

# Space-tourism company to offer two seats to the moon

Joel Achenbach, The Washington Post

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It had to happen: A start-up company is offering rides to the moon. Book your seat now — though it's going to set you back \$750 million (it's unclear if that includes baggage fees).

Led by heavy-hitter former NASA executives, the Golden Spike Co. would boldly go where humankind went 40 years ago, this time commercially, hawking tickets to foreign governments or space tourists.

"Two seats, 750 each," said former NASA associate administrator Alan Stern on Thursday, shortly before he appeared at the National Press Club in Washington to announce the formation of the company. "The trick is 40 years old. We know how to do this."

You won't have to joystick the lunar lander yourself, so don't worry about dodging killer craters and boulders on the way down. Everything will be automated and controlled from Earth. It'll be like taking a train, the company said.

"We realize this is the stuff of science fiction. We intend to make it science fact," Stern said at the news conference. He added: "We believe in the price points that we're talking about."

The company has assembled some credible advisers, with a board chaired by former NASA Johnson Space Center director Gerry Griffin. The business model requires economies of scale — lots of customers and lots of missions to the moon to offset the very high start-up cost. The company sees 2020 as a plausible date for that initial trip.

Golden Spike would need to commission a lunar lander and moonwalking suits, but most of its mission architecture would rely on commercial rockets and capsules already flying or under development. For example, the company could use a rocket and capsule developed by Elon Musk's commercial start-up SpaceX, which has successfully flown cargo to the international space station under a NASA contract.

The primary targets for Golden Spike are foreign countries that want to do lunar science or attain the prestige of putting their own astronauts on the moon. Because of political sensitivities, the company would not sell a moon trip to China, which has been expanding its space program, Stern said. Nor would the company sell rides to any country restricted by law from access to U.S. technology that could be used for military purposes.

Stern said the company has no billionaire backers but has had a serious discussion with one potential lunar tourist. He wouldn't give the name.

"If you come to me and you're not an unsavory character, we're going to fly you," he said before the news conference.

"If NASA wants a ride, we'd be glad to put them on our railroad," Griffin added.

The company's board of advisers includes former speaker of the House Newt Gingrich, who during the Republican primaries early this year said that as president he'd establish a permanent moon base by 2021.

NASA's official reaction to Golden Spike: Go for it.

"This type of private sector effort is further evidence of the timeliness and wisdom of the Obama Administration's overall space policy to create an environment where commercial space companies can build upon NASA's past successes, allowing the agency to focus on the new challenges of sending humans to an asteroid and eventually Mars," NASA spokesman David Weaver said in a written statement.

Twelve human beings have set foot on the moon, the first in 1969, the last in 1972, all of them Apollo astronauts. Thursday's news conference coincided with the 40th anniversary of the launch of Apollo 17, the final Apollo mission.

It also came one day after the release of a scathing review of NASA's strategy by the National Research Council, an arm of the National Academy of Sciences. The report, which was commissioned by NASA on orders from Congress, concluded that the space agency has failed to come up with a robust strategy for human spaceflight.

President Barack Obama decided to cancel NASA's Constellation program, which was initiated during the George W. Bush years as the next step in space exploration after the retirement of the space shuttle. Constellation aimed to put astronauts back on the moon by 2020, but a presidential panel said the program was underfunded and implausible. Now NASA is building a new heavy-lift rocket capable of missions beyond Earth orbit, with the goal of visiting a near-Earth asteroid in the middle of the next decade.

Routine access to space is being shifted to companies operating under commercial contracts. And there are a number of ventures aiming at space tourists who would pay to go into low Earth orbit. Golden Spike, whether it turns out to be viable or not, is the latest sign that outer space is increasingly attractive to entrepreneurs.

Nancy Conrad, the widow of Apollo astronaut Pete Conrad, and a board member of Golden Spike, said her husband would be thrilled about the company's plans: "He'd probably be clicking his heels, because this should open up the frontier for everyone."

Also on hand was Andrew Chaikin, author of multiple books on the space program and another company adviser. "We are the children of Apollo," he said. "We don't want to take no for an answer."

But no has been the pragmatic answer for a long time. The moon is an airless, waterless, lifeless sphere that makes Antarctica look like South Beach. The distance to the moon isn't the problem — it's just a few days away — but it's not easy climbing into its gravity well, landing safely, blasting off again and returning safely to Earth. The Golden Spike mission architecture requires four separate launches and various feats of refueling and docking in space.

"I think somebody could make this work if there were enough people trying," said Howard McCurdy, a professor of public affairs at American University and author of many books on the space program. "The model that they're using is an entrepreneurial model that sort of requires a lot of competition."

Challenged by an Associated Press reporter to explain how the company could possibly turn a profit — especially since the first mission would cost the company at least \$7 billion by its own estimate — Stern said the business plan had been carefully vetted. One should not overlook the "media stream," he said. The missions could be televised, with corporate sponsorship, advertising, naming rights and so on. It could be as big as the Olympics for some countries, Stern said.

Think of it as one small step for man, one giant leap for Bud Light — or something like that.