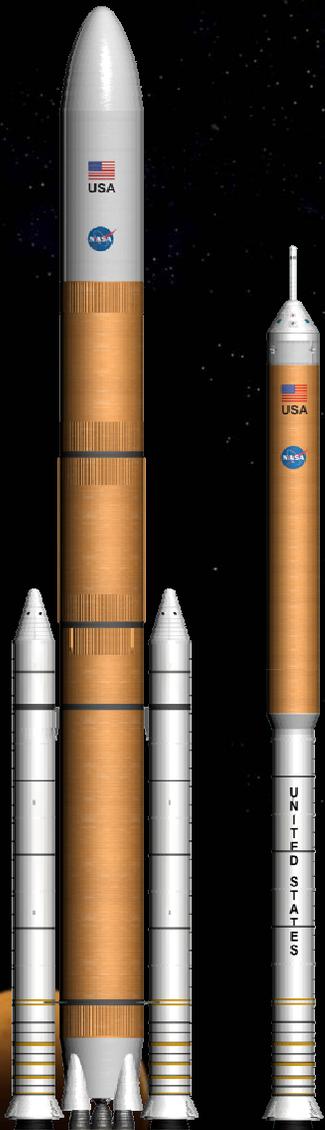
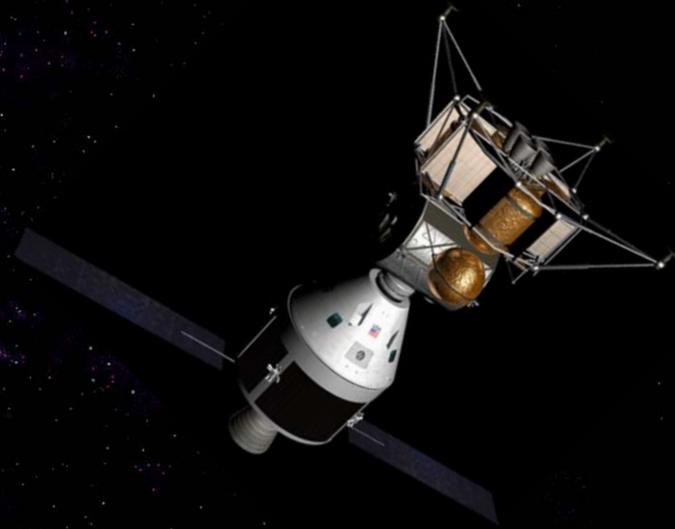


NASA's Exploration Architecture



September 19, 2005



A Bold Vision for Space Exploration



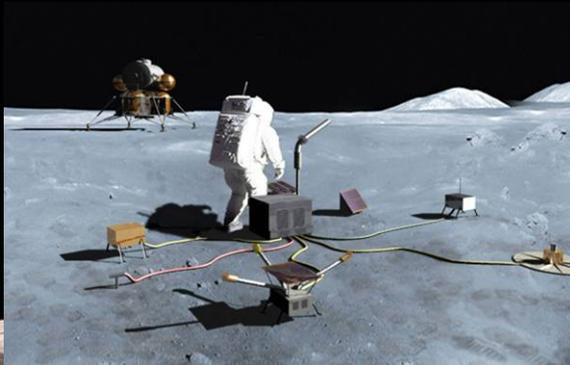
- ◆ Complete the International Space Station
- ◆ Safely fly the Space Shuttle until 2010
- ◆ Develop and fly the Crew Exploration Vehicle no later than 2014 (goal of 2012)
- ◆ Return to the Moon no later than 2020
- ◆ Extend human presence across the solar system and beyond
- ◆ Implement a sustained and affordable human and robotic program
- ◆ Develop supporting innovative technologies, knowledge, and infrastructures
- ◆ Promote international and commercial participation in exploration



"It is time for America to take the next steps.

Today I announce a new plan to explore space and extend a human presence across our solar system. We will begin the effort quickly, using existing programs and personnel. We'll make steady progress – one mission, one voyage, one landing at a time"

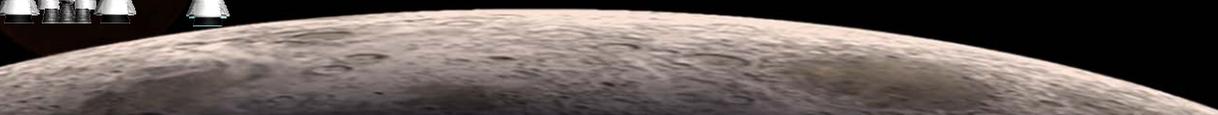
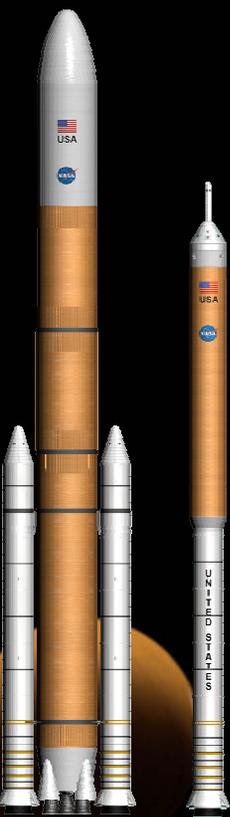
*President George W. Bush –
January 14, 2004*



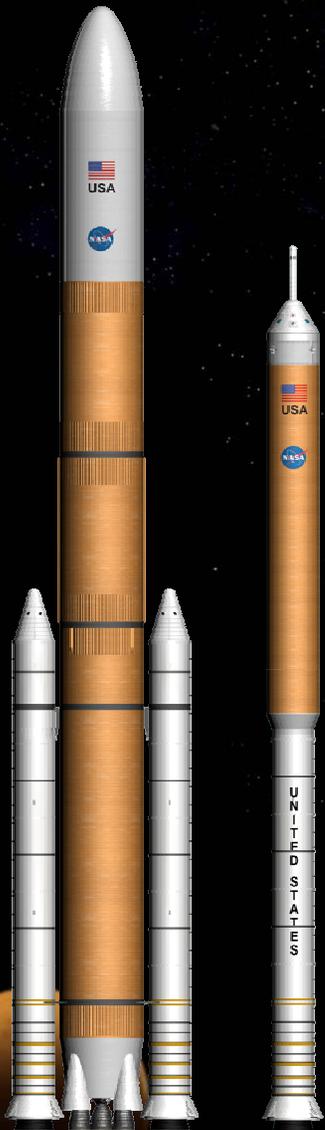
A Safe, Accelerated, Affordable and Sustainable Approach



- ◆ **Meet all U.S. human spaceflight goals**
- ◆ **Significant advancement over Apollo**
 - Double the number of crew to lunar surface
 - Four times number of lunar surface crew-hours
 - Global lunar surface access with anytime return to the Earth
 - Enables a permanent human presence while preparing for Mars and beyond
 - Can make use of lunar resources
 - Significantly safer and more reliable
- ◆ **Minimum of two lunar missions per year**
- ◆ **Provides a 125 metric ton launch vehicle for lunar and later Mars missions and beyond**
- ◆ **Higher ascent crew safety than the Space Shuttle**
 - 1 in 2,000 for the Crew Launch Vehicle
 - 1 in 220 for the Space Shuttle
- ◆ **U.S. system capable of servicing the International Space Station**
- ◆ **Orderly transition of the Space Shuttle workforce**
- ◆ **Requirements-driven technology program**
- ◆ **Annual “go-as-you-pay” budget planning**



NASA's Exploration Architecture



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