This message from President Gerald R. Ford to the 94th Congress briefly explains the major points of his proposal and discusses the areas that would receive special consideration in the 1977 budget: energy, defense, basic research, agriculture, space, and health. (MLH)
SCIENCE AND TECHNOLOGY

MESSAGE

FROM

THE PRESIDENT OF THE UNITED STATES

URGING ACTION ON HIS PROPOSAL TO CREATE A NEW OFFICE OF SCIENCE AND TECHNOLOGY POLICY AND APPROVAL OF HIS 1977 BUDGET REQUESTS FOR SCIENCE, ENGINEERING AND TECHNOLOGY

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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To the Congress of the United States:

The desire and the ability of the American people to seek and apply new knowledge have been crucial elements of the greatness of our country throughout its 200-year history.

Our Founding Fathers placed high value on the pursuit of knowledge and its application. They supported exploration, new methods of agriculture, the establishment of scientific societies and institutions of higher learning, measures to encourage invention, and means to protect and improve the Nation's health.

In our recent history, the Nation has made major investments in research and development activities to ensure their continued contribution to the growth of our economy, to the quality of our lives and to the strength of our defense. Today there is mounting evidence that science and technology are more important than ever before in meeting the many challenges facing us.

I fully recognize that this country's future—and that of all civilization as well—depends on nurturing and drawing on the creativity of men and women in our scientific and engineering community.

The 1977 Budget which I submitted to the Congress on January 21, 1976, is one measure of the importance I attach to a strong National effort in science and technology. My total budget restrains Federal spending to $395 billion—an increase of 5.5 percent over 1976. But my Budget requests $24.7 billion for the research and development activities of the various Federal agencies, an increase of 11 percent over my 1976 estimates. Included within this total of $24.7 billion is $2.6 billion for the support of basic research, also an increase of 11 percent. Such long-term exploratory research provides the new knowledge on which advances in science and technology depend. I urge the Congress to approve my budget requests.

I also urge the Congress to pass legislation to establish an Office of Science and Technology Policy in the Executive Office of the President. This will permit us to have closer at hand advice on the scientific, engineering and technical aspects of issues and problems that require attention at the highest levels of Government.

On June 9, 1975, I submitted a bill to the Congress that would authorize creation of such an office. The director of this new office would also serve as my adviser on science and technology, separating this responsibility from the many demands of managing an operating agency. On November 6, 1975, the House of Representatives passed an acceptable bill, H.R. 10280, which authorizes the new office. On February 4, 1976, the Senate passed a similar bill which, with some changes, would also be acceptable. Those bills are now awaiting action by a House-Senate Conference Committee. Early agreement by the conference on a workable bill will permit me to proceed without further delay in establishing the Office of Science and Technology Policy.

In addition to its direct support of research and development, the Federal Government has a responsibility to ensure that its policies and
programs stimulate private investments in science and technology and encourage innovation in all sectors of the economy—in industry, the universities, private foundations, small business, and State and local Governments. We pursue this objective through our tax laws, cooperative R&D projects with industry, and other incentives.

Industry and other elements of the private sector now support nearly 50 percent of the Nation's total research and development effort and we must avoid displacing these important investments.

The role of industry is particularly important. In our competitive economic system, industry turns new ideas from laboratories into new and improved products and services and brings them to the marketplace for the Nation's consumers. Industry has built successfully on advanced developments of the past and provided new products and services of great economic and social value to the Nation. This can be seen in electronics, computers, aircraft, communications, medical services and many other areas.

My 1977 Budget gives special attention to research and development for energy and defense and to basic research. It also continues or increases support for other important areas such as agriculture, space, and health where research and development can make a significant contribution.

In energy, an accelerated research and development program is vital to our future energy independence. My 1977 Budget proposes $2.6 billion for energy research and development—a 33 percent increase over 1976. These funds, together with the efforts of private industry, provide for a balanced program across the entire range of major energy technologies. Major increases are proposed in energy conservation to achieve greater energy efficiency. Additional funding is provided in fossil fuels to enhance oil and gas recovery, to improve the direct combustion of coal and to produce synthetic oil and gas from coal and oil shale. Expanded efforts are planned in 1977 to assure the safety and reliability of nuclear power and to continue the development of breeder reactors which will make our uranium resources last for centuries. My 1977 Budget also provides for rapid growth in programs to accelerate development of solar and geothermal energy and fusion power.

In defense, a strengthened and rigorous program of research and development is absolutely fundamental to maintain peace in the years ahead. Our National survival depends on our continued technological edge. The quality of our military R&D program today—and decisions on its scope and magnitude—will directly influence the balance of power in the 1980's and beyond. Obligations for defense research and development will increase by 13 percent in FY 1977, to almost $11 billion. In the strategic area, the defense R&D program provides for continued development of the Trident submarine and missile system and the B-1 bomber. We are providing increases for cruise missiles and for defining options for a new intercontinental ballistic missile system. For our tactical forces, we will pursue a number of major programs ranging from the F-16 and F-18 fighter aircraft to a new attack helicopter, improved air defense systems, and a new tank. In addition we will strengthen our military-related science and technology effort. The
combat potential of new technologies such as high energy lasers will be actively explored.

—Through basic research, new knowledge is achieved that underlies all future progress in science and technology. My proposed budget provides an increase of 11 percent over my 1976 estimates to assure that the flow of new scientific discoveries continues. Since much of the Nation’s basic research is carried out at colleges and universities, I have given special emphasis to the budget request for the National Science Foundation and other agencies that support research in these institutions. I have requested an increase of 20 percent in NSF’s funding for basic research in order to underscore my strong support for such research, particularly in colleges and universities.

—in agriculture, improving the efficiency of American food production is vital to our National well-being and to help ease critical worldwide food shortages. My Budget provides over $300 million for agricultural research including programs to increase crop yield, improve the nutrition and protein content of crops, and help find new and safer ways to protect crops from the devastating losses which are caused by pests and bad weather. Matching State funds for research at land-grant institutions will contribute an additional $100 million to the national effort. Within the agricultural research program, greater priority will be given to basic agricultural research which is the key to our longer range objectives in food production. Our agricultural research and research undertaken by others around the world can have a major effect on the world food situation for generations to come.

—in health, basic and applied medical research provides new knowledge about causes, prevention and cure of diseases. This knowledge will make it possible to reduce the toll of human suffering, reduce expensive medical treatments, and increase the general level of health of our people. For the Department of Health, Education, and Welfare alone my Budget requests over $2.2 billion to pursue new scientific opportunities relating to cancer, heart and lung disease, arthritis, diabetes, and behavioral disturbances. It will also continue research in emerging areas of National importance such as immunology, aging, environmental health, and health services.

—in space, the shuttle is the key to improved operational space capabilities for science, defense, and industry. My 1977 Budget provides the necessary funds to continue development of the shuttle and to assure a balanced program in science and space applications. In the future, space technologies can further advance our National and worldwide needs for better communications, better weather forecasting and better assessment and management of our natural resources. Scientific exploration and observation in space can add immeasurably to our understanding of the universe around us.

My Budget also provides funds for continued research and development in environment, natural resources, transportation, urban development, and other fields of social and economic activity where we
will support work that shows promise in meeting the problems of society and the new challenges we face as a Nation.

Prompt and favorable action by the Congress on my proposal to create the new Office of Science and Technology Policy and to approve my 1976 Budget requests are vital to ensure that science, engineering, and technology will continue to contribute effectively in achieving our Nation's objectives.

Gerald R. Ford.