that in order to meet fuel economy standards, cars and trucks have to be made lighter. So in an effort to make cars go further on a gallon of gas, the cars and trucks had to be made lighter and lighter. Common sense tells us when a lighter and smaller vehicle is involved in an accident, passenger injuries will be more severe.

Since CAFE standards were enacted in the 1970s, the average weight of a new car has dropped by about 1,000 pounds. So if you look at the weight of a car as being protection--the protective barrier that surrounds a passenger--there is 1,000 pounds less of protection in the new car than in the cars prior to CAFE standards.

A recent study from the National Highway Traffic Safety Administration, the agency that administers CAFE standards, found that increasing the average weight of each passenger car on the road by 100 pounds would save over 300 lives annually. So if instead of decreasing the weight of cars in order to reach higher levels of fuel economy we were to add 100 pounds to the weight of cars, we would save 300 lives every year.

We are really not debating whether or not we are going to add weight to cars; however, this is a debate over whether we are going to mandate that car manufacturers make cars out of lighter and lighter materials. When you do that, it has a cost in terms of the relatives of the Members of this body, our families and our constituents and our constituents families.

A number of studies have been conducted to determine the actual effect that the CAFE standards have had on highway safety. I want to emphasize that these studies are conducted by very credible agencies--agencies that would not be anticipated to try and develop information that would somehow support the car industry. The National Highway Traffic Safety Administration is a Federal agency that administers the CAFE standards.

This agency is talking about the standards, which are its job to administer, when it says that if we could increase the weight instead of decrease the weight and we did so only by 100 pounds per vehicle, we would save 300 lives a year. One person a day, roughly, would be saved in America if we had slightly heavier cars. The Competitiveness Enterprise Institute found that of the 21,000 car-occupant deaths that occurred last year, between 2,600 and 4,500 of them were attributable to the Federal Government's new car fuel economy standards. We have between 2,500 and 4,500 people who don't exist anymore, who died because we have demanded lighter and lighter cars in order to meet the so-called CAFE standards, just last year.

That is from the Competitiveness Enterprise Institute. This is not from the car manufacturers. This is from an independent think tank.

A 1989 Harvard University-Brookings Institution study determined that the current CAFE standard of 27.5 miles per gallon is responsible for a 14- to 27-percent increase in annual traffic deaths. These are deaths--they argue that would not have happened but for the fact that the new car fleet must be downsized in order to meet the stricter standards. As long as 10 years ago, researchers at Harvard University and the Brookings Institution determined that the CAFE standards and the imposition of the CAFE standards then extant were responsible for between 1/7 and 2/7 of the increase in the annual traffic deaths--just that much of a reduction in the weight of cars.

So we have the National Highway Traffic Safety Administration, we have the Competitiveness Enterprise Institute, the Harvard University-Brookings Institution study. We have the National Academy of Sciences in this decade. This is not a wholly-owned subsidiary of GM, Ford, or Daimler-Chrysler.

The National Academy of Sciences 1992 study concluded that the downsizing of automobiles due to fuel economy requirements has a direct impact on passenger safety. That study found:

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Safety and fuel economy are linked, because one of the most direct methods manufacturers can use to improve fuel economy is to reduce vehicle size and weight.

I really don't want to pick at the National Academy of Sciences. It is not just one of the most direct methods used to boost fuel economy; it is a very important method.

The most troubling conclusion from the National Academy of Sciences study was:

It may be inevitable that significant increases in fuel economy can occur only with some negative safety consequences.

We could go over the litany again: The National Highway Transportation Safety Administration, the Harvard University/Brookings Institution study, the Competitiveness Enterprise Institute, and the National Academy of Sciences--all of these organizations understand that it is not a cost-free operation to say we will save a few gallons of gas and sacrifice our citizens and their safety on the highways.

Continuing to quote the National Academy of Sciences:

The CAFE approach to achieving automotive fuel economy has defects that are sufficiently grievous to warrant careful reconsideration of the approach.

I personally say we ought to carefully reconsider this approach. One study said in 1 year between 2,600 and 4,500 individuals died because we have mandated that car manufacturers lighten automobiles so substantially that they become death traps for the occupants. I think safety ought to be foremost in our consideration. When the National Academy of Sciences says we ought to reconsider the approach of lightening these cars by demanding more and more fuel economy, I think we ought to take that particular admonition seriously.

The CAFE approach to achieving automotive fuel economy has defects that are sufficiently grievous to warrant careful reconsideration of the approach.

It is with that in mind that when the National Academy of Sciences says we ought to carefully reconsider this approach, I think we ought to reject attempts by Members of this body to extend this approach.

What is at the core of the National Academy of Sciences argument is this: They care about these lives that are lost on our highways, people who are riding in cars without adequate protection.

The proponents of this measure dismiss the safety considerations as if they are an aside. Frankly, in a setting where our environment continues to improve, where our air continues to get cleaner and cleaner, we ought to be careful about the number of people we are willing to put in jeopardy and at risk. We are not talking about risk of a stubbed toe or a hangnail; we are talking about situations where individuals lose their lives.

These standards, according to these studies--whether it is Harvard-Brookings, the Competitive Enterprise Institute, the National Highway Transportation Safety Administration, the National Academy of Sciences--are responsible for Americans losing their lives.

There are those in this body who want to make these standards even tougher, in the face of very clear predictions and a conceded understanding that to make these standards tougher means more and more people die on the highway. Based on experience and research, increasing CAFE standards to 40 miles per gallon--that is less than proposals supported by the President and Vice President of the country; they want to take the standards even higher than that--would cost up to 5,700 people their lives every year.

I am not even beginning to address the aspect of the government telling its citizens what kind of cars they should be driving. This is to say that we won't let people buy safe cars, we will make them unavailable, and 5,700 a year will lose their lives because we have decided that we know better what

kind of car people should drive than people could know by making their choices in the marketplace.

I want you to know that this isn't all. I am pleased that Senator **Abraham** submitted for the **Record** this particular item, which was a reprint from the USA Today: 'Death by the Gallon.' I brought this particular chart to show that a USA Today analysis of previously unpublished fatality statistics that 46,000 people have died because of a 1970s-era push for greater fuel efficiency that has led to smaller cars.

As far as I am concerned 46,000 is 46,000 too many. But to think that we want to extend this so as to invite the deaths of as many as 5,700 more people a year by downsizing this container in which people travel called an automobile and lightening it to the extent that it provides no cushion of safety for people, or an inadequate cushion of safety, is a very serious proposal.

Forty-six thousand people have died due to the implementation of CAFE standards. Is it time to reexamine those standards, or is it time to expand those standards? Forty-six thousand angels looking at the Senate should be telling us: Reexamine; do not extend those. Forty-six thousand people is the equivalent in my State to Joplin, MO. The deaths of 46,000 people in my State would wipe out the entire town of Blue Springs, MO, or all of Johnson or Christian Counties.

The average passenger vehicle in 1975 was 14 miles per gallon; today it is 20 miles per gallon. That averages 7,700 lost lives for every gallon of increased fuel efficiency. I don't think 46,000 lives are worth it. I know they are worth more than that. I mean that is not worth the 46,000 lives.

I asked the Insurance Institute for Highway Safety to give me an opinion on raising CAFE standards and on the impact it would have on highway safety. I will insert their response in the **Record**.

I ask unanimous consent to print this correspondence with the Insurance Institute for Highway Safety in the **Record**.

There being no objection, the letter was ordered to be printed in the **Record**, as follows:
INSURANCE INSTITUTE

for Highway Safety,
Arlington, VA, August 27, 1999.

Hon. John Ashcroft,
*U.S. Senate,
Washington, DC.*

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Dear Senator Ashcroft: This is in response to your letter of August 20 requesting information from the Institute about relationships between Corporate Average Fuel Economy (CAFE) standards and vehicle safety.

Although the relationships between CAFE standards and vehicle safety are difficult to quantify precisely, there is no question that the two are related because smaller/lighter vehicles have much higher occupant fatality rates than larger/heavier vehicles. But the safer larger/heavier vehicles consume more fuel, so the more 'safer' vehicles a manufacturer sells the more difficult it becomes to meet the CAFE standards.

Institute analyses of occupant fatality rates in 1990-95 model passenger vehicles show that cars weighing less than 2,500 pounds had 214 deaths per million registered vehicles per year, almost double the rate of 111 deaths per million for cars weighing 4,000 pounds or more. Among utility vehicles the differences are even more pronounced: Those weighing less than 2,500 pounds had an occupant death rate of 330, more than three times the rate of 101 for utility vehicles weighing 4,000 pounds or more.

It is important to recognize that these differences are due to factors in addition to the greater risks to

occupants of lighter vehicles in collisions with heavier ones. Even in single-vehicle crashes, which account for about half of all passenger vehicle occupant deaths, people in lighter vehicles are at greater risk. The occupant death rate in single-vehicle crashes of cars weighing less than 2,500 pounds was 83, almost double the rate of 44 for cars weighing 4,000 pounds or more. In the lightest utility vehicles the occupant death rate was 199, again more than three times the rate of 65 for utility vehicles weighing 4,000 pounds or more.

The key question concerning the influence of CAFE standards on occupant safety is the extent to which these standards distort the marketplace by promoting additional sales of lighter, more fuel efficient vehicles that would not occur if CAFE constraints weren't in effect. Because CAFE standards are set for a manufacturer's fleet sales, it seems likely that raising these requirements for cars and/or light trucks would encourage a full-line manufacturer to further subsidize the sale of its smaller/lighter vehicles that have higher fuel economy ratings. This would help meet the new requirements while continuing to meet the marketplace demand for the manufacturer's much more profitable larger/heavier vehicles. Obviously the potential purchasers of the larger/heavier vehicles are unlikely to be influenced to purchase subsidized small/light vehicles, but at the lower ends of the vehicle size/weight spectrum these subsidies likely would produce a shift in sales towards the lightest and least safe vehicles. The net result would be more occupant deaths than would have occurred if the market were not distorted by CAFE standards.

Sincerely,

Brian O'Neill,
President.

Mr. ASHCROFT. The institute found that even in single-vehicle crashes, which account for about half of all passenger vehicle occupant deaths, single-car crashes, people in lighter vehicles are at greater risk. I think we could have figured that out. It is pretty clear from 46,000 deaths that that is understandable.

The letter also stated:

. . . the more 'safer' vehicles a manufacturer sells, the more difficult it becomes to meet the CAFE standards.

So if a manufacturer tries to sell safer, heavier vehicles, it makes it impossible for them to meet the Federal standards.

I want to make one thing very clear. I believe in promoting cleaner air. I believe we should be environmentally responsible, and we are getting there. I don't believe we should do it at the risk of human lives. CAFE standards have killed people. They will continue to kill people because cars have been lightened to the extent that they don't protect individuals.

Consumers are not choosing small cars. They look at convenience and safety, and then they buy a larger automobile. According to a national poll, safety is one of the three main reasons for the popularity of sport utility vehicles. Small cars are only 18 percent of all vehicles that are on the road, yet they accounted for 37 percent of all the deaths in 1997. They are one out of every six vehicles on the road, and they are involved in more than one out of every three deaths on the highways.

Some argue these numbers are so high because the small cars are getting into accidents with the bigger SUVs. The data does not support that. Based on figures from the National Highway Transportation Safety Administration, only 1 percent of all small-car deaths involve collisions with midsize or large SUVs--1 percent. The real tragedy is that these cars are unsafe in one-car accidents or in accidents with each other.

Car-buying experts have said that only 7 percent of new vehicle shoppers say they will consider buying a small car. And according to that same source, 82 percent who have purchased small cars say they would not buy another. Safety-conscious consumers, whether they are my constituents in Missouri, or others, are purchasing larger automobiles, or sports utility vehicles. But now Washington wants to tell

them what kind of car to buy, to disregard a value which they place on their own safety. We spend millions of dollars a year trying to make our highways safer: We fight drunk driving; we mandate seatbelt use; we require auto manufacturers to install airbags. Yet today we are being asked to support a policy to make our highways more dangerous and more deadly than ever before.

I urge my colleagues to reject this attempt to impose higher and higher CAFE standards. The attempt to impose higher and higher CAFE standards is clearly headed for a consequence of higher and higher levels of fatalities. We have seen data from the National Highway Transportation Safety Administration. We have seen data from the Harvard/Brookings Institution. We have seen data from the National Academy of Sciences. We have seen the kind of comprehensive review of data published in the USA Today. It is pretty clear, as the Competitive Enterprise Institute chimes in, that lightening cars--taking the strong substances out of the vehicle so that it goes farther for marginal gains in economy, results in more and more people dying.

I urge my colleagues to be sensitive to the fact that America can ill afford to elevate the carnage on our highways by eliminating the kind of substance in our vehicles that would be required if we were to adopt the amendment that is pending. So I urge them to reject the attempt to elevate CAFE standards and, in so doing, protect the lives of themselves and their families.

I yield the floor.

Mr. LEVIN addressed the Chair.

The PRESIDING OFFICER. The Senator from Michigan is recognized.

Mr. LEVIN. Mr. President, the purpose of the amendment before us is very simply to increase CAFE, despite all the flaws with the CAFE system. This is not just a study as is being suggested. The purpose of this amendment is very clear from the wording of every single whereas clause and every resolve clause: it is to increase CAFE, despite the many flaws in the current CAFE system.

If anybody has any doubt about what the purpose of this amendment is, I urge them to read it, and particularly the last

paragraph which urges the Senate not to recede to section 320 of the bill as passed by the House of Representatives, which prevents an increase in CAFE standards.

Now, some have said all this amendment does is provide for a study. Well, this is a study whose results have been prejudged and preordained, by the authors of this amendment, because there is not one word in this amendment about safety concerns, as the Senator from Missouri and my colleague from Michigan have talked about, or about the increase in the number of deaths which have resulted from CAFE. Those are not our allegations but safety experts' allegations. There is not one word in this amendment about the loss of American jobs and the discriminatory impact of CAFE against domestic production. I will get into that in a moment.

This isn't just a study we are talking about. The sense-of-the-Senate resolution specifically says that the Senate should not recede to a section in the House bill which prevents an increase in CAFE standards. It doesn't say anything about not receding to a section which prevents a study. It doesn't talk about a study which looks at highway safety, impact on domestic employment, favoritism toward imports, discriminatory impacts on domestic manufacturers and workers. It doesn't talk about that at all. There is not a word about any of these issues in this amendment--only about increasing the CAFE standards.

There are many flaws in the CAFE approach. My colleagues have already gone into some of those flaws at length. But first I want to again quote, very briefly, from the National Academy of Sciences' automotive fuel economy study, so that people don't think opposition to this amendment comes only from folks who have a lot of automobile production in their State--although we do and we are proud of it, and we are determined that it be treated fairly and sensibly. We surely stand for that, and we do so proudly. But this is the National Academy of Sciences speaking here. The National Academy of

Sciences said the following in this automotive fuel economy study:

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The CAFE approach to achieving automotive fuel economy has defects that are sufficiently grievous to warrant careful reconsideration of the approach.

'Defects that are sufficiently grievous.' There is not a word about studying those defects in this amendment. I have looked really hard through this amendment. I read it a couple of times this afternoon. I can't find anything about studying those defects that are 'sufficiently grievous,' according to the National Academy of Sciences--that they should be part of the study. The purpose of this resolution is to increase CAFE, to bring about the result that CAFE is increased.

Now, why not do that? Why not increase CAFE? Sure, let's just increase the number from 20 to 25, or 30 to 35, or 35 to 40. Why not? We will save fuel. The answer is, because there are a number of other considerations that have to be looked at, which weren't looked at when this CAFE system was put into place. CAFE has had a discriminatory impact on the domestic industry and has had a horrendous effect on safety and resulted in the loss of thousands of lives.

Now, the safety issue has been discussed this afternoon, but I want to just highlight one or two parts of it, although the Senator from Missouri has just spoken to it. There was a USA Today study. This isn't an auto industry study. This isn't an auto supplier study. This isn't the UAW study. This is a study by USA Today looking at statistics on automobile highway deaths.

Here is what the USA Today study found. They found that in the 24 years since a landmark law to conserve fuel was passed, big cars have shrunk to less-safe sizes, and small cars have poured on the road, and, as a result, 46,000 people have died in crashes. They would have survived in bigger, heavier cars, according to the USA Today analysis of crash data since 1975 when the Energy Policy and Conservation Act was passed. The law and the corporate average fuel economy standards it imposed have improved fuel efficiency. The average passenger vehicle on U.S. roads gets 20 miles per gallon versus 14 miles per gallon in 1975. But the cost has been, roughly, 7,700 deaths for every mile per gallon gained, this analysis shows.

Is it worth looking at fuel economy? Of course it is. Is it worth looking at 46,000 deaths? Is it worth putting that on the scale and at least looking at it? It sure ought to be. There is not a word about that in this resolution, nothing about safety. We are told this amendment is only about a study. Well, if so, it is the most one-sided study I have ever seen.

Now, it has been argued: Wait a minute, aren't these deaths the result of small cars running into big vehicles? Again, the study answers that. Tellingly, it says most small-crash deaths involve only small cars--56 percent in 1997, from the latest Government data. They run into something else, such as a tree, or into one another. In contrast, just 1 percent--according to this article--of small-car deaths occurred in crashes with midsize or big sport utility vehicles in 1997, according to statistics from the National Highway Traffic Safety Administration,

according to the agency that enforces the safety rules.

That is one of the major problems with CAFE--the safety problem, the loss of life.

There are other problems as well. I would like to spend a few of the minutes allotted to me to talk about the discrimination of this system against domestic production. One of the many problems with CAFE is that it looks at the entire fleet. It looks at the average of the manufacturers' fleet. That fleet could be predominantly small in size. It could be predominantly medium in size. It could be predominantly large in size. It doesn't make any difference what your mix is; you must meet the same corporate fleet average.

If you have produced, for instance, historically many small vehicles, then because of the way the CAFE rules are jiggered, there are no effective limits on how many large vehicles you can sell. But if

historically you have produced larger vehicles, then it has a tremendous impact on your production and a penalty for the production of more.

The result of this is that if, as in the case with the imports, you have focused on lighter vehicles rather than the heavier vehicles, which are very much now in demand, CAFE has no effect whatsoever on your production or on your sales. But if you are a domestic manufacturer that has focused on the larger vehicles, it has a huge effect on you and on the number of jobs you might have.

There is no logic or fairness to that kind of approach. CAFE didn't say you have to increase by 10 percent the efficiency of your light vehicles, or your medium-size vehicles, or your heavier vehicles. It says: Take your whole fleet together and reach a certain standard.

Some people say: Well, aren't the imports more fuel efficient? The answer is no. Pound for pound, there is no difference between an imported vehicle and a domestic vehicle. A domestic vehicle is probably a little bit more fuel efficient.

Take two vehicles of the same size. Take a GM and Toyota pickup truck--the GM Sierra, and the Toyota Tundra. They both weigh about the same. These are their highway ratings: 18 miles per gallon for the GM vehicle, and 17 miles per gallon for the Toyota vehicle. The GM vehicle is more fuel efficient than the Toyota. These are the same size vehicles. Now we are comparing apples and apples--not fleet averages which are apples and oranges, but apples and apples. The city rating is the same thing. The GM Sierra has a 15-miles-per-gallon rating. The Toyota Tundra has a 14-miles-per-gallon rating.

So the discriminatory impact does not have anything to do with the efficiency of vehicles of the same size since, if anything, the domestic vehicle is at least as efficient as the import when you compare the same size vehicles.

Then where is the discriminatory impact? The discriminatory impact arises because the import manufacturers have tended to focus on the smaller vehicles instead of the larger vehicles. They have room to sell as many large vehicles as they want without any impact. CAFE does not affect them. Any manufacturer that has focused on the smaller vehicles instead of the larger suffers no impact when CAFE goes up.

Let's go back to that Tundra and that Sierra. How many more vehicles could General Motors sell? These are the same size vehicles. With the GM vehicle being slightly more fuel efficient than the Toyota vehicle, how many more can GM sell under CAFE? None. How many more can Toyota sell? Over 300,000 more.

Does that do anything for the air? It is costing American jobs. It doesn't do a thing for the air. All it does is tell people if they want to buy a vehicle, a large vehicle, they have to buy the imported vehicle, and not the domestic one. The domestic manufacturer is penalized if it is produced under the CAFE approach.

CAFE was designed in a way--I don't think intentionally, and I pray to God it wasn't--but it was designed in a way which has a discriminatory impact on the domestic producer because of the way in which their fleets happened to be designed historically--because of the type of cars they sold historically--and not because the imported vehicle is more fuel efficient. It isn't.

These numbers are typical. If you have two vehicles of equal size, one import and one domestic, they are about the same in terms of fuel efficiency.

So when you increase CAFE, all you are saying is buy an import. That is what this thing drives people to do. The import manufacturer isn't penalized. There is no limit effectively on how many larger vehicles the import manufacturers can sell. It bites on the domestic manufacturers--not on the imports. That is a huge effect on jobs in America, with no advantage to the air.

Do we think it does good to the air to tell people to buy yourself a Tundra instead of a Sierra? Does that

do anything for the air? Quite the opposite. It hurts the air. The Tundra is not as fuel efficient as the Sierra. Yet there is no penalty whatsoever under CAFE for the import manufacturer selling basically an unlimited number of heavy vehicles.

We have a system in place now which has had a very negative effect on safety and an increase in the number of highway deaths. These are not our figures but figures of people who are on the outside looking at the statistics of the highway safety folks. It has had a negative effect in terms of domestic versus imports, which is discriminatory.

Again, I want to emphasize this. It is a very important point. Some people think the imports are more fuel efficient. They are not.

It is the key point. They are not more fuel efficient--slightly less; if I had to characterize--there is no difference, basic difference, pound for pound.

What does this amendment do? It expands the current system. We have CAFE; let's increase the CAFE standards. Let's not even look at impact on safety, increased highway deaths, or discriminatory impact on domestic production. That is not referred to in this amendment. Just fuel. That is it.

But CAFE's discriminatory impact takes such a narrow vision, a narrow view on jobs in America. I hope this amendment is defeated. It is pointing in a very narrow direction, in a direction which ignores the discriminatory impact on jobs in America. It ignores safety issues and focuses on one piece of an issue, ignoring totally the other parts.

Finally, the Government and the private sector or private industry have put together a partnership for new vehicles. This partnership is focusing on new technologies and new materials, trying to see if we cannot find ways to have larger vehicles with higher fuel economy. This partnership is looking at lightweight materials, advanced batteries, fuel cells, hybrid electric propulsion systems; experimental concepts sometimes, but things which will--in a cooperative way--achieve the kind of goal which CAFE theoretically was aimed at achieving.

This partnership approach for a new generation of vehicles is working. It is in operation now. It is the right way to go. The Government contribution to this partnership has been about \$220 million a year. The private sector's annual contribution to this partnership has been slightly under \$1 billion a year. We have this investment in a partnership, in a new generation of vehicles which is aimed at achieving significant improvements in fuel efficiency without the downsides, which have been described here--the negative safety impacts and the negative effects on domestic production. That partnership is now in its fourth year. We should allow that partnership to proceed. It is on a cooperative track, aimed at achieving goals without such negative side effects.

I hope the Senate will reject this resolution and will keep on the partnership track which is being so productively followed.

I yield the floor.

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Mr. BURNS. Mr. President, I rise today in opposition to the pending resolution that will give the Department of Transportation the green light to raise CAFE standards. According to the proponents of the resolution, the amendment just lets DOT 'study' the issue. I am concerned that is not accurate. The DOT has already recommended up to a 35 percent increase in light truck standards.

The CAFE program has been in place for 25 years. We know this program doesn't work. We know this program has not reduced America's dependence on foreign oil. In fact, America's dependence on foreign oil has increased from 35 to 50 percent.

Pollution controls on today's automobiles have driven down pollution levels in this nation. It's the older

automobiles that have been targeted--it's the folks who cannot afford to buy a new \$30,000 fuel efficient car. Believe it or not Mr. President, but a 1982 Chevy pickup is a very popular vehicle on Montana's highways. We can't expect to make new cars affordable if we make them more expensive by driving up the cost of these new cars through increased government regulation.

Fuel economies in vehicles have been reduced as a result of manufacturer efforts. Since 1980, light trucks fleet fuel economy has increased by nearly 2.5 miles per gallon. Passenger car fleet fuel economy has increased by nearly 4.5 miles per gallon.

In my state of Montana, we are very highway dependent. Our roadways are our only means of transportation. We cannot efficiently rely on transit modes of transportation. Montana is also dependent on vehicles that have adequate clearance and power for roads that are not up to the standard of a paved highway. We have farmers, ranchers, outdoorsmen and sportsmen that use these roads often.

CAFE standards have failed to achieve their goals. Despite these standards, oil imports are up and Americans continue to drive more miles annually than they did in the 1970s. CAFE standards force automakers to produce many smaller, lighter vehicles to increase fuel economy. Studies have demonstrated an increase in highway injuries and deaths as a result.

We know it's not government regulation that drives fuel economy. Rather competition drives fuel economy. That is why I will not support this amendment.

Ms. MIKULSKI. Mr. President, I oppose the Gorton amendment on CAFE standards. I oppose lifting the freeze on CAFE standards because it would hurt American workers, American consumers and our economy.

First, if we raise CAFE standards--we lose American jobs. More and more American workers are building larger cars and sport utility vehicles. That's because these are the cars that Americans want to buy. But if we raise CAFE standards, U.S. car makers will be forced to build smaller cars. That means higher costs--for new equipment, new product lines, new tests. I'd rather see these resources used to leapfrog to new technologies that make cars safer and more efficient.

Meanwhile, our foreign competitors won't have to do anything. They won't face new costs. So by raising CAFE standards, we'll put American workers at a competitive disadvantage with their foreign competitors.

Second, raising the CAFE standards means fewer choices and higher prices for American consumers. Americans are buying larger cars and SUVs because they're safer and better fit their families' needs. So by raising CAFE standards, consumers will have fewer large cars to choose from. They'll also face higher prices--since manufacturers will pass on their higher costs.

Finally, we cannot forget the reason why so many Americans are buying larger cars--because they are safer. If we have more small cars on the road, we will likely have more injuries and fatalities that result from car accidents.

We need to save America's economy, America's jobs and American lives. I urge my colleagues to join me in rejecting this effort to lift the freeze on CAFE standards.

- [Begin insert]

Mr. **McCAIN**. Mr. President, unfortunately I will not be present when the Senate votes on the amendment offered by Senators **Gorton, Bryan, and Feinstein**. The amendment expresses the sense of the Senate that it should not recede to the House position of prohibiting the Department of Transportation from preparing, proposing or promulgating any regulation regarding Corporate Average Fuel Economy (CAFE) standards for vehicles.

As my colleagues know, I have been and will continue to be a proponent of the CAFE program. The fuel

conservation goals embodied in the original CAFE standards are still important. However, I would not support the amendment offered today. CAFE is an extremely complex issue. It involves a delicate balance between environmental, safety and economic concerns. CAFE standards need and deserve the full attention of the Congress.

The structure of the CAFE statute appears to no longer make sense in light of the current auto market. For example, the statute draws a distinction between non-passenger vehicles, essentially light trucks and sport utility vehicles (SUVs), and passenger vehicles. The statute establishes a default standard for passenger vehicles and allows the Department of Transportation to adjust the level up or down based upon certain criteria.

The statute does not establish a standard for light trucks. Instead, the agency sets the standard at its discretion based upon criteria in the statute. One of the reasons for the distinction was the size of the non-passenger vehicle market. At the time the CAFE was enacted, light trucks and SUVs represented approximately 15 percent of the market. Now, they are approximately 50 percent of the market. In some states like my home state of Arizona they represent more than 54 percent of new car sales. I question the wisdom of allowing an agency sole discretion over the fuel economy standards of 50 percent of the auto market without any guidance from Congress.

In 1992, the National Research Council conducted what is considered to be the most comprehensive study of the CAFE program. In the executive summary of that report, the study committee made the following statement '[I]n this committee's view, the determination of the practically achievable levels of fuel economy is appropriately the domain of the political process, not this committee.' The Committee rightly concluded that many of the issues surrounding CAFE involve tradeoffs that are public policy decisions, not a simple scientific conclusion. It is my intent to follow this advice and bring this debate back to Congress to determine how we should approach fuel economy standards as we enter the new millennium.

As chairman of the Senate Commerce Committee, it is my intention to hold hearings on CAFE early next year to examine this structure. Over the next few weeks, I will contact the Department of Transportation, the General Accounting Office, environmental groups, the major automobile manufacturers and the highway safety groups to solicit their views and begin the process of examining the statute.

Some of my colleagues argue that we should allow the Department of Transportation to move forward on a parallel track with the legislative process. I disagree with this argument for two reasons. First, the rule making process will further polarize and distract all of the parties on a specific proposal before consideration is complete on substantive changes to the law. Second, should a legislative solution be crafted, the agency, as well as interested members of the public will have wasted time and resources developing and responding to a standard, which will never be implemented.

Mr. President, I look forward to holding hearings on this matter and, I look forward to the participation of my colleagues on both sides of this issue as we move forward.

- [End insert]

[Page: S10915]

Mr. ABRAHAM. I inquire how much time remains for the various sides?

The PRESIDING OFFICER. The Senator from Michigan, Mr. **Levin**, has 1 minute; the Senator from Michigan, Mr. **Abraham**, has 19 minutes and the Senator from Washington has 30 minutes.

Mr. ABRAHAM. I know there may be other speakers on our side. As I indicated earlier, the proponents of the amendment had over an hour to initially make their case. We agreed to a time agreement that gives less than that in terms of bringing it up to balance. I don't want to run any more time off of our clock at this stage.

I ask unanimous consent that time during a quorum call run off the time of the Senator from Washington.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. ABRAHAM. I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The legislative assistant proceeded to call the roll.

Mr. GORTON. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER (Mr. **Smith** of Oregon). Without objection, it is so ordered.

Mr. GORTON. Mr. President, it is often said, I think accurately, that what differentiates human beings from most other animals, most other mammals, is the extraordinary ability of human beings to learn from experience. Yet on the floor of the Senate this afternoon we have heard eloquent statements opposing this current amendment that indicate that experience is of no value to some Members and to some of their arguments.

Mr. President, 25 years ago the predecessors of the opponents to this amendment repeatedly stated on the floor of the Senate, as well as in the hearing rooms of the Senate, that to require more fuel-efficient automobiles and small trucks was to endanger the safety and the lives of the American people and to sentence them to driving in subcompacts and sub-subcompacts.

There are only two differences between the circumstances of the argument in 1974 and the circumstances of the argument in 1999. The first of those differences is that all of the arguments of those who opposed setting higher fuel efficiency standards for automobiles and small trucks made in 1974 were proved dramatically to be in error. At one level, the most important of those arguments was that people would no longer have choice; they would all be forced into smaller automobiles. Here it is 25 years later. We know that is not the case. The requirements imposed in 1974 were, for all practical purposes, completely met within a period of 6 years, and the course has been essentially flat since that day.

Every single day of the week, every year, 7 days a week,

365 days a year, the people of the United States save 3 million gallons of gasoline. Multiply 3 million gallons by \$1.50 a gallon. That is \$4.5 million. They pollute the air less; they spend less money; they contribute less to our international trade deficit that continues to grow year after year. And, second, our highways are far safer now than they were then. Traffic deaths per million miles driven have declined by more than 50 percent in the years since those fuel efficiency standards were imposed on the American people. Yet we hear some of the same arguments being made over and over again.

But there is another difference between the argument in 1999 and the argument in 1974. In 1974, the Senate was debating whether or not to allow specific new standards to go into effect. In 1999, we are arguing whether or not to allow the Federal Government to engage in a proceeding that determines whether or not new and more fuel-efficient standards are appropriate and achievable. So in addition to ignoring history and experience, the opponents have to say that they oppose knowledge, that they oppose even a vitally important study of if and how much fuel efficiency standards can be improved, consistent with safety and consistent with the economic well-being of the American people.

While I have not heard every word that has been stated on this floor in opposition to this bill, it does seem to me there is at least a minor difference. There does not seem to have been a claim that more fuel-efficient cars will not benefit the environment that is to say, to cause us to have cleaner air and fewer emissions into our air. Whatever the debate was in 1974, that is not a statement now. Nor has any

one of our opponents stated that it is a poor idea to save the American people millions of dollars a day in their bill for motor vehicle fuel. Nor have they made any statement that somehow or another our huge trade deficit, largely caused by imported petroleum products, is a matter to which we as Americans should be indifferent.

Almost all of their argument has been on the safety issue. But it has been on the safety issue in the teeth of the experience of the American society, and it has been on the safety issue in the teeth of the proposition that if we carry out the policies contained in this amendment, this sense-of-the-Senate resolution, we are not automatically going to impose new fuel efficiency standards. We are simply going to go into an orderly process to determine whether or not new standards are feasible and, if so, how strict they should be and, if so, how long it should take to implement them.

I find it breathtaking that Members of the Senate should say, no, we don't want that knowledge. We are not even willing to wait until some specific standards are proposed and specific knowledge gained to debate whether or not the imposition of those standards is worthwhile.

No, we want the Senate to vote to stay ignorant, not even to learn what good public policy might be and what any of the offsets to that good public policy might be as well.

Mr. President, I am not a great fan of the current national administration, but I do not think anything irrevocable is going to take place in the next year, in any event, and certainly not over the objections of the Congress of the United States. But I am not so mistrustful of a group of professionals that I am willing to say even to this administration we should not allow them to examine this issue. Incidentally, this freeze has gone through Republican administrations, as well as Democratic administrations, in any event.

No, there are only two arguments being made against this amendment. The substantive argument is that we should ignore history and believe arguments in 1999 that were made in 1974 and shown to be entirely invalid in 1974; and second, the proposition that we should remain ignorant, that this is not important enough, not significant enough to the American people that we should even begin a process of determining whether or not we can clean up our air, make our cars more fuel efficient, become less dependent on foreign oil, and at the same time, increase the safety standards in our automobiles.

The debate is neither more complicated nor less complicated than just that. It should be understood by everyone, and I plead with my colleagues in this body to allow this process to go forward and to debate a real proposal, not a theoretical set of objections that were invalid in 1974 and are equally invalid in 1999.

[Page: S10916]

Mr. FEINGOLD. Mr. President, I rise in support of the sense-of-the-Senate resolution on fuel economy standards. This resolution has been controversial in my state, and I believe its effect on automobile fuel economy standards has been misunderstood by some. I want to make my position clear: though I will vote in favor of this resolution, I have reservations about some of the language it contains, reservations I made known to the amendment sponsors.

My vote today is about Congress getting out of the way and letting a federal agency meet the requirements of federal law originally imposed by Congress. I will support this resolution because I am concerned that Congress has for 5 years now blocked the National Highway Traffic Safety Administration, NHTSA, part of the Federal Department of Transportation, from meeting its legal duty to evaluate whether there is a need to modify fuel economy standards by legislative rider since Fiscal Year 1996. The resolution simply says the Senate should not recede to Section 320 of the House bill.

I believe that the outcome of any assessment of fuel economy standards needs should not be pre-judged. I am concerned that the wording of this resolution needlessly fails to be fully neutral. It tips too far toward saying that the result of an assessment should be a quote increase unquote in fuel economy standards. I have made no determination about what fuel economy standards should be. NHTSA is not

required under the law to increase fuel economy standards, but it is required to examine on a regular basis whether there is a need for changes to fuel economy standards. NHTSA has the authority to set new standards for a given model year taking into account several factors: technological feasibility, economic practicability, other vehicle standards such as those for safety and environmental performance, and the need to conserve energy. I want NHTSA to fully and fairly evaluate all the criteria, and then make an objective recommendation on the basis of those facts. I will expect them to do that, and I will respect their judgement. After NHTSA makes a recommendation, if it does so, I will then consult with all interested parties--unions, environmental interests, auto manufacturers, and other interested Wisconsin citizens about their perspectives on NHTSA's recommendation.

However, just as the outcome of NHTSA's assessment should not be pre-judged, the language of the House rider certainly should not have so blatantly pre-judged and precluded any new objective assessment of fuel economy standards. Section 320 of the House bill states:

None of the funds in this Act shall be available to prepare, propose, or promulgate any regulations pursuant to title V of the Motor Vehicle Information and Cost Savings Act (49 U.S.C. 32901 et seq.) prescribing corporate average fuel economy standards for automobiles, as defined in such title, in any model year that differs from standards promulgated for such automobiles prior to enactment of this section.

The House language effectively prevents NHTSA from collecting any information about the impact of changing the fuel economy standards in any way. Under the House language, not only would NHTSA be prohibited from collecting information or developing standards to raise fuel economy standards, it couldn't collect information or develop standards to lower them either. The House language assumes that NHTSA has a particular agenda, that NHTSA will recommend standards which can't be achieved without serious impacts, and uses an appropriations bill to circumvent the law's requirements to evaluate fuel efficiency and maintain the current standards again for another fiscal year. I cannot support retaining this rider in the law at this time.

The NHTSA should be allowed freely to provide Congress with information about whether fuel efficiency improvements are possible and advisable. Congress needs to understand whether or not improvements in fuel economy can and should be made using existing technologies. Congress should also know which emerging technologies may have the potential to improve fuel economy. Congress also needs to know that if improvements are technically feasible, what is the appropriate time frame in which to make such changes in order to avoid harm to our auto sector employment. I don't believe that Congress should confuse our role as policymakers with our obligation to appropriate funds. Changes in fuel economy standards could have a variety of consequences. I seek to understand those consequences and to balance the concerns of those interested in seeing improvements to fuel economy as a means of reducing gasoline consumption and associated pollution.

I deeply respect the views of those who are concerned that a change in fuel economy would threaten the economic prosperity of Wisconsin's automobile industry. Earlier this year I visited Daimler Chrysler's Kenosha Engine plant and I met with union representatives from the Janesville GM plant. In those meetings I heard significant concerns that a sharp increase in fuel economy standards, implemented in the very near term, will have serious consequences. I want to avoid consequences that will unduly burden Wisconsin workers and their employers. In the end, I would like to see that Wisconsin consumers have a wide range of new automobiles, SUVs, and trucks available to them that are as fuel efficient as can be achieved while balancing energy concerns with technological and economic impacts. That balancing is required by the law. At its core this resolution does not disturb that balance, but I wish the language had been more neutral, so that all concerned could be more confident that the process is neutral. In that spirit, I fully expect NHTSA to proceed with the intent to fully consider all those factors.

In supporting this resolution, I take the position that the agency responsible for collecting information about fuel economy be allowed to do its job, in order to help me do my job. I expect them to be fair and neutral in that process and I will work with interested Wisconsinites to ensure that their views are represented and the regulatory process proceeds in a fair and reasonable manner toward whatever conclusions the merits will support.

Mr. CHAFEE. Mr. President, I am pleased to join in support of the Gorton-Feinstein sense-of-the-Senate resolution which would allow the Department of Transportation to evaluate and update the Corporate Average Fuel Economy (CAFE) standards. For the past four legislative sessions, a rider has been attached to the transportation bills to prevent evaluations of CAFE. This year, 31 Senators signed a letter to President Clinton urging him to support their efforts to increase CAFE standards. We are not here today to raise the standards but merely to allow the Department of Transportation to consider the potential benefits and costs of existing or future CAFE standards.

CAFE standards were originally enacted in response to the oil crisis of the 1970s and were adopted in 1975 to reduce oil consumption. Currently the standard for new passenger cars is 27.5 miles per gallon and for light trucks is 20.7 miles per gallon. CAFE standards have had the effect of making cars and trucks more energy efficient than they would have been without the standards. As such, energy efficiency, decreased oil consumption, and global climate change are intertwined.

Global climate change is an issue that has been quite contentious in international and domestic circles alike, however, the undeniable scientific truth exists that the burning of fossil fuels and emissions from mobile sources results in the emission of numerous greenhouse gases: the major contributor being carbon dioxide. A study on the impacts of CAFE has the potential to lessen the impact of automobile emissions into the environment based on the directly proportional relationship of a cars' miles per gallon and the amount of carbon dioxide emissions produced. The Department of Energy reported in 1997 that transportation accounts for more than two-thirds of U.S. oil consumption and comprises about one-third of U.S. carbon dioxide emissions. The increase in sales of less fuel efficient SUVs and light trucks has and will continue to result in growing energy consumption and related emissions in the transportation sector. CAFE standards are regarded by many as an effective way to reduce greenhouse gas emissions from automobiles.

The bottom line today is that the emissions of greenhouse gases must be reduced. We must develop industrial practices and means of transportation which are less dependent on fossile fuels. Allowing a reevaluation of CAFE standards is one way to start.

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Mr. LIEBERMAN. Mr. President, I rise today to voice my strong support for the bipartisan effort to remove yet another anti-environment rider from an important appropriations bill. This rider, which is attached to the House Transportation Appropriations bill, would prohibit the Department of Transportation from even considering an increase in the corporate average fuel economy standard (CAFE). This rider would prevent DOT from evaluating, in any way, the cost-effectiveness and pollution-prevention dividends that could result from requiring greater fuel efficiency from cars and trucks.

I am particularly concerned with this anti-CAFE rider, in part, because it is another in a long line of riders designed to limit our government's ability to consider meaningful, appropriate, effective, and economical strategies to combat local and regional air pollution as well as global climate change.

More than 117 million Americans live in places where smog makes their air unsafe to breathe. Nearly one-third of this pollution, which aggravates respiratory diseases, especially among vulnerable groups such as children, asthmatics, and the elderly, is emitted from car and truck tailpipes.

Cost-effectively protecting people's health by improving local air quality requires that we consider each of the sources that contribute to the pollution problem. It just makes sense that any efficient, fair, and reasonable pollution prevention strategy should consider all sources of pollution, including vehicles.

There are many ways to address pollution from cars and trucks. For example, more rigorous emissions limits are currently being proposed by the Environmental Protection Agency. Efficiency standards represent another approach. The original CAFE standards have helped keep fuel consumption nearly 30 percent lower than if CAFE had not been implemented. Efficiency standards led to dramatic

improvements in other sectors as well, such as major appliances. The purpose of the clean air resolution is not to mandate one approach over another but to allow the Administration to explore the benefits and costs of all the options.

From a global perspective, there is a growing scientific and international consensus that air pollution, largely caused by burning fuels such as coal and oil, is causing changes in the earth's climate. I believe that America has a moral obligation to meet the tremendous challenge of climate change head on rather than leaving a bigger problem for our children and grandchildren.

As the world's biggest emitter of the pollution that contributes to climate change, the United States has the responsibility to lead the international community toward a solution. And because our cars and trucks currently represent nearly one-third of America's greenhouse gas emissions, and projections suggest that our miles driven will increase by roughly 2% a year through the next decade, vehicle emissions are a big part of a giant challenge.

A recent report by the Alliance to Save Energy, the American Council for an Energy Efficient Economy, and several other groups, found enhanced CAFE standards to be an essential part of a comprehensive strategy to address global climate change. The study found that increased CAFE standards could be part of a plan to achieve a 10% reduction in carbon dioxide emissions while creating 800,000 jobs and saving \$21 billion annually in reduced oil imports.

Improving the gas mileage of the cars and trucks we drive would provide many other benefits to both the consumer and the country. Whereas less money spent at the pump means more money in Americans' pockets, less money spent at the pump also means less dependence on unpredictable imported oil.

Unfortunately, there is an active misinformation campaign underway opposing the clean air resolution and CAFE standards. Chief among the claims is that the CAFE standards we have had for the last 25 years kill people. This is a ludicrous argument underpinned by contorted misinterpretations of long-since refuted assumptions. One simple observation puts CAFE opponents faulty logic to rest: since CAFE standards were adopted in 1973, the number of deaths per mile driven have been cut in half. The increased safety of our vehicles is largely attributable to material and design improvements that increase fuel efficiency at the same time they improve acceleration, braking, handling, durability and crashworthiness.

Finally, I would alert my colleagues to a poll released yesterday regarding fuel efficiency standards. The poll, which was conducted by the Mellman Group for the World Wildlife Fund, indicates that 72% of sport utility vehicle (SUVs) owners believe that minivans and trucks should be held to the same efficiency standards as passenger cars. In addition, nearly two-thirds SUV owners support Congressional action to require equitable emissions requirements for cars and light trucks.

The clean air resolution introduced today by Senators **Gorton, Feinstein, Bryan, and Reed** ensures that enhanced CAFE standards are on the menu of options when the Department of Transportation considers the implications of vehicle efficiency for local, regional, and global air pollution, consumer protection and satisfaction, and energy security. I encourage my colleagues to support the clean air resolution.

The PRESIDING OFFICER. Who seeks time?

Mr. BRYAN. Mr. President, I will be happy to yield to the distinguished Senator from Michigan if he wants to make a response to my friend from Washington, and then I would like to ask the Senator from Washington after such time as the Senator from Michigan speaks that I might be reserved a little time.

Mr. ABRAHAM. Mr. President, I have been informed we have Members on our side who still want to speak, so I have been holding our remaining time for them. I do not want to put the Senator from Washington and the Senator from Nevada in the position of exhausting all of their time before we have rebuttal. I inquire as to how much time remains?

The PRESIDING OFFICER. The Senator has 19 minutes and the Senator from Washington has 11

minutes 45 seconds.

Mr. BRYAN. May I inquire, if the Senator is not going to go forward, as I understand the unanimous consent agreement, when we are in a quorum call, all of the time is charged to our side. I certainly am not trying in any way to preempt the comments the Senator wants to make, but if we go back into the quorum call, it seems we will have it charged to our side.

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Mr. GORTON. Mr. President, rather than sitting here doing nothing, will the Senator from Michigan allow the Senator from Nevada to speak and it be charged against the time both are not using equally?

Mr. ABRAHAM. I will make some comments then. I wanted to clarify the amount of time we have, and we will see if other Members come down. Let me do the following: I will suggest the absence of a quorum and suggest the time be taken off my time while I prepare to make these comments.

The PRESIDING OFFICER. The clerk will call the roll.

The legislative assistant proceeded to call the roll.

Mr. ABRAHAM. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. ABRAHAM. Mr. President, I will make some brief remarks in response to some of the comments that have been made by the Senator from Washington and others, as well as to elaborate on some of my earlier remarks today.

First, I point out that with respect to the safety issues, the question is not whether on a cumulative basis there have been fewer fatalities since the implementation of CAFE standards. The question is what the consequence is or the correlation is between fatalities and CAFE standards.

Since 1975, on a variety of fronts, safety efforts have gone forward to protect passengers and drivers in motor vehicles ranging from the introduction of airbags to State laws which require the use of seatbelts, primary laws that require the use of seatbelts to the introduction of countless child safety and passenger protection activities and child safety seats. One cannot draw that correlation.

What one can, of course, do is follow the studies of USA Today and the National Academy of Sciences that try to determine what the direct effects of CAFE have been, and those effects are quite clear. As the Senator from Missouri and my counterpart, my colleague from Michigan, have indicated, the conclusion is the direct consequence of CAFE standards has been an increase in fatalities since 1975 of an estimated 46,000 people who lost their lives as a consequence of CAFE standards because of the lighter vehicles and the less safe vehicles that CAFE has fostered.

Mr. President, I note the Senator from Ohio is here. He wishes to speak, and I yield up to 5 minutes to him.

Mr. DeWINE. Mr. President, I thank my colleague from Michigan. I join in his comments. We have heard talk on the floor about the environment. I want to talk, though, about another aspect of this, and it is the aspect my friend from Michigan has just been talking about. That is the question of highway safety.

I vehemently oppose this amendment. We are dealing with a question of lives. The basic facts are that heavier cars, heavier vehicles are safer, and the statistics are absolutely abundantly clear.

I will share some statistics with the Members of the Senate so everyone knows exactly on what we are

voting.

An analysis by the Insurance Institute shows that cars weighing less than 2,500 pounds had 214 deaths per million vehicles per year. That is almost double the rate of vehicles that weigh 4,000 pounds or more. For vehicles that weigh 4,000 pounds or more, the death rate was 111 per million. For cars weighing less than 2,500 pounds, that was 214 deaths per million. It is double, absolutely double the figure.

The reality is that the majority of car fatalities in this country today occur in single vehicle crashes. To determine what costs lives and what does not, it is essential and important to look at single car weights and death rates.

I share another statistic with my colleagues, again, to emphasize what we are saying.

This is not just an 'environmental issue.' This is not just an 'easy environmental vote.' This is a question of life and death that we can measure.

Among utility vehicles, the results are even more pronounced. For those weighing less than 2,500 pounds, the death rate per million was 83. That was almost double the rate of 44 for cars weighing 4,000 pounds or more. So again, under 2,500 pounds for utility vehicles, the death rate was 83 per million; but for cars weighing 4,000 pounds or more, it was only 44 per million. Again, it is double the rate.

In the lightest utility vehicles, the occupant death rate was 199; again, in this case, more than 3 times the rate of 65 for utility vehicles weighing 4,000 pounds or more.

In conclusion, I join my colleague from Michigan. He is absolutely correct. This vote is about a lot of different things. I am sure we can talk about the environment, we can talk about many things, but the one thing we know is that lighter vehicles mean more people die; heavier vehicles mean more people live. It is as simple as that.

So if the Congress makes this decision and says we should artificially mandate and tell the American consumer, you need to be driving in lighter cars because Washington knows best, when we do that, when the arm of the Federal Government comes in and does that, it is not an academic exercise. It is not just the freedom to choose a car or a vehicle that people lose; what we lose are human beings.

Make no mistake about it. If this resolution prevails, ultimately, through the Congress, more people will die. The statistics are absolutely abundantly clear. And that is exactly what this vote is about. It is not an academic exercise. It is not an academic vote. It is not a free environmental vote one way or the other. This is about people living. This is about people dying.

I thank my colleague from Michigan and yield the floor.

Mr. NICKLES. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The legislative clerk proceeded to call the roll.

Mr. DeWINE. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

PRIVILEGE OF THE FLOOR

Mr. DeWINE. I ask unanimous consent that Arthur Menna, a congressional fellow on my staff, be given floor privileges for the remainder of the debate on the Transportation appropriations bill.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. **DeWINE**. Mr. President, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The legislative clerk proceeded to call the roll.

Mr. **ABRAHAM**. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. **ABRAHAM**. I yield to the Senator from Oklahoma such time as he may consume on this issue.

Mr. **NICKLES**. Mr. President, I thank my colleague from Michigan, Senator **Abraham**, as well as Senator **DeWine** from Ohio, for their statements. They are exactly right. I do not need to repeat their statements, but I think it is vitally important that they prevail in beating this amendment.

I hope my colleagues will pay attention. This is not an esoteric amendment. As the Senator from Ohio said, there are lives at stake. Do we really think we can have a big increase in the corporate average fuel economy standards mandated on sport utility vehicles without having economic consequences?

There are going to be consequences. Vehicles may cost more. It is quite likely they will have to reduce the weight of the vehicles. The vehicles will not be as safe.

We are superimposing Government wisdom on manufacturers and on consumers. The sales of these vehicles are going quite well because consumers want them. Nobody is forcing them to buy them. Yet if we come up with a Government-mandated higher fuel economy standard, presumably with the idea that this is going to be more fuel efficient, it may make the vehicles more expensive. It may make the vehicles more unsafe. It may cost lives. It has significant economic consequences on families.

So I urge my colleagues to defeat the amendment that is pending. I again compliment my friends and colleagues, including Senator **Levin**, as well as Senator **Abraham** and Senator **DeWine**, for their excellent statements.

Mr. President, I yield the floor.

[Page: S10919]

Mr. **BRYAN** addressed the Chair.

The PRESIDING OFFICER. The Senator from Nevada.

Mr. **BRYAN**. Mr. President, if I might inquire of the Chair, how much time remains?

The PRESIDING OFFICER. The Senator's side has 11 minutes 45 seconds.

Mr. **BRYAN**. If I might inquire of the Senator who controls the time--we have approximately 11 minutes left--would the Senator from Washington be amenable to allowing the Senator from Nevada to use, say, 6 minutes?

Mr. **GORTON**. Yes. The Senator from Washington will be delighted if the Senator takes that time.

Mr. **BRYAN**. I thank the Senator from Washington.

Mr. President, I understand that in the most famous debating institution in the world, and in the history

of civilization, differences of opinion can arise on matters of public policy. That is what this place is all about. But I have to tell you, I find the amount of hysteria engendered by this issue to be absolutely astonishing.

In a series of ads put out by the industry, we have one now that talks about: 'Farming's tough enough with healthy-size pickups. Imagine hauling feed barrels around in a subcompact.' That implies that this amendment we are proposing will be antithetical to the best interests of America's farmers.

We have an ad involving the soccer moms and dads: 'This picture is brought to you by a fantastic soccer team and a minivan just big enough to handle them.' The clear inference is, if we allow the Department of Transportation to examine these standards, some soccer moms are not going to be able to take their kids to soccer games.

Then we have an ad: 'As a small business owner, my truck and I are joined at the hip. An increase in CAFE would put both of us out of business.'

May I say, with great respect to our friends on the other side of the aisle, many of whom are good friends I greatly respect, this is utter nonsense. This is just plain nonsense.

I will repeat, as I did earlier, the thrust of what this resolution does. It mandates no standard, no increase. The resolution simply says the issue of CAFE standards should be permitted to be examined by the Department of Transportation so that consumers may benefit from any resulting increase in the standards as soon as possible. It is permissive only; it mandates nothing.

During the time 1989 to 1995, when this technology gag rule was not in effect, during those 6 years, there was no increase in CAFE standards for automobiles, and with respect to light trucks it was 1 percent. So I think that is a pretty clear indication that nobody is going to rush to judgment.

The other thing that needs to be understood, it seems to me, is the Department of Transportation has some very comprehensive guidelines they must consider in any review. Among those factors are: Is it technically feasible? Is the technology there? The economic practicability, the effect of other Federal motor vehicle standards on fuel economy, and the need of the Nation to conserve, all of which would be open to the rulemaking process in which the industry and their supporters would have an ample opportunity to respond.

Let me try to respond briefly to the safety issue. And my friend from Michigan has indicated to me he would allow me to engage him in a colloquy for a couple questions. I appreciate his courtesy, as always.

From 1970 through 1999, the highway fatality rate in America has gone down. At the same time, fuel economy is up. That is at the same time that many more vehicles are on the highway, with a great amount of additional traffic congestion. The average motorist is driving more each year.

So the notion that somehow this is anathema to health and safety standards simply, in my judgment, does not bear out scrutiny.

Indeed, an objective study by the General Accounting Office concluded that the unprecedented increase in the proportion of light cars on the roads since the 1970s has not increased the total highway fatality rate.

I think the safety issue is somewhat of a red herring. We are all concerned about safety. Nobody on the floor is going to advocate that the industry make and sell a product which is unsafe, and one would have to assume that the industry itself would not put such a product on the market.

Let me also point out that with respect to the fuel achievements we have had in terms of increased efficiency from 1974 to the 1989 timeframe, 86 percent of those improvements were as a result of new technology. This information comes to us from the Center for Auto Safety. It seems to me the clear and compelling evidence is that safety and fuel economy standards are not mutually exclusive. We can do

both.

All we are saying is that those who choose to purchase sport utility vehicles, my son and daughter-in-law being two, should have the same right as other motorists who select other passenger vehicles to derive the benefits of improved technology. I have great confidence in what the industry can do, notwithstanding the prophecy of doom they forecast in 1974 that everybody would be driving around in a sub-subcompact or a vehicle the size of a Maverick or a Pinto. Indeed, the industry did some astonishing things and doubled the fuel economy. Today's Lincoln Town Car gets better fuel economy than the smallest product that the Ford Motor Company manufactured in 1974.

If I could engage my friend from Michigan in a couple of questions. He is a distinguished lawyer, a graduate of Harvard Law School. I ask him: Is there anything in this resolution, in the opinion of the distinguished Senator from Michigan, that in any way mandates an increase in these standards. We may disagree in terms of whether the technology is available.

The PRESIDING OFFICER. The time of the Senator from Nevada has expired.

Mr. GORTON. I yield the Senator 2 more minutes.

Mr. ABRAHAM. I thank the Senator from Nevada for his confidence in my legal skills. As I read the sense-of-the-Senate resolution which has been proposed, it says, in its concluding section, the resolution section:

It is the sense of the Senate that the issue of CAFE standards should be permitted to be examined by the Department of Transportation.

And then in subsection (2):

The Senate should not recede to section 320 of this bill, as passed by the House of Representatives, which prevents an increase in CAFE standards.

Now, if we do not include that provision, if the sense-of-the-Senate resolution were to prevail and that were to be the ultimate outcome and section 320 as contained in the House version of the legislation were to not survive the conference and the final resolution of the legislation, it is my understanding that we would then revert back to the process which is in the law otherwise, which, by my understanding of it, mandates that the Department of Transportation, under 49 USC subtitle 5 part (c) section 32902, required that the Department of Transportation set CAFE standards each year at 'the maximum feasible average fuel economy level.'

I believe that is what would happen at the Department of Transportation. The Secretary of Transportation is not authorized to just study CAFE. He must act by regulation to set new CAFE standards each year. That has not happened because of the moratorium which has been imposed over recent years, since 1995. Prior to the CAFE freeze in 1994, the administration began rulemaking on new CAFE standards. On April 6 of 1994, again, in the last year--I don't want to take all the Senator's time; I will try to be quick--the proposal referenced feasible higher CAFE levels for trucks of 15 to 35 percent above the current standard.

The PRESIDING OFFICER. The Senator's time has expired.

Mr. ABRAHAM. My sense, reading the history of this, is that is where the starting point would be. I believe, in effect, if we do not have this, if this is not in place, that that would be the mandated effect.

Mr. BRYAN. Will the Senator from Michigan yield a few minutes of his time so I may follow up with a question?

Mr. ABRAHAM. How much time do we have?

The PRESIDING OFFICER. The Senator from Michigan has 5 minutes. The Senators from Washington and Nevada have 3.

[Page: S10920]

Mr. ABRAHAM. What I would propose is that by unanimous consent, the Senator from Nevada be able to make further inquiry without reducing his time below 3 minutes or my time below 5 minutes, a reasonable amount of time.

Mr. BRYAN. If the Senator from Washington is agreeable, I think that is fair.

Mr. ABRAHAM. That would leave 5 minutes and 3 minutes for summation.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. BRYAN. Would the Senator not agree that before any increase could be effected by the Department, that the Department is, under the current law, required to consider four factors: the technical feasibility, the economic practicability, the effect of other motor vehicle standards on fuel economy, and the need of the Nation to conserve energy? Would not the Senator agree that that is part of the law as well?

Mr. ABRAHAM. Obviously, the law sets forth criteria that are to be employed. I don't have those in front of me. I will accept the contention of the Senator from Nevada that those are the criteria. The question is whether a prejudgment as to the outcome is already ordained. In my judgment, the positions that were already in process in 1994, prior to the implementation of the moratorium, suggest that those decisions 5 years ago had already essentially resulted in a preliminary decision to increase the standards by 15 to 35 percent. If, in effect, the moratorium does not go forward, I believe we would, indeed, be moving a process that will mandate this kind of increase.

Mr. BRYAN. I thank the Senator for his answer. We obviously have reached a different conclusion.

I point out to my friend and colleague from Michigan that we had precisely the situation in 1989 to 1995. The technology gag rule was not in effect and, indeed, no increase was made during that period of time with respect to automobile standards. And only a very modest increase was made with respect to the light truck standards.

I hope that will give some comfort to him and to those who have raised some concerns that this is not a mandate but simply permissive in nature.

Again, I thank the Senator from Michigan and yield the floor but reserve the remainder of the time that is allocated to our side.

Mr. LEVIN addressed the Chair.

The PRESIDING OFFICER. The Senator from Michigan.

Mr. LEVIN. Does this Senator from Michigan have any time remaining?

The PRESIDING OFFICER. The Senator from Michigan has 1 minute.

Mr. LEVIN. I thank the Chair.

Let me quickly comment on the question of highway deaths. The study of USA Today is that 46,000 people have died in crashes that would have survived in larger cars. I have not heard that fact disputed. We have seen a chart which shows that there are fewer highway deaths and that we have better fuel economy, but that chart doesn't show the two are causally connected.

Indeed, the fewer highway deaths may come from seatbelts, a greater effort on the anti-alcoholism

campaign, Mothers Against Drunk Drivers, a number of other causes. But the outside figure, not the auto industry, not the unions, not the supplier, not the insurance industry, which opposes this amendment, the outside survey done by USA Today says 46,000 people lost their lives who would not have lost their lives but for this CAFE approach.

When we look at the resolution, we don't see any reference to safety. We don't see any reference to the discriminatory impact on domestics that have a different mix in their fleets. We only see a reference to fuel. That is the one factor at which this resolution looks.

Then at the end it makes it very clear what it is driving at--talking about driving. This resolution is aimed at one thing: to increase CAFE standards. This isn't just 'let's have a study, look at the impact on safety, look at the discriminatory impact on domestic production.' This isn't just let's have a study. This is the sense of the Senate that the Senate should not recede to a House provision which prevents an increase in CAFE standards, not which prevents a study. This resolution, by every single provision in its whereas clauses, is driving us towards an increase in CAFE standards, without consideration of safety impacts or the discriminatory impact on domestic production.

I thank the Chair and yield the floor.

The PRESIDING OFFICER. The Senator from Michigan.

Mr. ABRAHAM. Mr. President, I believe I have 5 minutes remaining?

The PRESIDING OFFICER. The Senator has 5 minutes.

Mr. ABRAHAM. There are other opponents on my side who wish to speak. Let me summarize with a few concluding remarks.

I want to first reiterate what my colleague from Michigan, Senator **Levin**, has said. A chart that shows the correlation between increases in CAFE and decreases in fatalities is not based on a study that relates the two.

The studies that do relate the two, particularly as he said, the outside study by the National Academy of Sciences, suggest a contrary finding. In fact, the implementation of CAFE standards has led to approximately 46,000 lost lives as a consequence of the lighter vehicles being in our fleets.

The second point I make relates to the broader point that also was made earlier by my colleague from Michigan. Higher CAFE standards are going to affect American manufactured products, but not necessarily the products of our competitors from overseas. Hence, the same kind of vehicles, with virtually the same types of fuel efficiency levels, as well as the same types of emission levels, will be purchased by the same market that wants and craves these vehicles today. The only difference will be the kind of difference we saw back in the late 1970s and early 1980s and throughout much of the decade of the 1980s when we found the foreign imports' share of the American market continuing to go up, at the expense of American domestically manufactured products, and ultimately at the expense of American autoworker jobs.

In summation, this is simple to me: Do we want to put at risk the safety of people who will be purchasing sports utility vehicles, light trucks, and others by making a change in CAFE standards? I hope the answer is no. Do we want to risk the jobs of American autoworkers? I speak not just for those autoworkers in Michigan, who tend to be on the front lines, but many other people in this country who are working in related industries and whose jobs are affected by the sale of domestically manufactured automobiles. Do we want to put at risk all of these jobs? I don't think so. Do we want to risk the investments made by the auto companies in new, more fuel-efficient vehicles, and the significant investments that we have made in the partnership for a new generation of vehicles? Do we want to derail those efforts as a result of this type of action?

In my judgment, we should say yes to more safe vehicles; we should say yes to American autoworkers;

we should say yes to the technological advances that have been and are continuing to be made. That is ultimately how we are going to have more fuel-efficient vehicles. If we say yes to all of those, then, in my judgment, we must say no to this amendment because to have a Washington bureaucracy made up of unelected individuals who impose upon this very significant sector of our economy these kinds of standards, the likely outcome will be exactly the opposite of what I have proposed today. I think it will hurt our economy and the American automobile industry, although it may help the automobile industries of other countries. I think it will make the vehicles that come about as a result of higher standards less safe, as the studies that we have cited here today demonstrate.

So for those reasons, I urge my colleagues to vote against the Gorton-Bryan-Feinstein amendment.

Before I conclude, I ask that a letter produced by the United Auto Workers be printed in the **Record** at this point as an expression of their views on this issue, which are consistent with those my colleagues and I on this side of the issue have been offering here today.

There being no objection, the letter was ordered to be printed in the **Record**, as follows:

UNITED AUTOMOBILE, AEROSPACE AND AGRICULTURAL IMPLEMENT WORKERS OF AMERICA,
Washington, DC, June 30, 1999.

[Page: S10921]

Dear Senator: When the Senate considers the FY 2000 Transportation Appropriations bill, we understand that amendments may be offered to eliminate or modify the current moratorium on increases in fuel economy standards for autos and trucks (commonly known as CAFE, the Corporate Average Fuel Economy standards). The UAW strongly opposes such amendments and urges you to vote against them.

The UAW supported the CAFE standards when they were originally enacted. We believe these standards have helped to improve the fuel economy achieved by motor vehicles (which has doubled since 1974). This improvement in fuel economy has saved money for consumers and reduced oil consumption by our nation.

However, for a number of reasons the UAW believes it would be unwise to increase the fuel economy standards at this time. First, any increase in the CAFE standard for sport utility vehicles (SUVs) and light trucks would have a disproportionately negative impact on the Big Three automakers because their fleets contain a much higher percentage of these vehicles than other manufacturers. Second, any increases in CAFE standards for cars or trucks would also discriminate against full line producers like the Big Three automakers because their fleets contain a higher percentage of full size automobiles and larger SUVs and light trucks. The current fuel economy standards are based on a flat miles per gallon number, rather than a percentage increase formula, and are therefore more difficult to achieve for full line producers. Taking these two factors together, the net result is that further increases in CAFE could lead to the loss of thousands of jobs at automotive plants across this country that are associated with the production of SUVs, light trucks and full size automobiles.

The UAW believes that additional gains in fuel economy can and should be achieved through the cooperative research and development programs currently being undertaken by the U.S. government and the Big Three automakers in the 'Partnership for a New Generation of Vehicles'. This approach can help to produce the breakthrough technologies that will achieve significant advances in fuel economy, without the adverse jobs impact that could be created by further increases in CAFE standards.

Accordingly, the UAW urges you to oppose any amendments that seek to eliminate or modify the current freeze on increases in motor vehicle fuel economy standards. Thank you for considering our views on this important issue.

Sincerely,

Alan Reuther,
Legislative Director.

Mr. ABRAHAM. Mr. President, I yield back the remainder of my time.

Mr. GORTON addressed the Chair.

The PRESIDING OFFICER. The Senator from Washington is recognized.

Mr. GORTON. Mr. President, first point. I regret that the Senators from Michigan believe that the automobile industry located in that State and the magnificent workers who are employed there are unable to compete with foreign automobile companies when we try to make our automobiles more fuel efficient. In fact, they have shown their magnificent ability to compete, and to compete very well, in the past decade. I am certain that they would continue to do so.

Second, this sense-of-the-Senate resolution simply asks the conference committee members from the Senate to reject a House provision that says that nothing can take place. It certainly does not say that the conference committee cannot condition the moving forward of the Department of Transportation on future CAFE standards in any way it would like to do so. But the net effect, as I have said before, of the House position, supported by the opponents of this amendment, is that we need to put our heads in the sand; we don't need to study--as a matter of fact, we should be prohibited from studying whether or not we can improve the fuel efficiency of our automobiles and small trucks, improve the quality of our air, reduce the cost of fuel to the average American consumer, reduce our trade deficit, all consistent with the safety of our drivers and of the passengers in our automobiles.

I, for one, am convinced that we can do so. But more than that, I am convinced that we ought to determine whether or not we can do so, and the opponents of this amendment simply say we should not even try.

Mr. President, that is a terribly pessimistic attitude toward the technological ability of the people in the industries of the United States, and one that I don't think the Senate of the United States should accept.

I yield back the remainder of my time.

The PRESIDING OFFICER. The question is on agreeing to amendment No. 1677. The yeas and nays have been ordered. The clerk will call the roll.

The legislative assistant called the roll.

Mr. WARNER (when his name was called). Mr. President, on this vote I have a live pair with the Senator from Rhode Island, Mr. **Chafee**. If he were present and voting, he would vote 'yea.' If I were permitted to vote, I would vote 'nay.' Therefore, I withhold my vote.

Mr. NICKLES. I announce that the Senator from Arizona (Mr. **McCain**) and the Senator from Rhode Island (Mr. **Chafee**), are necessarily absent.

Mr. REID. I announce that the Senator from Louisiana (Mr. **Breaux**) and the Senator from South Dakota (Mr. **Daschle**) are necessarily absent.

The result was announced--yeas 40, nays 55, as follows:

Rollcall Vote No. 275 Leg.

[Rollcall Vote No. 275 Leg.]

YEAS--40

Alan Reuther,
Legislative Director.

Mr. ABRAHAM. Mr. President, I yield back the remainder of my time.

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Mr. REID. I announce that the Senator from Louisiana (Mr. **Breaux**) and the Senator from South Dakota (Mr. **Daschle**) are necessarily absent.

The result was announced--yeas 40, nays 55, as follows:

Rollcall Vote No. 275 Leg.

[Rollcall Vote No. 275 Leg.]

YEAS--40

- Akaka
- Baucus
- Bingaman
- Boxer
- Bryan
- Cleland
- Collins
- Dodd
- Dorgan
- Durbin
- Edwards
- Feingold
- Feinstein
- Gorton
- Graham
- Gregg
- Harkin
- Hollings
- Inouye
- Jeffords
- Johnson
- Kennedy
- Kerrey
- Kerry
- Lautenberg
- Leahy
- Lieberman
- Moynihan
- Murray
- Reed
- Reid
- Robb
- Rockefeller
- Sarbanes
- Schumer
- Smith (OR)
- Snowe
- Torricelli
- Wellstone
- Wyden

NAYS--55

- Abraham
- Allard
- Ashcroft
- Bayh
- Bennett
- Biden
- Bond
- Brownback
- Bunning
- Burns
- Byrd
- Campbell
- Cochran
- Conrad

- Coverdell
- Craig
- Crapo
- DeWine
- Domenici
- Enzi
- Fitzgerald
- Frist
- Gramm
- Grams
- Grassley
- Hagel
- Hatch
- Helms
- Hutchinson
- Hutchison
- Inhofe
- Kohl
- Kyl
- Landrieu
- Levin
- Lincoln
- Lott
- Lugar
- Mack
- McConnell
- Mikulski
- Murkowski
- Nickles
- Roberts
- Roth
- Santorum
- Sessions
- Shelby
- Smith (NH)
- Specter
- Stevens
- Thomas
- Thompson
- Thurmond
- Voinovich

**PRESENT AND GIVING A LIVE PAIR--1
WARNER, AGAINST**

NOT VOTING--4

- Breaux
- Chafee
- Daschle
- McCain

The amendment (No. 1677) was rejected.

Mr. THOMAS. I move to reconsider the last vote.

Mr. STEVENS. I move to lay that motion on the table.

GORTON (AND OTHERS) AMENDMENT NO. 1677 (Senate - September 15, 1999)

[Page: S10951]

Mr. GORTON (for himself, Mrs. **Feinstein**, Mr. **Bryan**, Mr. **Lieberman**, Mr. **Reed**, Mr. **Moynihan**, Mr. **Chafee**, and Mrs. **Boxer**) proposed an amendment to the bill, H.R. 2084, supra; as follows:
At the appropriate place in title III, insert the following:

SEC. 3XX. SENSE OF THE SENATE CONCERNING CAFE STANDARDS.

(a) **Findings:** The Senate finds that--

(1) the corporate average fuel economy (CAFE) law, codified at chapter 329 of title 49, United States Code, is critical to reducing the dependence of the United States on foreign oil, reducing air pollution and carbon dioxide, and saving consumers money at the gas pump;

(2) the cars and light trucks of the United States are responsible for 20 percent of the carbon dioxide pollution generated in the United States;

(3) the average fuel economy of all new passenger vehicles is at its lowest point since 1980, while fuel consumption is at its highest;

(4) since 1995, a provision in the transportation appropriations Acts has prohibited the Department of Transportation from examining the need to raise CAFE standards for sport utility vehicles and other light trucks;

(5) that provision denies purchasers of new sport utility vehicles and other light trucks the benefits of available fuel saving technologies;

(6) the current CAFE standards save more than 3,000,000 barrels of oil per day;

(7)(A) the current CAFE standards have remained the same for nearly a decade;

(B) the CAFE standard for sport utility vehicles and other light trucks is 3/4 the standard for automobiles; and

(C) the CAFE standard for sport utility vehicles and other light trucks is 20.7 miles per gallon and the standard for automobiles is 27.5 miles per gallon;

(8) because of CAFE standards, the average sport utility vehicle emits about 75 tons of carbon dioxide over the life of the vehicle while the average car emits about 45 tons of carbon dioxide;

(9) the technology exists to cost effectively and safely make vehicles go further on a gallon of gasoline; and

(10) improving light truck fuel economy would not only cut pollution but also save oil and save owners of new sport utility vehicles and other light trucks money at the gas pump.

(b) **Sense of the Senate:** It is the sense of the Senate that--

(1) the issue of CAFE standards should be permitted to be examined by the Department of Transportation, so that consumers may benefit from any resulting increase in the standards as soon as possible; and

(2) the Senate should not recede to section 320 of this bill, as passed by the House of Representatives, which prevents an increase in CAFE standards.

END

SEP 15 1999

(Date)

Roll Call Vote

Legislative

NO. 275

6:45 P.M.

SUBJECT

GORTON. MDT. No. 1677

Julie

YEAS		NAYS
	Abraham	
	Alaska	
	Allard	
	Ashcroft	
	Baucus	
	Bayh	
	Bennett	
	Biden	
	Bingaman	
	Bond	
	Boxer	+
	Breaux	
	Brownback	
	Bryan	
	Bunning	
	Burns	
	Byrd	
	Campbell	+
	Chafee	
	Cleland	
	Cochran	
	Collins	
	Courad	
	Coverdell	
	Craig	
	Crapo	+
	Daschle	
	DeWine	
	Dodd	
	Domenici	
	Dorgan	
	Durbin	
	Edwards	
	Enzi	
	Feingold	
	Feinstein	
	Fitzgerald	
	Frist	
	Gorton	
	Graham, Florida	
	Gramm, Texas	
	Grassley	
	Gregg	
	Hagel	
	Harkin	
	Hatch	
	Helms	
	Hollings	

	Grams, Minnesota		
	Grossley		
	Gregg		
	Hagel		
	Harkin		
	Hatch		
	Helms		
	Hollings		
	Hutchinson, Arkansas		
	Hutchison, Texas		
	Inhofe		
	Imhofe		
	Jeffords		
	Johnson		
	Kennedy		
	Kerrey, Nebraska		
	Kerry, Massachusetts		
	Kohl		
	Kyl		
	Landrieu		
	Lautenberg		
	Leahy		
	Levin		
	Liberman		
	Lincoln		
	Lott		
	Lugar		
	Mack		
	McCain		
	McConnell		
	Milcotski		
	Moynihan		
	Murkowski		
	Murray		
	Nickles		
	Reed, Rhode Island		
	Reid, Nevada		
	Robb		
	Roberts		
	Rockefeller		
	Roth		
	Santorum		
	Sarbanes		
	Schumer		
	Sessions		
	Shelby		
	Smith, New Hampshire		
	Smith, Oregon		
	Snowe		
	Specter		
	Stevens		
	Thomas		
	Thompson		
	Thurmond		
	Torricelli		
	Voinovich		
	Warner		
	Wellstone		
	Wyden		

FORM 1000 52-270 (Rev. 1-88)

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THE
MELLMAN
Group
RESEARCH
BASED
STRATEGY

TO: World Wildlife Fund

FROM: The Mellman Group

RE: Summary of Findings From A Survey Of Light Truck Owners

DATE: September 13, 1999

This memorandum summarizes the findings from a survey of 800 owners of light trucks, that is, sport utility vehicles, minivans and pick-up trucks. The sample was drawn from DMV records for the 31 states which include vehicle type in residential car registration records. The 31 states are: AL, AK, AZ, CO, DE, FL, ID, IL, IO, KY, LA, ME, MD, MI, MN, MS, MO, MT, NE, NH, NY, ND, OH, OR, SD, TN, TX, UT, WV, WI, and WY. Telephone interviewing was conducted August 28 to September 1, 1999. The statistical margin of error for the sample as a whole is plus or minus 3.5 percentage points at the 95% confidence level. The margin of error for subgroups is larger.

- Nearly three-quarters (72%) say that auto manufacturers should be required to make SUVs, minivans and pick-up trucks that emit the same level of CO2 pollution per mile as cars. Fifty-two percent (52%) support this strongly while only 13% are opposed and 15% are undecided. Support for reducing the CO2 emissions of light trucks is overwhelming across all parties with 70% of Republicans and 84% of Democrats supporting limiting emissions on these cars to those of other passenger cars.
- By a 40-point margin, light truck owners favor Congressional action to require auto manufacturers to meet the same gas mileage per gallon standards for SUVs, minivans and pick-up trucks as they do for other passenger cars. Sixty-two percent (62%) support such action (50% strong support), while only 21% are opposed and 17% are undecided. Support for Congress taking action crosses party lines with 59% of Republicans and 74% of Democrats supporting stricter gas mileage standards for SUVs, minivans and pick-up trucks.
- At the same time, 84% think it is likely (44% say it is almost certain) that automakers already have the technology to make SUVs, minivans and light trucks that meet these standards at NO additional cost to consumers. This view may be based in part on the widely held belief (69%) that auto manufacturers do only what is required to meet the minimum standards for pollution emissions and gas mileage. Far fewer (19%) think car companies use the best available technology to reduce pollution emissions and improve gas mileage.

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Tel. 202-625-0370 Fax 202-625-0371

- Even so, two-thirds (67%) would pay an additional \$400 above the purchase price they paid for their vehicle in order to get a vehicle that meets the same gas mileage standards and emits only as much CO2 as other passenger cars. Almost half (46%) would pay as much as \$1000 more than they paid for their vehicle.
- Three-quarters (75%) of light truck owners say that forcing automakers to produce SUVs, minivans and pick-up trucks that meet the same gas mileage standards as cars is an important thing to do and 41% say it is "very important." Sixty-two percent (62%) say doing so would be an effective way to combat global warming.
- In addition, light truck owners would feel far more favorably toward a car company that voluntarily produced SUVs, minivans and pick-up trucks that met the same or stricter gas mileage standards and emitted the same or less CO2 as other passenger cars. Nearly three-quarters (73%) say they would have more favorable impression of such a car company and 52% said their feelings would be much more favorable.
- While light truck owners say that improving safety technology (56%) should be automakers' number one priority for research and development, fully 35% say that increasing gas mileage and reducing pollution emissions should be automakers' top priority. This compares to only 2% who say the top R&D priority should be improving anti-theft systems or passenger comfort.
- Over half (55%) of sport utility vehicle (SUV), minivan and pick-up truck owners believe global warming is serious environmental problem and 70% say that global warming is an environmental problem that is happening today (43%) or will happen in the future (27%). Only 13% think global warming will not happen. Believing in the reality of global warming is not an ideological issue. Two-thirds of Republicans (66%) and 74% of Democrats say global warming is happening now or will happen in the future.
- Two-thirds (66%) of light truck owners say that emissions from automobiles are an important cause of the pollution that causes global warming.
- Hearing an argument against increasing gas mileage standards and forcing light trucks to emit the same, lower levels of CO2 as other passenger cars does not erode support for these measures. Even after hearing an argument that meeting stricter standards will raise the price of these vehicles, force automakers to make the cars smaller and less safe, and will cause American automakers to lose market share, 60% favor forcing automakers to meet the same gas mileage standards for light trucks as they do for other passenger cars, and 71% say these vehicles should be allowed to emit only as much CO2 as other passenger cars.

Yes – 35	No – 36	Leaning Yes - 12	Leaning No – 17
Feinstein	Levin	Bingaman	Byrd
Bryan	Mikulski	Sarbanes	Gramm
Boxer	Bayh	Dorgan	Nickles
Reed	Landrieu	Grassley	Hatch
Wyden	Breaux	Gregg	Inhofe
Lieberman	Lincoln	Roth	Shelby
Torricelli	Kohl	Collins	Thurmond
Murray	Ashcroft	Snowe	Mack
Hollings	Abraham	Durbin	Warner
Dodd	Bond	Biden	R. Smith
Kerry		Conrad	Stevens
Moynihan	McConnell	Johnson	Thompson
Lautenberg	Voinovich		Domenici
Harkin	Enzi		Craig
Cleland	Kyl		Fitzgerald
Schumer	DeWine		Frist
Wellstone	Lugar		Specter
Edwards	Helms		
Graham	Murkowski		
Leahy	Santorum		
Kennedy	Thomas		
Akaka	Hutchinson TX		
Reid	Roberts		
Feingold	Coverdell		
Baucus	Frist		
Inouye	Hutchinson AR		
Robb	Lott		
Rockefeller	Crapo		
Kerrey	Bunning		
Daschle	Burns		
Gorton	Grams		
Jeffords	Campbell		
Chafee	Allard		
McCain	Hagel		
G Smith	Sessions		
	Cochran		
	Bennett		
	Brownback		

United States Senate

WASHINGTON, DC 20510

July 14, 1999

Dear Colleague:

We are writing to urge you to join us in pursuit of cleaner air. During the debate on the FY 2000 Transportation Appropriations bill, we intend to offer a sense of the Senate amendment to put the Senate on record opposing the CAFE-freeze rider included in the House bill.

Since 1995, the CAFE-freeze rider has been inserted in the House version of the Transportation bills and the Senate has agreed to this language in conference. The rider prohibits the Department of Transportation from examining the need to raise CAFE standards. Current CAFE standards have stagnated for nearly a decade. While the standard for cars is at 27.5 miles per gallon, the standard for heavily polluting sport-utility vehicles (SUVs) and other light trucks lags behind at 20.7 miles per gallon.

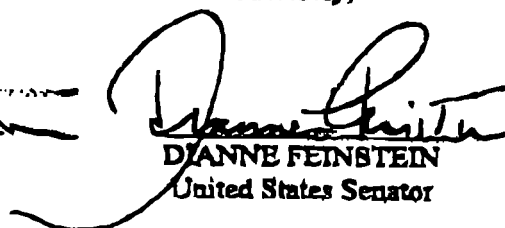
Because of the increasing number of light trucks, the average fuel economy of all new passenger vehicles is now at its lowest point since 1980, while fuel consumption is at its highest. The freeze rider denies the purchasers of SUVs and other light trucks the benefits of existing fuel saving technologies.

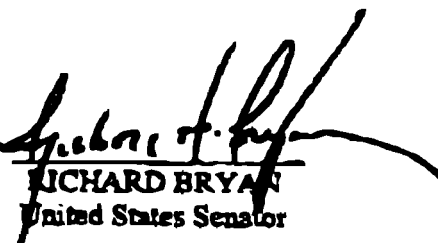
The current standards save more than three million barrels of oil per day, and save the owner an average new car \$3,000 at the gas pump. However, we still use about 17 million barrels a day, contributing about \$50 billion to our merchandise trade deficit. Improved standards will reduce oil consumption, benefitting the economy and our nation's energy security.

Finally, improved standards will reduce pollution. America's cars and light trucks are responsible for 20 percent of U.S. carbon dioxide pollution. Compared to an average 27.5 mile per gallon car, whose tailpipe emits 33 tons of carbon dioxide over its lifetime, a 14 mile per gallon sport utility vehicle will emit 70 tons of carbon dioxide. Now that sport utility vehicles command such a huge market share and contribute a disproportionate amount of carbon dioxide into our atmosphere, we could dramatically reduce these emissions by raising CAFE standards.

Sincerely,


SLADE GORTON
United States Senator


DIANNE FEINSTEIN
United States Senator


RICHARD BRYAN
United States Senator

Gorton - Feinstein - Bryan Resolution

CAFE Standards "Sense of the Senate" Resolution

Whereas the Corporate Average Fuel Economy (CAFE) law is critical to reducing U.S. dependence on foreign oil, reducing air and carbon dioxide pollution, and saving consumers money at the gas pump.

Whereas America's cars and light trucks are responsible for 20 percent of U.S. carbon dioxide pollution.

Whereas the average fuel economy of all new passenger vehicles is at its lowest point since 1980, while fuel consumption is at its highest.

Whereas since 1995, a CAFE-freeze rider in the Transportation Appropriations bill has prohibited the Department of Transportation from examining the need to raise CAFE standards.

Whereas the freeze rider denies purchasers of new SUVs and other light trucks the benefits of existing fuel saving technologies.

Whereas the current CAFE standards save more than three million barrels of oil per day.

Whereas the current standards have stagnated for nearly a decade: the standard for cars is at 27.5 miles per gallon, the standards for heavily polluting sport utility vehicles (SUVs) and other light trucks lags behind at 20.7 miles per gallon.

Whereas the technology exists to cost-effectively and safely make vehicles go further on a gallon of gasoline.

Whereas improving light truck fuel economy would not only cut pollution but also save oil and save owners of new light trucks and SUVs money at the gas pump.

Therefore, be it resolved that the Senate not recede to the House position of prohibiting the Department of Transportation from promulgating an increase in CAFE standards.

33 Senators did not sign a letter

Leaning Yes - Gregg, McCain, (2)

Bingaman, Sarbanes, Dorgan, Baucus, Daschle (5)

Undecided – Roth*, Grassley, Fitzgerald, Collins, Snowe*, (5)

Durbin, Biden*, Conrad*, Johnson, Kerrey, Kohl (6)

Leaning No – Mack, Warner, ~~Smith OR~~, Smith NH, Stevens, Thompson, Domenici (7)

Likely Nos – Byrd, Gramm, Nickles, Hatch, Inhofe, Shelby, Thurmond (7)

* indicates that Senator has previously voted for CAFÉ during 1990 consideration of Energy Policy Act

HIGHLY LIKELY TO VOTE YES

31 Senators on Gorton-Feinstein-Bryan letter

Dems- 27

GOP - 4

Feinstein

Gorton

Bryan

Jeffords

Boxer

Chafee

Reed

~~Specter~~ (?)

Wyden

Smith (OR)

Lieberman

Torricelli

Murray

Hollings

Dodd

Kerry

Moynihan

Lautenberg

Harkin

Cleland

Schumer

Wellstone

Edwards

Graham

Leahy

Kennedy

Akaka

Reid

Feingold
Inouye
Robb
Rockefeller
ALMOST CERTAIN TO VOTE NO

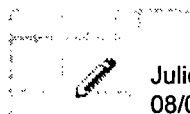
36 Senators on Ashcroft-Levin Letter

GOP - 30

Ashcroft
Abraham
Bond
McConnell
Voinovich
Enzi
Kyl
DeWine
Lugar
Helms
Murkowski
Santorum
Thomas
Hutchinson TX
Roberts
Coverdell
Frist
Hutchinson AR
Lott
Crapo
Bunning
Burns
Grams
Campbell
Allard
Hagel
Sessions
Cochran
Bennett
Brownback

Dems - 6

Levin
Mikulski
Bayh
Landrieu
Breaux
Lincoln



Julie M. Anderson
08/02/99 01:44:12 PM

Record Type: Record

To: Roger S. Ballentine/WHO/EOP@EOP

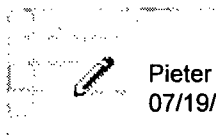
cc:

Subject: Re: What's new? 

I am still working on trying to get chafee and feinstein to introduce the car piece as a free standing bill. On the chafee front, they are not convinced that our technology standard gets you the efficiency they want (they like the old versions). I tried to hook up chris hessler with henry kelly so henry could convince him that our tech. gets you the efficiency. Still trying to make that happen. I think henry is probably better for that call. However, it might be helpful to have morley weigh in with feinstein's office. They want it to be bipartisan and she already has a lot of tax priorities, but I have tried to convince them they don't have to necessarily change their priorities right now -- just drop the bill. I don't know if morley knows anyone there. Toyota is really working this -- of course, they have a few changes to our piece but it still our construct they are pushing.

PNGV -- There are efforts underway to try to find offsets for an amendment to add back money to PNGV. In the Senate, PNGV is down \$24M from fy2000 and \$9M from Fy99. The thought is to do an amendment of \$10-15M to get it back at least level with fy99. Apparently Levin and Abraham are helping on the amendment but don't want to be the sponsors because of CAFE. They are looking for someone to do it. DOE is feeling like they do not have any room in the Interior bill to come up with 10-15M in offsets and are looking to OMB for help. I think it might be helpful to have you and morley weigh in with elgie -- if we want to do this in light of all the other things in that bill that are underfunded -- that we should be trying to find the money somewhere.

I will e-mail elgie on the pngv front to see what he thinks. We did talk about it briefly this morning. do you want me to follow up with morley?



Pieter J. Boelhouwer@OVP
07/19/99 12:26:37 PM

Record Type: Record

To: Roger S. Ballentine/WHO/EOP@EOP

cc:

Subject: oxygenates and ethanol---EPA blue ribbon panel report

Roger,

I think we need to get together the folks at EPA, Energy, OSTP, USDA and leg affairs on this issue -- I don't think we want to be backed into a position on this. Do you think this is a good idea and do you want to take the lead?

----- Forwarded by Pieter J. Boelhouwer/OVP on 07/19/99 12:25 PM -----



Eric Olsen <Eric.Olsen@usda.gov>
07/16/99 05:51:00 PM

Record Type: Record

To: See the distribution list at the bottom of this message

cc: Greg.Frazier@usda.gov (Receipt Notification Requested) , Linda.Delgado@usda.gov (Receipt Notification Requested) , Joseph.Crapa@usda.gov (Receipt Notification Requested) , Keith.Collins@usda.gov (Receipt Notification Requested)

Subject: oxygenates and ethanol---EPA blue ribbon panel report

USDA just had a conference call with Bob Piercisepp (sp?) of EPA regarding the Blue Ribbon Task force report on oxygenates. Among other things, the task force report will recommend repealing the oxygenate standard. This is highly controversial within the ethanol community and its supporters.

The report will be formally submitted to EPA in a week or so. USDA was previously of the impression that the Administration would simply receive the report and study it, but apparently there is some interest at EPA in saying more, including that the EPA is ready to work with congress on these issues. There is also an issue whether Bob should sign the report, or would this be construed as an endorsement of the legislative repeal of the oxygenate standard, given his policy position within epa?

The ethanol community is split about how to respond to this issue. Some may support repeal of the oxy standard in exchange for a renewable fuel requirement similar to our energy dereg proposal. Others strongly oppose any legislation to change the oxy standard.

USDA is open to discussing these issues, but we strongly believe that WH led policy level interagency discussions are needed ASAP to sort through these issues before any action is taken. With a split in the ethanol community, we are concerned that any action could be construed as a weakening of the administration's commitment to these issues. This could be potentially damaging to the Administration, particularly given the state of the farm economy.

We believe it is imperative that this issue be carefully thought through and handled and not be rushed by the delivery of this report to EPA.

Not sure who would handle at eop, so am sending this to several folks. Please give me (720-3808) or Linda Delgado (720-6158) or Keith Collins (720-4164) to discuss. Thanks.

Message Sent To:

cgabriel@Ingate.eop.gov (Receipt Notification Requested)
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Pieter J. Boelhouwer/OVP
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tfreedma@Ingate.eop.gov (Receipt Notification Requested)