



Inside this issue:

SpaceShipOne: Visionary Peter Diamandis	1
SpaceShipOne	2
X-Prize	2
"I'm going to the Stars."	3
Peter Diamandis	3
Spotlight: James Busby	4
Membership About Us Contact Us	4



SpaceShipOne Visionary Peter Diamandis *By HELEN O'NEILL, AP Special Correspondent from space.com*

SpaceShipOne visionary Peter Diamandis wasn't thinking about history as he stood in the Mojave desert and watched a small, shuttlecock-shaped craft glide back to Earth having nudged the edge of space. He just thought it looked beautiful. It was only the following day, after the thousands of cheering spectators had disappeared, after the jubilant speeches had dried up along with the champagne, as Diamandis was driving his father back to Los Angeles, that euphoria — and relief — swept over him.

So many people had trusted him, backed him, bailed him out even when others had ridiculed his notion of jump-starting space tourism by offering a \$10 million prize for the first privately financed passenger craft to soar 62 miles through the atmosphere and return safely to earth. At last, he told his father, "the fuse has been lit." Gently his father reminded him that he was the one who ignited it.

The headlines from the Oct. 4 flight (and the congratulatory call from President Bush went to aviator Burt Rutan, who designed SpaceShipOne; to pilots Michael Melvill and Brian Binnie, who flew it in two separate suborbital flights a week apart; and to billionaire Paul Allen who financed it. But the vision behind the voyage, the brains behind the \$10 million purse that spurred it, belong to a small, intense, impeccably dressed son of Greek immigrants, a man so obsessed by space that even his mother jokingly wonders if her son carries an extraterrestrial gene. Diamandis, 43, is deadly serious about his dreams. And they go far beyond the commercial space travel that many believe was initiated this month. Diamandis has visions of living in space, of exploring the stars, and of eventually — though perhaps not in his lifetime — colonizing them. And, as his friends and even his skeptics point out, Peter Diamandis has a habit of turning dreams into reality. "Peter is truly the Raymond Orteig of our time," says his longtime friend and partner Gregg Maryniak.

Orteig was the immigrant French hotelier who, in 1919, offered a prize of \$25,000 for the first nonstop flight between New York and Paris — a prize that was captured by Charles Lindbergh when he landed his "Spirit of St. Louis" in Paris on May 21, 1927 — 33 1/2 hours after setting off from Roosevelt Field on Long Island. Lindbergh's flight forever changed the way people viewed air travel, and within years trans-Atlantic passenger flights had become a fact of life. Diamandis predicts his X Prize will do the same for space. Unlike Orteig, however, Diamandis is far more than just the moneyman. From the time he was a child in Long Island, smitten by images of the Apollo moon landings, Diamandis has poured his heart and soul into researching space and trying to speed up his chances of getting there. He gave up on the idea of government-sponsored space flight after the 1986 Challenger disaster derailed NASA's space shuttle program. The quickest route to space, he decided, would be through privately funded missions. So Diamandis set out to make it possible. In 1980, as a freshman at the Massachusetts Institute of Technology, he founded Students for the Exploration and Development of Space, which now has chapters all over the world. He hosted conferences, gave speeches, wrote papers and became the natural leader of a like-minded band of brothers who followed the teaching of futurist and Princeton University physicist Gerard O'Neill.

"The meek shall inherit the earth. The rest of us are going to the stars." It became Diamandis' mantra. Diamandis moved on to Harvard Medical School largely to please his parents, who were more than a little baffled by their only son's obsession. "I understood his passion," said Tula Diamandis, who urged her son to become a doctor like his father. "It was just hard for me to embrace it."

Even over the phone, Diamandis seems to find it a little disquieting, how his dreams have defined his life. Eventually he would like a home and family, he says. But first he wants to get to space. "I feed on it intellectually. I believe in it," Diamandis says. "I just don't feel right doing anything else."

And so, over the years, Diamandis has done little else. He organized space conferences and web sites. He started foundations to promote space travel. He founded the International Space University, which started as a summer school and now has permanent campus and staff in Strasbourg, France. He got a medical degree from Harvard and an aerospace engineering degree from MIT. He started his own rocket company. He co-founded the Zero Gravity Corp., which just this summer got approval from the FAA to conduct weightless flights for the public aboard a specially modified Boeing 727-200. Remarkably, he always found backers and believers. And though occasionally his schemes sputtered, more often they thrived.

"Peter just refuses to let things die," says Maryniak, who first met Diamandis as a student and is now executive director of the X Prize Foundation. "He just thinks differently, finds another way, and people end up admiring and then believing and then backing him." In 1994, Maryniak gave his friend a copy of Lindbergh's Pulitzer-winning autobiography "The Spirit of St. Louis," hoping it would inspire Diamandis — as it had Maryniak — to get his pilot's license. But it wasn't Lindbergh that captivated Diamandis. It was Orteig. By the time he closed the book, Diamandis was calling everyone he knew, pitching his plan to create a space prize. He would call it the X Prize — X for mystery, X for experimental, X for the Roman numeral 10, representing the \$10 million that would go to the winner. Maryniak thought the plan outlandish, even by Diamandis' standards. Who would build the spaceships? How would they raise the money?

As usual, Diamandis ignored the disbelievers and forged ahead. He found supporters, people like Doug King, president of the St. Louis Science Center, who urged Diamandis to capitalize on the Lindbergh-St. Louis connection and base his organization in that city. In March 1996, a group of businessmen were invited to the dining room of the historic Racquet Club. Over drinks, at the same table where an earlier generation of locals had pledged to bankroll Lindbergh, they listened as Diamandis sold them on space. St. Louis could become a "gateway to the stars", Diamandis told them as clips from the 1957 movie "Spirit of St. Louis" starring James Stewart played in the background. Look what Lindbergh and his backers achieved, Diamandis continued: You can become the "New Spirit of St. Louis" and do the same for space.

Seven pledged \$25,000 on the spot. On May 18, under the Arch, surrounded by more than a dozen astronauts, including Apollo 11 moonwalker Buzz Aldrin, Diamandis announced the creation of the X Prize. Charles Lindbergh's grandson, Erik Lindbergh, came on board. So did science fiction writer Arthur C. Clarke, after Diamandis trekked to Sri Lanka to record his message of support. The Federation Aeronautique Internationale, the organization that had certified Lindbergh as the winner of the Orteig Prize, approved. NASA Administrator Dan Goldin offered his support. Still, there were as many skeptics as believers. "It probably comes as no surprise that some of the leading citizens of our community have too much money and too little sense," veteran columnist Bill McClellan in the St. Louis Post-Dispatch -Dispatch wrote in a piece that so offended Diamandis he stuck it over his desk for years.

The Downey Aviator

AEROSPACE LEGACY FOUNDATION NEWSLETTER
PRESERVING OUR AVIATION AND AEROSPACE HISTORY

Page 3

SpaceShipOne Visionary Peter Diamandis *By HELEN O'NEILL, AP Special Correspondent*

Visit: www.space.com

McClellan, who acknowledged in a recent column how wrong he was, chuckles at the memory. "I thought he was a nice young fellow, very sincere, but a dreamer," McClellan said. "I guess if I'd been writing in the time of the Wright brothers I'd have been making fun of them too." But McClellan couldn't deny that Diamandis' competition had fired the imagination of space enthusiasts. Around the globe, teams started building rockets. Some were sleek and sophisticated and well-financed, others no more than "backyard mechanics," as McClellan described them. They had names like Starchaser, the Da Vinci project, the Mayflower — and, of course, SpaceShipOne. The race to space was clearly on. From the start, the hardest part for Diamandis was raising the prize money. Corporations shied away from backing a project they assumed NASA should be leading. And they worried about lending their logos to rockets that might explode before getting anywhere near space. "Yes, it's dangerous," Diamandis found himself saying, over and over. "But it's worthwhile."

By 2001 friends and family worried privately that Diamandis might go bankrupt trying to keep the race alive. Investments had dried up, though Diamandis was working 16 hours a day trying to find backers. Maryniak was beginning to view his friend as a tragic hero. Diamandis didn't care; Lindbergh had had his doubters, too. And the competition had already generated enormous funding for space research, which was one of the goals of the X prize. (Allen, who financed Rutan's SpaceShipOne, ended up spending over \$20 million.) Then, in September 2001, Diamandis read a Fortune magazine article about two wealthy Texans who longed to "see the stars." He flew to Dallas, met Anousheh Ansari and her brother-in-law, Amir, and flew back to St. Louis with a commitment of more than \$1 million. The competition was renamed the Ansari X Prize. The infusion of money attracted more investors and the race was back on. This month, a stubborn little spacecraft soared into a cloudless sky, and the race was won. Overnight, Diamandis was being described as an "astropreneur" rather than a dreamer. And it seemed like the whole world was behind him.

President Bush called the pilots "true American heroes" and praised Allen and Rutan for "opening up the space frontier. Marion C. Blakey, head of the Federal Aviation Administration compared it to the Kitty Hawk as she presented Binnie with astronaut wings after landing SpaceShipOne. NASA Administrator Sean O'Keefe spoke of "a new century of exploration and discovery." Diamandis chuckles at how suddenly his dream has become reality. And he insists it is just the beginning. Already, he has launched an annual competition known as the X Prize Cup, a kind of grand prix of space, where teams will compete for fastest launches, fastest turnaround times, most number of passengers and other events. Other grand schemes have been announced, too. Richard Branson, the British airline mogul and adventurer, has launched a new company, Virgin Galactic, to bring paying customers into space aboard rockets like SpaceShipOne. Flights are scheduled to start in 2007. Meanwhile the historic rocket is heading to the Smithsonian National Air and Space Museum. And Diamandis is heading for Florida, where he will relax for a few days — his first vacation in years. After that, he will hurl himself back into his quest. "I'm going to the stars," he says. These days, people believe him.

Visit: www.space.com



SpaceShipOne



Paul Allen and Burt Rutan



Dr. Diamandis



SpaceShipOne has a Hybrid rocket motor.



The Downey Aviator

AEROSPACE LEGACY FOUNDATION NEWSLETTER
PRESERVING OUR AVIATION AND AEROSPACE HISTORY



Aerospace Legacy Foundation
12626 Bellflower Blvd. PMB 302
Downey CA 90242

Phone: 562-291-1399
Phone: 562-941-7735
E-mail: altdowney@aol.com

www.aerospacelegacyfoundation.org

The foundation was founded in 1995 by a group of scientists, engineers, business people, educators, retirees, and the public at large. Incorporated as a nonprofit foundation in 1997. The foundation seeks historical integrity and educational use of a reasonable portion of the NASA/Boeing site in Downey, which has been acquired by the City of Downey. We need your help in preserving Downey's rich aviation and aerospace legacy.

Visit our website: www.aerospacelegacyfoundation.org

Next meeting is January 16th, 2005

Spotlight on ALF Director James Milton Busby: Child of the Space Age

James Busby is a child of the space age. Born in 1954 in Long Beach, California, Aerospace has always played a major role in his life. The son of a Diesel Engineer and a Registered Nurse, whose aunt was a pilot and an uncle who was an engineer on the Saturn rockets for Douglas Aircraft. He became enamored with flying at the age of five and by the time he was ten he was writing to Gemini astronaut crews and reading mission reports. By the age of fifteen he was constructing kit models and mock up hardware, subscribing to Aviation week and Space Technology and teaching his classmates about the Apollo Lunar Missions.

Graduating from High School as the Skylab missions were launched, James entered college studying sciences and public affairs. In 1978 he and a few like-minded friends created the Organization to Support Space Exploration (O.S.S.E.) to heighten public awareness about space exploration. Under Mercury Astronaut Deke Slayton's mentoring, O.S.S.E. was the first group to do historical recreations of the Apollo Moonwalks. In 1979 O.S.S.E. became involved with Rockwell International's speakers Bureau in Downey, CA conducting public orientations. With James knowledge he soon became the master of ceremonies for the Open Houses and astronaut visits at the Plant.

After many years of volunteering and consulting for the California Museum of Science and Industry on the redesign of their Aerospace Museum, he was hired in 1984, where he was employed for 18 years. The museum became the first in the world to broadcast NASA's live mission coverage; "A Busby Innovation". The museum awarded James with an Honorary degree of Doctor of Space Science Information in 1995.

In 1986, James and his O.S.S.E. team built a full-sized, operating Apollo Lunar Rover from Blueprints and plans James supplied. Actor, Director, and Producer Tom Hanks met James in 1997 and asked him to become a technical advisor for the HBO miniseries "From the Earth to the Moon". Utilizing James's vast technical knowledge, model collection, and documentation allowed the producers to create a historically accurate, Emmy winning series. James Busby appeared in a cameo role as one of the designers of the Lunar Module in the Apollo-9 episode "Spider". He has assisted in other productions such as "Apollo-13", "Race into Space", and "Salvage One". James was employed by the Space Frontier Foundation as Director for Lunar Programs, and ran two International Lunar Conferences in Las Vegas. He is a frequent contributor to the Apogee Publishers "Mission Report" series, as well as an educational advisor and consultant for various other space related projects.

James Busby has been awarded various honors from the Aerospace Community. His hobbies include writing, swimming, astronomy, and plastic kit modeling.

