

G. Scott Hubbard, Director, NASA Ames Research Center

G. Scott Hubbard serves as director of NASA's Ames Research Center in the heart of California's Silicon Valley. In his present position, Hubbard has management responsibility for close to 1,500 civil servants, a contractor workforce of roughly 2500, and an annual operating budget in excess of \$775 million. Hubbard is known for his innovative approach to collaborations between government, academia and the private sector, particularly as embodied by the award winning NASA Research Park development. In 2003, from February to September he served full time as the sole NASA representative on the Columbia Accident Investigation Board (CAIB) at the request of NASA Administrator Sean O'Keefe. He directed impact testing analysis that established the definitive physical cause of the loss of the Columbia. He will continue to serve on the Board as long as it remains active. Previously, Hubbard served as the deputy director for research at NASA Ames.

In March 2000, Hubbard was called to NASA headquarters to serve as the first Mars program director. In that capacity, he was responsible for redefining all robotic Mars missions in response to the mission failures of 1999. The Mars Odyssey mission, launched during Hubbard's tenure, is now successfully collecting data at the 'red planet.' In a previous role at NASA Ames, Hubbard was associate director for astrobiology and space programs. That position carried responsibility for programs that comprise the new multidisciplinary study of life in the universe called 'astrobiology.' Hubbard was one of the founders of astrobiology and helped establish NASA's Astrobiology Institute, serving as the initial director and recruiting the next director, Nobel Laureate Dr. Baruch Blumberg. Hubbard's tenure at Ames began in 1987, and has included a variety of increasingly responsible management roles. From 1997-1999, he served as the deputy director of the Space Directorate. This 600-person directorate is responsible for research in the Earth, life and space sciences, and manages advanced studies, space hardware development and mission operations.

Hubbard has been a contributor to, and developer of, space research missions since 1974. He is the acknowledged originator of the Mars Pathfinder mission, and was the project manager for NASA Ames' portion of that mission, which successfully landed on Mars on July 4, 1997. He was the NASA mission manager for Lunar Prospector that launched on January 6, 1998, and discovered evidence of water ice at both the north and south poles of the Moon. Hubbard has been widely acknowledged for introducing private-sector concepts, such as integrated product teams, into NASA's operational activities. In addition, he has developed experimental hardware for numerous investigations, including balloon experiments, Apollo-Soyuz and other space science missions.

Prior to joining NASA in 1987, Hubbard conducted both basic and applied research in radiation detection materials and devices. His innovative work in creating the technology for ultra-pure germanium crystals, gamma-ray detectors and far infrared photo-conductors found application in space science missions, as well as particle accelerator experiments. He was a key contributor to inventing the gamma-ray detector technology that is on the Mars Odyssey mission. In 1979, Hubbard developed the first thin-window, germanium charged-particle telescope for nuclear physics. At NASA Ames, Hubbard was the principal investigator for several detector technology

projects and was selected as the co-investigator for the Lunar Prospector gamma-ray spectrometer.

Previously, Hubbard served as staff scientist at the Lawrence Berkeley National Laboratory; was a founder, vice president and general manager for Canberra Semiconductor (a high-tech San Francisco Bay Area start-up); and a senior research physicist at SRI International.

Hubbard received his undergraduate degree in physics and astronomy at Vanderbilt University (1970), and his graduate education in solid state and semiconductor physics at the University of California at Berkeley. He has three times received NASA's Outstanding Leadership medal, is a two-time recipient of NASA's Exceptional Achievement medal, and has received 'Laurels' from Aviation Week three times. He was elected to the International Academy of Astronautics; is a Fellow of the American Institute of Aeronautics and Astronautics (AIAA); and is a member of the American Physical Society and the Nuclear Science Society (IEEE). In January 2004, He presented the AIAA Von Kármán lecture and received the Von Kármán medal for notable and distinguished technical performance in the field of Astronautics. For his contributions to the Columbia accident investigation, Hubbard received NASA's highest honor, the Distinguished Service Medal, awarded for contributions so extraordinary that other forms of recognition would be inadequate. He is known as an innovative leader and consensus builder, and has written more than 40 papers on radiation detection and space missions.

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