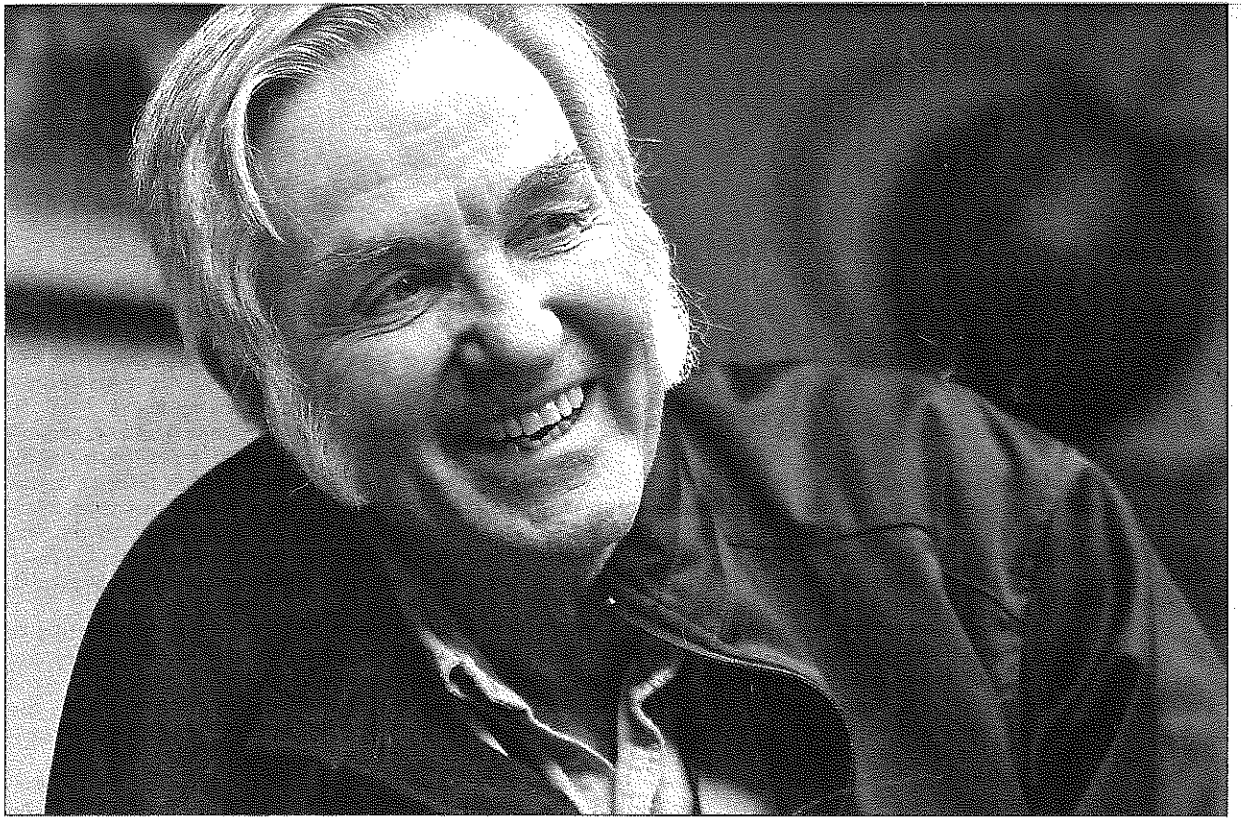


AL SEIB Los Angeles Times

INNOVATOR: "I'm leaving the best job in the world," says aeronautical engineer Burt Rutan, 67, whose creations over nearly five decades of work include the first private rocket plane to put a man into space.

AVIATION

Aerospace legend ready for a landing

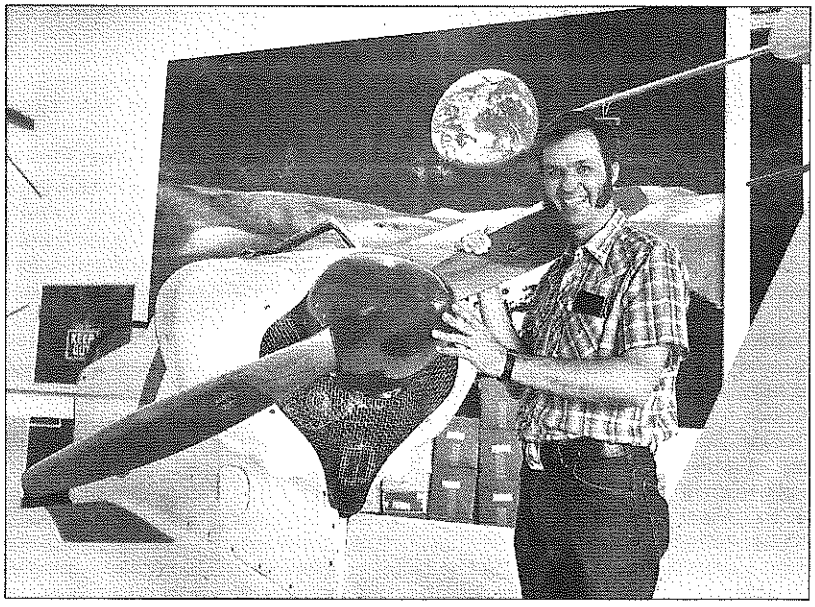
Burt Rutan's design career has included numerous firsts in flight

W.J. HENNIGAN

Fame in the aerospace industry has been typically reserved for the people who pilot flying machines — Charles Lindbergh, Amelia Earhart, Chuck Yeager, Neil Armstrong. Not so much for the people who design the technology.

Maverick aeronautical engineer Burt Rutan may be an exception.

Five of his planes now hang in the Smithsonian National Air and Space Museum, including the Voyager, which in 1986 became the first airplane to fly around the world without refueling, and SpaceShipOne, which in 2004 became the first private rocket plane ever to put a man into space. [See Rutan, B4]



MIKE MILLS

EARLY DAYS: Rutan at Rutan Aircraft Factory in 1978. He founded Scaled Composites in Mojave in 1982. "I've enjoyed the first flight of a new type of aircraft every year I've been out here," he says.

Aerospace legend is retiring

[**Rutan,** from B1]

Sporting his trademark Elvis-style sideburns, Rutan has been the subject of documentaries, magazine covers and the CBS newsmagazine "60 Minutes."

"There aren't many names that are bigger within the aviation industry than Burt Rutan," said Richard Branson, the British billionaire behind Virgin Atlantic Airways and Virgin Galactic, the spaceline based on Rutan's rocket design. "He's a larger-than-life character that brings a room to silence when he walks in."

On Friday, with little fanfare, Rutan plans to step out of the spotlight for good at age 67, as he retires from the design and manufacturing firm Scaled Composites, which he founded in 1982.

"It's time," he said in an interview. "I'm leaving the best job in the world."

With his wife, Tonya, he will move to the lakeside community of Coeur d'Alene, Idaho, from the small desert town of Mojave, population 3,836, that he helped put on the map by designing innovative aircraft and spacecraft.

For more than 45 years, Rutan has worked in the desolate high desert designing aircraft unlike any other that preceded it. His airplanes and spacecraft take on all types of sleek shapes and sizes, looking more like the work of a sculptor than an engineer. In all, Rutan has come up with 367 individual concepts — of which 45 have flown.

"The criticism is, once I get something flying, I lose interest in it," Rutan said. "I've enjoyed the first flight of a new type of aircraft every year I've been out here."

He delights in saying that if he had spent his career working for NASA or a large entrenched aerospace company, he wouldn't have been able to pull off that feat.

Rutan, who stands about 6 feet, 3 inches, has been plagued by health issues in recent years. But his bright pale-blue eyes still burn when he's wound up — usually when talking about aviation.

Russell Lee, a curator in the aeronautics division at the Smithsonian National Air and Space Museum, said aerospace engineers typically don't like to take chances and are more likely to improve on designs that have worked before. That's why so many planes look the same, he said.

"The idea is that what works before will work again," the curator said. "But Rutan consistently turned that thinking on its head. He's just that kind of guy."

Born Elbert L. Rutan, he grew up the son of a private pilot in the Central Valley town of Dinuba. As a child, Rutan was an avid model-plane builder. His brother, Dick, five years his elder, was an Air Force combat pilot during the Vietnam War and a pilot on the Voyager flight.

After earning a degree in aeronautical engineering at Cal Poly San Luis Obispo, Rutan became a civilian flight-test engineer at Edwards Air Force Base.

In 1974, he moved to Mojave "because it was cheap enough" and opened Rutan Aircraft Factory on a $15,000 loan from his father to develop do-it-yourself kits for hobbyists to build small planes.

He set up shop at Mojave airport. At the time, the airport was a remnant from the days when it was a World War II Marine Corps air station.

In 1975, Rutan found success with his VariEze (pronounced "very easy") aircraft design, which looks like a rocket ship from the "Jetsons" cartoon series. Four years later, he developed the Long EZ, an aircraft that had an endurance of 2,010 miles — more than twice the distance of the VariEze.

Both aircraft, made of composite fiberglass material, are simple to assemble and safe to fly, and have a top speed of about 200 mph, said Tom Poberezny, president of the Experimental Aircraft Assn. "He's the Pied Piper of aviation," he said. "The Rutan brand is one of efficiency and innovation. When you land a Rutan-designed plane, everybody looks."

In 1982, he formed Scaled Composites to design research aircraft for the government and commercial customers. Rutan maintains that the company has been profitable from the start.

His work drew headlines in 1986 when his brother, Dick, and co-pilot Jeana Yeager flew the Rutan-designed Voyager on a nine-day epic flight around the world.

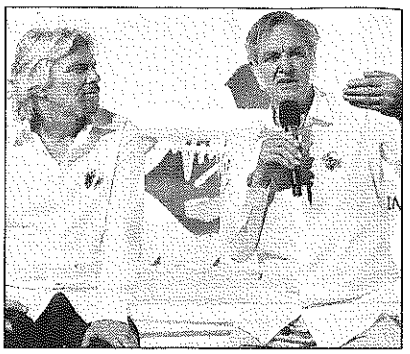
When the Voyager landed, it was the first time a plane had ever accomplished such a feat. It now hangs in the Smithsonian's main exhibit hall along with the Spirit of St. Louis, the first aircraft to fly nonstop from New York to Paris, and the Bell X-1, the first plane to break the sound barrier.

"The importance of Voyager is that it was an aviation milestone and not just a record-setting event," Rutan said.

In 2004, a team led by Rutan won a $10-million purse called the X Prize to send someone into space twice in a week without government money.

"Burt helped break preconceptions on what commercial enterprises can do in spaceflight," said Elon Musk, founder and chief executive of the private rocket venture Space Exploration Technologies Corp., or SpaceX. "He's a tremendous inspiration."

Rutan had come up with a novel idea: Instead of trying to launch a rocket directly into space, a carrier craft, which resembles a flying catamaran, lifted a rocket plane to an altitude of 50,000 feet. At that point, the rocket plane, dubbed SpaceShipOne, separated and blasted off to about 325,000 feet, or 60 miles, above the Earth's surface.



AL SEIB Los Angeles Times

VIRGIN PROJECT: Billionaire Richard Branson, left, and Burt Rutan at the 2008 unveiling of a plane designed for spaceflight.

At that suborbital altitude, the pilot experienced weightlessness and could see the curvature of the Earth.

The prizewinning spacecraft, SpaceShipOne, caught the eye of billionaire Branson. He started Virgin Galactic, the space travel company that hopes to operate suborbital trips by next year with paying customers. So far it has reservations and deposits from about 500 people.

Rutan had hoped to be on the first Virgin Galactic flight into space, but he is retiring before flight testing on the aircraft is complete.

"If I were a young guy with no health problems, things might be different," he said.

Scaled Composites, with about 350 employees, is now owned by Century City-based aerospace giant Northrop Grumman Corp., but Rutan has run it like a small business.

Northrop Grumman CEO Wesley G. Bush saluted Rutan on his retirement, saying he has been a "pioneer and visionary" who has "provided inspiration to many younger engineers and scientists."

In recent years, Rutan has been plagued by heart issues. In 2008, he stepped down as company president and gave up day-to-day responsibilities after undergoing open-heart surgery. Douglas B. Shane, a longtime employee, succeeded him as company president.

Rutan said he has one more "Rutan-design aircraft" to unveil. After that, he looks forward to at least one year without any distractions. And after that, he might write his memoirs.

"I've never not known what I was going to do in the next month," Rutan said, indicating that rest and relaxation will be good for him. "I always felt that the best chapter in life is the next one."

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