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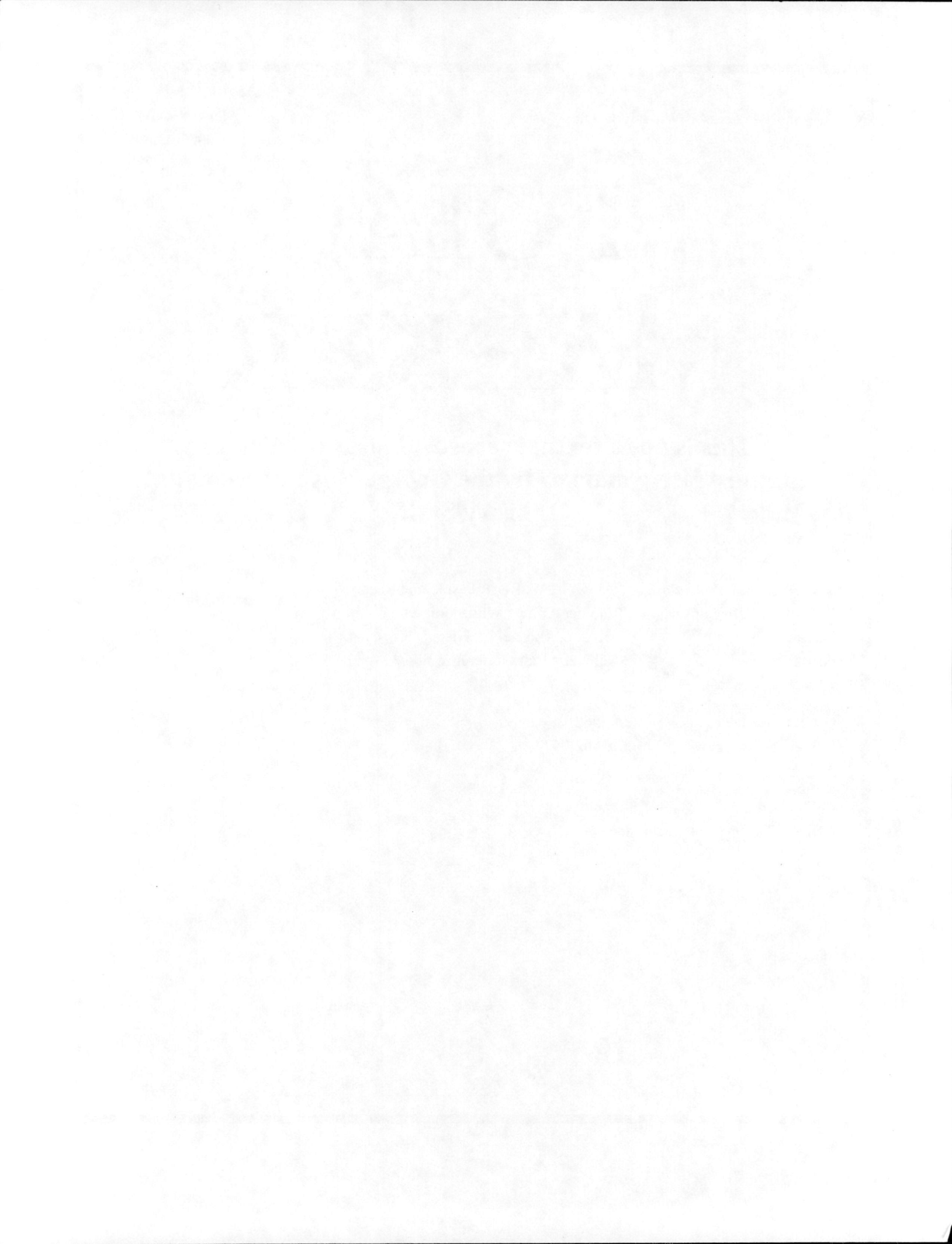
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**Folder Title:**  
Office of Science and Technology

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THE WHITE HOUSE

Office of the Press Secretary

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For Immediate Release

February 5, 1990

The President today announced his intention to nominate Richard E. Bissell to be an Assistant Administrator of the United States Agency for International Development for Science and Technology. He would succeed Nyle C. Brady.

Since 1986, Dr. Bissell has served as Assistant Administrator for Program and Policy Coordination at the United States Agency for International Development in Washington, D.C. Prior to this, he served as Executive Editor of The Washington Quarterly, Center for Strategic and International Studies, 1984-1986; Director of Research and Director of Program Development at the United States Information Agency in Washington, D.C., 1982-1984; and Managing Editor of ORBIS and Director of Economic Security Studies at the Foreign Policy Research Institute in Philadelphia, Pennsylvania, 1974-1982. In addition, Dr. Bissell served as an Adjunct Professor and Lecturer at Georgetown University, 1984-1986; John Hopkins School of Advanced International Studies, 1982; University of Pennsylvania, 1978-1982; Temple University, 1975-1979; and Princeton University, 1974-1976.

Dr. Bissell was graduated from Stanford University (B.A., 1968) and the Fletcher School of Law and Diplomacy (M.A., 1970; Ph.D., 1973). He was born January 25, 1946 in Palo Alto, California. Dr. Bissell is married, has three children and resides in McLean, Virginia.

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1945

1. The first part of the report deals with the general situation of the country and the progress of the war.

2. The second part of the report deals with the economic situation and the progress of the war.

3. The third part of the report deals with the social situation and the progress of the war.

4. The fourth part of the report deals with the political situation and the progress of the war.

THE WHITE HOUSE

Office of the Press Secretary

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For Immediate Release

February 2, 1990

SCIENCE AND TECHNOLOGY ACCOMPLISHMENTS  
AND INITIATIVES OF THE BUSH ADMINISTRATION

FACT SHEET

The President announced today the appointment of the members of the President's Council of Advisors on Science and Technology (PCAST). This distinguished panel of scientists, engineers and industry leaders will provide high-level advice directly to the President on a wide range of important issues concerning science and technology.

Advances in science and technology are a key to increased economic competitiveness and improving our quality of life. The President's action today caps a year of vigorous activity by the Administration to advance science and technology issues on a broad front. The three broad areas of activity are summarized below:

- I. Strengthening Federal Science and Technology Policy
- II. Enhancing Federal Research and Development Activities
- III. Encouraging Increased Private Sector Research and Development Investment

**I. Strengthening Federal Science and Technology Policy**

- o Establishing the National Space Council. -- The President issued an Executive Order on April 20, 1989, establishing the National Space Council, chaired by the Vice President. The Space Council provides advice and assistance to the President on space policy and strategy and monitors and coordinates the implementation of space policy among the civil, national security and commercial space sectors.
- o Establishing the Administration's Council on Competitiveness. -- The President established the Council on Competitiveness, chaired by the Vice President, to oversee regulatory and other competitiveness issues, such as reform of product

liability laws. A new Working Group will coordinate and review Administration policy and regulations, and will focus on enhancing applied research and on streamlining risk-based regulation of new biotechnology products to ensure safety and promote competitive economic development.

- o Upgrading the Status of the Science Advisor and Increasing the Budget for the Office of Science and Technology Policy. -- The President has raised the status of the Science Advisor to Assistant to the President for Science and Technology. The Science Advisor now participates in deliberations of the Cabinet and of the Domestic and Economic Policy Councils to ensure that science and technology issues are fully reflected in Administration policy development. In addition, the FY 1991 budget proposes \$3.3 million for OSTP, double the FY 1989 level.
- o Strengthening the Federal Coordinating Council on Science, Engineering and Technology (FCCSET). -- The Science Advisor initiated action to improve the interagency coordination apparatus for science and technology by consolidating and enhancing the current FCCSET committee structure. Building on the successful experience of the FCCSET Committee on Earth Science, new committees will be formed to coordinate Federal efforts in education and human resource development, materials science, and others.
- o Reinvigorating the Council on Environmental Quality (CEQ). -- The President is committed to strengthening the CEQ and to ensuring that it has the capacity to serve as an effective source of environmental analysis and information in the White House. Accordingly, the President's FY 1991 budget increases CEQ's budget by 90 percent and CEQ's staff by 70 percent.

## II. Enhancing Federal Research and Development Activities

### A. Increased Investment in Federal R&D

- o The President has proposed a total of \$71 billion for research and development (R&D), including R&D facilities, in his FY 1991 budget. This is an increase of \$4.5 billion, or 7 percent, over FY 1990 enacted levels.
- o Civilian R&D will increase by 12 percent, and defense-related R&D will increase by 4 percent.

- o The President has also proposed to allocate \$12 billion for basic research, an increase of \$1 billion, or 8 percent, over FY 1990. Basic research is an essential investment in the nation's scientific and technological future, including its future scientists and engineers.

#### B. Science and Technology Education

The President has moved aggressively to address the shortcomings in the nation's science and technology education enterprise. He has set goals for the nation's schools and students in science and math, and the FY 1991 budget will provide over \$1 billion in direct spending in five agencies for science, mathematics and engineering education.

- o National Science Foundation (NSF). -- NSF will allocate \$463 million in FY 1991, a 30 percent increase over FY 1990, for a wide variety of education activities to improve the quality of teachers and students, the numbers of students choosing science, math, or engineering careers, and the numbers staying in those fields, particularly those in traditionally under-represented groups.
- o Department of Education. -- The Department will continue to build on its strong relationships with State educational entities. The FY 1991 budget proposes \$230 million, an increase of 69 percent, for the Dwight D. Eisenhower Mathematics and Science program, which provides funds to States to implement improved programs for teaching math and science. In addition, five million is requested for the new National Science Scholars program to recognize outstanding high school students by providing fellowship support for them to study in the fields of mathematics and science in college. The Department will also launch an initiative under its Upward Bound program to provide academic assistance and encouragement to help disadvantaged students pursue study in mathematics and science.
- o National Aeronautics and Space Administration (NASA). -- NASA will allocate \$51 million in FY 1991, an increase of 21 percent, for education activities including the "Spacemobile" program, teacher and student workshops and research experiences at NASA laboratories, and special efforts to increase minority participation in science and engineering.

- o Department of Energy (DOE). -- DOE will provide \$25 million in FY 1991, a 47 percent increase, for educational activities including support for graduate and undergraduate students and high school and university faculty. DOE will implement a new program, in collaboration with the private sector, to train high school faculty in the state-of-the-art science and technology conducted at the DOE laboratories.
- o National Institutes of Health (NIH). -- The research training grant program will be funded at a level of \$292 million, which will support almost 12,000 graduate trainees in research laboratories throughout the nation.

C. Doubling the Budget of the National Science Foundation

The President has maintained his strong commitment to the importance of basic research by proposing \$2.4 billion in budget authority, a more than 14 percent increase, for the National Science Foundation in FY 1991. This will continue progress toward doubling the NSF budget by FY 1993.

- o World-Class Research Equipment. -- The President has also recognized that world-class science and technology requires world-class research equipment. He has supported the construction of a replacement for the important radiotelescope at Greenbank, West Virginia, and, for FY 1991, has proposed the initiation or continuation of several high-priority, specialized research facilities including the National High Magnetic Field Laboratory, the Laser Interferometer Gravitational Wave Observatory, and two 8-meter optical/infrared telescopes.
- o Academic Research Facilities Modernization. -- In addition to research support, the President will also continue the Academic Research Facilities modernization program begun by NSF in FY 1990. Continuing the program will increase management experience and permit evaluation of its impact on U.S. science and technology.
- o U.S. Antarctic Program. -- NSF manages the U.S. Antarctic Program for the government. This program supports national goals in the Antarctic and is the principal expression of the U.S. presence on the Antarctic continent. The FY 1991

budget will expand an important environmental, safety, and health initiative in the Antarctic to ensure that this world scientific resource is preserved and that the safety and health of scientists working on the continent are assured.

D. Understanding and Exploring Space

The President is committed to a continuing, active and exciting American presence in space -- indeed, to America's leadership in space science and exploration. Overall, the FY 1991 budget proposes \$15.2 billion for NASA, an increase of \$2.9 billion, or 24 percent. NASA's budget has increased by almost 40 percent over FY 1989.

- o Space Shuttle. -- The current fleet of three Space Shuttles are the world's most versatile launch vehicles. In FY 1989, the Space Shuttle fleet completed four successful flights. The Space Shuttle Columbia recently accomplished the spectacular retrieval of the Long Duration Exposure Facility. The FY 1991 budget proposes \$4.2 billion, an increase of 22 percent, for Space Shuttle production and operations. This funding will allow for a safe build-up to 10 Shuttle flights, the delivery of the fourth Shuttle, Endeavor, and enhancements such as the Advanced Solid Rocket Motor and the Extended Duration Orbiter capability.
- o Space Station Freedom. -- Space Station Freedom is the largest international R&D project ever undertaken. In FY 1989, the program underwent a reevaluation that has resulted in a more achievable program and funding profile. The FY 1991 budget continues the President's commitment to the Space Station by proposing a total of \$2.6 billion, an increase of 36 percent. This will provide for the critical transition from design to actual fabrication.
- o Moon/Mars Exploration. -- On July 20, 1989, the President proposed that America undertake an ambitious mission of manned exploration of the solar system. This journey will begin with the first step in the FY 1991 budget towards this new goal -- nearly \$1.3 billion, an increase of 47 percent -- to support robotic science missions and to develop the pacing and innovative technologies that will be needed. Of particular interest is the continued commitment of the Administration to

the National Aerospace Plane (NASP) program. In FY 1989 the National Space Council reviewed and revised this program in keeping with a more stable and sustainable pace of technology and funding.

- o Space Science and Applications. -- The U.S. is committed to maintaining its world leadership in space science. An exciting new era of discovery has now begun in unmanned planetary exploration, astronomy, and Earth observations. In 1989, three important scientific missions were launched: Magellan to Venus, Galileo to Jupiter, and the Cosmic Background Explorer. The FY 1991 budget proposes \$3.3 billion, an increase of 22 percent, for the continued support of missions planned for launch in 1990 including the Hubble Space Telescope, the Gamma Ray Observatory, and the Ulysses mission to explore the Sun, and development of future missions such as the Comet Rendezvous/Asteroid Flyby and the Cassini mission to Saturn.

#### E. Global Environmental Change

- o U.S. Global Change Research Program (USGCRP). -- The U.S. is the world leader in global change research. The President has endorsed the USGCRP, a coordinated, multi-agency research program of space- and ground-based research and observations designed to provide a sound scientific basis for rational policy decisionmaking on global change issues. The FY 1991 budget proposes over \$1 billion for this effort, an increase of 57 percent.
- o Mission to Planet Earth (MTPE). -- On July 20, the President also affirmed the importance of NASA's contribution to the USGCRP, Mission to Planet Earth. The largest part of this initiative consists of a major new program for FY 1991, the Earth Observing System, a series of space platforms and instruments developed by the U.S., Europe and Japan, which will collect a broad spectrum of environmental data related to global warming, drought, oceans, etc. MTPE will permit, for the first time, an analysis of Earth as an integrated system.
- o International Activities. -- The President believes that continuing U.S. scientific leadership is needed to address global environmental issues. In the past year, the

President announced U.S. support for a worldwide phaseout of chlorofluorocarbon (CFC) production to the extent safe substitutes are available. In 1990, the U.S. will host the Plenary Session of the Intergovernmental Panel on Climate Change (IPCC) in February; a meeting of the world's economic, scientific, and environmental officials to discuss global environmental issues in the Spring; and the first negotiation session on the Framework Convention on Climate Change in late Fall.

F. Environment

- o Clean Air Act. -- The President demonstrated his commitment to clean air by transmitting Clean Air Act Amendments to Congress in July 1989. The President's plan allows for both environmental protection and economic development and is based on a commitment to using the best science available. In support of his Clean Air proposals, the FY 1991 air research budget of the Environmental Protection Agency will increase by \$8 million to a total of \$95 million.

G. The Superconducting Super Collider and High Energy Physics

- o The Superconducting Super Collider (SSC). -- The SSC will provide an enormous advance in the capability to explore the secrets of matter and energy. Over the past year, the Department of Energy has established the SSC laboratory at a site near Dallas, Texas. The new laboratory team is conducting a thorough reevaluation of all technical systems with particular attention to magnet design and technical performance of the accelerator. In FY 1989, research continued on the design and testing of magnets. Approximately 8,000 magnets will be used in the 53-mile SSC tunnel. In addition, during FY 1989, DOE continued work on the site-specific Environmental Impact Statement (EIS). The EIS is necessary before DOE makes a decision on the "footprint" of the SSC and starts acquiring land for the project.
- o High Energy and Nuclear Physics. -- The President supports a robust program of research in the areas of high-energy and nuclear physics, which offer the prospects of increasing our knowledge of the basic constituents of matter. Last year,

scientists discovered and conducted measurements of the Z-nought particle utilizing the recently upgraded Stanford Linear Collider. The Z-nought particle is important because it transmits one of the basic forces between elementary particles. The FY 1991 budget provides a funding increase of 8 percent to continue research at Stanford and the three other large accelerator centers: the Brookhaven National Laboratory on Long Island, the Cornell Electron Storage Ring in New York State, and the Fermilab National Laboratory.

#### H. Life Sciences

- o Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS). -- The Administration remains committed to making continued progress against HIV and AIDS. Five therapies have been approved for use, and since January 1989 over 35 clinical trials have been initiated in a search for additional therapeutic drugs. The Administration has recently taken action to enable State Medicaid programs to cover the costs of the drug AZT for HIV-infected individuals who do not yet exhibit AIDS symptoms. The FY 1991 budget proposes \$3.5 billion in total for HIV/AIDS research, treatment, prevention and income support, an increase of 18 percent.
- o Human Genome Project. -- The evolution of genetic engineering techniques over the last decade has enabled the initiation of one of the most exciting science projects ever undertaken -- the development of a map of the full complement of human genetic material (the human genome). Such an undertaking will vastly increase our understanding of the nature and cause of many diseases. Over the past year, important advances have already been made, such as the identification of the gene that accounts for a large proportion of all cystic fibrosis cases. The FY 1991 budget proposes \$108 million for the National Institutes of Health and \$46 million for the Department of Energy to pursue collaboratively this important project.
- o Biotechnology. -- Recent breakthroughs in biotechnology, such as recombinant DNA techniques, cell fusion and gene therapy, offer unprecedented opportunities for improving the nation's productivity, health, and well-being. Increasing Federal investment in basic biotechnology research

will spur further advances, as will initiatives that improve payoffs on investments. The FY 1991 budget proposes \$3.6 billion for biotechnology R&D, an increase of 6 percent over 1990.

- o Agricultural Research Initiative. -- American farmers are among the most productive in the world. New techniques in genetics, molecular and cell biology have led to innovative approaches that will enhance our ability to produce food, while addressing concerns of safety, nutrition and the environment. The FY 1991 budget will launch a National Research Initiative to more than double the size of USDA's competitive grants program. This will expand funds for plant and animal biotechnology to \$50 million, with a particular emphasis on mapping the genome of important crop plants. Like the Human Genome Initiative, this effort will create new opportunities to explore the genetic potential of plants.

#### I. Energy

- o National Energy Strategy. -- The President has directed Secretary of Energy Watkins to develop a National Energy Strategy to guide the Administration's energy policies and programs. The Department has held two rounds of public hearings and plans to issue a draft document in April. A key element of the strategy will be a blueprint for future energy R&D programs and activities.
- o Clean Coal Technology. -- The Administration is committed to a \$2.5 billion program to demonstrate emerging clean coal technologies. This program will provide additional cost-effective alternatives for reducing acid rain.
- o Solar/Renewables and Energy Conservation R&D. -- The President is committed to assisting the development of emerging technologies that offer the potential to provide new sources of energy as well as new ways to use it more efficiently, while protecting the environment. On January 26, 1990, the Department of Energy announced a new 11-point initiative in this area. The FY 1991 budget provides an increase of 8 percent in funding for conservation, solar and other renewable energy technology R&D.

- o Enhanced Oil and Gas Recovery Research. -- Up to two-thirds of oil and gas reserves are still left in the ground with conventional recovery techniques. In order to stimulate the use of new technologies to increase production from these existing fields, the President proposed four new tax initiatives, including a 10 percent credit for new tertiary enhanced recovery projects. In addition, the FY 1991 budget proposes \$17 million to establish oil and gas geosciences research consortia with industry and universities to advance the science underlying oil and gas recovery.

J. Advanced Technology

- o National Institute of Standards and Technology (NIST). -- The FY 1991 budget proposes \$198 million for NIST, a 21 percent increase over the 1990 enacted level, and includes substantial increases for core NIST research programs such as robotics, lightwave technology, quality chemical measurements, and advanced semiconductor measurement. NIST research programs form the basis for the development of the measurements and standards on which U.S. industries depend. The FY 1991 budget also includes increased funding for improvements to NIST facilities. In addition, the budget includes funding for two programs to encourage the development and transfer to the private sector of a wide range of advanced technologies.
  - Manufacturing Technology Centers. -- The budget proposes to continue funding for these centers, requesting \$5 million in FY 1991. This program provides matching grants to universities or non-profit organizations to establish centers for the transfer of innovative, advanced manufacturing technology to small and medium-sized businesses.
  - Advanced Technology Program (ATP). -- The budget requests \$10 million in FY 1991, the 1990 funding level, for this program. The ATP will provide seed money to industry-led consortia doing generic, pre-competitive research into promising technologies.
- o Magnetic Levitation Transportation. -- The FY 1991 budget proposes nearly \$10 million for R&D on this

emerging technology, an increase of almost 400 percent. These efforts are being carried out by both the Department of Transportation (about \$6 million) and the Army Corps of Engineers (almost \$4 million). Each agency is pursuing a public-private partnership designed to facilitate private development of an operational maglev system in the U.S.

#### K. National Security

- o DOD Technology Base. -- The President supports a strong technology base to develop options for future weapons systems and to guard against technological surprise by adversaries. The FY 1991 budget includes \$3.4 billion for the technology base (basic and applied research) funded through the Department of Defense. This will support programs ranging from basic research in the physical sciences to development of high-speed semiconductors for use in advanced communications systems and computers.
- o Strategic Defense Initiative (SDI). -- The SDI program remains a high priority of the President. The FY 1991 budget requests \$4.5 billion for SDI, an increase of \$0.9 billion over 1990. The SDI program is developing options for strategic defenses based on advanced technologies. Particular emphasis is being placed on promising new concepts such as the "Brilliant Pebbles" small space-based interceptor missiles.

#### III. Encouraging Increased Private Sector R&D Investment

Private sector investment accounts for about 50 percent of the total national investment in R&D. In addition, the private sector is the principal performer for R&D and is ultimately responsible for transforming R&D results into useful new products and processes. The Administration has taken a number of steps to encourage increased private sector R&D investment and technological innovation.

- o Encouraging Savings and Investment. -- The President is proposing the Family Savings Account to stimulate increased savings that provide the resources needed for investments in the future. In addition, the President is proposing to lower the tax on capital gains in order to promote increased entrepreneurial activity and investment.

- o Research and Experimentation Tax Credit. -- The President again proposes to make permanent the 20 percent tax credit targeted specifically to research and experimentation (R&E) by allowing 100 percent of total research expenses to be used for the computation of the credit for all years after December 31, 1989. In 1989, the Congress enacted a short-term extension in response to the President's proposal of last February.
- o Encouraging R&D by Transnational Companies. -- The President proposes to make permanent the rules, as modified by the Omnibus Budget Reconciliation Act of 1989, for the allocation of foreign and domestic R&E expenditures for companies with foreign operations. The proposal would also allow 100 percent of U.S. expenditures to be covered rather than the current 75 percent. This proposal would apply to all tax years beginning after August 1, 1990, when the current rules expire.
- o Intellectual Property. -- The President is committed to pursuing aggressively improved international protection of intellectual property. The current negotiations in the Uruguay Round of the General Agreement on Tariffs and Trade are an important forum for this activity.
- o Tort Reform/New Product Liability. -- The Administration has endorsed changes in product liability laws to help restore balance to the tort system, to increase competitiveness, and to reduce uncertainty, particularly for new products, while providing incentives to produce safe products.

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THE WHITE HOUSE

Office of the Press Secretary  
(Knoxville, Tennessee)

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For Immediate Release

February 2, 1990

The President today announced the appointment of the President's Council of Advisers on Science and Technology (PCAST), comprised of 12 distinguished scientists and engineers. This panel will provide high-level advice directly to the President on a wide range of important issues concerning science and technology.

PCAST will be the first Presidential scientific advisory group in many years to report directly to the President. Its establishment is a measure of the Bush Administration's high esteem for science and a recognition that advances in science and technology contribute in a major way to increased economic competitiveness. It also reflects the President's desire to strengthen Federal science and technology policy, enhance Federal research and development activities, and encourage private sector involvement in research and development.

The United States scientific community leads the world in creating new knowledge. Through PCAST, the President is seeking to provide the best obtainable private sector advice to Executive Branch decision-making in science and technology.

PCAST will be chaired by Dr. D. Allan Bromley, Assistant to the President for Science and Technology. A list of the members and their affiliations is attached, along with a fact sheet on science and technology accomplishments in the Bush Administration.

PCAST was established January 19, 1990, by Executive Order 12700. Its members will be sworn in later today by the Vice President at the White House.

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**NORMAN E. BORLAUG**

Nobel Laureate Borlaug, of Texas, is currently leader of the Sasakawa-Global-2000 agricultural program in sub-Saharan Africa, Distinguished Professor of International Agriculture at Texas A&M University, and a Senior Consultant to CIMMYT. He was Director of the Wheat Research and Production Program of the International Maize and Wheat Improvement Center, Mexico, from 1964 until his retirement in 1979.

Dr. Borlaug's career began in 1935 in the U.S. Forest Service, and he subsequently worked as an instructor in plant pathology at the University of Minnesota in 1941, where he received his Ph.D. From 1942 through 1944 he was a microbiologist with the E. I. DuPont de Nemours & Co.. He also served as research scientist in charge of wheat improvement with the Cooperative Mexican Agricultural Program, Mexican Ministry of Agriculture and the Rockefeller Foundation, 1944-60, and later, as Associate Director of the Foundation assigned to the Inter-American Food Crop Program, 1960-63.

**D. ALLAN BROMLEY, CHAIRMAN**

D. Allan Bromley, of Connecticut, is Assistant to the President for Science and Technology and Director of the Office of Science and Technology Policy (OSTP).

Dr. Bromley carried out pioneering studies on both the structure and dynamics of nuclei and is considered the father of modern heavy ion science. He has played major roles in the development of accelerators, of detection systems, and in computer based data acquisition and analysis systems. He is currently on leave from his position as Henry Ford II Professor of Physics at Yale University, where he was founder and Director of the A.W. Wright Nuclear Structure Laboratory.

Dr. Bromley has been a leader in the national and international science and science policy communities for more than 20 years, serving as a member of the White House Science Council throughout the Reagan Administration and as a member of the National Science Board in 1988-89. He received the President's National Medal of Science in 1988 and the Presidential Medal of the New York Academy of Sciences in 1989. He has served as President of the American Association for the Advancement of Science and of the International Union of Pure and Applied Physics.

Dr. Bromley received the B.Sc. degree in 1948 at Queen's University, Canada, the M.Sc. degree from Queen's University in 1950, and the Ph.D. degree in nuclear physics from the University of Rochester in 1952. He has since been awarded 10 honorary doctorates.

**SOLOMON J. BUCHSBAUM**

Solomon J. Buchsbaum, of New Jersey, has been Senior Vice President, Technology Systems, at AT&T Bell Laboratories since 1979. His early career included work at the MIT Research Laboratory of Electronics. He received his Ph.D. in physics from MIT in 1957. He joined Bell Laboratories in 1958 as a member of the technical staff and later became department head and director of the Electronics Research Laboratory. In 1968, he was named Vice President for Research at the Sandia Laboratories and served in a number of different capacities. He returned to Bell Laboratories in 1971 as an Executive Director. In 1976 he became Vice President, Network Planning and Customer Systems.

Dr. Buchsbaum is a member of the National Academy of Sciences and of the National Academy of Engineering. He was the recipient of the President's National Medal of Science in 1986.

**CHARLES L. DRAKE**

Charles L. Drake, of Vermont, has been the Albert Bradley Professor of Earth Sciences at Dartmouth since 1984 and Professor of Geology since 1969. Dr. Drake's professional career began at Columbia University in 1953. He joined the staff at Dartmouth in 1958 after receiving his Ph.D. in geology from Columbia University where he has continued his career, including service as Professor and Chairman of the Department, 1967-69; as Dean of Graduate Studies and as Associate Dean of the Science Department, 1978-81.

Dr. Drake is a recipient of the G. P. Woollard Award, Geophysical Division of the Geological Society of America.

**RALPH E. GOMORY**

Ralph E. Gomory, of New York, is President of the Sloan Foundation and, until his recent retirement, was Senior Vice President for Science and Technology, IBM Corporation. He received his Ph.D. in mathematics from Princeton in 1954.

Dr. Gomory's professional experience includes teaching and research at Princeton from 1957-59. In 1959, he joined the Research Division of IBM and was named Director of the Mathematical Sciences Department in 1965. In 1970 he became IBM Director of Research and held that position until 1985, becoming IBM Vice President in 1973, Senior Vice President in 1985, and IBM Senior Vice President for Science and Technology in 1986. He has been awarded a number of honorary degrees and prizes, including the John von Neumann Theory Prize in 1984 and the National Medal of Science in 1988.

**BERNADINE HEALY, VICE CHAIRMAN**

Bernadine Healy, of Ohio, is Chairman of the Research Institute of The Cleveland Clinic Foundation, a position she assumed in 1985, and is a staff member of the Clinic's Department of Cardiology. Prior to that time, she was Deputy Director of the Office of Science and Technology Policy at the White House, and until that appointment had been a Professor at The Johns Hopkins University School of Medicine and Hospital. Dr. Healy received her medical degree from Harvard Medical School in 1970. Her medical career continued at Johns Hopkins from 1976 to 1984, where she was Professor of Cardiology and Medicine, Director of the Coronary Care Unit, and Assistant Dean for Postdoctoral Programs and Faculty Development.

Dr. Healy is a member of the Institute of Medicine of the National Academy of Sciences. She is the immediate Past President of the American Heart Association and a former President of the American Federation for Clinical Research.

**PETER W. LIKINS**

Peter W. Likins, of Pennsylvania, has been President of Lehigh University since 1982. His professional career began as a development engineer with the Jet Propulsion Laboratory, California Institute of Technology, in 1958. In 1964 he joined the faculty at the University of California, Los Angeles, where he became Professor of Engineering and later, Associate Dean. Dr. Likins received his Ph.D. in engineering mechanics from Stanford in 1965. In 1976 he became Professor and Dean of Columbia University, serving until 1980, when he became Provost of the University.

**THOMAS E. LOVEJOY**

Thomas E. Lovejoy, of Virginia, is the Assistant Secretary for External Affairs, The Smithsonian Institution. His previous experience includes service as a research assistant at the University of Pennsylvania, 1971-74, after receiving his Ph.D. in biology from Yale University in 1971; as Executive Assistant to the Science Director and as Assistant to the Vice President for Resources and Planning of the Academy of Natural Sciences, 1972-73; as the Vice President for Science of the World Wildlife Fund-U.S., 1973-87; and as Executive Vice President, 1985-89.

Dr. Lovejoy is President of the Society for Conservation Biology.

**WALTER E. MASSEY**

Walter E. Massey, of Illinois, has been the Vice President of the University of Chicago for Research and for Argonne National Laboratory since 1984. He has also been Professor of Physics at the University since 1979.

Dr. Massey previously served as a physics instructor at Morehouse College, 1958-59; and after receiving his Ph.D. in physics from Washington University in 1966, as a staff physicist with the Argonne National Laboratory until 1968; as Assistant Professor of Physics, University of Illinois, Urbana, 1968-70; Associate Professor of Physics and Dean of the College, Brown University, 1975-79. He is Vice President, and President-elect, of the American Physical Society and is the Past President and Chairman of the American Association for the Advancement of Science.

**JOHN P. MCTAGUE**

John P. McTague, of Michigan, is Vice President-Research, Ford Motor Company, and has served in that position since 1986.

In 1983 Dr. McTague was appointed Deputy Director of the Office of Science and Technology Policy, becoming Acting Science Advisor to the President and Acting Director of OSTP in 1986. Prior to that, he was Chairman of the National Synchrotron Light Source Department, Brookhaven National Laboratory, 1982-83. He was Professor of Chemistry and a member of the Institute of Geophysics and Planetary Physics, University of California, Los Angeles, 1970-82. Dr. McTague began his professional career as a member of the Technical Staff, North American Aviation Science Center, on receiving his Ph.D. in physical chemistry from Boston University, and remained there until 1970. He is U.S. Chairman of the U.S. Japan Joint High Level Advisory Panel on Cooperation in Research and Development in Science and Technology.

**DANIEL NATHANS**

Nobel Laureate Nathans, of Maryland, is Professor of Molecular Biology and Genetics at The Johns Hopkins University Medical School and Senior Investigator of the Howard Hughes Medical Institute. He has been on the faculty of The Johns Hopkins University Medical School since 1962.

After receiving his Medical Degree from Washington University in 1954, he served as Medical Resident at the Columbia-Presbyterian Medical Center in New York, 1955, 1957-59; as Clinical Associate at the National Cancer Institute, 1955-57, and Guest Investigator in biochemistry at the Rockefeller University, 1959-62.

Dr. Nathans received the Nobel Prize in Physiology or Medicine in 1978 for his research with enzymes that cut DNA into specific pieces, one of the basic tools of genetic engineering.

DAVID PACKARD

David Packard, of California, has been Chairman of the Board of the Hewlett-Packard Co. since 1972. Mr. Packard received his B.A. and B.S.E.E. degrees from Stanford University in 1934 and 1939, respectively.

His professional experience includes service as an engineer with the Vacuum Tube Engineering Department, GE Co., 1936-38; co-founder and partner, the Hewlett-Packard Co., 1939-47; President, 1947-64; and Chairman and Chief Executive Officer, 1964-69. Prior to his present position, Mr. Packard served as U.S. Deputy Secretary of Defense from 1969-71.

Mr. Packard received the Vannevar Bush Award of the National Science Board in 1987 and the President's National Medal of Technology and the Presidential Medal of Freedom in 1988.

HAROLD T. SHAPIRO

Harold T. Shapiro, of New Jersey, has been President of Princeton University since 1988.

Dr. Shapiro's previous academic experience has been with the University of Michigan, after receiving his Ph.D. in economics from Princeton in 1964, first as an Assistant Professor of Economics. His career progressed from Associate Professor, 1967-70; Professor, 1970-76; Chairman of the Department of Economics, 1974-77; Professor of Economics and Public Policy, 1977; Vice President for Academic Affairs, 1977-79.

Dr. Shapiro was President of the University of Michigan from 1980 until 1987. He has served as a member of many industrial, governmental and academic boards and commissions.

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THE WHITE HOUSE

Office of the Press Secretary  
(Miami, Florida)

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For Immediate Release

January 19, 1990

The President today announced his intention to nominate Eugene Wong to be an Associate Director of the Office of Science and Technology Policy. This is a new position.

Since 1969, Dr. Wong has served as a Professor of Electrical Engineering and Computer Science at the University of California at Berkeley; and as an Assistant Professor, 1962-1965, and an Associate Professor, 1965-1969. He has served as a Fellow at Harvard University, Imperial College, and the University of Cambridge. Prior to this, he worked for IBM Research Center in Yorktown, New York, 1960-1962; and for the IBM Research Laboratory in Poughkeepsie, New York, 1955-1956.

Dr. Wong was graduated from Princeton (B.A., 1955; Ph.D., 1959). He was born December 24, 1934 in Nanking, China. He is married, has three children and resides in Berkeley, California.

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THE WHITE HOUSE

Office of the Press Secretary  
(Miami, Florida)

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For Immediate Release

January 19, 1989

The President today announced his intention to nominate William D. Phillips to be an Associate Director of the Office of the Science and Technology Policy. This is a new position.

Since 1989, Dr. Phillips has served as President of the Missouri Advanced Technology Institute in St. Louis, Missouri. In addition, he has served as Science Advisor to the Governor of Missouri, 1987 to present; and a Professor of Chemistry at Washington University, 1987 to present. Prior to this, Dr. Phillips was Senior Vice President of Science and Technology for Mallinckrodt, Incorporated in St. Louis, Missouri.

Dr. Phillips was graduated from the University of Kansas (B.A., 1948) and the Massachusetts Institute of Technology (Ph.D., 1951). He was born October 10, 1925 in Kansas City, Missouri. He served in the United States Navy, 1943-1946. Dr. Phillips currently resides in St. Louis, Missouri.

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