

# NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

## **Since 2001, the Administration:**

- Embarked upon the President's vision to implement a sustainable and affordable program to explore space;
- Began the necessary transition away from the aging Space Shuttle and toward new vehicles that can support exploration missions beyond low Earth orbit; and
- Expanded NASA's space science programs, resulting in hundreds of new scientific discoveries.

## **The President's Budget:**

- Focuses resources to continue construction of the International Space Station and the development of new space vehicles needed for exploration; and
- Continues to support the exploration of the solar system and to expand our knowledge of the universe to better understand its origin, structure, evolution, and destiny.

## FOCUSING ON THE NATION'S PRIORITIES

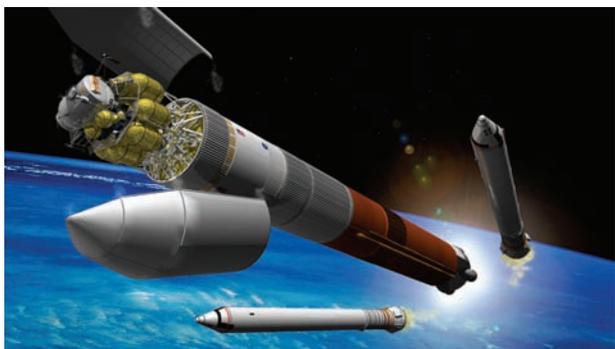
*We will explore space to improve our lives and lift our national spirit. Space exploration is also likely to produce scientific discoveries in fields from biology to physics, and to advance aerospace and a host of other industries. This will help create more highly skilled jobs, inspire students and teachers in math and science, and ensure that we continue to benefit from space technology, which has already brought us important improvements.*

President George W. Bush  
June 16, 2004

Recognizing the need to reinvigorate the Nation's civil space program and keep the National Aeronautics and Space Administration (NASA) focused on compelling and inspiring goals, President Bush outlined a bold, new vision for human and robotic space exploration on January 14, 2004. The United States will extend human presence across the solar system, starting with a human return to the Moon by the year 2020, in preparation for human exploration of Mars and other destinations.

Extending space exploration will require a sustained and affordable human and robotic program using innovative technologies, knowledge, and infrastructures. NASA will cooperate with our international partners throughout this endeavor and will promote commercial involvement whenever practical.

To support exploration missions, NASA is initiating development of a new spacecraft called the crew exploration vehicle that will be safer and more reliable than the Space Shuttle and that will allow astronauts to land anywhere on the Moon, support a lunar base, and eventually enable human missions to Mars and other destinations.



Artist's impression of NASA's planned heavy-lift cargo rocket leaving the Earth and carrying a lunar lander toward the Moon.

NASA will launch this vehicle, as well as other exploration cargo, using rockets that are derived from components of the Space Shuttle. This approach will allow NASA to use tried and tested components, benefit from an experienced workforce, and smoothly transition many of its operations when the Space Shuttle is retired by 2010.

NASA will continue to pursue an expanded robotic program to explore the solar system and universe. The Lunar Reconnaissance Orbiter is scheduled to launch in the fall of 2008, to map the surface of the Moon and search for future landing sites. NASA's recent successful robotic investigations of Mars and Saturn will be followed by missions that will explore some of the least known areas of the solar system: Mercury, the asteroids, and Pluto. The Mars Science Laboratory will launch in 2009 to sharpen our scientific understanding of the red planet; future spacecraft will conduct research and test technologies to support future human exploration of this planet.

The Agency will also build on its legacy of revolutionizing the science of astronomy. NASA will continue to operate space telescopes such as Hubble, Chandra, and Spitzer, while planning for the next generation of spacecraft that will enhance our ability to find planets around other stars and

peer deep into the history of the universe to better understand its origins and structure. All the while, NASA will continue to play a major part in the interagency Climate Change Science Program and participate in the international initiative on the Global Earth Observing System of Systems, retaining critical investments in satellites, technologies, and research that will improve forecasting of the weather, monitoring of forest fires, and tracking the spread of pollutants here on Earth. The Agency will also continue to develop space probes to study the Sun's influence on Earth and the space environment.

## RESTRAINING SPENDING AND MANAGING FOR RESULTS

### *Restructuring to Improve Results*

In support of the President's goal to make Government spending more effective, some NASA programs that are not directly relevant to the exploration mission or other agency priorities, have underperformed, or are financially unsustainable, will be reformulated or terminated to allow for greater focus on the Agency's high-priority programs.

#### **Commercial Supply for the Space Station**

Following the tragic loss of the Space Shuttle *Columbia*, the International Space Station relied on Russian crew and cargo delivery services to continue operating. NASA has since implemented a program intended to allow U.S. companies to compete commercially to deliver cargo, and eventually crew, to the International Space Station. If this program is successful, it will reduce the cost of space operations, freeing NASA to focus on exploration, and may encourage the growth and diversification of the U.S. commercial launch industry.

The 2006 Budget terminated the Jupiter Icy Moons Orbiter, the flagship mission of NASA's space nuclear power program, because it was costly and not well aligned with the new focus on exploration. The 2007 Budget further trims the space nuclear program, which will continue as a research and development effort until its technologies are needed in later years.

NASA's aeronautics research program is also being refocused to improve its effectiveness and to yield greater benefits for the Nation with a leaner budget. NASA is the Nation's leading

Federal organization for aeronautical research, known for its dedication to the mastery and intellectual stewardship of aeronautics. In recent years however, an emphasis on transferring technologies pulled the organization away from its focus on cutting-edge research. NASA is restructuring its aeronautics programs to support fundamental research in traditional aeronautics disciplines and relevant emerging fields. NASA will maintain core expertise at its research centers but will also reach out to fund promising work at universities. The Agency's research will enable both the civilian and military communities to design and build aerospace systems that meet their specific needs.

### *Addressing Problem Areas and Increasing Accountability*

NASA is transforming itself into a better-managed Federal agency. The Agency is addressing several of the management challenges identified by the Program Assessment Rating Tool (PART). For example, the PART noted that the Space Station program's inability to achieve results was largely due to its over-reliance on the Space Shuttle for transport of cargo and crew. To solve this problem, NASA is now pursuing alternative means for supplying the Space Station. The PART assessment of NASA's Office of Education found that NASA lacked data on the effectiveness of its education programs and was unaware of the degree to which program participants had taken jobs with NASA or in related fields. In response, the Office of Education will now require all of its programs to conduct self-evaluations, report annually on accomplishments (including the career paths of alumni), and make these data available to the public.

NASA is also instituting reforms to increase accountability and make its programs more effective. For example, the Agency is undertaking independent reviews of many programs to evaluate their effectiveness and relevance to NASA's mission and to find areas where they could be improved. In addition, the Agency has begun to monitor and report on a more regular basis the cost and schedule

progress of its space and Earth science missions. This practice will improve the Agency’s accountability for the Federal resources it receives to complete these projects.

**Update on the President’s Management Agenda**

The table below provides an update on NASA’s implementation of the President’s Management Agenda as of December 31, 2005.

	Human Capital	Competitive Sourcing	Financial Performance	E-Government	Budget and Performance Integration
<b>Status</b>	●	●	●	● ↑	●
<b>Progress</b>	●	●	●	●	●

*Arrow indicates change in status rating since prior evaluation as of September 30, 2005.*

As its high ratings on most initiatives of the President’s Management Agenda show, NASA is better managing its human capital needs, developing business cases to support major information technology efforts, and justifying budget requests in terms of the results the Agency expects its programs to achieve. For example, NASA used public-private competition to consolidate human resources, procurement, financial management, and information technology activities performed at 10 NASA centers to one shared services center. The elimination of redundant systems and processes will improve efficiency and reduce agency costs. NASA has, however, had significant difficulties in effectively implementing a system that can reliably track and manage the Agency’s finances. In response, it is developing a financial management system to help the Agency organize and better account for its finances.

Initiative	Status	Progress
Real Property Asset Management	●	●

NASA has developed an accurate and current inventory of its property and has begun implementing initiatives within its Asset Management Plan, which will ensure that the Agency’s inventory is maintained at the right size and cost to best support its mission.

**National Aeronautics and Space Administration**  
(In millions of dollars)

	2005 Actual	Estimate	
		2006	2007
<b>Spending</b>			
Discretionary Budget Authority:			
Science, Aeronautics, and Exploration.....	7,891	9,664	10,524
<i>Science (non-add)</i> .....	5,824	5,254	5,330
<i>Biological and Physical Research (non-add)</i> .....	925		
<i>Exploration Systems (non-add)</i> .....		3,114	3,978
<i>Aeronautics Research (non-add)</i> .....	962	929	724
<i>Cross-Agency Support Programs (non-add)</i> .....	179	367	491
Exploration Capabilities.....	8,149	6,578	6,234
<i>Space Operations (non-add)</i> .....	6,988	6,578	6,234
<i>Exploration Systems (non-add)</i> .....	1,161	—	—
Inspector General.....	31	32	34
Total, Discretionary budget authority .....	16,071	16,274	16,792
<i>Memorandum: Budget authority from enacted supplementals</i> .....	126	350	—
Total, Discretionary outlays .....	15,612	15,554	16,354
Total, Mandatory outlays .....	1	—	2
Total, Outlays .....	15,613	15,554	16,356