It was the Friday of Memorial Day weekend, and in an unremarkable hotel next to Los Angeles International Airport, the richest man in the world was having the time of his life.

More than a thousand experts and enthusiasts were attending the International Space Development Conference. At least half of them now seemed to be mobbing Jeff Bezos. He posed for selfies as his nervous bodyguards fluttered nearby, then steered him to the dinner where he was the keynote speaker. It wasn’t Bezos’s success as an e-commerce pioneer, or his mind-boggling wealth, that made the crowd buzz. The adulation was over his decision to devote billions of his Amazon.com fortune to lifting humanity above Earth, via his private space startup called Blue Origin.

That night, the National Space Society presented Bezos with its Gerard O’Neill award, named after the late Princeton University professor who became a proponent back in the 1970s of creating large “space colonies.” Bezos had been a Princeton student, and “O’Neill...
Virginia teenagers competing in a rocket contest at the beginning of the Space Age. Afterward, the two talked about planetary travel, with Bezos mentioning that he always wanted to start a space company. “Well, why don’t you start it today?” Stephenson asked. Soon after, Bezos quietly founded Blue Origin, although it wouldn’t be until 2003 that he acknowledged the company existed.

The goals of Blue Origin are to drastically lower the cost of space flight, increase its reliability, and inaugurate efficient private access beyond Earth. Already, it has made huge strides. It has routinely launched, landed, and reused suborbital space vehicles. It has developed powerful and efficient new rocket engines that it is willing to sell to other users. Its New Shepard suborbital vehicle, capable of carrying six people to the edge of space and back, is scheduled to carry people for the first time this year, with regular commercial operation to begin in 2019. Recently, Blue Origin constructed a giant factory near Cape Canaveral where it will build an orbital space vehicle called the New Glenn. To finance all of this, Bezos has been liquidating about $1 billion a year of his Amazon stock, a practice he says he will continue “for a long time.”

Rocket barons

Bezos is not the only billionaire spending his time and money on space. Richard Branson founded a small satellite-launch company called Virgin Orbit, and a suborbital space tourism company called Virgin Galactic that will soon sell rocket rides to anyone interested. Paul Allen, the co-founder of Microsoft, is also using his wealth to fund a spaceflight company called Stratolaunch. But today’s most prominent private funder of space lift is Elon Musk. He founded SpaceX, which has also created its own rockets.

was very formative for me,” he said at the conference. He read O’Neill’s book The High Frontier “multiple times. And I was already primed.”

Bezos’s interest in space started when he was five years old, watching the Apollo 11 moon landing. He spent his summers on his grandparents’ ranch in Texas, where the local library had an extensive science-fiction collection that he read over the course of several years. His high-school valedictory speech was about space exploration, and described a future where millions of people lived in space. At Princeton, he chaired a student space organization and talked about asteroid mining.

After college, Bezos set his dreams of spaceflight aside, and went to work on Wall Street. In the mid-1990s he decided to gamble on the growing interest in the Internet and move across the country to Seattle to set up an online bookseller. The incredible success of Amazon ultimately gave him the freedom to revisit his interest in extending life beyond earth.

In 1999, Bezos and science-fiction author Neil Stephenson went to see October Sky, a movie about West

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vehicles, and soft-landing and equipment-reuse techniques. And Musk has already employed these in a booming operation that launches satellites, space-station cargo, and soon NASA astronauts.

Growing up in South Africa, Musk did not have the same childhood immersion in space stories that Bezos did. He developed a strong interest in computers, though, and showed a deep entrepreneurial streak. He came to the United States for schooling, then dropped out of a PhD program in physics at Stanford to take part in the Internet startup boom in Silicon Valley. He created an online business directory he sold to Compaq, and an online bank that later became PayPal.

By 2000, Musk was wealthy—although not yet a billionaire—and casting about for his next project. He started working on a concept to send a small spacecraft to Mars with a greenhouse. The problem was launching it: American rockets were far too expensive, and even the converted ballistic missiles offered by the Russians at low prices weren’t cheap enough to make it cost-effective to access space.

And under the aegis of various government agencies, space launch was becoming more expensive every year—rather than less, as was the case with nearly every other technology. Musk decided to change that. In 2002 he started Space Exploration Technologies, or SpaceX, with his initial $100 million investment and a goal of dramatically lowering costs. The operation started with a small rocket called the Falcon 1, whose first three launches from a tiny island in the Pacific all failed. A fourth launch worked.

SpaceX has now grown to employ 7,000 people, and is on track to carry out at least two dozen launches in 2018 for government and commercial customers. Musk sued the U.S. Air Force to allow SpaceX to bid on military launch contracts, breaking up the monopoly control of a joint venture of Boeing and Lockheed Martin called United Launch Alliance. SpaceX now competes head-to-head with ULA for many military missions.

Bezos, meanwhile, took a slower and much quieter approach with Blue Origin. He shunned publicity and performed tests out of sight on remote West Texas ranchland he had quietly bought up for the purpose. Blue Origin’s company motto “Gradatim Ferociter”—Latin for “step by step, ferociously”—reflects the founder’s passion for methodical refinement of processes and relentless smoothing of results. His operation could afford to be deliberate because unlike SpaceX, which relies on a variety of customers and a growing number of outside investors for its revenue, the funding for Blue Origin comes almost exclusively from Bezos. With a net worth of more than $150 billion, he can put up pretty much any resources that are needed.

Investments or donations?
Earlier space entrepreneurs struggled to raise the money necessary to carry out their plans. Spaceflight is a slow, expensive, and risky endeavor, all factors that
Bezos has said he is happy to put his own money into Blue Origin for the indefinite future as a kind of contribution to the public interest. “The only way that I can see to deploy this much financial resource is by converting my Amazon winnings into space travel….That is, I think, incredibly important for civilization.”

deter conventional investors. Blue Origin and SpaceX have succeeded because of the deep pockets and patience (as well as organizational brilliance) of their backers. Bezos has said he is happy to put his own money into Blue Origin for the indefinite future as a kind of contribution to the public interest. And while SpaceX has accepted outside funding in addition to Musk’s own money, it has no plan to go public any time soon.

Whether these billion-dollar investments are business or philanthropy is thus an open question. “Jeff Bezos and Elon Musk really don’t have a business plan that goes beyond the near term,” says Rick Tumlinson, a space advocate who is starting a venture fund to support space startups that don’t have a wealthy benefactor. “Jeff and Elon are basically giving a charitable contribution to the future,” he says. “They’re creating central pillars around which an ecosystem can be built.”

That ecosystem is sprouting fast. The billions that Bezos has invested in Blue Origin, and the successes Musk has already enjoyed at SpaceX, have led to a surge of other space startups and investments. New entities have emerged with plans for everything from creating new launch vehicles specifically for small satellites, to fleets of spacecraft that would collect images of the Earth or provide broadband communication to any part of the globe.

When asked at the conference in Los Angeles whether he is a donor or an investor, Bezos answered, “It’s both. The question really is, are you improving the world? And you can do that in many models. You can do that in government, you can do that in a nonprofit, and you can do it in commercial enterprise.”

He was unambiguous about his priorities, though. “This is the most important work I’m doing. It’s crucial,” he said.

In a Berlin interview this spring, Jeff Bezos was even clearer. The “mission” to which he most wants to apply his personal tech fortune, he stated, is space funding: “The only way that I can see to deploy this much financial resource is by converting my Amazon winnings into space travel. That is basically it. Blue Origin is expensive enough to be able to use that fortune…. I have a mission-driven purpose with Blue Origin that is, I think, incredibly important for civilization long-term. And I am going to use my financial lottery winnings from Amazon to fund that.”