

N.J. has right atmosphere for spaceport to take off

Home News Tribune Online 01/30/07

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Spaceport New Jersey, what is this all about?

A spaceport is a facility like an airport where flying craft, small rockets for example, take off into very high orbits, perhaps taking passengers from New Jersey to Hawaii in a couple of hours. Unlike an airport, a spaceport also has research and development facilities, educational facilities, as well as a variety of business development organizations.

Spaceports already exist in the United States and around the world. Each is unique in that each is specialized in some way. Some, being in the desert, have rocket tests, others that may be in more developed parts of the country focus on R&D and education, and all have commercial activities related to the facilities that exist there.

The largest and most successful spaceport in the United States is the Mojave Spaceport. This is where Burt Rutan and his company, Scaled Composites, have successfully built small rockets, made of advanced composite materials, that are intended for space tourism. Versions of these rocket planes are being developed for Richard Branson's Virgin Galactic, which is currently taking reservations for trips to low Earth orbit beginning in 2009. A seat in one of these rockets costs \$200,000. Not bad when considering that a weeklong trip to the now-defunct Russian space station Mir cost \$20 million, a trip that three successfully accomplished.

So if we are considering having small rockets take off into orbit, how does that work in New Jersey, a dense state of eight million people? And why would anyone want to come to New Jersey to take a rocket to low Earth orbit?

A significant infrastructure already exists in New Jersey. We have McGuire Air Force Base, Atlantic City International Airport, a Coast Guard station, and the Hughes FAA Technical Center in Atlantic City. New Jersey is a heavily industrialized state with a wealthy and highly educated populace. Since we see space tourism as one of the possible businesses operating out of the spaceport, it is very beneficial that there exists a nearby gaming industry in Atlantic City, and potential sites for the spaceport in close proximity to New York, Philadelphia and Washington, D.C. One can envision people rocketing into Spaceport New Jersey and then to a quick helicopter ride for visits to any of these locations.

The spaceport also creates significant educational and business opportunities. Recent economic reports on the state show a decline in high-tech, high-paying jobs. We seem to

be at a loss in New Jersey on how to attract and retain companies that will hire the most educated people. This is a serious work-force problem for the state. Spaceport New Jersey offers those in elected office and of bold vision a vehicle for doing just this, creating a framework for such work-force production.

Spaceport New Jersey offers opportunities for the universities of the state, in particular Rutgers University as the pre-eminent state university. The spaceport will attract numerous companies that are interested in tapping into the multifaceted activities that can take place there. Entrepreneurs will view this facility as an incubator for ideas at the forefront of our technologies. Rutgers University can be both a source of the necessary talented employees and the most advanced engineering and scientific research.

It is in our interests to begin the process necessary to create a Spaceport in New Jersey. Such a process requires a large-scale effort, one only possible with the support of state governmental groups as well as corporate and academic entities.

The licensing of a spaceport is by the FAA. Numerous tasks must be completed, the most significant being an environmental impact assessment. A business plan must also identify the type of operations that are initially planned. A significant risk and reliability assessment is also required for FAA licensure.

Clearly, this is an effort of many people of a multitude of professional backgrounds. The hurdles to be overcome include engineering, policy, and risk assessment. Throughout this process, communication with the public is crucial.

Beneficiaries of a Spaceport New Jersey include the higher education community, the state government, industry and corporations, entrepreneurs and the investment community, but most of all, the people of New Jersey. This is very significant. Keep your eyes on it.

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