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The Partner School Science Program Newsletter

Tourism firm to offer space rides for \$102,000

Space Adventures and Armadillo would undercut SpaceShipOne price tag



An American space tourism company that arranges multimillion-dollar treks to the International Space Station for the ultra-wealthy has struck a new deal to offer suborbital spaceflights for nearly half the going cost. The price is still steep, though: \$102,000 for the works.

Virginia-based firm Space Adventures has signed an exclusive deal with Armadillo Aerospace, a Texas-based company founded by computer game entrepreneur John Carmack, to sell <u>space tourist</u> seats on new suborbital rocket ships that are currently in development at Armadillo.



Armadillo Aerospace An artist's conception shows an Armadillo Aerospace vertical-launch vehicle starting out on a suborbital space trip.

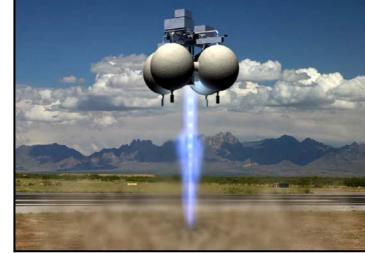
Flights aboard Armadillo's vertically-launched rocket ship in development will depart from a spaceport in the United States and take passengers to regions above 62 miles (100 kilometers), where space begins. After the engine is shut down, those aboard will experience up to five minutes of weightlessness and will have the opportunity to gaze out at 360-

degree views into space and Earth's horizon below.

The time in space will be a few short minutes, but the complete experience, including training, will last a few days.

And while the \$102,000 price tag for one of Space Adventure's suborbital space-flights may seem hefty, it is nearly \$100,000 less than rival company Virgin Galactic's asking price for a seat on SpaceShipTwo, which is undergoing captive-carry tests at the moment.

"I am very pleased to announce Space Adventures' agreement with Armadillo," said Eric Anderson, president and chief executive officer of Space Adventures. Anderson said he planned to release more details about the deal next month at the International Space Development Conference in Chicago.



"We envision this as a critical turning point for public access to space," Anderson said.

Space Adventures is the only company that has booked private flights to the International Space Station. The company brokered those deals with the Russian Federal Space Agency, charging customers about \$35 million for a ride on Russian-built Soyuz spacecraft. The most recent flight occurred last October and sent Canadian billionaire <u>Guy Laliberte</u> on an 11-day space excursion.

"A decade of research and development has gotten us to the point where we can credibly talk about commercial passenger experiences," said John Carmack, president and chief technology officer of Armadillo Aerospace. "Everything is coming together—there is enough clarity in the technical, regulatory and market factors that it is the right time to form a solid partnership with Space Adventures to help us take things through to commercial operation."

Armadillo Aerospace, a leading developer of reusable rocket-powered vehicles, also produces rocket engines for the X-racer aircraft to be used by <u>Rocket Racing</u> <u>League</u> for aerial races.

The company has built rockets that launch and land vertically for competitions for prize money from NASA. Last November, Armadillo Aerospace took home second place and \$500,000 in the <u>NASA-sponsored contest</u> to fly privately developed rockets on mock moon-landing missions. © 2010 Space.com. All rights reserved.

Astronomy Picture of the Day



Spiral Galaxy NGC 3190 Almost Sideways

Credit: Data - Hubble Legacy Archive, ESA, NASA Processing - Robert Gendler

Explanation: Some spiral galaxies are seen almost sideways. NGC 3190, one such galaxy, is the largest member of the <u>Hickson 44 Group</u>, one of the nearer groups of galaxies to our own <u>Local Group</u> of galaxies. <u>Pictured above</u>, finely textured <u>dust lanes</u> surround the brightly glowing center of this picturesque <u>spiral</u>. Gravitational <u>tidal interactions</u> with other members of its group have likely caused the spiral arms of <u>NGC 3190</u> to appear asymmetric around the center, while the <u>galactic disk</u> also appears <u>warped</u>. NGC 3190 spans about 75,000 <u>light years</u> across and is visible with a

In two weeks you will receive your last Astro for the 2009-2010 school year. This will be your last chance to submit photos of your school and your projects. Send information to tyildirim@gftse.org.