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Paul MacCready Honored with Heinz Award for Technology, the Economy and Employment

**“Father of Human-Powered Flight” recognized for improvements in aeronautics, air
quality and invention of electric-powered vehicles**

Washington, D.C., February 11, 2003 – Dr. Paul MacCready, an engineer and inventor whose passions for aviation, alternative energy and the environment spurred breakthrough innovations in all three areas, is the recipient of this year’s \$250,000 Heinz Award for Technology, the Economy and Employment. Recognized for his pioneering creations that have helped conquer the constraints of gravity, propel automobiles without fossil fuels and advance technological discoveries that preserve natural resources, Dr. MacCready is one of six winners of the ninth annual awards.

“No one has been more passionate or more precise in his work to harness the promise of technology than Dr. Paul MacCready,” said Teresa Heinz, chairman of the Heinz Family Foundation. “His remarkable ability to translate his vision into workable and environmentally sound marvels of technology has given us solar flight, the first electric car and, perhaps best of all, new thinking about what is possible. His efforts to create non-fossil fuel means of transportation represent our ultimate hope for protecting our fragile environment and developing alternative forms of transportation for tomorrow’s world.”

Named Engineer of the Century by the American Society of Mechanical Engineers in 1980, Dr. MacCready has been a builder/inventor since constructing model airplanes as a child. With a zeal for flying and a deep interest in alternative forms of energy, he founded two companies, the second of which enabled him to pursue a range of fascinations, from aeronautics and air quality to hazardous waste disposal and electric-powered vehicles.

In 1977, Dr. MacCready earned international fame as the “father of human-powered flight” when his Gossamer Condor – and later, the Gossamer Albatross – made the first sustained, controlled flight by a heavier-than-air craft solely powered by its pilot’s muscles. At AeroVironment, the company he founded, his attention turned to aircraft that used photovoltaic cells to harness the sun’s power. His Gossamer Penguin made the first solar-powered flight, a feat leading to his Solar Challenger aircraft that flew 163 miles from an airfield near Paris to eastern England.

His interests next focused on vehicles powered on land. Working in partnership with General Motors, and combining his interest in the environment with his special engineering capabilities, he led the team that created the Sunraycer, a pioneering solar-powered automobile. It won the first World Solar Challenge in 1987 across Australia, clocking in at a time 50 percent faster than the runner up. Not designed for mass production, it provided important technological advances in electric propulsion and established the basis for his company’s next development – the battery-powered Impact car introduced in January 1990, which GM committed to commercialize four months later. The California Air Resources Board subsequently established regulations that strengthened the vehicle’s use. While the rules have since been weakened, new developments in high-energy battery cells assure a significant future for economical, normal-sized, battery-powered vehicles.

Dr. MacCready's further work on aircraft has split into two areas. One field of interest is in small robotic devices, weighing from ½-ounce to several hundred pounds. Such devices include the widely used, battery-powered Pointer, which weighs nine pounds and carries its telemetry video for hours on a single flight. On the other end of the size spectrum is the 247-foot Helios. Using solar power, it has flown to 96,863 feet, two miles higher than any plane has flown continuously. The flight was a giant step toward the goal of planes staying at about 60,000 feet for months at a time, with excess solar energy stored by fuel cells for use at night.

Active as a lecturer and writer, Dr. MacCready is an energetic advocate in the fight against global pollution, calling on manufacturers and the public to take responsible, intelligent action. Viewed by many of his peers as the quintessential engineer, he continues to play a valued role in the Environmental Leadership Foundation.

"He personifies the engineer of the 21st century," said a former editor of *Scientific American*.

"MacCready has shown how design can maximize the yield from energy and by that stratagem, minimize its consumption."

"It is always rewarding to be recognized for your work, but it is even more valuable to have your work acknowledged as having an impact," Dr. MacCready said. "I am honored to be receiving the Heinz Award for Technology, the Economy and Employment and am pleased that the Heinz Family Foundation continues to focus attention on the vital and ongoing need to protect our environment, especially through technological innovation."

The Heinz Family Foundation of Pittsburgh annually recognizes individuals whose perseverance and sacrifice represent the best of the human spirit – qualities that Senator Heinz himself held so dear. By category, the other recipients of the Heinz Awards are:

- **Arts and Humanities: Bernice Johnson Reagon**, Ph.D., civil rights activist, performer and educator.
- **Environment (shared): Mario J. Molina**, Ph.D., chemist and professor of environmental sciences, Massachusetts Institute of Technology; and **John D. Spengler**, Ph.D., professor and director, environmental sciences and engineering program, Harvard University.
- **Human Condition: Paul Farmer**, M.D., Ph.D., physician and medical anthropologist, Harvard University, and founder, Partners In Health.
- **Public Policy: Geraldine Jensen**, founder and president, the Association for Children for Enforcement of Support (ACES).

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About the Heinz Foundation

The Heinz Family Foundation, one of the Heinz Family Philanthropies, began as a charitable trust established by the late Senator Heinz in 1984. His widow, Teresa Heinz, created the Heinz Awards in 1993. The Awards represent the primary activity of the Foundation. In addition to the Heinz Awards, the Foundation directs a grant-making program that is active in a wide range of issues, principally those concerning the environment and conservation, women, human services, education and the arts – areas in which the late Senator was most active.

Nominations for the Heinz Awards are submitted by an invited Council of Nominators, all experts in their fields, who serve anonymously. Nominees are reviewed by five panels of 10 jurors each appointed by the Foundation. Award recipients are selected by the Board of Directors for the Heinz Awards upon review of the jurors' recommendations.

Past winners of the Heinz Awards include former Senator Daniel Patrick Moynihan; poet Rita Dove; Dean Kamen, inventor and founder of student robotics competition U.S. FIRST; Love Canal activist Lois Gibbs; Dr. Anita Borg, president of the Institute for Women and Technology; nuclear arms expert General George Lee Butler (USAF retired); and Dudley Cocke, director of Appalachia's Roadside Theater.

In addition to the \$250,000 award for their unrestricted use, recipients are given a medallion inscribed with the image of Senator Heinz. On its reverse side is an image of a globe passing between two hands, symbolizing partnership, continuity and values carried on to the next generation. The hands also suggest passing on the stewardship of the earth to the next generation. John Heinz IV, the late Senator's oldest son, designed the medallion.

Heinz Award winners will receive their awards at a private ceremony in Washington, D.C.

For more information, visit the web at www.heinzawards.net.

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