

Kelly Latimer flies at the cutting edge of aviation—and soon, space

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GALACTIC

Virgin Galactic is a spaceflight company within the Virgin Group

Kelly Latimer, 54, is a test pilot for Virgin Galactic and Virgin Orbit—two commercial space companies owned by British billionaire Richard Branson. For space tourism company Virgin Galactic, Latimer flies the giant, twin-fuselage aircraft known as WhiteKnightTwo, which carries a smaller spaceship at its belly to an altitude of up to 50,000 feet before the spaceship detaches and blasts off toward suborbital space. Latimer is also chief test pilot for Virgin Orbit, where she flies a modified 747 plane called Cosmic Girl. The plane carries a rocket under its left wing up to about 35,000 feet in the air, after which the rocket is released and falls for about four or five seconds before igniting and

launching toward its intended orbit. Latimer is the only female test pilot out of a total of seven between the two companies.

Independent Research

Growing up in New Jersey, Latimer knew from an early age that she wanted to be an astronaut. In eighth grade, she decided she needed a plan to make that a reality. Latimer went to the library, pulled out an encyclopedia and looked up the term "astronaut." From there, she learned that all astronauts at the time had been military [test](#) pilots, and that to be a test [pilot](#), one had to be a commissioned officer. After more research, she set her sights on attending the Air Force Academy.

She kept the entire application process a secret from her parents because she thought they wouldn't approve, even though her father had served in the U.S. Air Force.

"This is the late '70s, early '80s, the academies just got opened to women," Latimer said. "The first girls were just going through when I was applying ... and in my mind, I'm like, "It's fine, I've got the women there now. It's going to be good. I can do it. It's not a problem." But I just knew my parents would not see it that same way."

When Latimer finally told them, though, they were thrilled.

Testing, Testing

Latimer graduated from the Air Force Academy in 1987 with a bachelor's degree in aeronautical engineering, then headed to NASA's Langley Research Center in Virginia, where she completed a master's degree in aeronautics through George Washington University.

Once she finished her master's program, she reported for Air Force pilot training. One of the criteria that would strengthen her case on the road to astronaut selection was experience flying a high-performance jet. But at the time, women weren't allowed to fly combat aircraft, such as bombers. The only way women could get that high-performance jet experience was being a T-38 supersonic trainer jet instructor. After doing that for three years, she flew C-141 multi-engine cargo planes for a few years before she was picked up for test pilot school and flew C-17 military transport planes for several years before becoming an instructor again.

She said her military and test pilot career was greatly aided by those who came before her.

"My path here was way easier because of all the women who came before me that seriously had a hard time, had to deal with a lot more issues that I don't have to deal with at all," Latimer said. "I just have to do my job and do it the best I can."

A Fork in the Road

In 1999, Latimer was chosen to participate in astronaut selection interviews at NASA's Johnson Space Center in Houston. Though she was ultimately not selected, she passed all the necessary tests, including a [physical exam](#) and background check, and figured she would learn from this for the next time.

Several years later, while she was deployed to Afghanistan, she applied again and was chosen for an interview. However, this time, Latimer didn't pass the physical exam because of a high antibody reading in her blood—a result "you wouldn't know unless you took the astronaut physical," she said. She said she remembered thinking at the time that after all her time and effort, "the dream is dead."

"It was pretty crushing at that moment," Latimer said.

New Paths

After serving as commander of the 418th Flight Test Squadron at Edwards Air Force Base near Lancaster, Latimer deployed to Iraq, where she advised the Iraqi Air Force. But she knew she didn't want to stay in the Air Force forever. In 2007, Latimer retired with the rank of lieutenant colonel. That same year, she took a job as a research pilot with what was then known as NASA's Dryden Flight Research Center at Edwards Air Force Base. There she flew the agency's Stratospheric Observatory for Infrared Astronomy, which is a modified 747 plane with a telescope in the back. There, she was the first female research test pilot.

Latimer later moved to Huntington Beach—fulfilling a longtime dream of living near the ocean—and worked for Boeing for eight years as a [test pilot](#). In that role, she flew military and commercial planes, including the C-17, Boeing 737, 787, P-8 Poseidon naval aircraft and KC-46 tanker plane.

"I was looking for a little civilization and a life outside of work," she said.

The Leap into Space

A friend asked Latimer in 2014 if she would be interested in applying to a pilot job with Virgin Galactic. That year, the company's spaceship had broken apart during a test flight, killing the copilot and injuring the pilot. At the time, Latimer was unsure whether Virgin Galactic would be able to recover from the accident, but a tour of the company's Mojave facility changed her mind.

She saw new rocket motors being built and that a test team was being developed. She talked to company leadership about their priorities and the test program.

"I was surprised at just how serious and how much effort was going into moving forward," she said. "And I was like, "This is the real deal. These guys are really going to do this. And I want in." "

A cause of the accident was later determined—the copilot had prematurely opened the spaceship's "feather system," which helps slow the craft down when it reenters Earth's atmosphere. The National Transportation Safety Board blamed the spacecraft's builder, Scaled Composites, and after the accident, Virgin Galactic brought manufacturing in-house.

"Accidents like that ... they're huge emotional events for any organization," Latimer said. "The key thing is finding out what happened to cause it. That for me was the biggest thing—that it was something that was fixable."

Rocket Dreams

Latimer still has a chance to become an astronaut. Sometime next year, she will probably get her turn to fly Virgin Galactic's SpaceShipTwo to suborbital space, after which she will earn commercial astronaut wings from the Federal Aviation Administration. Until then, she will be busy flying tests of Virgin Orbit's Cosmic Girl, which is expected to have its first launch later this year. That company's mascot is Rocket, the raccoon stuffed animal from the film "Guardians of the Galaxy," because the acronym for the launch controls is RACUN.

"Even though I didn't end up being a NASA astronaut, which was kind of a crushing defeat, I realized, wow, by actually chasing that, I'm sitting

on this mountain of experience and education and skills," she said. "I would not have known to go do all of this if I hadn't been chasing that astronaut dream."

Personal Life

Latimer married Ray Blew almost two years ago, and the couple have a condo in Huntington Beach. When her work on the program takes her to the Antelope Valley, she stays in a friend's spare room near Mojave. When she can, Latimer enjoys surfing.

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