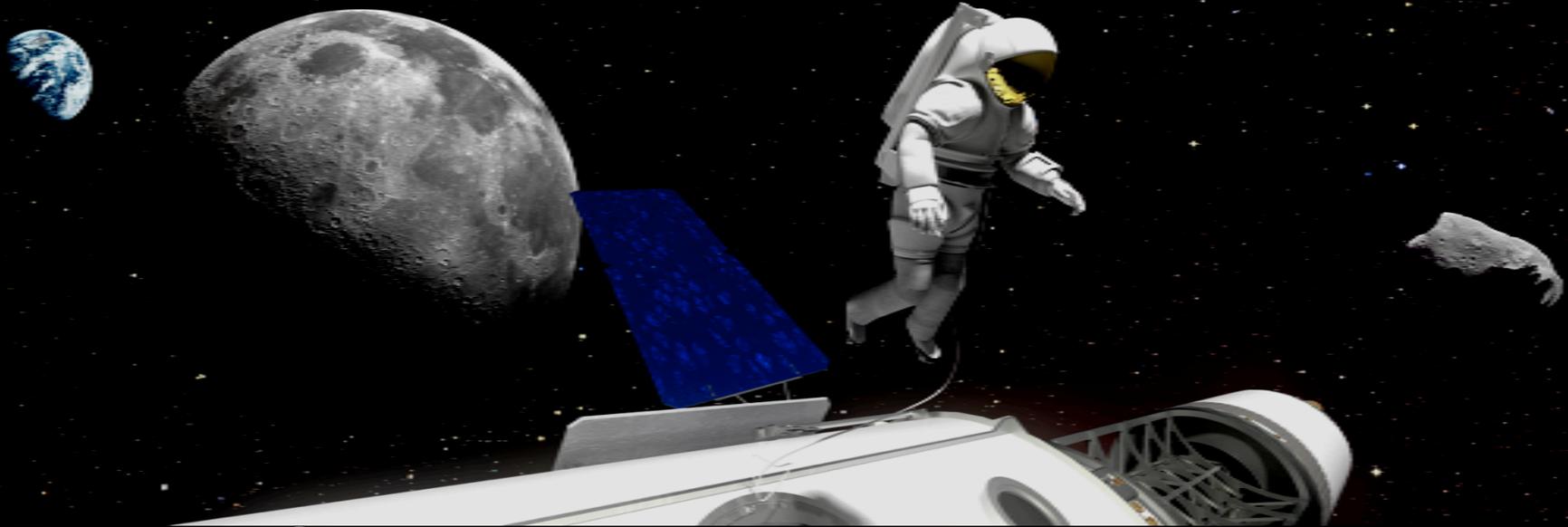


Panel 3: Near-Term Implementation Strategies, and Plans

Steps from now until the Asteroid or Moon



Panel Considerations:

- *What are some short term (next 10-15 years) activities that could be performed to lead toward human exploration of the Asteroid and Lunar destinations?*
- *What are the next steps in the further development of these concepts?*

Panel 3 Observations



◆ General Observations:

- Too few missions in the GER prior to 2025 - Need to develop new missions (i.e, E-M L1/L2) and show how they led to future exploration activities
- Both GER scenarios should look to incorporate gateway at EM L1/L2
- Economic challenges will persist
 - Focus on stakeholder values
 - Show benefit with what we have now
 - Strategy of prudence – focus on near-term achievability
- Strong suite of key enabling capabilities exist today
 - First steps achievable with current and planned capabilities
- Global leverage will take effort but will be key



Panel 3 Findings

◆ Recognize Stakeholder Value

- Continued congressional support is not a given and it is important to have early successes
- Better define benefit of ideas to allow countries to obtain support

◆ Large new starts are not reasonable, strategy needs to focus on affordability and near term achievements

◆ Identified a first step for exploration that accommodates multiple future paths

- Converging on L1/L2 using existing assets is a good step
- Develop objectives and requirements to help focus investments
- Use our existing capabilities to help guide development
- Accept non-optimum solutions with the realization that once we get systems in space, we will find additional activities to perform
- Limit sustainment and operational costs – there is a potential to get stopped at location paying for operations
- Make decision about basic capabilities at L1/L2
- What high priority science and other exploration activities should be accomplished at L1/L2 – what are the implications to precursor missions

Panel 3 Findings



◆ Define a potential near-term strategy for using L1/L2 Gateway

- Start as short term crew tended facility and evolve based on requirements
- Need to utilize existing assets as much as possible including repurposing
 - ISS for testing
 - Existing ISS assets including transportation elements (both on orbit and on ground)
 - SLS and Orion
 - Habitat, EVA capabilities.
 - Commercial elements
- Need to take systematic approach in identifying and developing technologies.
- Develop capabilities for moving assets from LEO to EM L1/L2.

Panel 3 Next Steps



- ◆ **NASA to develop initial assessment of the strategy using an L1/L2 gateway**
 - Need to differentiate between what we could be doing versus what we can do from a cost, partnership and policy perspective
- ◆ **Share information with partners and stakeholders to collect their interests and concerns**