

ISS COMMERCIAL DEVELOPMENT PROGRAM PROGRESS REPORT



NASA Headquarters

9/28/99



CONTENTS

- BACKGROUND
- MAY REPORT TO CONGRESS
- INDEPENDENT MARKET STUDY
- STATUS OF COMMERCIAL OFFERS AND PROPOSALS
- STATUS OF NASA INITIATIVES
- NEED FOR COMMERCIAL DEMO PROGRAM LEGISLATION
- PRECEDENTS FOR LEGISLATION
- PROVISIONS FOR CONGRESSIONAL OVERSIGHT
- BACKUP
 - Additional NASA Initiatives
 - Status of Non-Government Organization (NGO) Concept
 - U.S. Commercial Allocation
 - International Perspectives



BACKGROUND

- ◆ “98 Commercial Space Act (PL 105-303) signed into law November ’98.
- ◆ Section 101 specifically addressed the International Space Station (ISS);
- ◆ required various reports and studies be completed in 1999.
- ◆ NASA released “Commercial Development Plan for the ISS” in response ;
- ◆ identified various initiatives and products to be developed in 1999.
- ◆ This briefing summarizes the status of NASA progress to date.



MAY REPORT TO CONGRESS

In May 14, 1999 NASA submitted the first report in response to PL 105-303.

- Identified broad scope of ISS commercial opportunities in utilization, operations, and evolutionary development (Pathfinder Study).
- Defined important terms:
 - “*unsolicited proposals*” requests for USG contracts in context of FAR;
 - “*entrepreneurial offers*”, no longer requests for USG contracts.
- Reviewed ISS “*commercial proposals*” received in CYs 1997-98:
 - highlighted the differences between perception and reality;
 - NASA headquarters/center directors reported five formal proposals then in hand;
 - provided the impetus to establish a formal auditable registration system.



INDEPENDENT MARKET STUDY

- Initiated in December 1998 with KPMG based on prior experience.
- Accomplished under framework of Commercial Space Venture Advisory Team:
 - Chaired by retired congressman Robert Walker;
 - Inclusive of both aerospace and non-aerospace industries;
 - Three meetings conducted with extended report review schedule;
 - Signatory process has been slower than originally planned.
 - Final draft completed; expect forwarding to Congress in September timeframe.



STATUS OF NASA INITIATIVES

Pricing, process and property protection have been the longstanding critical path issues;

- NASA has prioritized these obstacles in order to achieve early progress.

- Pricing:

- Legislative initiative to enact “Space Station Commercial Development Demonstration Program” submitted to Congress in late July.
- Extensive pre-coordination within NASA, as well as with White House Office of Management and Budget, and Office of Science and Technology Policy.
- Four critical elements:
 - Value-based price
 - Marginal cost floor
 - Limited waiver authority (primary v. non-primary purposes)
 - Reinvestment of receipts
 - The reinvestment provision is absolutely essential in order to incentivize the NASA culture and create a climate for economic expansion.



STATUS OF COMMERCIAL OFFERS AND PROPOSALS

- Unsolicited proposals received to date are all proprietary:
 - under evaluation by procurement.

- Entrepreneurial offers received to date are all proprietary:
 - include potential for net value to NASA and the public;

- NASA hopes to announce the first three commercial projects within the one-year anniversary of the passage of the '98 Commercial Space Act (November 1999).



NEED FOR COMMERCIAL DEMO PROGRAM LEGISLATION

- Directly responsive to '98 Commercial Space Act request for commercial initiatives from NASA.
- Squarely on the critical path to the economic development program for ISS:
 - Supported aggressively by OMB and OSTP with high priority; submitted outside of authorization cycle.
 - Worked in conjunction with current budget deliberations due to need to achieve progress immediately and deploy ISS US Laboratory in a positive private investment environment.



PRECEDENTS FOR LEGISLATION

- The Recreational Fee Demonstration Program (Pub. Law 104-134, Section 315).
 - Used by the Department of the Interior and the Department of Agriculture to demonstrate the feasibility of user-generated cost recovery. Allows the Park Service to retain user fees for improvements to the parks.
 - It has been a success, was extended beyond its initial sunset, and is now being considered on a permanent basis rather than as a demonstration program.
- Department of Defense cooperative research projects using transactions other than contracts or grants (10 U.S.C. 2371).
- The National Technology Transfer and Advancement Act of 1995 (Pub. Law 104-113) which amended the Stevenson/Wydler Technology Innovation Act (15 U.S.C. 3701, et seq.).
 - Those amendments were intended to encourage public/private cooperative ventures and leverage private industry investments in cooperation with our national laboratories. Allows labs who enter into successful technology agreements to retain royalties in the lab and use them for other technology activities.
 - Similarly, this proposal is intended to encourage commercial use of NASA's orbiting laboratory, the ISS, and retained funds are to be used to improve commercial station utilization.



PROVISIONS FOR CONGRESSIONAL OVERSIGHT

Legislation has been carefully crafted to ensure full and regular oversight of the demonstration program by the Congress:

- Annual Status Report with measures of success to be defined, as well as identification of receipts collected and use of those receipts;
- Reinvestment specifically limited to “promoting US economic development of Earth orbital space utilizing the ISS”;
- Final Report to include assessment of program effectiveness, independent evaluation, and long term plan for ISS commercial development, based on lessons learned through the demonstration period.



BACKUP

9/28/99



ADDITIONAL NASA INITIATIVES

- Process:
 - The 1999 Pathfinder proposals have served as excellent vehicles to drive out process reform.
 - An ISO-9000 compliant Organizational Work Instruction is in the final stages of approval and has been concurred in by the Johnson Space Center:
 - Establishes a single point-of-entry for ISS entrepreneurial offers at NASA headquarters, thus addressing a longstanding criticism;
 - Creates an auditable protocol for formal registration and dispositioning of offers that will be open to the public once proprietary restrictions are lifted by the offerors.
- Property Protection:
 - The NASA General Counsel's Office is in the final stages of completing a reference guide that explains the currently available protections for intellectual property and proprietary data on the ISS;
 - Will be targeted to the non-government contractor community.



STATUS OF NON-GOVERNMENT ORGANIZATION (NGO) CONCEPT

- National Research Council Task Group Study underway:
 - Two meetings completed w/one remaining and report due in fall timeframe.
- Internal trade study underway:
 - To identify advantages and disadvantages from perspective of statutory and regulatory constraints associated with various implementation methods;
 - e.g., contracts, cooperative agreements, government corporations.
- Plan to develop specific recommendations to NASA executive management by end of CY99 for review w/stakeholders before proceeding.



U.S. COMMERCIAL ALLOCATION

- Established by the US Space Station Utilization Board:
 - Four NASA Associate Administrators (Space Flight, Life and Microgravity, Space Science, Earth Science).
 - NASA Chief Scientist and Comptroller
- 30% of ISS internal accommodations (i.e., rack sites) and resources (i.e., power, crewtime, communications, logistics capacity).
 - (27 US rack sites) x (.30 allocation) = 9 internal commercial sites
- 25% of ISS external accommodations (i.e., pallet sites) and resources.
 - (29 US pallet sites) x (.25 allocation) = 7 external commercial sites
- Current planning has identified payloads from the NASA Commercial Space Centers. These are mainly government supported payloads; however, privately funded commercial projects will move to the front of the queue as they emerge.



INTERNATIONAL PERSPECTIVES

- All partner agencies aggressively pursuing ISS commercial development by various means:
 - generally resembles US accommodations and resources allocation method;
 - European industry has proposed turning all utilization over to industry;
 - Canada and Russia have announced advertising sponsorships deals are in the final stages.
- At NASA invitation a Multilateral Consultative Working Group – Commercial Programs (MCWG-CP) is being formed.
 - Canada and Europe have identified representatives; Japan and Russia have not yet responded.
 - First meetings/telecons may begin this fall.

9/28/99