

More Money, and a New Path to the Stars

February 2 2010, by Leslie Mullen



Artist concept of the Ares rocket. NASA spent 9 billion dollars developing the Orion-Ares concept, but now wants to scrap the program. Credit: NASA

The Obama Administration plans to cancel NASA's Constellation program that was to take American astronauts back to the Moon. Instead, NASA will oversee a competition among commercial space developers to come up with the technology to reach the stars.

Constellation was an umbrella program that included the development of a new type of [launch vehicle](#), including the Ares rocket and the Orion crew module. A commission studying the feasibility of the program came to the conclusion that it was behind schedule, and there was not enough money or enough new technology development to allow the

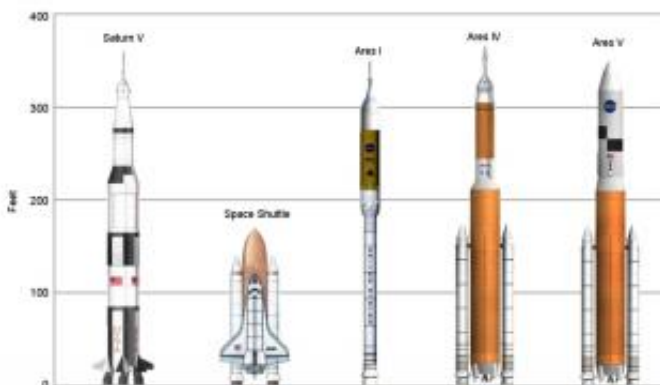
program to reach its goals.

“The commission looked under the hood and found a constellation of problems,” said Jim Kohlenberger, chief of staff of Obama's Office of Science and Technology Policy. He said that even though the goal of the Constellation program was to send humans back to the Moon by 2020, they couldn’t have achieved that goal until the 2030s, “if ever.” “It was called ‘20/20 vision.’ I think it was nearsighted by about 20 years,” he added.

NASA expects the commercial technology to launch humans into space should be in place by 2016. The Space Shuttle, which was scheduled for retirement in 2010, has 5 more launches planned for this year.

Afterwards NASA will use Russian launchers to reach the [International Space Station](#). NASA wants to continue to invest in ISS for the next decade and beyond, using the facility to conduct scientific research.

According to astronaut Sally Ride, who was a member of the commission which reviewed the Constellation program, ISS was to be sacrificed after 2015 in order to pay for the Constellation program. She noted that other NASA programs also had suffered in order to pay for Constellation.



Size comparisons between the Saturn V rocket that took astronauts to the Moon, the space shuttle, and the Ares rocket designs. What sort of launch systems might be developed by the commercial space industry? Credit: NASA

There is a great deal of controversy in putting the human space program in the hands of the commercial sector. But NASA Administrator Charles Bolden said that commercial launch vehicles have carried all U.S. military and commercial satellites into orbit for many years, and NASA also has used commercial launch vehicles in the past.

“NASA will set standards and processes to ensure that these commercially built and operated crew vehicles are safe,” said Bolden. “No one cares about safety more than I. I flew on the space shuttle four times. I lost friends in the two [space shuttle](#) tragedies. So I give you my word these vehicles will be safe.”

Bolden said that NASA has awarded Space Act Agreements for the development of human spaceflight to Blue Origin of Kent, Washington; The Boeing Company of Houston, Texas; Paragon Space Development Corporation of Tucson, Arizona; Sierra Nevada Corporation of Louisville, Colorado; and United Launch Alliance of Centennial, Colorado.

Buzz Aldrin, the astronaut who walked on the Moon with Neil Armstrong, endorses the proposed changes for NASA. “I am excited to think that the development of commercial capabilities to send humans into low Earth orbit will likely result in so many more Earthlings being able to experience the transformative power of spaceflight,” he said. “I can personally attest to the fact that the experience results in a different perspective on life on Earth, and on our future as a species.”

NASA also wants to work with the commercial sector and their international partners to take astronauts beyond low Earth orbit, for the exploration of the Moon, nearby asteroids, and Mars.

While the human exploration of our solar system remains a NASA goal, there are now no specific dates for achieving this, or even an indication of which missions would be attempted first. Lori Garver, NASA Deputy Administrator, said that specific details about future missions will be revealed in the next few months.

“The Moon definitely continues to be an important destination for the future,” said Garver. Asked whether she expects to see humans walking on the Moon again in her lifetime, Garver responded, “I absolutely believe that. I believe I could do it myself, as a matter of fact.”

“We’re not canceling our ambitions to explore space; we’re canceling Constellation,” she added.

Other changes in the proposed budget include a plan to improve the facilities at the Kennedy Space Center to make it “a 21st century launch complex”, and an increased focus on Earth climate science.

NASA would receive a budget increase of 6 billion dollars over 5 years, which adds up to a total budget of 100 billion dollars over those 5 years. This budget increase, as well as the Obama administration’s plan to cancel the Constellation program, will need to be approved by Congress before it can be put into effect.

Source: Astrobio.net

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