National Space Society

Statement on Space Tourism

June 20, 2001 - The National Space Society (NSS) urges accelerated efforts to facilitate activities in space by private companies and citizens and, in particular:

1. That NASA and its International Space Station (ISS) partners revise the "Commercial Development Plan for the International Space Station"[1] to include provisions for paying visitors (e.g., private researchers, journalists, educators, entertainers, tourists) to the International Space Station. Such revisions should include making private visits a 10th "Potential Pathfinder Area" as described in the Plan's Attachment 1[2].

2. That NASA and its International Space Station partners define reasonable standards and procedures for the flight qualifications of such visitors, to include the utilization (at reasonable cost) of existing Space Shuttle and Soyuz vehicles, government training facilities, flight equipment, and operations facilities; and the certification of future private training facilities and operations facilities.

3. That these provisions and standards be established by the end of 2001, to enable private ventures to select and arrange for training of citizens to visit the International Space Station as early as mid-2003.

4. That NASA and U.S. Congress promote private visits to the ISS as part of the "Space Station Commercial Development Demonstration Program"[3], and as a means to stimulate the space economy, and therefore help fulfill their obligations as defined in the Commercial Space Act of 1998 [4].

In addition:

5. That NASA set aside one or more seats aboard the Space Shuttle per fiscal year for private citizens, whether visiting the ISS or not; to be chosen and paid for by commercial or private entities; and

6. That NASA revitalizes and expands the Payload Specialist program to include space shuttle and space station missions, and to provide appropriate training for future "Teacher-in-Space," "Journalist-in-Space," and any other citizen-in-space program candidates.

NSS believes that need for these actions is urgent.

The Lack of Affordable Transportation to Space and the Lack of Public Interest have been identified by NSS, along with NASA, the space industry, and many private space organizations, as a major barrier to the development, exploration, and future settlement of outer space [5].

Removing this barrier will require a much larger demand for space transportation services than currently exists [6]. Given the current constraints on government spending, many space launch

analysts [7] forecast little to no growth in launch demand by government space agencies and defense departments. Indeed, recent studies have concluded that the satellite launch industry has matured, and that, even with new lower cost reusable launch vehicles (RLVs), the demand for satellite launches will not rise enough to generate the revenue sufficient to justify the investment in developing such RLVs [6, 8].

With its Space Launch Initiative (SLI) program [9], NASA is in the process of investing up to $4.5 billion towards reducing the major technical risks (and to a lesser extent the major programmatic risks) associated with second-generation reusable space transportation. The SLI program, however, does nothing directly to increase the market for such future vehicles.

Under these circumstances, only the private sector is left to generate the increased demand for space transportation sufficient to induce the further capital investment and competition necessary to drive down the cost of access to space.

However, as has been emphasized by the owners of VentureStar and other space firms, the space industry will be unable to raise the capital necessary to fund development and production of lower-cost, second-generation reusable space transportation, unless and until the large market required for that transportation can be shown to exist, and technical and programmatic risks have been proven surmountable.

The most promising market that NASA and the space industry have identified for such a large demand for space transportation is space tourism and other passengers-to-Low Earth-Orbit (LEO) transportation [6, 10, 11].

Public interest in space activities waned after the Apollo moon landings, as did public discussions and depictions of private space travel. Recently, however, the space flights of former astronaut John Glenn and "non-astronaut" (i.e., "space tourist") Dennis Tito have dramatically renewed that interest and given hope to space tourism entrepreneurs around the world.

However, such interest is likely to decline again, however, if not reinforced with regular demonstrations of private space travel. Currently, the only means to perform these demonstrations involves the use of government space assets -- Space Shuttle, Soyuz, and the International Space Station (ISS).

NSS acknowledges that the private use of government-funded space assets raises, as does any new concept, issues that need to be resolved. NSS is confident that the owners and operators of these space assets can establish a set of reasonable rules and guidelines to ensure that private citizens can properly utilize these space assets without compromising their safety or adversely affecting their operations.

NASA already has taken steps in this regard, in response to the U.S. Congress "Commercial Space Act of 1998" [4], which states "a priority goal of constructing the International Space Station is the economic development of Earth orbital space." The Act also encourages the

"fullest possible engagement of commercial providers and participation of commercial users" in ISS utilization. In its "Commercial Development Plan for the International Space Station" [1], NASA states that its long term objective is "to establish the foundation for a marketplace and stimulate a national economy for space products and services in low-Earth orbit." NASA also states that its strategy will be "in partnership with the private sector, initiate a set of pathfinder business opportunities which can achieve profitable operations over the long run without public subsidies" and to "employ these businesses to break down market barriers in the near term and open the path for economic expansion."

Attachment 1 to that plan (identified as a "Discussion Draft") describes nine "Potential Pathfinder Areas for Commercial Development of the International Space Station" [2]. None of these "pathfinder areas" mention private visits to the ISS, however. If NASA and the U.S. Congress are prepared to invest $4.5 billion over the next five years to reduce the technical risks associated with lower-cost access to space, they certainly should be willing to invest a small fraction of that amount (both in time and money) towards increasing the market for those same launch technologies that they are stimulating.

Private, safe and reliable human space transportation will almost certainly precede private space habitation. Consequently, to preserve the necessary momentum towards that goal, it is imperative that governments continue to allow private visits to the government-developed International Space Station (under reasonable terms) until such time as private space habitats (e.g., space hotels) can be established.

Therefore, NSS is making the recommendations set forth above.

Forty years ago, the Soviet Union led the Space Race. NASA and the U.S. Congress rose to the challenge, leapfrogging the Soviet Union all the way to the Moon. Today, Russia, a struggling post-communist nation, is now leading the Space Tourism Race. If Russia, new to free-market economics, can see and act on the potential of sending private citizens into space, surely the United States, the world's strongest free-market economy, can do no less. NASA and the U.S. Congress have the opportunity, once more, to leapfrog all others, to lead the way to opening the space frontier for the average citizen; and, in the process, ensure the survival and prosperity of humanity to the next millennium and beyond.

References

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