

## Requiem for a Vision

Chair Force Engineer Blog

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Dennis Wingo has a somewhat lengthy but very good piece in which he dissects the fall of the Vision for Space Exploration. I'm not going to declare the Vision dead and nail up the coffin, but it's clear that the plan is in serious trouble.

The odds of getting Ares I and Orion operational by 2015 (at the earliest) are so low, that Rep. Dave Weldon is sponsoring legislation to keep the shuttle flying. Let's think about that for a second. In 1986, and again in 2003, there have been calls to ground the space shuttle permanently. It's just too dangerous, many pundits claimed. And if routine space access is your goal, then the shuttle IS too dangerous, not to mention expensive. But for Rep. Weldon and other members of Congress, the shuttle represents employment for thousands of people in his home district. For the American astronauts, who are willing to take great risks to fulfill the dream of flying in space, the shuttle is the only ticket in town. For American policymakers, the shuttle's continued existence frees us from being politically beholden to the Russians for manned space access.

I disagree with Mr. Wingo (whom I've met in person, and spoken with briefly) on some of the similarities between the Vision for Space Exploration and the Space Exploration Initiative. In the case of SEI, the plan was dead, for all practical purposes, within a year of its announcement on July 20, 1989. The sticker shock from the \$450 billion price tag (an unreliable figure, but one that would be spread over thirty years) was enough ammunition for the plan's political opponents. The SEI was also undercut by a lack of support from NASA's administrator, Richard Truly.

With the Vision for Space Exploration, the plan largely flew under the radar for over a year. Sean O'Keefe's NASA commissioned some promising architecture studies from the contractors, but they were not acted upon. Michael Griffin took over as NASA administrator and decisively rolled out an architecture of his own in Summer 2005. The plan, as originally presented in the media, seemed to have the support of the American people. After all, we were told that it would fit within the current funding wedge reserved for the Shuttle and ISS. Even the questions of national priorities, brought to the fore by Hurricane Katrina, couldn't slow the Vision down initially. In spite of the problems that have arisen since the announcement of the ESAS architecture, Michael Griffin can at least take credit for coming up with a plan that has out-lived its predecessor.

The problem with the Vision is that it's being run in a business-as-usual fashion by the same agency that gave us the Shuttle and ISS. NASA still hasn't gotten past the fact that it will never see Apollo-era budgets. NASA still hasn't accepted that its business is space exploration, not job creation. The agency is still trapped in the shuttle-era, big-government mindset that the government has to design the spacecraft, and the government has to provide transportation to low earth orbit. NASA needs to shift the paradigm and view space launch as a commercial service that can be provided today by commercial vendors. NASA's finite resources should not be squandered in reinventing the mousetrap and coming up with better earth-to-orbit launchers.

On January 14, 2004, President Bush asked NASA to complete the ISS and retire the shuttle by 2010, fly a new manned spacecraft between 2011 and 2014, return to the moon by 2020, and land humans on Mars during the decade after that. The agency is doing its best to complete the ISS by 2010 (although the recent STS-122 delay casts doubt on that goal.) NASA is planning on retiring the shuttle as scheduled, but members of Congress have other ideas.

The goal the agency is focusing on, and the one for which they are taking the most Congressional criticism, is establishing a manned spaceflight capability between 2011 and 2014. It should be

noted that Congress has not given NASA the money that was originally budgeted for this goal. But with that being said, NASA has chosen a wasteful and expensive approach that has little (if any) chance of being completed by the originally scheduled date. There's a perfectly-capable launcher available in the form of Delta IV Heavy, but NASA continues (for now) down the route of Ares I and retention of shuttle-program jobs.

The Vision for Space Exploration stands as a monument to government largesse in the face of fiscal austerity. As an agency, NASA still hasn't grasped the need to assume a smaller footprint and contract out more of its work. If Ares I should falter, and America go without a manned spaceflight capability, it will be NASA's inability to evolve that will have doomed it.