

Designation of a spaceport at Front Range Airport — possible late next year — could someday make the world a smaller place.

That someday is 10 to 15 years away as technology is developed and tested for space planes that fly on the edge of space from one spaceport to another in a matter of hours.

"When we tell neighbors and the people who fly in and out of here what we want to do, they kind of roll their eyes," admitted Dennis Heap, Front Range's aviation director.

But plans for suborbital flights took a big first step with Gov. John Hickenlooper's request for federal licensing of a spaceport in Colorado. Front Range Airport, a general-aviation airport 22 miles east of Denver and a close neighbor to Denver International Airport, is seen as the likely candidate for the designation.

Several companies — Blue Origin, Armadillo Aerospace, SpaceX, Orbital Sciences, XCOR Aerospace and others — have been working on various space-plane concepts that would cut a 16-hour trip from Denver to Australia to less than two hours.

The general idea is to turn on rocket motors above 50,000 feet, with the space plane racing faster than Mach 4 (four times the speed of sound). Passengers would be subjected to about 4 G's of gravitational force.

"The experts anticipate about 40 percent of the world's population will be able to utilize this kind of transportation," Heap said.

Virgin Galactic has signed up about 450 people who have plunked down \$20,000 deposits on the \$200,000 tickets to ride its SpaceShipTwo to the weightlessness of space. It is requiring participants to undergo training and testing before the flights, now expected to begin in 2013.

The Front Range concept calls for a dual-propulsion plane that uses jet engines for a conventional horizontal takeoff, switching on a jet motor for the trip to another spaceport and then landing with the jet engines.

"We are not going to do vertical launches at Front Range," Heap said, adding it is way too early to be discussing ticket costs. "Initially, it will be more expensive, but if you saved all that time, it might be worth it. The vehicle will be small, and the immediate customer base also will be small.

"But as more and more fly, the price is going to come down."

The space planes are expected to be pressurized and equipped with life-support systems to fend off the cold and airless environment, said Ron Jones, chief executive of Rocket Crafters. The Utah-based company is working with the Spartan College of Aeronautics and Technology on a space-plane pilot-training facility at Front Range.

"The plane we are developing would primarily be a trainer, with room for the pilot and student," Jones said.

Heap said licensing by the Federal Aviation Administration probably won't happen until late next year.

There are many steps before then: forming a technical advisory committee, the FAA application process and solving issues such as rocket-fuel storage, visitor accommodations, emergency services and environmental assessments.

"We're such new kids on the block," Heap said. "We're bringing in our runway system and the infrastructure we have in place to help make another piece of Colorado aerospace system that works."

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