

Space travel is just a few months away

[Science](#), [Astronomy](#)



The two companies that are leading the way in the field of space travel claim that they are only months away from the first one, although neither of them have wanted to venture a specific date. Virgin Galactic, founded by billionaire Richard Branson, and Blue Origin, the creator of Amazon Jeff Bezos, compete, using totally different technologies, to finish their trials and become the first company to offer this service.

Neither Virgin nor Blue's passengers will orbit the Earth, and their weightlessness experience will last only a few minutes. This is a very different experience from that of the first space tourists, who paid tens of millions of dollars to travel to the International Space Station (ISS) in the 2000s.

After paying for much less expensive airfare - \$250, 000 in Virgin and it is not yet known how much in Blue Origin - these new space tourists will go tens of miles into the atmosphere before returning to Earth. By way of reference, the ISS is in orbit some 400 km from our planet. The goal is to cross that imaginary line where outer space begins, either the Karman line, 100 km from the earth's surface, or the border recognized by the U. S. Air Force, which is 80 km away.

In the case of Virgin Galactic, six passengers and two pilots is the capacity of the VSS, which has the appearance of a private jet. This unit will be coupled to another spacecraft that accompanies it on its initial journey - the WhiteKnightTwo - from which it separates at an altitude of approximately 15 km. Once they separate, the VSS will start its thruster and move on.

The passengers will then float in a zero gravity environment for a few minutes before returning to Earth. The descent is smoothed by a system that causes the spacecraft's tail to move in a sort of arc before it returns to its normal position, begins to glide and ends up landing at Virgin's spaceport in the New Mexico desert.

The journey takes between one and a half and two hours. During a test on May 29th in the Mojave desert, the spacecraft reached a height of 34 kilometers. In October 2014 one of Virgin's spacecraft failed during the flight due to a pilot error and one of the two pilots on board died. The tests were then restarted with another ship.

The company reached an agreement to open a second spaceport at the Tarente-Grottaglie airport in southern Italy. Branson said on a BBC show in May that he himself hopes to be one of the first passengers in the next 12 months. Some 650 people are already on the waiting list for this trip.

Blue Origin works with a technology that is more like the traditional rocket: the "New Shepard". On this ship, six passengers board a capsule inserted into the tip of an 18-metre rocket. After launch, this capsule separates from the rocket and continues its trajectory for several kilometers. During a test on April 29, the capsule reached over 100 kilometers.

After a few minutes of weightlessness, in which passengers can see out through large windows, the capsule gradually returns to Earth assisted in its descent by three large parachutes and backhoes that slow the fall. From takeoff to landing the flight took about ten minutes in the last test.

So far, only dolls have been used in the tests, but one of the company's directors, Rob Meyerson, said that "soon" they will start testing human beings. Another Blue Origin executive, Yu Matsutomi, reported that the first human trials will take place "at the end of this year," according to Space News.

SpaceX and Boeing are developing their own capsules to transport NASA astronauts, which should be ready by 2020 after some delays. It is a strong investment that will probably be partly financed by offering private flights. "If you're thinking about going into space, you'll have four times the number of options you had before," said Phil Larson, assistant dean of the School of Engineering at the University of Colorado.

In the long term, the Russian company that manufactures the Soyuz rockets is studying the possibility of taking tourists to the ISS. And an American company called Orion Span announced earlier this year that it hopes to put a luxury space hotel into orbit in a few years, although the project is only in its early stages.