

**Remarks by Rex Geveden
NASA Associate Administrator
Microgravity Flight Procurement
Solicitation Conference
NASA Glenn Research Center
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Thank you Glenn (Glenn Williams, Contracting Officer) and thanks to Woodrow Whitlow and the folks at the Glenn Research Center for hosting this conference, but more significantly for leading the procurement activities supporting this important program. To the bidder's represented here, thank you for your attendance and your interest in this hopefully attractive business opportunity.

The Microgravity Flight Procurement is a notable example of NASA's commitment to advancing this nation's space capability by

leveraging private investments and exploiting commercial efficiencies for the dual purposes of supporting the execution of NASA's missions and encouraging the development of commercial space markets.

During his confirmation hearing before the U.S. Senate on April 13th, 2005, NASA Administrator Michael Griffin outlined six strategic priorities for NASA, one of which was to “encourage the pursuit of appropriate partnerships with the emerging commercial space sector.” Those six strategic priorities later became the foundation of NASA's Strategic Plan published early in 2006.

In general, encouraging the commercial space sector means that NASA will contract, under commercial arrangements, for goods and services, some of which have been historically provided by the

government itself or acquired through research and development cost-type contracts. In other cases, where markets are less than fully developed and commercial entities cannot yet close the business case or in which the barriers to entry are prohibitive, NASA may co-invest with a commercial concern in order to develop a capability. In the latter case, it is hoped that NASA's investment will lead to the development of an efficient market that will justify the original investment.

The Microgravity Flight Services Procurement is an example of the former, and our Commercial Orbital Transportation Services (COTS) effort is an example of the latter. These two efforts—Microgravity Flight Services and COTS—have strategic and symbolic importance to the Agency, as they represent, not only partial fulfillment of our

strategic objectives, but also relevant examples of a new way of doing business with NASA.

Another way to describe our strategy is that we intend to commoditize routine and stable aspects of space exploration in order to take full advantage of commercial efficiencies. Doing so reduces the cost and improves reliability while it liberates NASA to concentrate its resources on a more appropriate government role--pursuing those activities that require the nation's investment but for which the business case does not yet close.

(transition)

I believe that we are on the cusp of tremendous advances in space commerce, and today I will offer

some thoughts about how we have come to this point and how the future might look.

Forty-five years ago in February, the man after whom this center is named, John Glenn, flew into Earth's orbit. There is a famous photograph from that time of hundreds of people standing around an outdoor television screen in New York's Time Square watching with rapt attention the liftoff of Friendship Seven.

Receiving less attention that year, but perhaps just as important as the Glenn flight was NASA's launch in July of the first communications spacecraft, AT&T's Telstar. The government's decision during that era to invite private industry into the commercial satellite business set an important precedent that has enormous implications today.

Today, global commercial space revenues amount to more than \$100 billion per year. An additional \$70 billion goes to private companies doing work for government space programs around the globe. And commercially owned and operated satellites are, by far, the biggest segment of the commercial space. They provide television, telephone, internet, and data services to users on the ground. To cite just one example of the growth of these services, in parts of Asia subscribers can get television from a satellite directly to their cell phones.

Commercial markets for navigation and location with GPS systems, or geo-informatics, have grown dramatically in the last few years. There are also commercial markets for satellite imaging and weather applications. On top of that, space tourism is in its embryonic stages with the emergence of companies

like Virgin Galactic, Bigelow Aerospace, Blue Origin, and others.

These existing or emergent capabilities are important in many respects, but most especially for their ability to enable a desirable future. As the Administrator put it, “If we are to make the expansion and development of the space frontier an integral part of what it is that human societies do, then these activities must assume an economic dimension as well. Sooner rather than later, government space activity must become a lesser rather than greater part of what humans do in space. To this end, it is up to us at NASA to use the challenge of the Vision for Space Exploration to foster the commercial opportunities which are inherent to this exciting endeavor.”

It is important to note that NASA's orientation toward commercial space activities fulfills President Bush's January 14th, 2004 directive to promote commercial space participation in space exploration. It also is in sync with the U.S. National Space Policy, issued last fall, which states, "The U.S. is committed to encouraging and facilitating a growing and entrepreneurial U.S. commercial space sector. Toward that end, the U.S. Government will use U.S. commercial space capabilities to the maximum practical extent, consistent with national security." Additionally, the 2005 NASA Authorization Act also calls on the agency to advance space commerce. In other words, for NASA, it isn't merely a good idea to pursue commercial space opportunities. It is also a matter of compliance with policy and law that we do so.

As we look forward to NASA's next great challenge of placing expeditionary crews on the moon, commercial opportunities that are on the horizon include such activities as in-space fuel delivery, lunar resource prospecting, and the development and maintenance of lunar surface systems and infrastructure, including lunar habitats, power and science facilities, surface mobility units such as rovers, logistics and resupply, communications and navigation, and *in situ* resource utilization equipment.

So, I can well imagine that the commercial space opportunities available today, including this procurement, are just the tip of what will be a very big iceberg.

When we look back in time to how America's commercial aircraft industry took off, we often cite

the critical importance of the government's decision to guarantee revenue to the industry through postal routes. We believe what we are doing with our commercial procurements holds similar promise for a space industry, although we have barely scratched the surface of what can be achieved in the era of human space settlement that lies ahead.

I think it is especially fitting at this time to call upon the historic analog of Jamestown, which is celebrating the 400th anniversary of its founding, to offer additional context for this commercial opportunity. Recall that the pioneers who came to Jamestown were part of a commercial enterprise sponsored by the merchants who formed the London Company.

And the settlement was a dismal failure in every respect, at least until the unexpected emergence of a

commercial tobacco market turned Jamestown into an economic success story. Similarly, today we don't yet know what entrepreneurial spark will cause the space industry to explode into profitability.

We can do our part, however, to encourage the dreamers and darers of today to give their best efforts in opening up of this new frontier of space. It is in this spirit that I commend all of you for your interest in this opportunity and for your belief in the business opportunities that space affords.

Thank you very much for listening today.