

Space Exploration Conference Orlando, Florida

International Industry Participation In the Future of Space Exploration

February 1, 2005

Yoichi Kamiyama General Manager, Space Systems Unit Aerospace Division Mitsubishi Corporation



Table of Contents

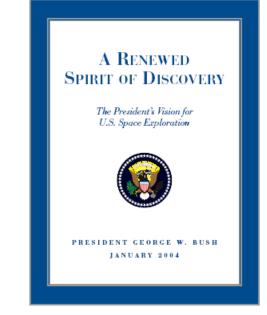
- **1. Reactions to Vision**
- 2. Reactions to Result of Workshop Nov 2004
- **3. International Industry Participation**

1. Reactions to Vision

□ Respect Vision Which Can:

 Extend Human Presence across Solar System
Improve Human Life on the Ground through Technology Innovations

Understand Sustainability, Affordability and International & Commercial Participation as Key Success Factors



Procure Best Value of Developed System Worldwide

Develop Technologies Based on Most Advanced Technology Worldwide

Maximize Reliability (Minimize Risk), Shorten Schedule and Minimize Cost

2. Reactions to Result of 2004 Nov Workshop

□ Accomplishment

- Confirmed Strong Interest of Each Participated Country and Necessity of Political Expression of Support for Cooperation
- Re-Confirmed U.S. Commitment to Shuttle and ISS Programs
- Confirmed to Pursue Partnership Maximizing Tech. Development and Avoiding Tech. Development Duplication
- Recognized Needs of Having International Coordination Mechanism
- Identified Future Challenges :
 - ✓ Management Complexity
 - ✓ Technical, Programmatic and National Risks

□JAXA Position (in Workshop)

- Respect Vision
- Be Developing JAXA Cooperation Strategy to Comply with National Policies and JAXA's Long-Term Vision Being Made
- Existing Program (such as SELENE, HTV) as First Candidate at This Point

Uncertainties for Japanese Industry

- Government-Government Arrangements
 - ◆G-G Cooperation Scheme, Work and Risk Sharing
- U.S. Expectations for "Equal Partner"

<u>3. International Industry Participation</u>

Basic Understanding : Space Exploration Is under U.S. Government Initiative

Government Role

- □ Take Initiative (Bush Vision)
- Define Requirements (Agency Plan)
- □ Prepare Sufficient Budget to Implement
- Take Risks Industry Cannot Take

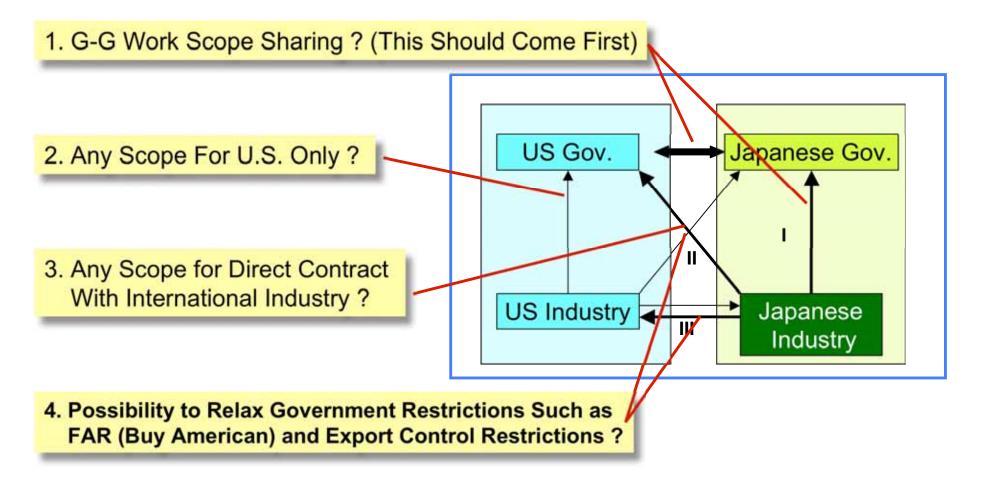
Industry Role

- Support Initiative
- Tailor Requirements Down to Specifications
- □ Implement Works Industry Is Better to Do than Government
- Take Industry-Controllable Risks

3. International Industry Participation

Biggest Question : Who Is Responsible for What Scope?

- Clarifications for Four Points Below Should Be Necessary
- for Japanese Industry to Recognize Where/What Participating Opportunity Is





Contact:

Yoichi Kamiyama General Manager Space Systems Unit Aerospace Division Mitsubishi Corporation

(81) 3-6405-4022 yoichi.kamiyama@mitsubishicorp.com