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Democracy Dies in Darkness

How much does a ticket to space cost? Meet the people ready to fly.

After years of waiting, Virgin Galactic is close to flying tourists to the edge of space, but it will cost $250,000.

By Christian Davenport

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When Lori Fraleigh unwrapped the present her husband had given her for her 38th birthday, she found a curious surprise: a model of a spaceship. It was cool, sure, but a toy would be better suited for her young children, then 5 and 1, not her.

Then she noticed the ticket. It took Fraleigh, a Silicon Valley executive, a moment to realize what her husband had purchased for her: a trip to space with Richard Branson's Virgin Galactic. "I went through a lot of crazy emotions, like, 'Did you really buy this?' " she recalled of the moment in 2011. " 'Do we still have enough money to remodel the kitchen?' "

Today, her children are 13 and 9. The kitchen remodel has long since been completed. But Fraleigh is still waiting for her trip to space.

For years, Branson has been pushing a quixotic vision for the future, where his spacecraft would ferry passengers off Earth as frequently as airplanes. But for all the talk about a new Space Age full of citizen astronauts, the journey has been fitful, and filled with setbacks, including the death of a test pilot in 2014 after a harrowing crash.

But now, 15 years after Branson founded Virgin Galactic, space tourism could be tantalizingly close to becoming a reality. The company has flown to the edge of space twice and says its first paying customers could reach space next year. Another space venture, Blue Origin, founded by Amazon founder and chief executive Jeff Bezos almost 20 years ago, hopes to conduct its first test flight with people this year, though it hasn't announced prices or sold any tickets. (Bezos owns The Washington Post.)

And NASA recently announced that it would allow private citizens to fly to the International Space Station on spacecraft built by SpaceX and Boeing.

Which means that Fraleigh may soon finally get her five minutes of weightlessness, a view that promises to be spectacular and a test to see if she has the right stuff.

Fraleigh has dreamed of being an astronaut since she was a kid and has solid space geek credentials, including having attended Space Camp as a teenager.

But she didn't think she could become a NASA astronaut and instead became a tech executive in Silicon Valley, a career that meant her family could absorb Virgin Galactic's charge ($200,000 per ticket in 2011) without financial hardship. A mother who spends weekends ferrying her children to soccer, baseball and music lessons, she doesn't look like a thrill seeker. The most adventurous thing she's done? Driving a go-cart in college, and "I've been on some hikes up in Lake Tahoe that were on the strenuous side."

Now she's preparing for a ride in Virgin Galactic's SpaceShipTwo, a sleek spaceplane with a rocket motor strong enough to send two pilots and as many as six passengers more than 50 miles high, where the Federal Aviation Administration says the edge of space begins. The spaceship is tethered to the belly of a large, twin-fuselage airplane that carries it to an altitude of about 40,000 feet. Then SpaceShipTwo is released, fires its engine and rockets off through the atmosphere.

For decades, people have dreamed of such adventures. After the Apollo missions, Pan Am started a waiting list for tickets to the moon that by 1971 stretched 90,000 names long. Famed CBS News anchor Walter Cronkite signed up, as did future president Ronald Reagan. Later, in the 1970s and early 1980s, NASA was so convinced that the space shuttle would, as the name implied, offer regular service to Earth orbit that a committee was formed to sort out the sticky problem of how to choose the first private citizens to fly.

For today's space companies, it's anyone willing — and wealthy enough — to pay the steep cost.

NASA said it would cost $35,000 a night for stays on the ISS, and the price to get there is estimated to be $50 million. Virgin Galactic has said it may in the short term raise the price of its tickets, which today cost $250,000.

Despite the high costs, Virgin Galactic expects high demand from the wealthy. While it completes the testing phase of the spacecraft this year, the company projects flying 66 paying customers in 2020, more than 700 in 2021 and nearly 1,000 the following year. By 2023, when it expects to fly 1,562

paying passengers on 270 flights, it plans to have nearly $600 million in annual revenue. Earlier this year, Virgin Galactic announced it would go public by merging with a New York investment firm, a move that Branson said would "open space to more investors and in doing so, open space to thousands of new astronauts."

Already, 600 people have signed up for what Virgin Galactic describes as a transformative experience of seeing Earth from space, what astronauts call the "overview effect." That's more people than have been to space since 1961, when Soviet cosmonaut Yuri Gagarin became the first person in space.

Second thoughts?

Craig Wichner, who runs Farmland LP, an organic farmland investment fund in San Francisco, has been waiting for the opportunity for more than a decade. In 2008, he plunked down several thousand dollars as a deposit to ride on Virgin Galactic's SpaceShipTwo with a bunch of friends who thought it'd make a great adventure.

"Who wants to do this with me?" a pal said at the time.

"Yep, I'm there," Wichner responded.

But it wasn't just the adventure that attracted Wichner; it was the opportunity to help push humanity out of the atmosphere, he said. Buying a ticket was like casting a vote for Branson's spacefaring vision of the future — "my way of actually supporting his mission, his dream and helping advance humanity."

In the years since, the dream has unfurled slowly as Virgin Galactic learned that building a spacecraft was not as easy as initially thought. But the repeated delays had an upside. They allowed Wichner to meet many of the other "future astronauts" who'd signed up with Virgin Galactic, space enthusiasts from 60 countries who now form a sort of exclusive fraternity. They meet occasionally, bonding over the prospect of a wild adventure.

"It was just this wonderful, eclectic mix of people from all around the world," Wichner said.

Now, as the company gets closer to flying and his number may soon be called, there are other factors to consider. Weighing on Wichner is the realization that spaceflight is dangerous. In 2014, during a test flight, the spacecraft came apart, killing Michael Alsbury, one of the test pilots and a father of

two.

Wichner's reaction to the crash was "a general sadness at the cost." But he was also inspired by the company's perseverance, "the unwavering commitment to just keep moving forward," he said.

Now, however, the opinions of his own children, ages 13 and 8, matter. They're old enough to understand the consequences of failure.

"Sometimes they're excited about me going into space, and sometimes they're scared," he said. "And so it's not worth doing if they're scared."

NASA's first ordinary citizen astronauts

NASA's leaders were convinced that the space shuttle could turn ordinary citizens into astronauts and set about trying to decide which private citizens should go first.

"Space flight belongs to the public; they pay for it," reads a NASA memo from 1982. "Therefore NASA's objective has been to maintain the openness of the program and to invite the public to participate to the extent possible. Now a new opportunity has emerged. With the advent of the Shuttle, people need no longer participate vicariously but may participate directly."

At the time, NASA Administrator James Beggs "was being barraged by people wanting to fly," said Alan Ladwig, who ran what NASA called its "spaceflight participant program." "He was getting all these VIPs and reporters calling him and saying they wanted to fly."

The singer John Denver was among those keen to go. He lobbied NASA for a ride, touting that he was an airplane pilot and an amateur astronomer who kept in shape by running four to five miles a day.

"If given the opportunity, I would go tomorrow," he said at a Senate hearing about flying private citizens on the shuttle.

In 1984, NASA surveyed artists about the prospect of a writer or painter going to space and got this response from Maya Angelou, the award-winning poet, according to a Chicago Tribune article from the time:

"As poets over the centuries concentrated on Grecian urns, nightingales, ravens and romantic love, I am certain that poets in the future will focus on the configuration of planets, stars, weightlessness and the discovery of our universe."

Ultimately, NASA decided to take people who could communicate the experience to others. First a teacher, then a journalist. NASA leaders "felt astronauts weren't the greatest storytellers," Ladwig said. "Some of which was true, some not so true. A lot of them were miffed that people criticized their communication ability."

But first came a pair of powerful politicians.

Jake Garn, a Republican senator from Utah who headed the appropriations subcommittee that oversaw NASA's budget, pushed to go, saying it was his obligation to "kick the tires" of NASA's newest spacecraft. Less than a year later, Bill Nelson, then a Democratic congressman representing the Florida Space Coast, hitched a ride. There were also many non-NASA astronauts known as payload specialists who worked on specific projects in space and often had a particular technical expertise.

The White House, though, was looking forward to the flight of another civilian, Christa McAuliffe, a teacher from New Hampshire, who had been selected out of 11,000 applicants to fly on space shuttle Challenger in 1986. And NASA was deep in the process of picking the next civilian to fly — a journalist — when on Jan. 28, 1986, the Challenger's booster exploded, killing McAuliffe and the other six astronauts on board. The shuttle would stay grounded for more than 2½ years and never achieve the frequency of flight NASA leaders had initially envisioned, averaging fewer than five flights a year.

No journalist ever flew. And the dreams of opening the shuttle to the general public were deferred.

Preparing for flight

While NASA shied away from flying private citizens after the explosion, the private sector kept pursuing it. In 2004, a venture backed by Paul Allen, the billionaire co-founder of Microsoft, made history when it flew the first private vehicle to the edge of space to claim the $10 million Ansari X Prize.

The flights were heralded as a new Space Age, one where the private sector would end the

The flights were heralded as a new Space Age, one where the private sector would end the government's monopoly on space. But while the SpaceShipOne flights were successful, they were also harrowing; in one, the navigation system went awry and the pilot had to fly blind; in another, the spacecraft spun like a top all the way to space.

Worried that someone would die in his spacecraft, Allen sold the rights to the technology to Branson, who set off to build the bigger, more robust SpaceShipTwo. And after the X Prize, Congress took notice, growing concerned over what they saw as dangerously loose regulations governing the industry. Former congressman James Oberstar, of Minnesota, criticized the FAA as having a "tombstone mentality — wait until someone dies, then regulate."

The industry pushed back, saying burdensome rules would stifle a growing industry just as it was getting started, and, backed by the FAA, was able to keep the regulations relatively lax. So today, space tourism, like bungee jumping or skydiving, is governed under an "informed consent" standard: Passengers acknowledge they understand the considerable risks, and zoom, off they'll go to space. And to secure a launch license from the FAA, the companies have only to demonstrate how they will protect people and property on the ground in the event of a crash.

Late last year, two pilots flew Branson's SpaceShipTwo to the edge of space. Though it did not go into orbit, it was the first launch of a spacecraft with humans from U.S. soil since the space shuttle was retired in 2011.

Then, in February, Virgin Galactic repeated the feat, this time with a crew member, Beth Moses, whose job is to prepare Virgin's customers for their rides to space. For her, the trip was "mind-blowing," as if "the sands of time of your life have stopped for a moment."

Now that Virgin Galactic is getting closer to flying customers, Moses is starting to prepare them to make sure they get the most from the experience. "The one question I ask every one of our customers long before training is what do you most want to get out of your spaceflight?" she said. Some "want to do somersaults," others want "a Zen, private experience." Others are flying "to honor someone. . . . It's an amazing variety."

But she knows some will have concerns. Part of her job is to allay them, so participants "arrive ready to savor your space experience," she said. "If you are concerned about any aspect of the flight, that's what we'll walk through and just explain it."

Dee Chester, a 62-year-old retired schoolteacher from Newport Beach, Calif., bought her ticket in 2017, when she came into her inheritance. She said she has no hesitation about going and can't wait for when her "little nose prints are on every window" of the spacecraft. "I want to do the Superman

pose, and look at the Earth and see the very thin bands of the atmosphere. I just hope I'm not crying and miss it all because it's a big wet blur."

Now that his day of flying is getting closer, Wichner is getting excited, as well. But he still needs to have the frank conversation with his children, who remain wary.

"It'll happen naturally, and I think they'll be fine with me going," he said.

Until they are, he won't commit, leaving the future uncertain: "I don't know that I'm actually going to go."

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