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PARTNERSHIP FOR A NEW GENERATION OF VEHICLES

A Declaration of Intent

SUMMARY

USCAR, a partnership of Ford, Chrysler, and General Motors, is pleased to join with the President on behalf of the federal government, in this Declaration of Intent to pursue a unique research and development effort. 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 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. industry.

SHARED VISION

On February 22, 1993, President Clinton announced a comprehensive new initiative "Technology for America's Economic Growth, A New Direction to Build Economic Strength," intended to move America forward to a stronger economy, a cleaner environment, more competitive business, more effective government, and technological leadership in critical fields. As part of his initiative, the President focused on the U.S. auto industry and he proposed linking the research efforts of the various government agencies with those of the U.S. auto manufacturers and working together to design programs to develop prototype vehicles which reach the goals described below.

The U.S. automobile industry has made a major commitment to research and innovation in the past, and the results are visible in the increasing productivity of its employees and plants, and in attractive products offered at competitive prices around the world. Looking to the future, the new challenges of international competition and the costs of meeting increasingly stringent environmental standards can best be met if government and industry work together to develop a new generation of automobiles.

We have made considerable progress in emissions and fuel economy, but rapid development of new technology is essential to pave the way for major further gains. Breakthroughs are possible in basic research in areas such as combustion, light-weight materials, and alternative sources of fuel.

This program represents a fundamental change in the way government and industry interact -- a shift to a new era of progress through partnership and cooperation to address the nation's goals, rather than through the confrontational and adversarial relationship of the past. This new public policy of partnership and cooperation will

virtual design and prototyping from the Army Tank Command, and many other technologies will be available for the project. These government facilities have enormous expertise in technologies but lack practical understanding of what it takes to create and sell a vehicle. By working closely with the U.S. industry toward shared objectives, experts in the defense labs will gain a much clearer understanding of what is needed to design a practical car and experts in the auto industry will gain a much clearer understanding of what is technically possible and available in the enormous U.S. defense technology base.

> *Breaks wasteful gridlock over auto issues.* This partnership replaces controversy with cooperation, breaking decades of gridlock between the industry and government about the best way to ensure low automobile emissions and high safety standards. Today, government shares with industry a vision of technology that can produce competitively priced, high-performance, low-pollution, safe vehicles. This partnership focuses government and industry research efforts on the development of technological improvements that could meet ambitious pollution and safety standards in a vehicle that would preserve all the features Americans expect from automobiles and light trucks.

The Partnership at Work

> Industry and government will immediately name teams of their respective scientists to identify necessary research projects and establish priorities. Each research project will be approved individually through a streamlined process.

> The projects will involve government and industry funding, the percentage of which will vary from project to project, though it is likely that more industry money will be spent on projects with near-term, marketplace applications and more government money will be spent on riskier, longer-term projects.

> This project will not increase the government's total spending on research but will guarantee that taxpayers get the most for their money by ensuring that federal research projects, such as the ones identified by the auto industry-government team, are of greatest importance to the nation.

> The project will be managed by an interagency team, consisting of the Departments of Energy, Defense, Commerce, and Transportation, the Environmental Protection Agency, NASA, and the National Science Foundation. It will be led by Dr. Mary Good, Undersecretary of Commerce for Technology.

Both industry and government leaders agree that cooperation and combining resources is the best way to make significant progress. Industry will provide leadership in identifying research opportunities that can meet the goals of this Initiative and in producing and marketing new vehicle technologies once their commercial viability has been demonstrated.

The federal government, working with fuel producers, will promote the accelerated development and production of alternative fuels. The vehicle manufacturers, to the extent practicable and appropriate, will ensure vehicle compatibility with new fuels.

RESEARCH GOALS

The goal of this program is embodied in three independent, but related, research initiatives. The first will explore technologies that improve the process of designing, manufacturing, and producing vehicles, and that permit greater flexibility in incorporating new production processes and products. The second will develop a range of technologies that improve fuel economy and performance and reduce the emissions associated with conventional vehicle designs. The third will pursue development of a revolutionary class of efficient, environmentally friendly, commercially viable vehicle.

The specific goals of these three initiatives are as follows:

1. Pursuing advances in manufacturing techniques that can reduce production costs and product development times for all car and truck production. These advances include such technologies as: use of high-speed computers for efficient design and testing of products and components before they are fabricated; advanced materials and material fabrication techniques; efficient, flexible manufacturing equipment; and advanced sensors and control systems to optimize the performance of complex assembly and parts management.

These technologies are critical to developing commercially feasible vehicles. Advances in manufacturing technologies can ensure that new concepts can be put into production quickly and with minimal delay. New production technologies will enable the industry to make effective use of advanced materials that can reduce production time, reduce costs, increase safety, increase recyclability, and increase fuel efficiency because of reduced weight. Advanced design and simulation can ensure optimum aerodynamic performance.

2. Pursuing advances in vehicles that can lead to increases in the efficiency of standard vehicle designs. Research will focus on technologies that reduce the demand for energy from the engine and drive train (advanced materials, improved aerodynamics, improved tires, reduced friction), as well as improved engine and transmission efficiency. For example, research will focus on

advanced catalysts capable of making practical the introduction of lean-burn engines.

Throughout the research program, the industry commits to apply those commercially viable technologies resulting from this research that would be expected to significantly increase vehicle fuel efficiency.

3. Developing a revolutionary new class of efficient, environmentally friendly vehicle that will meet the consumers' needs for safety, quality, performance, utility, and affordability. Through cooperative research over the next 3 to 4 years, the partnership expects to identify the most promising technologies for meeting the multi-dimensional program goals that will push the theoretical limits of energy efficiency. Each cooperative research and development project which will be part of the Initiative will have specific goals and timetables to support the overall objective of developing a new generation of vehicle.

Assuming maximum effort on the part of industry and government, the goal of the program is to develop a vehicle which could achieve fuel efficiencies up to three times today's comparable vehicle, while at the same time cost no more to own and drive than today's automobile, maintain performance, size, and utility of comparable vehicles, and meet or exceed safety and emission requirements.

As stated above, throughout the research program the industry commits to apply, as they become commercially viable, those technologies resulting from the research program that would be expected to significantly increase vehicle fuel efficiency. But it is recognized that reaching the goal of fuel efficiencies up to three times today's comparable vehicle may be dependent upon development of revolutionary new approaches, such as fuel cells, to replace the internal combustion engine.

The development of fuel cells, as well as new generation batteries, ultra-capacitors, and other technologies may be beyond what is reasonable and realistic to expect to be achieved and it is recognized that the more radical the technology necessary to reach this goal, the less certain its achievement and the timetable in which it can be achieved. Nevertheless, the goal is to develop a concept vehicle during the 1990's and a production prototype within approximately a decade. It is expected that government laboratories will make major contributions, concentrating on areas where technology is unproven, and there is presently limited consumer demand as a result of the low price of fuel.

These program and research goals are aggressive. The parties agree there is no certainty that these technologies can be developed while simultaneously achieving the other program goals of maintaining affordability, emissions reduction, utility, performance, and safety. The parties also recognize that significant concomitant infrastructure changes also may have to occur to enable the industry to commercialize this new class of vehicle. Nonetheless, the parties commit their best efforts to the

achievement of the goals of this Declaration of Intent and to the rapid application of any developed commercially viable technology.

While the relative proportions of government and private funding will vary depending on the government program (if any) utilized to support a particular aspect of the Initiative, and on the specific project involved, it is envisioned that there will be significant cost sharing by industry and government. The proportion of federal funding will be higher for high-risk projects where the outcome is uncertain and that of industry funding will be higher for technologies with a clear, near-term market.

Focusing research and development activities around these objectives will help maintain the technical leadership and global competitiveness of the nation's automobile industry. It will secure and create U.S. jobs in this sector, which are a vital source of quality employment and tax revenues. The industry and government parties hereby signal their commitment to work together to design and carry out efficient, flexible research programs to achieve the goals of the Initiative. The federal government also hereby intends to use the power of federal vehicle procurement to support the goals of this Initiative, and to encourage state government and other groups to take similar actions to ensure the success of this Initiative.

NEXT STEPS

Several steps will be taken immediately:

- 1) Industry and government officials will be named immediately to establish a mechanism for determining program goals and a process for developing a longer range plan to achieve the program goals. They will address issues including the need to protect U.S. technology, development of milestones and deliverables, and establishment of a common information base that can be used to develop policy options. The government and the industry will broadly solicit technology sources that have a potential to advance the goals of this Initiative.
- 2) Industry and government will immediately name teams of their scientists and engineers who will develop coordinated lists of specific research and development projects to meet the research and development goals and establish priorities.
- 3) Within 60 days, one or more agencies of the federal government, in consultation with the other parties to this Declaration of Intent, will put forward generic procedures for Cooperative Research and Development Agreements (CRADAs) that will facilitate the government's quick response to research and development needs identified under the Initiative. These procedures will cover research and development conducted in federal laboratories. They will also provide a consistent approach to issues such as the availability of federally funded research to the broader research community. A management plan will

be developed by the Departments of Energy and Commerce that will protect industrial proprietary interests and facilitate compliance with statutory requirements. This general agreement will be designed to permit the expedited beginning of work on projects under this Initiative and other industry/government initiatives; ideally, no more than 30 days should pass before work can begin.

- 4) The Administration commits to aggressively pursue identified research and development projects through management of research programs and assets in all federal agencies and national laboratories. The Administration will assign a high priority to research in this area and seek increased funding, as appropriate, to support research activities identified through this program.
- 5) Because multiple federal agencies are involved, the government will identify a focal point to coordinate and channel research and funding intended for this program.
- 6) The research portfolio will form a comprehensive research effort to achieve the goals of the Initiative. Topics may include:
 - Low emissions technologies (advanced catalysts and other methods).
 - New materials for vehicle bodies, compressed gas storage, and a variety of other purposes. This work would include advanced composites that can be recycled.
 - Efficient air conditioning systems compatible with new refrigerants.
 - Improved internal combustion engines compatible with a variety of alternative fuels.
 - Advanced computational capabilities for a variety of applications including rapid prototyping and design simulations.
 - Advanced batteries.
 - Advanced storage technologies other than batteries (including ultra-capacitors, flywheels, and compressed fluids).
 - Electric vehicles.
 - Hybrid vehicle technologies.
 - Gas turbines.
 - Fuel cells and other substitutes for internal combustion engines.
 - Fuel reformers.
 - Technologies for improving vehicle safety.

The auto industry and the federal government will immediately begin the development of a multi-phase plan to identify milestones and deliverables to achieve the goals of this new class of vehicle. The Initiative will include the timely development of a detailed, long-term research implementation plan including as components the research plans of industry and government agency

participants in the Initiative. This will include a detailed description of the proposed research and estimates of required expenditures.

- 7) Analytical teams consisting of staff of the relevant federal agencies and representatives of industry will work to develop a common information base that can be used to evaluate options for meeting national environmental and other goals.
- 8) An unbiased organization acceptable to both the industry and the government, such as the National Academy of Sciences, will be asked to set up a peer review process to comment on the technologies selected for research and on progress made.

SCOPE OF THIS DOCUMENT

As outlined by this Declaration of Intent, the parties expect many individual contracts, grants, CRADAs, and other project agreements to be undertaken by industry, or between industry and government, in support of the goals of the program. Similarly, the government expects and plans to utilize its resources, including its research and development programs, in a manner that will foster the goals of this program. However, neither this Declaration of Intent nor the program it is designed to initiate, is intended as a commitment of specific government or private funds or resources. Such contractual and decision making functions will continue to be carried out through contracts, agreements, and other arrangements made under and subject to, all applicable laws and regulations. It is intended and hoped that other relevant industries and groups will also declare their intent to work in partnership with the government and the automotive industry to help achieve the goals of this Initiative.



NEWS

Corporate News

Public Affairs

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IMMEDIATE RELEASE

Following is the text of remarks delivered by Harold A. Poling, chairman and chief executive officer of Ford Motor Company, at the White House announcement of a partnership for a new generation of vehicles in Washington, D.C., September 29, 1993.

On behalf of Ford, I'm pleased to join the President, the Vice President, Chrysler and General Motors in making this important announcement.

As significant as this undertaking is, I think what we are really talking about this morning is trust.

Trust in our abilities to work together.

Trust in our scientists and engineers.

Trust in our determination to make progress.

Enormous strides in cooperative research have taken place in the past several years. Government and industry -- particularly the auto manufacturers and their suppliers, some of whom are with us today -- are now working together on issues where there are common interests and objectives. And it is being done without compromising our basic competitiveness in the marketplace.

It wasn't always like that. Not too long ago, we regarded government as an adversary, and government felt the same way about us. Now we're starting to work jointly to find more ways to improve our nation's economy and our own competitiveness and meet national goals.

This partnership will push the theoretical limits of energy efficiency, and there's no promise that the desired technologies will be found. But the opportunity for making this leap forward is unprecedented.

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In today's world, rapid development of technology is essential to meet the many challenges industry and our nation face. These include international competition and meeting the stringent regulatory standards that are designed to address a broad range of social concerns.

But by working together on this extremely ambitious project, government and industry offer the best chance of achieving the necessary breakthroughs.

Today's announcement shows our willingness to go forward on the kind of progress we've made in cooperating with one another and the kind of cooperation I hope we can expand upon in the future.

If we succeed, and I am hopeful that we will, it will be because we believed in and trusted each other and had the conviction to devote the best resources that our scientists and laboratories have to offer.

Thank you.

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**STATEMENT BY GENERAL MOTORS PRESIDENT AND CEO JOHN F. SMITH, JR.
ON THE GOVERNMENT/AUTO INDUSTRY'S PARTNERSHIP FOR A NEW
GENERATION OF VEHICLES ANNOUNCED SEPTEMBER 29, 1993.**

Thank you very much. On behalf of everyone at General Motors, it is a great pleasure for me to be here today.

It is not everyday that someone comes to a White House ceremony like this to speak of revolution. But that's really why we're here this morning. Revolutions take many forms and differ in their consequences, but the one we're talking about today has the potential of providing significant benefits for everyone involved -- especially future generations.

The revolution that has brought us together this morning seeks nothing less than a major, even radical breakthrough in automotive technology which can dramatically increase fuel efficiency, improve safety, and reduce emissions -- while maintaining the affordability, performance and utility of current comparable vehicles. Simply put, we are proposing a whole new class of car we've never seen before ... one that will break through our paradigms of today and challenge our technical and creative thinking as never before.

We know that our objective of developing a car that meets these goals -- with fuel efficiency up to three times better than today's comparable car -- is reaching not just for the moon, but for the stars. This new program will bring new energy and excitement to our industry and will help unlock some of the doors that may lead to fuel cells, advanced hybrids, and other technologies needed to meet these ambitious goals.

It's a program that should grip the imagination of every engineer, scientist, manufacturer, journalist, and -- in fact -- everyone who cares about cars.

Crucial to this revolution is the way in which we plan to achieve it -- through partnership and cooperation rather than the old "command and control" adversarial approach of the past. This new approach is long overdue. By working together, we can do a better job of focusing our resources on the breakthroughs needed for real progress in the months and years ahead.

Progress through partnership is a fresh, new and very welcomed way of coordinating and focusing our national efforts to achieve the technological breakthroughs that can make regulatory interventions irrelevant and make our industry more competitive internationally.

This new way, to be successful, replaces confrontation with trust and moves away from assigning blame to sharing credit. Our industry must do its part to see that we do not miss this great opportunity to revolutionize our relationship with government. It will take the best efforts and resources of both the industry and the government to make this happen.

The difficulties and obstacles confronting this revolution should not be underestimated, and our expectations should be realistic. But the potential benefits for the environment and for safety, and especially for future generations of Americans, make this initiative exciting, important and compelling.

We salute the leadership of the President and the Vice President in bringing together industry and government for this important initiative. And General Motors is very pleased to be involved in what promises to be a truly exciting partnership.

* * *

For Release



For Release After 10:00 a.m.
Wednesday, September 29, 1993

Contact: John Guiniven
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STATEMENT BY ROBERT J. EATON, CHAIRMAN AND CHIEF EXECUTIVE OFFICER,
CHRYSLER CORPORATION, ON THE GOVERNMENT/AUTO INDUSTRY'S PARTNERSHIP
FOR A NEW GENERATION OF VEHICLES ANNOUNCED SEPTEMBER 29, 1993

Mr. President. Mr. Vice President.

The current political debate is dominated by NAFTA and health care reform. Those are critical issues -- no doubt about it.

But in its own way, the program we're embarking on today could prove to be every bit as important. Its contributions to the environment and energy conservation could match the contributions of NAFTA to our economic well-being, and health care reform to our physical and social well-being.

It won't be easy. The task before us is huge. We're trying to develop a whole new generation of vehicles that will achieve up to three times the energy efficiency of today's cars and trucks -- while offering the same or improved levels of utility, safety and affordability. To reach that ambitious goal will require major breakthroughs in technology, and there are no guarantees that we can do it.

Our progress will be measured in inches, not in miles. But all of us here today believe that dramatic progress will be made. We're willing to do the hard work and make the investments in order to succeed.

(more)

And most important, we're going to do it together -- industry and government as partners, not as adversaries. We're putting aside, hopefully forever, the distrust that for too long has marked our relationship and impeded the kind of progress that is essential for America to be competitive. Other countries of the world, including our toughest competitors, don't operate this way. And it is about time we chose cooperation over confrontation, too.

The displays you see here represent only the beginning of what that cooperation can bring -- because we are for the first time combining the energy and talents of the experts in the national laboratories and the engineers in the automotive industry.

We are going to push every aspect of vehicle technology to its limit -- from lighter materials to new powertrain concepts. And, hopefully, the incremental improvements we make along the way will lead to the revolutionary breakthroughs we're all searching for.

This is an exciting program, a national challenge. And Chrysler is proud to be a part of it. Thank you.

AUTO FACTS

U.S. AUTO INDUSTRY

1. Motor vehicle and equipment manufacturing is the largest of all U.S. manufacturing industries.
2. The U.S. produced 76% of the world's motor vehicles in 1950, 28% in 1970, 20% in 1990, and 19% in 1991.
3. Of the new cars and trucks sold in the U.S., more than 99% were domestic in 1951, 87% domestic in 1971, and 79% domestic in 1991 (up from 73% in 1987).
4. The U.S. auto industry, its dealers, and suppliers, provided over 2 million direct jobs last year, and more than 13 million people are employed in the U.S. in all motor vehicle related industries.
5. The U.S. auto industry accounts for 4.5% of the U.S. Gross Domestic Product, and cars account for 10% of all consumer spending.
6. World sales of motor vehicles are expected to grow faster than in the U.S., as developing nations improve their transportation systems, leading to increased export potential for U.S. firms.
7. Big 3 automakers spend \$11.3 billion on worldwide R&D.
8. Consumers spend an average of \$16,000 on a new American car.

DRIVING PATTERNS

1. Highway miles driven in the U.S. doubled from 1950 to 1970, and nearly doubled again between 1970 and 1990.
2. Vehicle miles traveled (total miles traveled by all motor vehicles) grew at a compound rate of 3.3% per year from 1970 to 1990.
3. In the U.S. alone, motor vehicles drove nearly 2.2 trillion miles in 1993.
4. In 1992 there was approximately one car per licensed driver in the U.S. There were about 1.8 vehicles per household.
5. Average miles driven each year rose 17% per vehicle from 1977 to 1990.

TRADE

1. In 1992, the total U.S. trade deficit was \$84 billion. Of that, \$45 billion was for imported petroleum, and \$39 billion for imported cars and parts.
2. Over the last 20 years, the U.S. has run a cumulative trade deficit (in today's dollars) of more than \$500 million for motor vehicles and parts, and \$1.3 trillion for oil.
3. Of the 1992 trade deficit, 58% is with Japan. U.S. has had a trade deficit with Japan every year since 1965.
4. U.S. trade deficit with Japan was \$49 billion in 1992, and half of the U.S. trade deficit with Japan is caused by motor vehicles and parts.

CARBON DIOXIDE EMISSIONS

1. Transportation contributes about 30% of U.S. greenhouse gas emissions and about 7% of global greenhouse gas emissions.
2. The U.S. transportation sector produces more carbon emissions than come from all fossil fuels burned in countries like Japan, West Germany, or Mexico.

FUEL USE

1. The transportation industry is 97% dependent on petroleum.
2. In the first six months of 1993, 48% of oil used in the U.S. came from imports. In 1992, net oil imports were 41% of the oil used in the U.S. The Department of Energy projects that imports may hit 60 - 65% of total oil used by 2010.
3. The real price of gasoline is at a post-war time low, and no major changes are expected in the near future.

Glossary

- Advanced Catalysts** Catalysts are used to control tailpipe emissions on all cars sold in the U.S. today. The research contemplated under this agreement would include "lean NOx catalysts" -- catalysts capable of controlling NOx emissions even though the exhaust stream is lean, i.e., has excess oxygen in it. Successful development of such a catalyst would help improve engine efficiency which can be achieved by lean-burn designs.
- Coefficient of Drag** A measure of the air-resistance of a vehicle. This is extremely important at highway speeds since the force needed to move a car through the air when a car is going 60 mph is nine times higher than the force needed when the car is going 20 mph. Typical cars have drag coefficients of 0.35. Experimental cars have reached 0.17 -- nearly as low as those of modern fighter-aircraft.
- Flywheels** Flywheels are a mechanical, kinetic energy storage device in which the energy is stored in a rapidly rotating disk or cylinder. Their attractiveness depends on whether they can beat other storage systems in cost, reliability, and efficiency.
- Fuel Cells** A substitute for the conventional internal combustion engine used in cars today. Fuel cells convert hydrogen into electricity in a simple system which can have no moving parts. The only byproduct of the process is water vapor -- there is no other pollution. The hydrogen needed by fuel cells can either be stored directly (e.g. compressed in a tank) or it can be manufactured on-board from an alcohol fuel like methanol. Fuel cells have been used for many years in the space program but until recently it was difficult to be optimistic that their price could be reduced to levels acceptable as automobile engines. Breakthroughs achieved during the past few years have opened exciting new possibilities.
- Fuel Reformers** Fuel cells like those used in the U.S. space program used pure hydrogen as a fuel. In a practical vehicle, using a liquid fuel such as methanol might be more attractive. However, in order to make these liquid fuels work in a fuel cell, the liquid fuels have to be altered (reformed) to separate the hydrogen from the carbon in the fuel. Research is needed to reduce reformer size and weight, and improve response time and controllability.
- Gas Turbines** Engines similar to those used in modern aircraft.

Hybrid Vehicles	Vehicles powered by more than one power source. An example of a hybrid vehicle is one powered by electric motors, which also carries a power system for generating electricity from an on-board fuel. In this case, the vehicle could operate from a battery and the battery could be charged by a small, on-board engine connected to a generator.
Hydrogen	The lightest element and a flammable gas. When it is burned in the oxygen in the air, H ₂ O (water) is produced. Hydrogen can be made from water using electricity and piped into a car. It can also be made from urban waste, wood, and other biological materials. And it can be produced from methanol in a simple device that could be carried in a car. Hydrogen can be stored compressed in a tank like natural gas. A variety of innovative concepts have been proposed for simpler storage systems but few have received serious support.
Methanol	An alcohol fuel used now primarily by race cars. Methanol can be made from natural gas, from urban waste, wood, or other organic materials, or from coal. Methanol produced from organic materials like wood contribute no net carbon dioxide since the CO ₂ produced by burning the wood is equal to the CO ₂ removed from the air by the tree.
New Materials for Compressed Gas Storage	Natural gas is an attractive alternative fuel. Research would help on lightweight materials which can reduce the weight of storage containers.
Regenerative Braking	When a vehicle is stopped by a standard braking system, the energy of its motion is lost by dissipating energy as heat in the brakes. If the vehicle has electric motors and an electric storage system like a battery, the vehicle can be stopped by operating the motors backwards to generate electricity which is can be stored in the battery for future use. In this sense the energy of motion is "regenerated."
Ultracapacitors	A device for storing electricity like a battery. Unlike a battery, ultracapacitors are designed to release their energy in a quick burst -- ideal for starting or accelerating a car -- and store energy quickly -- ideal for capturing the energy available when a car is braking. Small capacitors have been used for decades as components in electronic equipment like radios and TVs. It is possible that prices can be reduced to practical levels but little work has yet been done on civilian applications.

**Virtual
Prototyping**

The ability to design and test components using computer simulations. This can substitute for building physical prototypes and greatly reduce the time required to perfect a product.

THE WHITE HOUSE
OFFICE OF THE PRESS SECRETARY

FOR RELEASE UPON DELIVERY

10 A-M Wednesday, September 29, 1993

**HISTORIC PARTNERSHIP FORGED WITH AUTO MAKERS
AIMS FOR 3-FOLD INCREASE IN FUEL EFFICIENCY IN AS SOON AS TEN YEARS**
New Technologies, New Economic Opportunities, New Types of Cars

WASHINGTON -- President Bill Clinton and Vice President Al Gore today joined with the Big Three American auto makers to announce an historic new partnership aimed at strengthening U.S. competitiveness by developing technologies for a new generation of vehicles up to three times more fuel efficient than today's -- a technological challenge comparable to or greater than that involved in the Apollo project.

The agreement sets groundbreaking research and development goals for industry and government engineering teams. A model for the new partnership between government and industry, this all-out effort will ensure that the U.S. auto industry leads the world in technology, preserving and creating jobs and economic growth. Research projects will be launched in three categories:

- o Advanced manufacturing techniques to make it easier to get new product ideas into the marketplace quickly, for example, rapid, computer-based design and testing systems and new automation and control systems that can lower production costs;
- o Technologies that can lead to near-term improvements in automobile efficiency, safety, and emissions, for example, lightweight, recyclable materials and catalysts for reducing exhaust pollution; and
- o Research that could lead to production prototypes of vehicles capable of up to three times greater fuel efficiency, for example, radical new concepts such as fuel cells and advanced energy storage systems such as ultracapacitors, to produce more fuel-efficient cars that are affordable, meet or exceed current safety standards and retain the performance and comfort available today.

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. Technologies previously available only in the defense industries will help redefine what's possible. America's national laboratories and other research facilities will be able to apply their expertise. But this is not a government project with government goals. It allows American business to set a path to meet ambitious objectives and define areas where government support can be most helpful.

##

A NEW PARTNERSHIP FOR CARS OF THE FUTURE

Ensuring U.S. Leadership, Expanding Economic Opportunity, Preserving Jobs, Protecting the Environment

Summary

This new partnership forged by President Clinton, Vice President Gore and America's Big Three auto makers -- General Motors, Ford, and Chrysler -- is aimed at strengthening U.S. competitiveness by developing technologies for a new generation of vehicles up to three times more fuel efficient than today's. It is a technological venture as ambitious as any America has ever attempted and a model for the new partnership between government and industry envisioned by President Clinton. This partnership is an all-out effort to ensure that the U.S. auto industry leads the world in technology, expanding economic opportunity, preserving jobs, protecting the environment, and strengthening our economic competitiveness.

The Big Three Auto makers and the federal government have agreed to ambitious research and development goals for automobiles of the future. The long term goal is development of affordable, safe, attractive, and dramatically more efficient automobiles. It is a bold statement of America's commitment to environmental stewardship and environmental protection -- not only in the United States, but around the world. Groundbreaking research and development goals for industry and government engineering teams will be launched in three categories:

- o Advanced manufacturing techniques to make it easier to get new product ideas into the marketplace quickly, for example, rapid, computer-based design and testing systems and new automation and control systems that can lower production costs;
- o Technologies that can lead to near-term improvements in automobile efficiency, safety, and emissions, for example, lightweight, recyclable materials and catalysts for reducing exhaust pollution; and
- o Research that could lead to production prototypes of vehicles capable of up to three times greater fuel efficiency, for example, radical new concepts such as fuel cells and advanced energy storage systems such as ultracapacitors, to produce more fuel-efficient cars that are affordable, meet or exceed current safety standards and retain the performance and comfort available today.

This new partnership will coordinate the efforts of America's best scientists and engineers to develop vehicles hard to imagine even a few years ago. It puts the principles of the Vice President's National Performance Review to work, bringing together agencies that had no organized way of coordinating their research efforts to now work toward a common goal, sharing information and avoiding duplication. Technologies previously available only in the defense industries will help redefine what's possible. America's national laboratories and other research facilities will be able to apply their expertise, re-directing the best talent in the U.S. defense research agencies to attack a peacetime challenge.

But this is not a government project with government goals. It allows American business to set a path to meet ambitious objectives and define areas where government support can be most helpful. It will provide a balanced set of performance goals that can be used to set research priorities. The engineering teams will be charged with determining which of the many technical options should be pursued. Government and industry research will be efficiently focused on the highest priorities and practical products will move to the market expeditiously.

Highlights

- > *An unprecedented technology goal:* This partnership commits the federal government and the U.S. automobile industry to a program aimed at developing a practical, affordable automobile up to three times more fuel efficient than comparable vehicles today and to do so in about ten years. Government and industry engineers recognize that this ambitious goal will require radical changes in the way automobiles operate and that the results are risky and uncertain. Reaching this goal may be dependent on the development of revolutionary new approaches, such as fuel cells, to replace the internal combustion engine. This partnership means that both government and industry have accepted a technical challenge as ambitious as any America has undertaken. Unlike the Apollo or Manhattan projects, however, success in this venture means practical vehicles sold by U.S. auto companies in competitive markets.
- > *Restores U.S. leadership, strengthens competitiveness, preserves jobs:* The projects developed under this agreement are aimed at technologies that will help propel U.S. industry to the forefront of world automobile production. It will help ensure that U.S. jobs are not threatened by the need to meet environmental and safety goals and that world pursuit of such goals will translate into a demand for U.S. products, not foreign products. This means preserving jobs in a critical American industry. Given the rapid depletion of U.S. petroleum supplies and mounting concern about urban air pollution and gases that can contribute to global warming, this project sets out to ensure that the freedom and convenience of personal vehicles will continue to be available to all Americans and to people around the world.
- > *A model for public/private partnerships in advanced technology development:* This partnership represents a unique approach to government-industry cooperation in which public and private research goals can be coordinated. It relies heavily on the U.S. auto industry's clear understanding of the practical problems involved in developing and producing an attractive, marketable car. It ensures that neither the government nor the industry wastes money on projects with no real future and that federal resources are used to support research in areas where risks are so high and rewards so delayed that the U.S. industry could not afford the investment.
- > *An important peace dividend:* This partnership represents a critical opportunity to use the unique resources developed by U.S. defense investments. It makes available to U.S. industry the expertise of the Department of Energy's weapons laboratories as well as research facilities throughout the Department of Defense. This means that super-strong, light-weight materials developed for advanced weapons systems, ultra-capacitors from "Star Wars" projects, super-efficient motors and fuel cells from the Advanced Research Projects Agency,

permit dedication of private and public resources to programs designed to achieve major technological breakthroughs that can make regulatory interventions irrelevant.

OVERVIEW

The automobile industry recognizes that its future depends on world-class productivity, and the production of affordable, high quality, safe, environmentally sensitive products. But this industry faces continued challenges in the years ahead. International competition is growing. The new Clean Air Act amendments and the California standards set ambitious new goals for reduced emissions. Reductions in greenhouse gas production and imported petroleum demand over the long term, may require a number of actions, in combination, to reduce fleet fuel consumption.

This program is designed to address key new technical options for vehicles, including: 1) development and introduction of substitutes for petroleum used in transportation — particularly fuels from renewable resources, and 2) increased efficiency in automobiles and light trucks.

We expect the program will mark the beginning of a new era of progress through partnership. By this document, USCAR and the government declare their separate but coordinated plans toward the achievement of specific goals to meet the nation's need and desire for tomorrow's clean and efficient cars.

PROGRAM GOALS

The program strategy is designed to create a balanced research portfolio capable of pursuing a number of goals simultaneously. The program should:

- Keep driving affordable
- Enhance the competitive status of the U.S. automobile industry in domestic and international markets
- Maintain performance, size, and utility comparable to those available in vehicles today
- Meet applicable safety and emission standards
- Improve on current safety levels
- Reduce criteria pollutants to Tier II emission levels
- Increase total onboard energy efficiency by reducing both petroleum consumption and the production of greenhouse gases — taking into account all energy and emissions associated with driving.

There is no easy way to meet all of the goals just described. Making progress in all areas simultaneously is a challenge of historic proportions. The federal government and the automobile manufacturers will work actively together to coordinate the research portfolios of industry and the government to facilitate significant advances on all of

PARTNERSHIP FOR A NEW GENERATION OF VEHICLES

The New Technology Initiative announced by President Bill Clinton and Vice President Al Gore on February 22, 1993, is the basis for a new program joining the President, on behalf of the Federal Government, and USCAR, a partnership of Ford, Chrysler, and General Motors Corporation, in a unique research and development effort. 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 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. industry.

This partnership between the government and the industry will permit dedication of private and public resources to programs designed to achieve major technological breakthroughs that can make traditional regulatory interventions irrelevant. The goal of the program is to develop a vehicle which could achieve fuel efficiencies up to three times today's comparable vehicle, while at the same time cost no more to own and drive than today's automobile, maintain performance, size and utility of comparable vehicles, and meet or exceed safety and emission requirements. This goal is established with the knowledge that it will require maximum effort on the part of industry and government and results comparable to the Apollo Program or the Manhattan Project while achieving manufacturing process breakthroughs sufficient to make the vehicle commercially viable.

Throughout the research program, the industry commits to apply, as they become commercially viable, those technologies resulting from the research program that would be expected to significantly increase vehicle fuel efficiency, including improvements in today's powertrains, catalysts, materials, and manufacturing technologies and capacity for use of alternative fuels. But it is recognized that reaching the goal of fuel efficiencies up to three times today's comparable vehicle may be dependent on the development of revolutionary new approaches, such as fuel cells, to replace the internal combustion engine.

The development of fuel cells, as well as new generation batteries, ultra-capacitors, and other technologies may be beyond what is reasonable and realistic to expect to be achieved and it is recognized that the more radical the technology necessary to reach this goal, the less certain its achievement and the timetable in which it can be achieved. Nevertheless, the goal is to develop a concept vehicle during the 1990's and a production prototype within approximately a decade. It is expected that government laboratories will make major contributions, concentrating on areas where technology is unproven, and there is presently limited consumer demand as a result of the low price of fuel.

The research also will explore technologies that substantially improve and reduce the cost of the processes of designing, manufacturing, and producing vehicles, and that permit greater flexibility in incorporating new production processes and products. These technologies are critical for achieving commercially feasible vehicles.

This program represents a fundamental change in the way government and industry have interacted in the past and is intended to begin a new era of progress through partnership to address the nation's goals rather than through the confrontational and adversarial relationship of the past.

Industry and government immediately will name a team of their scientists and engineers who will coordinate lists of specific research and development projects to meet research and development goals and establish priorities. The team will address issues including the need to protect U.S. technology, the development of milestones and deliverables, and the establishment of a common information base.

The industry and government look forward to the unique and important challenge of this new partnership for progress.

- Wednesday, September 29, 1993

President Clinton and Vice President Al Gore: Auto Industry Leaders
Transcript ID: 993153 (597 lines)

REMARKS OF PRESIDENT BILL CLINTON
VICE PRESIDENT AL GORE
AND AUTO INDUSTRY LEADERS

SUBJECT: EXPORT PROMOTION STRATEGY

THE SOUTH LAWN
THE WHITE HOUSE

WEDNESDAY, SEPTEMBER 29, 1993

VICE PRESIDENT GORE: Ladies and gentlemen, welcome to this event today. This is an exciting announcement the president is going to make in just a moment.

In the engine of an automobile you have to combine air and gasoline to make things go. In Washington, the trick is to mix intelligence with courage, a combination in much shorter supply. That's why I'm so excited today, because the president is going to announce a unique and unprecedented partnership that does combine both elements. This has a goal with enormous implications for our future, the future of our country and the future of our world. This initiative stems from these simple contradictions: the automobile, which has so enriched our lives, poses a threat to our well-being as well; the industry that has driven our prosperity now sees that that prosperity faces threats in the future.

In 1990, cars and light trucks in the United States consumed almost 100 billion gallons of gasoline and diesel fuel. That means we deplete a resource that cannot be resupplied and we also pollute the atmosphere -- about 30 percent of U.S. greenhouse gas emissions, for example, come from transportation -- and we impoverish our country. Last year, the total U.S. trade deficit was \$84 billion. Just coincidentally, what do you think we spent on imported petroleum and imported cars and auto parts? Exactly \$84 billion. The problem isn't

going away either. We have more drivers than ever, they're driving more miles; highway miles driven in the United States doubled between 1950 and 1970 and then doubled again between 1970 and 1990.

At the same time, the car has been one of the wonders of our civilization. We don't really need to point out that it makes it possible to visit friends in the next town and do everything from having vegetables on your plate a day after they've been picked to keeping in touch with your family. Americans have been having a love affair with the automobile probably at least since the invention of the self-starter in 1911. One of the inventors of the self-starter pointed out that it made it possible for women to get rid of the male companion whose only use was to crank the engine, and then get out for a drive and do it alone. (Laughter.)

People dream about cars from the time they are old enough to know what a car is. That's the meaning of these wonderful drawings that are around here. I don't know if you can see them, but I encourage you to look at some of the drawings that these kids have drawn. They're from the Capital Children's Museum. And for the last couple of days, since they got an advance indication that this -- something like this announcement was going to take place, these kids have been working on their idea of what the car of the future might look like, and they've questioned whether the internal combustion engine is the only way of converting energy to useable power on the road.

They've got cars up there powered by water, air, solar panels, the sun, wind, a recycled box, and -- my favorite -- body heat. (Laughter.) We want you all to look at that one closely. (Laughter.) We want to be at least as imaginative. After all, considering that this country spends tens of billions of dollars each year to upgrade and improve bombers and fighters, it is amazing that we are content to use a technology on our highways that was developed in 1876.

Today's announcement provides us with another way. It's an announcement of an initiative at once bold and necessary, risky and yet full of promise. It is an announcement resulting from the work of many people in this administration, particularly from the Department of Commerce and from EPA and the Energy Department, the national

laboratories and ARPA and NIST and elsewhere.

And after the president speaks, I'm going to acknowledge and comment a little bit about these three CEOs, but I do want to acknowledging Red Poling and Bob Eaton and Jack Smith, who will speak shortly, and also Owen Bieber and, of course, the United Auto Workers have been full partners in the renaissance of the American automobile industry and are full partners at the beginning of this new stage. We'll then hear from an engineering student who I will introduce, but I want to acknowledge someone else who has been a real key to reaching this agreement today, and that is Dr. Jack Gibbons, who is the president's science advisor and head of the Office of Science and Technology Policy, who is on stage with us.

And I want to acknowledge the members of Congress who are here from Michigan. Senator Carl Levin is here. And I know Senator Riegle was on his way. And also Congressmen Dale Kildee and Sander Levin, Congressman Phil Sharp, chairman of the Energy Subcommittee in the House of Representatives, and Representative Fred Upton and other distinguished guests who are present, including Secretary Pena, the secretary of transportation, and the administrator of the Environmental Protection Agency, Carol Browner.

Now, ladies and gentleman, this announcement combines several of the main themes of President Bill Clinton's administration. From the days of the transition, President Clinton has talked about a new partnership between government and the automobile industry. And that's why it's a great pleasure to introduce the person best equipped in the whole world to talk about these themes, the president of the United States, Bill Clinton. (Applause.)

PRESIDENT CLINTON: Thank you. Thank you very much. Thank you. Thank you. Thank you very much. Thank you.

Thank you very much. Good morning, ladies and gentlemen. And I want to say a special good morning to the young people whose vision of the future can be seen on these great drawings they have done.

I want to begin by, as the vice president did, acknowledging the presence here of Mr. Eaton, Mr. Poling, Mr. Smith, Mr. Bieber, and

Our long-term goal is to develop affordable, attractive cars that are up to three times more fuel-efficient than today's cars -- three times -- and meet strict standards for urban air pollution, safety, performance and comfort. Industry and government engineering teams will work together on this. The project will involve federal and industry funding. The government will pick up a greater share of the high-risk projects, ones identified by an auto industry-government team.

We'll have three types of research projects: first, advanced manufacturing techniques to lower production costs and get new products on the market fast; second, research on technologies that can lead to near-term improvements and auto efficiency, safety and emissions; and third, research that could lead to production prototypes of vehicles capable of up to three times greater fuel efficiency.

Now, the vice president mentioned that this brings together a number of things we are trying to do in this administration. First, there's a public-private partnership. Government can't do these things by itself, but there are a lot of things that we need to be working on that market forces alone can't do. So the third way, a partnership between the government and the private sector to avoid the inefficiencies, the bureaucracies, and the errors of government policy but to add the technology and the investment expertise we can bring, I think this is the way we're going to solve a lot of problems in the future.

We'd be foolish not to rely on the auto industry, with its clear understanding of the practical problem, and this makes sure that neither government nor industry wastes money on projects with no real future.

The second thing we want to do is to keep America competitive. When you think of all the slogans you've heard over the years, what stands out is not just how catchy they are, but how much truth there is to them. In the new Chrysler's form skillfully follows -- in the new Chryslers, excuse me, form skillfully follows function; Ford has had better ideas; and there is a lot to admire if you've driven a

also a lot of the representatives of auto suppliers, people who supply component parts, who will have a major role in this great project.

I thank all them for being here. The members of Congress. And I also want to acknowledge that we inadvertently omitted Senator Bryan from Nevada, a long-time leader in the struggle to increase fuel efficiency.

I kind of liked the vice president's story about the self-starter. (Laughter.) When I first met Al Gore, I thought he had one of those implanted in him at an early age. (Laughter.)

This is especially a happy moment for me. Some of you know that when I was a young man, when I was very young my father was a Buick dealer in the small town in Arkansas where I was born, and he later went into business with my uncle in a larger town. I can still remember the first gainful work I think I ever did when I was six years old was trying to help my Dad restore some Henry J's that had burned in a fire 35 miles from our home, and as a favor to the dealer, he helped him restore the cars and we got to keep one. So until I was 18 years old, I drove a 1952 Henry J. self-made convertible. I once had an accident in it, and my jaw hit the steering wheel and I broke the steering wheel in half. I don't know if that was an advertisement for my jaw or a condemnation of the steering wheel.

One of my most prized possessions is a 1967 Mustang convertible that I restored a few years ago, and I think when I left my home, it was the thing that I most regretted leaving behind. The other people who drove on the roads in my home state, however, were immensely relieved.

I think that all of us have our car-crazy moments and have those stories. Today we're going to try to give America a new car-crazy chapter in her rich history, to launch a technological venture as ambitious as any our nation has ever attempted. General Motors, Ford, Chrysler and your national government have agreed to accept a set of ambitious research and development goals for automobiles. We're confident that other companies outside Detroit will join in.

Buick lately. We have got to do more of this. You know, one of the great untold stories, although it's beginning to get out, is that these people up here on this stage are regaining American market share. People are buying more American cars made in America because they're doing a good job. (Applause.)

And since the auto industry is responsible for one out of every seven jobs in the United States, it is clearly incumbent upon all of us to support this effort and to make sure it succeeds. What better way is there to work together on a car that's practical, affordable, fun to drive, places little or no burden on the environment? We want American cars at the head of this parade, not bringing up the rear. Believe me, there'll be a huge market for them.

The third thing we want to do -- and this is very, very important to this administration. Part of our commitment to reinventing government is to get rid of wasteful and costly regulation. The government will in no way abdicate its responsibility in the search for near-term improvements in fuel efficiency, but we do want to break the wasteful gridlock in Washington over auto issues. We want a vehicle that lets us scrap a lot of the regulation in place today because it's achieved the objectives of the regulation in a much more efficient and market-based way.

This agreement represents an important peace dividend. It makes the expertise of the Department of Energy's weapons labs, as well as the research facilities throughout the Department of Defense, available to industry. That means all those superstrong, lightweight materials developed for weapons systems will be available here.

I told someone today right before we came out, I told the vice president that I remember very vividly over 30 years ago standing in the showroom of the Buick dealership in my home town and having my dad look at the new models and say, you know, someday, they'll figure out a way to make a car that weighs less than half this much and the fuel efficiency problems will be a long way toward being solved. Now, we know we'll be able to do things with engines that we never dreamed over 30 years ago.

Let me make one last point. This agreement grows out of a

bedrock premise of this administration, one of the reasons that I ran for president.

This agreement reflects an understanding that changes in this world are inevitable, they cannot be repealed, they cannot be rolled back, they cannot be denied, they can be avoided or delayed at our peril. What we have to do is to try to find a way to make these changes our friends. This is a visionary effort on behalf the American people to make change our friend in one of the most important economic areas of American life.

We do not have the choice to do nothing. We have to act decisively to shape change so that it matches the needs of the future. That's what we're trying to do with health care, that's what we'll try to do in economic policy, that's what we're trying to do here today.

This is the end of a long negotiation and the beginning of a great period of action and excitement in American life. Is there any risk? You bet there is. We have to condition the American people to be willing to take more risks and fail in order to ultimately succeed. Will we have setbacks? I imagine we will, if we do anything. But that's no reason to give up.

Alexander Graham Bell once remarked that if he had known more about electricity, he never would have invented the telephone. We need a little more of that kind of ignorance today, to just keep walking into those solid walls until they give way. We cannot be deterred by the difficulty.

For 50 years the companies represented here today have comprised the basic engine of American prosperity. Working together, we can make sure the freedom and convenience of personal vehicles will continue to be available to all Americans. We intend to do nothing less than to define the world car of the next century, to propel the auto industry to the forefront of world automobile production, and to make this industry the source of imagination for young people of the future: for their ideas, their careers, and their efforts.

I'm excited. But most importantly, maybe, our young people are

excited. And let me just close with this story.

I was greeting a number of ambassadors the other day, including an ambassador from one of the Baltic countries who has an American wife and a young son who's five years old who speaks fluent English and German because his father had been living in Germany. I never met a five-year-old kid like this in my life, but when I shook hands with him, he said "I'm glad to meet you, Mr. President. I want you to make a car that runs on electricity and doesn't pollute the air." (Laughter.) And he said "I intend to work on this. And I want you to tell the vice president that I'm working on this." (Laughter.) So I said, "Well, you tell him." I was so impressed, I went to get Al Gore and I introduced him to the five-year-old boy, and he said "Hello, Mr. Vice President. I intend to spend my life working on this." And he said "I am going to help you develop an electric car that has no pollution." And Al Gore says "That means we're going to be partners." He said "Yes, I guess so. But you don't understand. I'm going to spend my whole life on this." (Laughter.)

We owe it -- we've got all these kids out there that are on fire about this. And I want to say again, maybe that's the most important thing in the world. We can keep them looking to the future with confidence. This country needs a good dose of old-fashioned confidence today that all of the challenges we face can be met and conquered. And this ought to be a clear signal to America that the core of the American industrial economy, the auto industry, is looking to the future with confidence and that the United States government is going to be their partner in that success march.

Thank you very much. (Applause.)

(Applause.)

VICE PRESIDENT GORE: Before introducing the three CEOs who have really made this possible, I want to ask all of the engineers present from the automobile industry if you would stand. If -- engineers from the automobile industry? We appreciate your presence here. (Applause.) Thank you very much. And these three over here I want to single out. They're the vice presidents for technology from Ford, John McTage (sp); from General Motors, Arvin Muller (sp); and from

Chrysler, Francois Castana (sp).

And may I ask the engineers from the federal government who are present if you would stand, please? From the -- thank you. (Applause.) I want to acknowledge that the heads of all of our national laboratories are here -- the head of ARPA, the head of NIST, the head of the Army's Tank Command, and others in the military research and technology establishment. Bill Perry, the deputy secretary of defense. Dan Goldin, the head of NASA is here. The deans of several engineering schools are here and a couple of other prominent faculty members from engineering schools. And we anticipate that the student bodies of several of these schools are going to be contributing some creativity and energy to this national effort.

And I want to also acknowledge the person who is going to be the head of the interagency working team to keep this effort focused on the government side, and that is the undersecretary of commerce for technology, Dr. Mary Good (sp). If you would stand, Dr. Good. (Applause.) We're going to be counting on you very much.

The three people who are most responsible for this are the CEOs of our three automobile -- three leading automobile companies in the United States. Harold "Red" Poling joined Ford in 1951 as a cost analyst in the steel division controller's office. He was named president in 1985 and elected chairman in March of 1990. Jack Smith joined General Motors 32 years ago at the Fischer body plant in Framingham, Massachusetts. Since then, he's had a variety of responsibilities, culminating in his election as CEO and president of General Motors 11 months ago. Bob Eaton graduated from the University of Kansas in 1963, joined General Motors in 1971, then moved to Chrysler and was elected chairman and chief executive office on January 1 of this year.

I want to acknowledge all three of these individuals and ask them to say something, but I want you to know -- everybody who's listening -- that these three men made a decision as individuals, as leaders, and as a group of three that required tremendous courage and vision.

This is not an ordinary kind of decision. They really have done something extraordinary. It is an act of patriotism. It is also an

act of good business judgment because the fastest-growing market for automobiles is in those areas of the world that are having the toughest time dealing with pollution and dealing with the expense of the imported oil that fuels their vehicles.

I think that by committing themselves to this project these three CEOs have done a great thing for our country and our world and also for their industry, because I think they are going to position this industry to have an excellent chance to dominate the world market for the new automobiles of the future.

I'd like to ask them to come and speak now. And please join me in expressing thanks for what they have done. Mr. Poling, Mr. Smith, Mr. Eaton. (Applause.) Do you want to go first, Red?

HAROLD "RED" POLING (CEO, Ford Motor Company): Thank you, Vice President Gore. President Clinton, ladies and gentlemen, good morning.

On behalf of Ford, I'm pleased to join the president, the vice president Chrysler and General Motors in making this important announcement. As significant as this undertaking is, I think what we're really talking about this morning is trust; trust in our abilities to work together, trust in our determination to make progress, and trust in our scientists and engineers.

Enormous strides in cooperative research have taken place in the past several years. Government and industry, particularly the auto manufacturers and their suppliers, some of whom are with us today, are now working together on issues where there are common interests and objectives, and it's being done without compromising our basic competitiveness in the marketplace.

It wasn't always like that. Not too long ago, we regarded government as an adversary, and government felt the same way about us. Now we're starting to work jointly to find more ways to improve our nation's economy and our own competitiveness and meet national goals. This partnership will push the theoretical limits of energy efficiency, and there's no promise that the desired technologies will

be found. But the opportunity for making this leap forward is unprecedented.

In today's world, rapid development of technology is essential to meeting the challenges industry and our nation face. These include international competition and meeting the stringent regulatory standards that are designed to address a broad range of social concerns. But by working together on this extremely ambitious project, government and industry offer the best chance of achieving the necessary breakthroughs.

Today's announcement shows our willingness to go forward on the kind of progress we've made in cooperating with one another, and the kind of cooperation I hope we can expand upon in the future.

If we succeed, and I am hopeful that we will, it will be because we believed in and trusted each other and had the conviction to devote the best resources that our scientists and our laboratories have to offer.

Thank you. (Applause.)

BOB EATON (Chrysler): Mr. President, Mr. Vice President, the current political debate is dominated by NAFTA and health care reform. They are critical issues, no doubt about it. But in its own way, the program that we're embarking on today could prove to be every bit as important. Its contributions to the environment and to energy conservation could match the contributions of NAFTA to our political well-being, and of health care reform to our economic physical well-being.

It won't be easy, no question about it. The task is huge. We're trying to develop a whole new generation of vehicles that will achieve up to three times the energy efficiency of today's cars and trucks while also offering the same levels of utility, of safety and of affordability. To reach those ambitious goals will require major breakthroughs in technology. But all of us here today believe that dramatic progress will be made. We're willing to do the hard work and we're willing to make the investments in order to succeed. And most

important, we're going to be doing it together, industry and government, as partners, not as adversaries.

We're putting aside, hopefully forever, the distrust that for too long has marked our relationship and impeded the progress that is essential for America to be competitive. Other countries of the world, including our toughest competitors, don't operate that way, and frankly, it's about time that we chose cooperation over confrontation. The displays that you see here today represent only the beginning of what cooperation can bring, because we are, for the first time, combining the energies and talents of the experts in the national laboratories and the engineers and scientists in the automobile industry.

We're going to push every aspect of vehicle technology to its limit, from minor technologies, minor materials, to new, completely new power train concepts. This absolutely is an exciting program, a major national challenge, and Chrysler is very, very pleased to be a part of it.

Thank you. (Applause.)

JACK SMITH (General Motors): Mr. President, Mr. Vice President, thank you very much.

On behalf of all of the people at General Motors, it's a great pleasure for me to be here today. It's not every day that someone comes to a White House ceremony like this to speak of revolution, but that's really why we're here this morning. Revolutions take many forms and differ in their consequences, but the one we're talking about today has the potential of providing significant benefits for everyone involved, especially future generations.

The revolution that has brought us together this morning seeks nothing less than a major, really a radical, breakthrough in automotive technology, which can dramatically increase fuel efficiency, improve safety and reduce emissions while maintaining the affordability, performance and utility of current comparable vehicles. Simply put, we are proposing a whole new class of cars that we've

never seen before, one that will break through our paradigms of today and challenge our technical and creative thinking as never before.

We know our objective of developing a car that meets these goals with fuel efficiency up to three times better than today's comparable car is reaching not just for the moon, but for the stars. This new program will bring new energy and excitement to our industry and will help unlock some of the doors that may lead to fuel cells, advance hybrids and other technologies needed to meet these ambitious goals. Its program should grip the imagination of every engineer, scientist, manufacturer, journalist, and, in fact, everyone who cares about cars.

Crucial to this revolution is the way in which we plan to achieve it, through a partnership and cooperation rather than the old command and control, adversarial approach of the past. This new approach is long overdue. By working together, we can do a better job of focusing our resources on the breakthroughs needed for progress to be made in the months and years ahead. Progress through partnership is a fresh, new and very welcomed way of coordinating and focusing our national efforts to achieve the technological breakthroughs that can make regulatory intervention irrelevant and make our industry more competitive internationally. This new way to be successful replaces confrontation with trust and moves away from assigning blame to sharing credit.

Our industry must do its part to see that we do not miss this great opportunity to revolutionize our relationship with government. It will take the best efforts and resources of both industry and the government to make this happen. The difficulties and obstacles confronting this revolution should not be underestimated, and our expectations should be realistic, but the potential benefits for the environment and for safety and especially for future generations of Americans make this initiative exciting, important and compelling.

We salute the leadership of the president and the vice president in bringing together industry and government for this most important initiative, and General Motors is very pleased to be involved in what promises to be a truly exciting partnership. Thank you very much.
(Applause.)

VICE PRESIDENT GORE: Thank you, gentlemen. I'd just like to add on a personal note that it has been a great experience to get to know each of these men personally in the process of talking about this over the last six months. They are truly extraordinary leaders and are performing a great service for our country.

Ladies and gentlemen, our final speaker today is a student. We thought of future generations in putting together this whole initiative, and the young people of this country who are so excited about what the future holds are going to bring a lot of creativity and energy to the kind of work that is contemplated here.

Jordan Wilkerson graduated from high school in Colorado.

He saw active duty in the Air Force and is now a mechanical engineering student at the University of Maryland. He is also a co-project leader at his school on a project to come up with new ideas on cars of the future. His particular vehicle uses methanol and electric vehicle technology and modifies a GM Saturn SL-2 for the Department of Energy's second annual HEV competition.

He is an example of the young people who are dreaming about the progress we can make, and incidently, Jordan, I see that tomorrow is your birthday. I hope you enjoy it half as much as we enjoy having you here today.

(Applause.)

MR. WILKERSON: Mr. President, Mr. Vice President, thank you. We're very greatly honored to have this opportunity -- not to mention a little nervous -- to say a few words at this important event.

When I learned about this initiative, I could only say that I was truly excited about what it meant to me as a future engineer, and for my generation in terms of the environment which we will soon inherit from all of you. Certainly any positive step that our nation takes toward a clean system is a good thing, but what has impressed me and excited me most is the boldness of this initiative, as well as the fact that our government and the automotive industry are working

together to advance transportation technology.

Speaking for my generation, I can only say thanks to the president and his team and to the auto industry for taking the -- this incredible, important step towards environmentally clean and fuel efficient cars. As a young engineer, I can say that you have all made this a very exciting time for me and my fellow students entering this field.

And President Clinton, I'd like to close by giving a special thanks, not only for the clean cars which Americans will drive tomorrow, but also for the jobs that this initiative will create. That's very important to someone like me who is entering the career field.

Thank you.

(Applause.)

PRESIDENT CLINTON: We're about ready to close, but before we do, this is an unscheduled moment in this -- none of this would have happened if it hadn't been for the vice president, and I think we ought to give him a big hand. (Applause.) He did a great job on it. Thank you very much, we'll adjourn.

(Applause.)

END

From: Bill Mason 9/30/93 12:39PM (11807 bytes: 204 ln)
To: Julie Cote, Karin Willis
Subject: President's Comments at Clean Car Event 9/29/93

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THE WHITE HOUSE
Office of the Press Secretary

For Immediate Release

September 29, 1993

REMARKS BY THE PRESIDENT
AT CLEAN CAR EVENT

The South Grounds

10:24 A.M. EDT

THE PRESIDENT: Thank you very much, and good morning ladies and gentlemen. I want to say a special good morning to the young people whose vision of the future can be seen on these great drawings they have done.

I want to begin by, as the Vice President did, acknowledging the presence here of Mr. Eaton, Mr. Poling, Mr. Smith, Mr. Biever, and also a lot of representatives of auto suppliers, people who supply component parts who will have a major role in this great project. I thank all them for being here. The members of Congress. I also want to acknowledge one that we inadvertently omitted, Senator Bryan from Nevada, a longtime leader in the struggle to increase fuel efficiency.

I kind of liked the Vice President's story about the self-starter. (Laughter.) When I first met Al Gore, I thought he had one of those implanted in him at an early age. (Laughter.)

This is especially a happy moment for me. Some of you know that when I was a young man, when I was very young, my father was a Buick dealer in a small town in Arkansas where I was born, and he later went into business with my uncle in a larger town. I can still remember the first gainful work I think I ever did when I was six years old was trying to help my dad restore some Henry J.'s that had burned in a fire 35 miles from our home. And as a favor to the dealer, he helped him restore the cars, and we got to keep one. So until I was 18 years old, I drove a 1952 Henry J. self-made convertible. I once had an accident in it, and my jaw hit the steering wheel, and I broke the steering wheel in half. I don't know if that was a advertisement for my jaw or a condemnation of the steering wheel.

One of my most prized possessions is a 1967 Mustang convertible that I restored a few years ago. And I think when I left my home, it was the thing that I most regretted leaving behind. The other people who drove on the roads in my home state, however, were immensely relieved.

I think that all of us have our car-crazy moments and have those stories. Today, we're going to try to give America a new car-crazy chapter in her rich history -- to launch a technological venture as ambitious as any our nation has ever attempted. General Motors, Ford, Chrysler and your national government have agreed to accept a set of ambitious research and development goals for automobiles. We're confident that other companies outside Detroit will join in.

Our long-term goal is to develop affordable, attractive cars that are up to three times more fuel-efficient than today's cars -- three times -- and meet strict standards for urban air pollution, safety, performance and comfort.

Industry and government engineering teams will work together on this. The project will involve federal and industry risk projects, ones identified by an auto industry government team. We'll have three types of research projects. First, advanced manufacturing techniques to lower production costs and get new products on the market fast. Second, research on technologies that can lead to near-term improvements and auto efficiency safety and emissions. And, third, research that could lead to production prototypes of vehicles capable of up to three times greater fuel efficiency.

Now, the Vice President mentioned that this brings together a number of things we are trying to do in this administration. First, there's a public-private partnership. Government can't do these things by itself, but there are a lot of things that we need to be working on that market forces alone can't do. So the third way, a partnership between the government and the private sector to avoid the inefficiencies, the bureaucracies and the errors of government policy, but to add the technology and the investment expertise we can bring. I think this is the way we're going to solve a lot of problems in the future. We'd be foolish not to rely on the auto industry with its clear understanding of the practical problems, and this makes sure that neither government nor industry wastes money on projects with no real future.

The second thing we want to do is to keep America competitive. When you think of all the slogans you've heard over the years, what stands out is not just how catchy they are, but how much truth there is to them.

In the new Chrysler form, skillfully follows -- in the new Chryslers -- excuse me -- form skillfully follows functions. Ford has had better ideas. And there is a lot to admire if you've driven a Buick lately. We have got to do more of this.

You know, one of the great untold stories -- although it's beginning to get out -- is that these people up here on this stage are regaining American market share. People are buying more American cars made in America because they're doing a good job. (Applause.)

And since the auto industry is responsible for one out of every seven jobs in the United States, it is clearly incumbent upon all of us to support this effort and to make sure it succeeds. What better way is there to work together on a car that's practical, affordable, fun to drive, places little or no burden on the environment? We want American cars at the head of this parade, not bringing up the rear. Believe me, there will be a huge market for them.

The third thing we want to do -- and this is very, very important to this administration; part of our commitment to reinventing government -- is to get rid of wasteful and costly

regulation. The government will in no way abdicate its responsibility in the search for near-term improvements in fuel efficiency, but we do want to break the wasteful gridlock in Washington over auto issues. We want a vehicle that lets us scrap a lot of the regulation in place today because it's achieved the based way.

This agreement represents an important peace dividend. It makes the expertise of the Department of Energy's weapons labs, as well as the research departments throughout the Department of Defense weight materials developed for weapons systems will be available here.

I told someone today right before we came out -- I told the Vice President that I remember very vividly over 30 years ago standing in the showroom of the Buick dealership in my hometown and having my dad look at the new models and say, you know, some day they'll figure out a way to make a car that weighs less than half this much and the fuel efficiency problems will be a long way toward being solved. Now we know we'll be able to do things with engines that we never dreamed over 30 years ago.

Let me make one last point. This agreement grows out of a bedrock premise of this administration, one of the reasons that I ran for President. This agreement reflects an understanding that changes in this world are inevitable. They cannot be repealed, they cannot be rolled back, they cannot be denied. They can be avoided or delayed at our peril. What we have to do is to try to find a way to make these changes our friends. This is a visionary effort on behalf of the American people to make change our friend in one of the most important economic areas of American life. We do not have the choice to do nothing. We have to act decisively, to shape change so that it matches the needs of the future. That's what we're trying to do with health care. That's what we're trying to do with economic policy. That's what we're trying to do here today.

This is the end of a long negotiation and the beginning of a great period of action and excitement in American life. Is there any risk? You bet there is. We have to condition the American people to be willing to take more risks and fail in order to ultimately succeed. Will we have setbacks? I imagine we will, if we do anything. But that's no reason to give up.

Alexander Graham Bell once remarked that if he had known more about electricity, he never would have invented the telephone. We need a little more of that kind of ignorance today -- to just keep walking into those solid walls until they give way.

We cannot be deterred by the difficulty. For 50 years, the companies represented here today have comprised the basic engine of American prosperity. Working together, we can make sure the freedom and convenience of personal vehicles will continue to be available to all Americans. We intend to do nothing less than to define the world car of the next century, to propel the auto industry to the forefront of world automobile production, and to make this industry the source of imagination for young people of the future, for their ideas, their careers and their efforts.

I'm excited. But most importantly, maybe, our young people are excited. And let me just close with this story. I was greeting a number of ambassadors the other day, including an ambassador from one of the Baltic countries who has an American wife and a young son who is five years old, who speaks fluent English and

THE WHITE HOUSE
Office of the Press Secretary

BACKGROUND BRIEFING

BY

SENIOR ADMINISTRATION OFFICIAL

September 29, 1993

The Briefing Room

11:42 A.M. EDT

MS. ROMASH: My name is Marla Romash. I'm with the Vice President. Let me set some ground rules and tell you who we have up here. Joining me on the stage, moving from my left to right, is [names deleted]

These folks have all been intimately involved in crafting this agreement.

Q Can this be on the record?

MS. ROMASH: We go through this every time we do it. It's a BACKGROUND BRIEFING. The industry officials you can identify as senior industry officials. They are all [deleted]. And the administration officials you can identify as senior administration officials. And with that, I'll turn it over to [deleted] and you folks can answer questions.

Protest noted, obviously. I understand.

SENIOR ADMINISTRATION OFFICIAL: Thank you. I think all of you have heard the context of the agreement today from the President and the Vice President. In the February technology initiative the administration released, we laid out the goal of developing a clean car initiative with the auto industry. We've been working hard on it for a long time with the people you see up here and the CEOs of the Big Three, and many other people. We think this will be an historic beginning of a venture that in 10 years will be of great value to our economy and to the world.

And with that, I'll start any questions you want to ask.

Q Could you give us an idea of what you think is the ballpark that this will cost? Also, what are you doing to guard against this project becoming a technological boondoggle in the great tradition of the SST, to name a whole bunch of others?

SENIOR ADMINISTRATION OFFICIAL: First off, we don't have a precise price tag at the moment. Currently, the federal government spends several hundred million dollars on technology research related to transportation and automotive technology. Our goal is not to spend new money, it's to spend the money we have now smarter and with more of a focus. We have a lot of people carving paths through the forest and no one's really scaled the trees to look

at where we're going. That's what this agreement is about.

In terms of how do you prevent it from being a boondoggle, first off, Dr. Mary Good, from the Department of Commerce, will be a terrific watchdog on that. She served both in industry and academia on the National Science Board, and is the Under Secretary for Technology at the Department of Commerce.

We also are going to be developing some generic cooperative research and development agreements that facilitate processing funding projects. And the important thing to remember is that the technology projects are initiated by industry's views of what is necessary to reach this goal and by an analysis of the federal government's resources that can be used to help reach this goal. So we will be working very hard to make sure we spend our money more wisely.

SENIOR ADMINISTRATION OFFICIAL: It may be worth pointing out also that we've agreed that we would have a neutral highly credible body, such as the National Academy of Sciences, take a look at what we're doing to make sure that we're on the right tack.

Q If there is a breakthrough development that's patentable, who owns the patent? How are the taxpayers' investments in this protected? That kind of thing.

SENIOR ADMINISTRATION OFFICIAL: The details of the intellectual property rights are going to be worked out over the next 60 to 90 days as we work on ways to implement the agreement in the details. There are models already in place at the Department of Energy, at the Department of Defense that deal with cooperative research and development agreements, both in things like advanced batteries and other advanced manufacturing techniques. So we're not starting from scratch on that question, and the specific details will be forthcoming in a few months.

Q I have one question for the government and one for the industry. The government: Environmental groups and energy groups have asked for more input into this. What way will they have input, if any? And for the industry: I want to know what you want to get your hands on from the government? What have you seen in the national labs that you think might be used for a car? Try to be as specific as possible.

SENIOR ADMINISTRATION OFFICIAL: From the government side, all groups -- environmental, energy, manufacturing, suppliers -- have an open door to bring ideas to the government labs, to the government agencies, and to the policymakers regarding how do we reach this goal of a three-time improvement in fuel efficiency. There is no set number of technologies that we are looking at and only those. We are looking at the goal, and any technology that helps us meet the incremental steps we need to reach to meet those goals will be considered.

Q There's no formal advisory council or anything that would involve consumer energy groups or anything?

SENIOR ADMINISTRATION OFFICIAL: The group that Dr. Good will head is the Federal Coordinating Council's Committee on Advanced Manufacturing. There will be no formal, brand-new committee formed to gather ideas because we think we have a process in place to do that.

Who would like to answer the industry question about the labs?

SENIOR INDUSTRY OFFICIAL: I think the issue here is that the inventory of technologies that are out in the labs right now probably are not sufficient singularly to solve this level of problem. What we need to do is to get the discussion started as to what technology is being worked on now and how can we focus these projects, avoid redundant work on research and design the program so that we can realize the breakthroughs.

My personal point of view is that there are no existing technologies today that, in and by themselves, solve the comprehensive goals of efficiency, energy independence, environment and affordability in utility.

Q What's the one thing that you've seen like for materials or an engine or electronics or something that you could use in that equation?

SENIOR INDUSTRY OFFICIAL: Sure. I think anything that reduces a mass and anything that improves thermal efficiency are the things that we're looking for. But there are no silver bullets in this kind of process.

SENIOR INDUSTRY OFFICIAL: If I may add something to that. We have found a lot of ideas in the national labs, but as you know, their objective so far has been to produce one of a kind expensive weapon system or some kind. The challenge for our industry is to work with them and to see how many of these bright ideas, whether they are material, new systems, we can make affordable. And that's why it's very difficult for us to tell you today exactly where we're going to be successful. We all know that you can get expensive material, expensive new power train idea and put them together. But this will not make the super car that we're talking about because this car would be too expensive and therefore will fail.

Q Let me ask Dr. Gibbons, is there some technology that you think is the most promising. And is there something that perhaps the industry representatives aren't aware of that you think -- from the weapons labs that might be very productive?

SENIOR ADMINISTRATION OFFICIAL: You know, one of the favorite things for scientists and engineers is to get thrown a new challenge. And I think what's going to happen here is that people working in a great variety of disciplines and technological areas are going to be thrown

a new set of challenges, a new sort of problem to go after. And I think what we'll find is that within these labs there already exists some rather well-developed ideas and a knowledge base that may be directly applicable to the goal we're after. There are others that simply are going to take their experience in an area that may not be seen as directly relevant now, but it's a cross-current from what they know and the new challenge of how can I use that knowledge that will probably bring up some ideas we haven't come across yet.

But I think the great challenge we need to understand is multiple. One is to -- like C.P. Snow said -- to provide the merging of two cultures. In this case, not science and non-science, but the kind of science that goes on in these big labs on big, long-term projects with the kind of science and technology that's going to be relevant to meet the challenge of the industry, not just to produce a car, but to produce a production prototype that can actually work and be produced in large quantity and be sold in a competitive marketplace. That throws an extra challenge to us.

But I believe -- I would hope that we would see very soon, perhaps in the area of nitrogen oxide catalysis, for example, which is a real challenge in terms of meeting clean air standards, and also keeping auto efficiency up, that we'll have some very interesting cross-fertilization between the industry and the labs.

Q Do you think the most promising approach is to try to improve the combustion engine, or to try some of these other technologies?

SENIOR ADMINISTRATION OFFICIAL: The goal -- and you probably want to explore this farther -- but the goal that we worked out together challenges us to get beyond the internal combustion engine. The internal combustion engine has still great promise and is going to be around for a long time to come, especially in hybrid form. But it's limited in a sense because of what you call "Carnot's Principle." The question is, can you get past these heat engines to such things as fuel cells, or other devices that get you past the heat engine and, therefore, into a range of efficiency that we didn't have before, and very, very low emissions.

Q Are there any antitrust implications?

Q What's Carnot's Principle?

SENIOR ADMINISTRATION OFFICIAL: Carnot's Principle is that -- well, let's see -- if he works for government, it's a real problem. (Laughter.) Carnot basically said that efficiency of a heat engine is related to its temperature. The higher temperature you can go, the better off you are in terms of efficiency. But at some point, everything melts or turns into gas. It's part of what people call "thermodynamic principles."

Q Are there any antitrust implications regarding the industry involvement?

SENIOR ADMINISTRATION OFFICIAL: We don't believe so, because U.S. Car, for instance, has gone through all of that. That's the industry's own ability to work together on generic issues, but clearly separate themselves when they get into things that relate to the marketplace.

Our work with the industry has already -- we've already had some careful legal review of this process. It will appear in the form of these credos and other individual agreements that will come out of this process. And that's one of our very first efforts, is to clarify and make sure we've got a good starting ground in which the public interest is well represented and protected as well as the private sector interests.

Q Help me understand when something is going to come of this that will actually be beneficial to some poor guy who's getting 23 miles to the gallon in his Jeep Eagle Premier that I'm getting right now and wants to get more for his car.

SENIOR ADMINISTRATION OFFICIAL: I was going to say, if you'll slow down to 55, that will help a lot. (Laughter.) You know, you've got to remember that out there on the highway it's like swimming. When you get up to a high speed, that air really gives you a problem. So streamlining, as you're seeing on the cars -- but I think we will see the benefit of this, my guess is -- and I'll let my colleagues from autos check me on this -- that within -- even as soon as -- less than five years, let's say, you will begin to see some things happening, things rolling in to the way incremental changes occur -- for instance, for example, on nitrogen oxide control --

Q Begin to see what -- I'm sorry.

SENIOR ADMINISTRATION OFFICIAL: Incremental improvements in the way the new fleets, as we roll through the '90s, are going to look -- in the late '90s. But remember what we're after here is -- if you'll read the details of this agreement, it's really three-fold. The thing that properly receives the most excitement and interest is our long shot at getting this three-fold increase in performance, and that's a real challenge.

Q How far out is that?

SENIOR ADMINISTRATION OFFICIAL: We say we hope that if you're optimistic, within about a decade, within approximately a decade, within as soon as a decade, we could see a production prototype, and those two words are very important. A production prototype is very different from a concept vehicle. Production prototype means that you're figuring out and you think you've got a way to make the thing and produce it, not just to demonstrate it. So that's a challenge.

But in the interim time, we're going to be working together to try to figure out how all of these technologies and regulations move us in the right long-term direction. And we want to

see if we can work out a migration path that really keeps our eye on the target and that we don't move too far away from it one way or another as we approach it.

We also know there will be incremental technologies. Some of them -- I mentioned the catalyst -- that will be -- we can just draw out and maybe begin to utilize in the time much sooner than a decade. But then there's that overarching goal that we talked about.

SENIOR INDUSTRY OFFICIAL: One of the important things to realize is that the industry as a whole has committed to introduce these technologies as they become commercially viable, not to wait to the end of 10 years. As we get a technology that is commercially viable that will increase fuel economy, we will build them into our normal product cycle. That's a commitment on the part of the industry.

Q Can you tell us how this fits into the notion of subsidized policy?

SENIOR ADMINISTRATION OFFICIAL: We're willing to trade these vehicles. (Laughter.)

Q But it is a step toward industrial policy.

SENIOR ADMINISTRATION OFFICIAL: Could you repeat the question -- I'm sorry.

Q The question is, how does this fit into a policy of free and fair trade when it's such a government-subsidized effort?

SENIOR ADMINISTRATION OFFICIAL: First off, we already have cost-sharing projects with this industry and we have had for a number of years. So this is not something that is brand new. What's brand new is we have an agreement with Detroit on what this money is intended to produce. So this is far different from going out and actually having the government pay for the complete production of something. The government has been doing research in technologies of this sort for years, but the government doesn't sell cars, the government helps do research. And we're trying to make sure the research goes to the people who do so.

Q There's a follow-up question.

SENIOR ADMINISTRATION OFFICIAL: Who would like to follow up on it?

Q This administration -- for example, the steel industry is upset with the European and other foreign steel makers because of the level of subsidies those foreign steel makers have received. We're upset about agricultural subsidies. What's the difference between the things we criticized foreign government for doing and the federal role in this project?

SENIOR ADMINISTRATION OFFICIAL: First off, we are not subsidizing, number one, the price of the vehicle to make it artificially marketable. We are dealing with generic research issues which have traditionally been accepted as the proper role of the government. The difference in steel and agriculture is that often the government subsidy is directly related to the price in the marketability. We are talking about the technology, and when we say a production prototype that's commercially feasible, Detroit determines what's commercially feasible, not the government.

Q How is this different from Airbus?

SENIOR INDUSTRY OFFICIAL: I think it's worth first pointing out the magnitude of the monies that you're talking about. The automotive industry, not the automotive industry even as a whole -- just the three companies that are represented here, not counting our suppliers -- already spend \$11.2 billion a year on R&D. That was our number for last year.

One dollar out of every seven spent in industry today on R&D is spent by these three companies. So we're talking about something that is relatively on the margin, and the agreement is, is that those items that are most uncertain and most long-term will have the largest government involvement. That's been a government tradition in terms of basic and applied research ever since Vanavar Bush. There's no difference in that.

SENIOR INDUSTRY OFFICIAL: I would like to ask something. Somebody talked about Japan or Europe as far as fairness of trade with them. We have to recognize today that in Europe, as well as in Japan, there is collaboration in research for the automobile industry. The French government, for example, works with Renault and Peugeot every day with the French national labs to move the technology of the next Renault or Peugeot car. MITI in Japan is well known for directing government research money to all the Japanese, and have them be more competitive outside of Japan in the U.S. So what we are doing is extremely fair and I would say it is time that we start doing what the other guys have been doing on the --

Q That's exactly what Treasury Secretaries going back for years and years have criticized. About MITI and about --

SENIOR INDUSTRY OFFICIAL: I don't think so.

SENIOR ADMINISTRATION OFFICIAL: Particularly the European one, they've had in their framework program, which you know about, Jacques, they've had a clean car-green car program at a very high level of research and development for a very long time. This is really no different from that because it is research and development, it is not commercial development, okay?

Secondly, I think you need to understand that this whole business of pollution control and so forth is very much in the public interest. What we're interested in doing is to push some of these technologies towards those kind of end results. And that is not necessarily the research that would be at the top of the people who are actually trying to build a car.

So it seems to me that we have to think in terms of the public interest in these kinds of technologies, as well. And this is an R&D agreement which is very comparable to the R&D agreements, particularly the one in Europe which is a very interesting model. And clearly, the Japanese have been doing these kinds of R&D agreements for a very long time. So there's nothing unique or different about them. And I think also you need to focus on the fact that many of the goals of this agreement are in the public interest. If we're going to get any really decent answers to the things like CO2 and environmental issues, we've got to work on them, and this is part of the issue.

SENIOR ADMINISTRATION OFFICIAL: My colleague has to leave in just a moment. Are there any other questions for my colleague?

Q Yes, I have a question. Within three years, Honda will be building all the cars that it sells in the United States here in the United States. And other Japanese automakers, because of the yen problem, are going to be doing the same and they'll be following suit. If this research is in the public interest, why aren't they here, too?

SENIOR ADMINISTRATION OFFICIAL: That's a -- these are questions that we've really got to work out as we go forward. But if you look at public money that we spend in the United States, it seems to me there is nothing particularly wrong without at least giving American companies a shot at that. On the other hand, these R&D agreements and the work that comes out of them in the long run, most of it will be in the public literature. And I would assure you that the Japanese automakers have not been -- they have not been bashful in harvesting that literature to their effectiveness in the past. I would expect they would continue to do so.

Q If you, in one of your research labs working with all these other fellows, came up with this super engine that uses water or something and doesn't pollute, and it gets about one million miles to the gallon, are they all going to have one to put in their individual cars? Or will there be -- will only the guys who worked the hardest on it be able to put it in their cars?

SENIOR ADMINISTRATION OFFICIAL: Well, you know, there's going to be competition here, fellas, just like there always is. And, look, there's technology every day that does not get used very effectively. One of the issues here is to at least have the people doing the research understand what the ultimate goals are. And that's the reason for having them talk with the car companies up front, so they begin to understand what it is we're trying to do, what are your ultimate goals for the technology you're trying to develop. But my guess is that it won't change much, as it has in the past because good companies and those who get out front learn how to take advantage of the technology in a very innovative way.

Remember, innovation starts once the inventions are

made, normally. Innovation is how you take that invention and create something of commercial value. And these guys know how to do that, and they're going to compete with each other to utilize those fundamental technical breakthroughs that we get to the best of their advantage.

Q You joined the government from another kind of a high-tech company.

SENIOR ADMINISTRATION OFFICIAL: Well, we had a big automotive sector, if you'll remember. (Laughter.)

Q My question is, as you move away from the internal combustion engine, how do other companies that have a lot of expertise in different areas get into this if this is a Big Three operation? Maybe the Big Three doesn't end up producing the engines for these cars?

SENIOR ADMINISTRATION OFFICIAL: That's very possible. We are not going to be that selective about where the technology is going to come from. If you think about it, issues with respect to fuel cells and things like that have been supported by the government for a long time as an R&D effort, and those kinds of technologies were started primarily because of aerospace interests as much as anything else. And one of the issues will be that there's nothing which says that this technology is not going to have application in other kinds of transportation, in addition to what we're talking about here.

I mean, if you talk about -- if this really boosts fuel technology, there are other applications for that that will benefit from it just as much as the car companies. So you have to understand we're talking about generic technologies which are -- and the commercial gold, as one of my friends used to say, the gold will go to the company who learns how to take that and innovates with it very quickly.

Q Can you talk more about the funding and give us a little better idea about what we're talking about here? Could this be -- you said several hundred million dollars is currently being spent on transportation research. Conceivably, could this be, say, you know, a half a billion dollars split how -- 50-50 over the next five years, 10 years? And explain that more, would you please?

SENIOR ADMINISTRATION OFFICIAL: Right. First off, there are half a dozen or more agencies who currently spend money on this. NASA, DOD, Commerce, Energy, Transportation, EPA. So there are a number of different agencies who have programs that relate to this goal.

Q And they're spending several, what --

SENIOR ADMINISTRATION OFFICIAL: Several, several hundred million. We're trying to --

Q Is that three or four hundred or seven hundred, or what?

SENIOR ADMINISTRATION OFFICIAL: I'd say right now it's conceivably a half a billion, somewhere in the neighborhood to

several hundred to a half a billion dollars. We're trying to identify programs across the government and the more we got into developing this agreement, the more programs we found.

Q And the autoworkers will then what, match what --

SENIOR ADMINISTRATION OFFICIAL: There will be cost sharing as -- the more ambitious the research development project, the more the government will share of it. The more near term it is, the more the industry will share of it.

Q Over the life of the program, the government will what, pay basically half of it and the auto industry half, or what?

SENIOR ADMINISTRATION OFFICIAL: There's a general principle of a 50-50 cost share, but that is not in any particular case a golden rule. That is -- it depends on the project, what the history is, what the risk is, and who's already ahead in that technology.

Q Can you clarify for us where the administration stands now on CAFE standards and specifically the President's pledge last year of a goal of 40-mile per gallon --

SENIOR ADMINISTRATION OFFICIAL: Well, first off, as the President said today, this agreement is not about CAFE, it's about research and development. And we have not, as he said, abdicated any of our obligations under the CAFE law or under the fuel efficiency goals. What we are trying to do is to identify what is feasible -- an ambitious program that's technologically feasible to improve fuel economy.

Now, the agreement itself states that as the technologies that come from this work become commercially viable, the industry, as my colleague said earlier, is committed to putting those into the fleet. So this is -- the program we're announcing today is about the car we hope to have a production prototype of in 2003, but it's also about near-term improvements in technologies that apply to everything from aerodynamics to fuel cells to better batteries to all sorts of things that will go toward fuel economy.

Q Does that mean that you're not going to push for increased CAFE standards?

SENIOR ADMINISTRATION OFFICIAL: The near-term fuel efficiency changes that we would seek are still under consideration, and those are not part of this agreement.

Q Could you answer the question about where you stand now on the campaign promise?

Q Yes. Where are they now? I mean, where are you on that?

SENIOR ADMINISTRATION OFFICIAL: The 40 miles per gallon by 2000 was based on trying to achieve technologically feasible fuel economy improvements by the year 2000. We are -- under this agreement, we are looking at -- and under the Global Climate Action Plan, we are looking at what is technologically feasible that would

provide for fuel efficiency improvements over the next decade, and those decisions are being made within the context of other agencies and processes that are not complete. So we are working on those and they would be announced fairly shortly.

Q Given that this initiative is peculiar to the Clinton administration and it may take 10 years, and the results are risky and uncertain, what are the implications if the Clinton administration gets tossed out of office in '96?

SENIOR ADMINISTRATION OFFICIAL: I don't usually like to deal in that hypothetical. (Laughter.) But we are trying to change the way the government deals with the auto industry. We are trying to replace lawyers with engineers, we're trying to replace confrontation with cooperation. And I would suggest that any administration would have the same goal.

Q I have two questions. The first one is, you said that the administration would like to see this project implemented -- program implemented without new spending by the administration. Does that mean -- what kind of spending are the automakers going to do on this specific program? And the second thing I'd like to ask about -- Tier 2 emission standards, are they going to be implemented earlier than called for under the 1990 --

SENIOR ADMINISTRATION OFFICIAL: Let me answer the first question. Currently, the industry is involved in cost-sharing agreements. They will continue to be involved in cost-sharing agreements. The nature of the agreements will be different from case to case, based on the kind of technology we're doing and whether or not -- for instance, if you're using something the government's already put millions of dollars into, into Star Wars technology, like ultra-capacitors, there will be a different kind of cost-sharing formula. This is not going to be a large infusion of new money by the industry, nor by the government. It is a focused way of spending the money.

On the Tier 2 --

SENIOR ADMINISTRATION OFFICIAL: It's in review. It's not affected by this agreement one way or the other.

SENIOR ADMINISTRATION OFFICIAL: The Tier 2 standards are not affected by this and are under review. We don't have decisions on all of those issues as part of this agreement, because this agreement is not about that issue.

Q Can you explain what it is that you have agreed to? Is it that each car company will produce a production prototype, that the three of you together will produce a production prototype?

SENIOR INDUSTRY OFFICIAL: It's probably too early to say. But we are committed to work with Dr. Good and put together a plan that is not going to be secret. We're going to publish it. And

along the way we're going to tell the world and the taxpayers what we are doing together.

We recognize that the perception may be that we are spending taxpayer money, although it has been said that we are just using money that is already being spent, but in a more organized way. We also spend a lot of money, and we're going to put it together to try to find the breakthrough that everybody's dreaming about. And along the way, we're going to report progress and we may also report failure. When we get to the end and the point where we feel that we have one or two or three solutions to get there or more than that, we'll decide between the three manufacturers what is the most effective way to demonstrate production feasibility, because again the goal is to present to everybody a production a prototype, which means some -- can be produced at an affordable cost and meets all the other objectives. And maybe it would be one car, maybe it would be several cars, or maybe it would be only half of a car if we only resolve 50 percent of the equation.

MS. ROMASH: This is the last question.

SENIOR ADMINISTRATION OFFICIAL: Can I add one comment to that. When Neil Armstrong landed on the moon, he had less than 10 seconds of fuel remaining for his descent. Now, if they had planned it that way, nobody would have supported the moon program. The closer we get to our goal, the more we'll be able to focus our attention on how we get there. And the agreement today is that we are trying to reach a goal, not just continue inching toward the future, but try to leap into the future.

Q Can I just ask you about weapons applications. You mention the ultra-capacitors coming out of the Star Wars program. What are some of the other weapons technologies that you think might be productive? Are we talking about the ultra-lightweight materials used on missiles?

SENIOR ADMINISTRATION OFFICIAL: Well, several, like my colleague just mentioned supercomputers -- very important in simulating, for instance, crashes accurately so you don't have to break up a lot of cars to understand what's going on, and also to be able to design and effect things much more rapidly so you speed and streamline the whole production modeling design change process.

Another are very, very high speed rotors -- so-called centrifuge -- which store energy not electrically like a battery or by, say, having hydrogen and oxygen separated, which you then put together in a fuel cell, but in the fly wheel you just have this mechanical energy stored up. And these are various ways of putting on board mechanisms to transform energy sources into action at the wheel.

Q And where do the rotors come from?

SENIOR ADMINISTRATION OFFICIAL: Rotors have come out of

some programs, including even some black programs. So any of -- they come out of the defense.

SENIOR INDUSTRY OFFICIAL: On the subject of defense, obviously the first idea is to take advantage of things that are being found out there. A case can be made that defense is going to benefit from that the other way. For example, if we work on a new low-cost turbine as part of this hybrid car that we may build one day, we are going to reduce drastically teaming up together the costs of this turbine, which means that the cruise missile that may one day use the same technology will have a decreased cost as a benefit of having worked with Detroit. So it's a two-way street from that perspective.

THE PRESS: Thank you.

END12:14 P.M. EDT