The ISECG Global Exploration Roadmap

Status update at Target NEO2 Workshop

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The non-binding GER enables agency discussions on important topics such as
- Common goals and objectives
- Advancing long-range mission scenarios and architectures which lead to sustainable human missions to Mars
- Opportunities for near-term coordination and cooperation on preparatory activities

The GER reflects importance of ISS as foundation for exploration, leading to sustainable human missions to Mars as the common driving goal
- Serving as a tool which supports individual agency stakeholder engagement

GER first released in Sept 2011, update end July 2013
12 space agencies participate in the GER development activity
Common goals are needed, but recognized individual agency goals are what is important to an agency

- Search for Life
- Extend Human Presence
- Perform Space, Earth, and Applied Science
- Perform Science to Support Human Exploration
- Develop Exploration Technologies and Capabilities
- Stimulate Economic Expansion
- Enhance Earth Safety
- Engage the Public in Exploration

GER reflects common goals and supporting objectives

No significant changes since the initial GER release
Russian Piloted System

NASA's SLS and Orion

To be supplied

Critical systems onboard ISS

Crew and Cargo Transportation Systems

Mission to Visit Redirected Asteroid

Advanced Electric Propulsion

NASA's SLS and Orion

Cargo Delivery

To be supplied

Evolvable Deep Space Habitat

Surface Cargo Delivery

Extended Duration Crew Missions

Human Lunar Surface Missions

Lunar Lander
GER Mission Scenarios

◆ Purpose of the Mission Scenarios
  • Serve as an optional design reference for agencies to inform decisions on preparatory activities
  • Conceptual missions that are considered technically feasible and programmatically implementable

Asteroid Next, Moon Next evolve to single scenario
Near-Term Opportunities for Coordination and Cooperation

◆ Significant resources are being expended around the world to prepare for human space exploration
◆ Agencies seek opportunities to leverage these investments through knowledge of partner priorities and partnerships: coordination and cooperation
◆ The Global Exploration Roadmap framework facilitates achieving alignment with emerging global consensus on exploration scenarios
◆ Six opportunity areas have been identified
  • Use of ISS for Exploration
  • Space Systems and Infrastructure Development
  • Robotic Precursor Missions
  • Advanced Technologies
  • Analog Activities
  • Human Health and Performance Risk Mitigation
The updated GER intended to serve as a tool to help agencies collaboratively advance plans for future human space exploration missions and partnerships.

The first iteration of the GER was discussed with the broader community in individual or coordinated engagement activities.

Community engagement opportunities also planned for GER2:
- E.g., NASA Community Workshop on the GER (target Oct 2013-TBC)