

Jeff Krukin

Space Planes in Limbo

Question: When is a space plane not a space plane? Answer: Right now.

Companies like Kistler Aerospace, Kelly Space & Technology, Rotary Rocket Co. and Pioneer Rocketplane are developing reusable launch vehicles. These vehicles, once in service, will have an operational efficiency more akin to commercial airplanes than to today's expendable launch vehicles.

When Motorola announced in October 1996 it would buy 10 launches from Kelly for its Iridium satellites, that provided marketplace evidence that space planes are seen as a reality in waiting. And Kistler is set to begin testing its K-1 vehicle this year.

Also, consider the fact that in 1997, for the first time, U.S. commercial launches exceeded U.S. government launches, ac-

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ording to a ProSpace white paper issued April 15. Commercial launches are expected to grow at least 50 percent this year. Why? If you have a cellular telephone or use the Internet, you are part of the reason. An accelerating global requirement for wireless voice and data communications is driving the need for large constellations of new telecommunication satellites.

These will need to be launched, serviced and replaced in the decades ahead. This is textbook economics: supply and demand. And yet, with all these economic forces at work, space planes becoming reality is hindered on two fronts. Both are due to the slower-than-evolution pace with which several federal agencies are responding to the rapid changes in the launch services industry.

The U.S. Department of Transportation Office of Commercial Space Transporta-

tion's Quarterly Launch Report for the third quarter of 1997 contains a special report entitled "Bulk-Buy Practices by Satellite Operator Foster Further Commercialization of Launch Services Industry."

According to the report, the increasing demand for commercial telecommunication satellites has provided satellite manufacturers with the ability to purchase large quantities of launches in advance.

By doing this, manufacturers provide the guaranteed future revenue that justifies the development of new launch vehicles. The development of Boeing Co.'s Delta 3, where no government funding was required, is an example.

Even though commercial launches exceed government launches, the government will continue to consume a significant amount of the available launch services. All government agencies requiring launch services must take advantage of this new bulk-buy practice, adding their guaranteed future revenue to the financial pool.

The greater the demand for launch services, the greater the incentive for entrepreneurial space plane firms to continue

development.

Assuming this demand grows, the second hindrance is the delay by the Department of Transportation's Office of Commercial Space Transportation in providing guidance on regulations for testing and operating reusable space planes. It is necessary for this office to provide its definition of a space plane quickly to allow for vehicle testing. Without that, firms cannot anticipate the regulatory requirements — and associated costs — they must meet when they begin testing their vehicles.

To develop such guidelines, Department of Transportation leaders must stop thinking rockets and start thinking planes.

At the same time, the Office of Management and Budget must discontinue its centralized, socialist-style thinking about space. Its plan to set aside \$760 million for Boeing and Lockheed Martin reusable launch vehicle development is a smack in the face to true competition.

Without these changes, we face the very real prospect of losing these promising young space firms to other, more quickly evolving nations.