

S. Alan Stern



Dr. Alan Stern is a planetary scientist, space program executive, aerospace consultant, and author. In 2010 he was elected to be the President and CEO of The Golden Spike Company, a commercial space corporation planning human lunar expeditions. Additionally, since 2009, he has been an Associate Vice President at the Southwest Research Institute, and has since 2008 had his own aerospace consulting practice.

Dr. Stern's current and former consulting clients include Jeff Bezos's Blue Origin, Richard Branson's Virgin Galactic, Naveen Jain's Moon Express Google Lunar X-Prize team, Ball Aerospace, the NASTAR Center, Embry Riddle Aeronautical University, and the Johns Hopkins University. Dr. Stern is also the CEO of two small businesses and serves on the board of directors of the Challenger Center for Space Science Education and the Commercial Spaceflight Federation. He is currently training to fly a series of suborbital space research missions with Virgin Galactic and XCOR Aerospace in 2012-2013. Dr. Stern also serves as the Chief Scientist and Mission Architect for the Moon Express Google Lunar X-Prize Team.

In 2007 and 2008, Dr. Stern served as NASA's chief of all space and Earth science programs, directing a \$4.4B organization with 93 separate flight missions and a program of over 3,000 research grants. During his NASA tenure, a record 10 major new flight projects were started and deep reforms of NASA's scientific research and the education and public outreach programs were put in place. His tenure was notable for an emphasis on cost control in NASA flight missions that resulted in a 63% decrease in cost overruns. In 2007, he was named to the *Time* 100's list of most influential people.

Dr. Stern is the Principal Investigator (PI) of NASA's \$720M New Horizon's Pluto-Kuiper Belt mission, the largest PI-led space mission ever launched by NASA. New Horizons launched in 2006. Dr. Stern is also the PI of two instruments aboard New Horizons, the Alice UV spectrometer and the Ralph Visible Imager/IR Spectrometer.

His career has taken him to numerous astronomical observatories, to the South Pole, and to the upper atmosphere aboard various high performance NASA aircraft including F/A-18 Hornets, F-104 Starfighters, KC-135 Zero-G, and WB-57 Canberras. He has been involved as a researcher in 24 suborbital, orbital, and planetary space missions, including 9 for which he was the mission principle investigator; and he has led the development of 8 scientific instruments for NASA space missions. In 1995, he was selected as a Space Shuttle mission specialist finalist, and in 1996 he was a candidate Space Shuttle Payload specialist. In 2010, he became a suborbital payload specialist trainee, and is expected to fly several space missions in 2012-2013.

Before receiving his doctorate from the University of Colorado in 1989, Dr. Stern completed twin master's degrees in aerospace engineering and atmospheric sciences (1980 and 1981), and then spent six years as an aerospace systems engineer, concentrating on spacecraft and payload

systems at the NASA Johnson Space Center, Martin Marietta Aerospace, and the Laboratory for Atmospheric and Space Physics at the University of Colorado. His two undergraduate degrees are in physics and astronomy from the University of Texas (1978 and 1980).

Dr. Stern has published over 200 technical papers and 40 popular articles. He has given over 300 technical talks and over 100 popular lectures and speeches about astronomy and the space program. He has written two books, *The U.S. Space Program After Challenger* (Franklin-Watts, 1987), and *Pluto and Charon: Ice Worlds on the Ragged Edge of the Solar System* (Wiley 1997, 2005). Additionally, he has served as editor on three technical volumes, and three collections of scientific popularizations: *Our Worlds* (Cambridge, 1998), *Our Universe* (Cambridge, 2000), and *Worlds Beyond* (Cambridge, 2003).

Dr. Stern has over 25 years of experience in space instrument development, with a strong concentration in ultraviolet technologies. He has been a Principal Investigator in NASA's UV sounding rocket program, and was the project scientist on a Shuttle-deployable SPARTAN astronomical satellite. He was the PI of the advanced, miniaturized HIPPS Pluto breadboard camera/IR spectrometer/UV spectrometer payload. Dr. Stern is also the PI of the Alice UV Spectrometer for the ESA/NASA Rosetta comet orbiter, launched in 2004, and the PI of the LAMP instrument on NASA's Lunar Reconnaissance Orbiter (LRO) mission, which launched in 2009.

Dr. Stern's academic research has focused on studies of our solar system's Kuiper belt and Oort cloud, comets, the satellites of the outer planets, the Pluto system, and the search for evidence of solar systems around other stars. He has also worked on spacecraft rendezvous theory, terrestrial polar mesospheric clouds, galactic astrophysics, and studies of tenuous satellite atmospheres, including the atmosphere of the moon.

Dr. Stern is a fellow of the AAAS and the IAF, and a member of the AAS and the AGU; he was elected incoming chair of the Division of Planetary Sciences in 2006. He has been awarded the Von Braun Aerospace Achievement Award of the National Space Society, the 2007 University of Colorado George Norlin Distinguished Alumnus Award, and the 2009 St. Mark's Preparatory School Distinguished Alumnus Award. In 2007 he was named to the prestigious *Time 100*.

Dr. Stern's personal interests include running, hiking, camping, and writing. He is an instrument-rated commercial pilot and flight instructor, with both powered and sailplane ratings. He and his wife Carole have two daughters and a son; they make their home near Boulder, Colorado.