



The Charles Stark Draper Prize

The Charles Stark Draper Prize was established in 1988 to honor the memory of Dr. Charles Stark Draper, "the father of inertial navigation." Awarded annually, the Prize was instituted by the National Academy of Engineering and endowed by Draper Laboratory, and is recognized as one of the world's preeminent awards for engineering achievement. It honors individuals who, like Dr. Draper, developed a unique concept that has made significant contributions to the advancement of science and technology, as well as the welfare and freedom of society.

For information on the nominating process, contact the Public Affairs Office at the National Academy of Engineering at (202) 334-1237.

Dr. Ivan A. Getting and Dr. Bradford W. Parkinson were awarded the 2003 Draper Prize on February 18 at a ceremony in Washington D.C. in recognition of their technological achievements in the development of the Global Positioning System (GPS). Each received a citation, gold medal, and will share the \$500,000 honorarium. William A. Wulf, President of the National Academy of Engineering remarked, "It is an achievement that deservedly joins the ranks of previous Draper Prize honors, such as the semiconductor microchip, the jet engine, satellite technology, fiber optics, and the Internet."

Dr. Parkinson was responsible from program start to space operation for leading the final concept and bringing to practice the satellite-based, worldwide navigation system known as NAVSTAR GPS.

Dr. Parkinson served in the U.S. Air Force from 1957 to 1978, retiring as a colonel. Early in his career, he headed the Department of Astronautics and Computer Science at the U.S. Air Force Academy. He created and ran the NAVSTAR GPS Joint Program Office from 1972-1978. During that time, he received the Defense Department Superior Performance Award as the best Program Director in the Air Force. As the program's first manager, he was the chief architect of GPS throughout the system's concept, engineering development, and implementation.

Dr. Parkinson, distinguished Edward C. Wells Professor of Aeronautics and Astronautics at Stanford University, continues teaching and researching innovative ways to use GPS technology's extraordinary centimeter-level accuracy capability. Recently, under Federal Aviation Administration sponsorship, he and his students developed a fully blind landing system for aircraft.

Dr. Parkinson is the Chairman of the Board of Trustees of The Aerospace Corporation and is a co-chair of the Jet Propulsion Lab Advisory Council. He is a member of several associations and committees, including AAS, IEEE, The Presidential Commission on Air Safety and Security, and The Royal Institute of Navigation. He has received many distinguished awards, such as the Discover Innovation Award, NASA's Distinguished Public Service Medal, IEEE Simon Ramo Award, and the AIAA Von Karman Lectureship and Aerospace Contribution to Society medal.

Dr. Parkinson received a BS degree in General Engineering at the U.S. Naval Academy (1957), an SM from MIT in Aeronautics and Astronautics (1961), and a PhD in Aeronautics and Astronautics from Stanford University (1966).



Dr. Bradford W. Parkinson, 2003 Draper Prize recipient



Dr. Ivan A. Getting, 2003 Draper Prize recipient

Dr. Getting's leadership and tenacity garnered the necessary support to ensure that the creation of GPS succeeded. Currently President Emeritus of The Aerospace Corporation, his work over many decades on the design of GPS, its operational value, and planning, negotiating, and reaching agreements with all the system's stakeholders was critical to its becoming a reality.

Dr. Getting joined MIT's Radiation Laboratory in 1940 as head of Division 8, Army and Fire Control Radar. This group was responsible for developing practically all Army ground radars that were used during World War II, including the SCR-584 autotracking radar, which was of major importance in saving London from destruction by the V-1.

From 1950 to 1951, he was an Assistant for Development Planning of the U.S. Air Force. While he was Vice President for Research and Engineering at Raytheon (1951 to 1960), Raytheon became the first company to produce transistors commercially. He was also responsible for the development of the Sparrow III and Hawk missile systems. In 1960, Dr. Getting became the founding president of The Aerospace Corporation, which made significant contributions to ballistic missile defense and NASA's Mercury and Gemini space programs, and whose research laboratories contributed to radio astronomy, laser isotope separation, and high-power chemical lasers.

Dr. Getting has received numerous prestigious honors and awards, including the President's Medal of Merit, Air Force Exceptional Service Award, the Kitty Hawk Award, and the John Fritz Medal. He is a fellow of the American Physical Society, IEEE, and an Honorary Fellow of the AIAA.

Dr. Getting received an SB from MIT as an Edison Scholar (1933). He was a Graduate Rhodes Scholar at the University of Oxford, and was awarded a PhD in Astrophysics (1935).



Previous Recipients of The Charles Stark Draper Prize



2002

Robert Langer for bioengineering revolutionary medical drug delivery systems.



2001

Vinton Cerf, Robert Kahn, Leonard Kleinrock, and Lawrence Roberts for their individual contributions to the development of the Internet.



1999

Charles Kao, Robert Maurer, and John MacChesney for spearheading advances in fiber-optic technology.



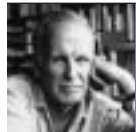
1997

Vladimir Haensel for the development of the chemical engineering process of "Platforming" (short for Platinum Reforming), which was a platinum-based catalyst to efficiently convert petroleum into high-performance, cleaner-burning fuel.



1995

John R. Pierce and Harold A. Rosen for their development of communication satellite technology.



1993

John Backus for his development of FORTRAN, the first widely used, general-purpose, high-level computer language.



1991

Sir Frank Whittle and Hans J.P. von Ohain for their independent development of the turbojet engine.



1987

Jack S. Kilby and Robert N. Noyce for their independent development of the monolithic integrated circuit. Jack S. Kilby also shared the 2000 Nobel Prize in Physics for his role in developing the integrated circuit.