Space Exploration...
Going Beyond Earth Orbit

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Ares Launch Vehicles

- Ares I and Ares V leverage on common hardware for low cost
- A single launch provides greater than 400,000 pounds of payload to Earth orbit
- Payloads, mission designs, and architectures are simplified
- Significant national security payload options become available
Enabling Exploration

Ares V heavy lift launch vehicle enables missions beyond Earth’s orbit for decades to come

- Space telescopes: deep space and Earth observation
- Visits to nearby asteroids
- Lunar exploration
- Future missions to Mars
Global Leadership

America’s space exploration for the past 50 years has resulted in many benefits

- Technology advancements
- Economic leadership
- National security

U.S. leadership in space is being challenged

- Exploration ensures…
  - International cooperation and partnerships
  - Continued growth of America’s space technologies and infrastructure
  - Advances in technology
  - Global prestige
Technology Advances From Exploration

- Advances in technology from exploration fuel the economy
- NASA’s current 11 lunar studies
  - ATK developing technology for long-term lunar energy storage
  - Will provide significantly more energy storage than advanced lithium-ion battery systems
  - Could ultimately translate to a system on Earth
- Spin-offs as a result of exploration
  - NASA programs have resulted in more than 1,400 commercial products
Inspiring the Next Generation

- Exploration inspires young people to consider education in science, technology, math, and engineering
- NASA needs educated U.S. citizen work force
- Leaving low-Earth orbit generates interest and motivation
  - During the first two months of the Mars rover mission, NASA had 6.5 billion hits to their website
- Our view of the universe, and our world in particular, is enlarged and our knowledge enhanced
Exploration and the Economy

- Technology and education position the U.S. as the global economic leader
- Exploration provides high-technology jobs
  - 85% of NASA’s budget is spent through industry contracts
- New technologies and spin-offs from exploration contribute to the economy

For more information, visit “NASA in Your Life” at www.nasa.gov

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Exploration Is the Future

America’s bold plan to explore new frontiers and the human exploration of space provide significant technological, educational, economic, and national security benefits.