

Buzz Aldrin Proposes Sending Astronauts to Mars via Cheap Space Bus

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By Seth Borenstein

Feb. 9--WASHINGTON--Buzz Aldrin, the second man on the moon, will ask NASA Monday to consider sending astronauts to Mars using a cosmic version of a conveyor belt.

Aldrin wants to launch what he calls a "space hotel" into a continuous loop around the Sun. It would ferry astronauts from Earth to Mars every six to nine months.

Astronauts would use a "space taxi" to enter and exit the hotel, which would shuttle endlessly between the two planets at 12,000 mph. The trips from Earth to hotel, or Mars to hotel, would take one day, Aldrin told Knight Ridder.

"This is basically like a bus that goes around its route and never stops," said Purdue University astronautics professor James Longuski, part of an Aldrin-led team that includes academics from Purdue, the University of Texas and the Massachusetts Institute of Technology. "It's a conveyor belt to Mars."

The hotel would orbit the Sun on a route that intersects regularly with the two planets, using inertia and the gravitational effects of the Sun, Earth and Mars to power itself. It would use small jet thrusters to tweak its orbit or link to space taxis.

"It's a free ride," said Aldrin, the lunar module pilot for Apollo 11's 1969 moon lander. "You make that first investment, then you have a sustaining payoff."

Aldrin, 72, has spent most of his post-NASA life pushing for more exotic space exploration.

The idea is at least 15 years from reality, said Aldrin, who won't even guess at its cost. Estimates of \$500 billion sank President George H.W. Bush's 1990 plan to send people to Mars.

Aldrin and his colleagues said their plan would be much cheaper. On Monday, they will ask NASA's Institute for Advanced Concepts for \$75,000 in seed money to pursue the plan.

"I could imagine something like that someday very likely will be done; I think it's achievable," said American University astronomy professor Richard Berendzen,

who has served on NASA exploration advisory boards. But it won't happen as soon -- or with as much government money -- as Aldrin hopes, Berendzen added.

Aldrin's hotel would be built from unused space shuttle external fuel tanks. They are cylinders 154 feet long -- about twice the length of an Amtrak passenger car -- and 28 feet in diameter. He envisions two or three connected together, complete with radiation shields and artificial gravity.

The hotel could house as many as 50 astronauts. Initial drawings show them seated airline style.

"I doubt that people will worry about specific accommodations," Longuski said. "Because you're not only in space; it's where you're going. You're going to Mars."

Aldrin foresees expeditions lasting as long as five years.

He makes the plan sound like catching connecting flights on a cross-country airplane trip.

The planets and the sun are aligned for a possible mission to start on March 25, 2018. Astronauts would leave Earth on a space taxi, similar to the Russian cramped Soyuz capsule. A day later they would reach a point about 250,000 miles from Earth and, in a delicate maneuver, dock with the hotel speeding by.

The hotel would reach the jump-off point about 250,000 miles above Mars on Oct. 12, 2018. The Mars taxi, possibly fueled from chemicals in the Martian atmosphere, would deliver the visitors to the planet's surface a day later.

The return trip would depart Mars on Aug. 8, 2020 and reach Earth on Feb. 16, 2021.

Travel times will vary depending on the solar system's alignment. Check with your interplanetary travel agent for details.

For more information, check out the following Web sites:

Buzz Aldrin's Web site: www.buzzaldrin.com

NASA's Institute for Advanced Concepts Web site:
www.niac.usra.edu

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