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June 2009, Vol. 47, No. 6



American Institute of
Aeronautics and Astronautics

Editorial

Asking the right questions

The May 11 launch of the space shuttle Atlantis on Mission STS-125 brought into sharp focus many of the issues surrounding the U.S. human spaceflight program. Atlantis was on its way to the Hubble Space Telescope for a final repair mission.

First was the sight of the shuttle Endeavour on a nearby launch pad, poised for rapid turnaround in case a rescue mission was required. Since the February 1, 2003, Columbia tragedy, new safety rules have been put in place for shuttle missions. The increasing space debris population and the absence of the safe haven the international space station normally provides for shuttle crews (the shuttle would be unable to reach the station in the event of a problem) warranted placing Endeavour in launch-on-need mode.

After Atlantis reached the Hubble's orbit and captured it, the intricate, daunting dance began as the astronauts undertook a series of spacewalks to replace equipment on a spacecraft that has fundamentally changed our perception of the universe. This visit will be the last to the telescope, and the last shuttle flight to a destination other than the station.

Closer to home, with the release of the FY10 NASA budget, President Obama called for the formation of a commission, under the steady hand of former Lockheed Martin CEO Norm Augustine, to evaluate NASA's entire human spaceflight effort.

Since the announcement by then-President George W. Bush on January 14, 2004, of his "Vision for Space Exploration," what came to be known as the Constellation program to develop a replacement for the aging space shuttle to carry humans back to the Moon and then beyond has been under way. But the Ares I, since its inception, has faced technical problems, time slippages, and budget woes.

None of this is surprising. After all, NASA is creating an entirely new space transportation system. However, it is operating in the face of fundamental questions as to whether this is the right approach—the right vehicle.

There are concerns, for example, about the growing time gap between the retirement of the shuttle and the availability of Ares I. For at least five years, the U.S. will have no means of its own to reach the station into which it has poured so much effort and treasure. Should private enterprises receiving COTS funding be encouraged to develop rockets that can carry passengers as well as cargo? Should the evolved expendable launch vehicles, with their excellent track records, be given another look? Should the U.S. hold off on retiring the space shuttle?

These are some of the questions facing the new commission. Here's another: Can we finally specifically define how to 'man-rate' a vehicle?

The commission has a small window within which to find these answers. This is a good thing—it prevents the U.S. from falling into that time-honored trap of creating a study rather than taking action when faced with a problem.

No pressure. It's not as if the future of the U.S. human spaceflight program is on the line. And perhaps by the time the commission has developed its recommendations, there will be an administrator in place to implement them.

Elaine Camhi

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