

U.S. Department of Transportation

news:

Office of Assistant Secretary for Governmental and Public Affairs

Washington, D.C. 20590



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ADAMS URGES PUBLIC JOIN SEARCH FOR NEW CAR POLICY

Secretary of Transportation Brock Adams today challenged the American public to join with the Carter Administration in the development of policies insuring the future of the nation's mobility.

At a briefing for reporters, Adams explained his proposal for a program of directed basic auto research and announced that he would hold regional hearings on the future of the auto.

Adams said, "These hearings are intended to involve the American people directly in decisions that will dominate our transportation system and affect our daily lives for decades to come."

Adams also said that a process has been established to review the work of private inventors. These inventions will be screened and promising ideas will be reviewed at the Department of Transportation's Transportation Systems and Automotive Research Center in Cambridge, Mass.

Following Friday's meeting at the White House, the President asked Adams to work with the auto industry and the academic and scientific communities to prepare a detailed research program to be submitted for the President's approval within four months. The cooperative research program announced Friday was the result of a challenge issued by Secretary Adams to industry leaders last December in Detroit.

At the briefing at the Department of Transportation, Secretary Adams and Dr. Raymond L. Bisplinghoff, member of the National Science Board and Chairman of the DOT Conference of Basic Research for Advanced Automotive Technology, released a research blueprint for future Automotive Technology developed following a DOT-sponsored conference in February attended by 700 engineers and scientists representing government, industry, academic, and consumer groups.

The consensus of the Boston conference was that new automotive technology can be used to achieve significantly more fuel-efficient cars than the 27.5 miles-per-gallon performance for 1985 ordered by Congress.

Secretary Adams listed the areas of automotive technology on which the basic research program would focus.

It is these needs on which he will base his proposals to the President later this year, Adams said.

THERMODYNAMICS, COMBUSTION, FLUID FLOW

Assessment of the various routes to fuel economy improvement in the internal and external combustion engines indicates a strong need for improved understanding of these processes and their relationship to the engine system.

STRUCTURES

Information that will yield greater vehicle design efficiency bears directly on the ability of designers to reduce vehicle weight and hence increase fuel economy. Fuel consumption is nearly directly proportional to vehicle weight.

ENERGY STORAGE

Energy storage research will provide the knowledge required for assessment of the potential transition to a non-petroleum based automotive transportation system.

ENGINE-FUEL INTERACTIONS

Knowledge gained from research on the interactions between engines and fuels is an essential element in the determination of the potential benefits of the alternate strategies of improved automotive fuel efficiency or a program of alternative fuel development.

MATERIALS SCIENCE AND PROCESSING

The increase use of high strength or low density materials is a major means of reducing vehicle weight. Materials science research is needed to obtain a better understanding of the relationships between material composition, material processing and the engineering properties of materials in order to develop improved manufacturing methods and wider use of both metallis and non-metallic materials.

CONTROLS

New and improved automotive control systems offer significant promise for reducing fuel consumption and for meeting increasing demands for driveability, maintenance, emission control and safety.

FRICTION AND WEAR

Improved understanding of tire structures, vehicle aerodynamics and the chemical and physical properties of lubricants will lead to increased engine efficiencies through the reduction of friction and wear.

Adams said a parallel benefit of the program will be the cultivation of a new innovative generation of automotive scientists.

"Today we are not delivering the final product -- or making unrealistic promises -- we are planting the seeds," Adams said.

A summary report of the basic research areas and other aspects of the proposed project was released today by Secretary Adams.

Copies of the report, "Future Automotive Technology -- A Research Blueprint," can be obtained from: Office of Public and Consumer Affairs; 400 7th Street, S.W.; Washington, D.C., 20590. Phone number 202/426-4321.

MAY 18, 1979

Office of the White House Press Secretary

THE WHITE HOUSE

FACT SHEET

Basic Research Initiative
in Automotive Technology

The President is meeting today with the leaders of the American automotive industry and members of the academic community to discuss a major new initiative in basic research on automotive technology.

Secretary of Transportation Brock Adams and Dr. Frank Press, the President's science and technology advisor, will work with the industry leaders and others to develop a program for submission to the President.

The program, to be jointly sponsored by government and industry, will address key areas of basic research related to automotive technology and bring previously untapped scientific and engineering talent to bear on these areas. The program is intended to help lay the technology base for the next generation of automobiles, and ultimately to result in more energy-efficient vehicles, by

- providing new sources of ideas and innovation in automotive technology by involving a broader community in automotive research;
- supporting and stimulating competition in the auto industry through the wide and open dissemination of basic research results;
- training additional automotive scientists and engineers;
- developing the sort of program in automotive technology research which has contributed to the rapid and innovative development of other industries such as aerodynamics.

This initiative is part of the President's commitment to a strong basic research program, which was outlined in his Science and Technology Message to the Congress in March, 1979. This program would be in addition to the ongoing basic research programs, totalling \$4.2 and \$4.6 billion in fiscal years 1979 and 1980 respectively, which address the needs of all sectors of the economy.

Development of this initiative began when Transportation Secretary Adams, in a speech on December 5, 1978, challenged the automotive industry to join the government in a new research program.

On February 13 and 14 of this year, at Secretary Adams' invitation, some 700 scientists and engineers met in Boston at a Conference on Basic Research Directions for Advanced Automotive Technology. Participants included government agencies now involved in automotive research, university and industry personnel, and public interest groups. At the conference it was concluded that significant advances in automotive fuel economy were possible through a priority program of basic research.

Since that date Secretary Adams has led a federal interagency working group, and, in cooperation with Dr. Press, has held continuing discussions with auto industry leaders and others in an effort to develop the general principles of a cooperative automotive basic research program.

The industry leaders will work with government officials over the next four months to develop a detailed proposal to submit to the President for his approval. Consultations will be held with other firms in the automotive industry including material and component suppliers, with university and federal laboratories, and with other interested parties.

BACKGROUND AND CURRENT AUTOMOTIVE RESEARCH

The development of the automobile has proceeded through three stages. Around the turn of the century, the industry went through a rapid technological evolution, resulting in the basic characteristics of the car we know today. In the decades following World War I, the industry began a period of dramatic cost reduction and product improvement, which resulted in the automobile's becoming a central part of life. Since the mid-1960's, the nation has increasingly recognized and dealt with the side effects of its total acceptance of the automobile; research, stimulated by government regulatory reforms, has dealt with such problems as emissions control, safety programs, and fuel economy.

Most current industry research programs are aimed at meeting mandated regulatory standards. They do not provide the broad technology base for going beyond those standards.

Current government automotive technology research programs are primarily development and demonstration efforts focused on specific technological options which may play important roles in the future. In FY '79, about \$130 million in federal funds will be spent on automotive technology. In addition, about \$6 million will be spent in basic research on such projects as developing advanced automobile engines and alternative fuels.

PROGRAM PRINCIPLES

This initiative will be based on the following principles:

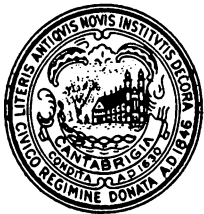
- Focus on basic research, which can contribute substantially to improved automotive technology by developing knowledge in such fields as thermodynamics, combustion and fluid dynamics; structures; noise and vibration; materials, science and processing; control systems, and friction and wear.
 - A pluralistic approach, involving a range of university, industry and federal laboratories in performing the research, to insure that there are independent sources of new ideas. An important result of the university work will be an increased supply of automotive engineers.
 - Personnel exchanges, especially between industrial and university laboratories, to maintain the flow of information and the transfer of new engineering knowledge.
 - Wide and open dissemination of results to all interested parties, subject to appropriate patent provisions.
 - A level of effort and timing determined by the capacity of the science and engineering community to absorb new funds and the competing demands on federal and corporate resources. The industry and government officials will make recommendations on the initial level of effort later this year, in time for the President's consideration as he reviews the FY 1981 budget. The initiative could possibly involve government and industrial funding totalling up to \$50 to \$100 million after three to five years of build-up.
 - Industry financial participation. Industry cost-sharing is an important feature of this effort. Mechanisms will be developed for industry contribution through direct grants to universities, increases in effort at automotive industrial laboratories, and other arrangements.
 - Federal agency participation. Which federal agencies will be involved, and how many, will be determined by an evaluation of the policy responsibilities, research management capabilities, and the appropriate role of research within each agency. In order to help insulate the program from the political and technological pressures of the fuel economy, safety, and emissions regulatory programs, the initiative will not be managed by a regulatory agency.
 - Decentralized project selection mechanisms, within an agreed upon general agenda of research areas, and avoiding specified quantitative technological targets, because of the inherent unpredictability of the results of basic research.
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Agenda #8
DOT

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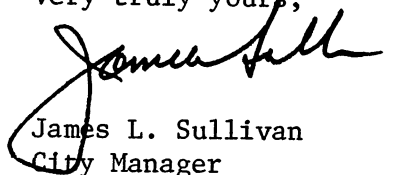
EXECUTIVE DEPARTMENT
JAMES L. SULLIVAN
City Manager

June 4, 1979

To the Honorable, the City Council:

I am enclosing for your information a copy of the Transportation Department's Press Release and a White House Fact Sheet on Secretary Brock Adams' auto research initiative which hopefully would be run by the Transportation Systems Center in Cambridge.

Very truly yours,


James L. Sullivan
City Manager

JLS/mbf
Enc.

S-336

Agenda #8

RE: Press Release of the Transportation
Department and a White House Fact Sheet on
Secretary Brock Adams' auto research initi-
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Transportation Systems Center in Cambridge.

In City Council,

June 4, 1979

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