

## Should the U.S. Government Have A Department of Space?

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In the recently released "Sustainable Space Exploration and Space Development - A Unified Strategic Vision," authors Buzz Aldrin, Feng Hsu, and Ken Cox call for radical surgery on our nation's civil space program. This thought-provoking paper provides much-needed fuel for discussion, as the patient (NASA's Constellation Program) is dying a slow and painful death. But is a Department of Space, one of the major proposed changes, the right type of surgery?

The paper lays out the deficits of NASA's implementation of the Vision for Exploration (VSE) announced by President George Bush in January 2004, and explains why NASA cannot possibly succeed in building an affordable space transportation infrastructure and open the space frontier. While I disagree with some of the comments, language and one of the recommendations, I believe the conclusions are essentially correct for these reasons:

- The VSE was created by a governmental/political system to overcome problems created by that same system in an agency also created by that same system. The very capable and dedicated people who created the VSE had to work within the fundamental organic limitations of the system in which they lived, and the plan and the results-to-date reflect this.
- The Moon and Mars landings schedule announced in January 2004 reflected anticipated development of new rockets and capsules by the aforementioned system, and, again, the plan and the results-to-date reflect this. Instead, the entire process and schedule should have been built around a public-private effort to develop commercially affordable Earth-space transportation, such as the NewSpace industry and some elements of NASA are now doing.
- The VSE did not include a strategy for the economic development of space. The Aldridge Report, a roadmap for the VSE, provided some very useful recommendations to NASA, but the word "development" is nowhere to be found within its pages. It does contain tantalizing hints, but leaving out a strategy for the economic development of space was a missed opportunity.

Turning to the major recommendations of the paper, it is spot-on when it emphasizes the need for "incubating private space technology sectors" and "space-based human economic and commercial infrastructure advancement." It is also correct in its call for a Vision for Space Development (VSD) to be pursued in mutual beneficial synergy with the VSE, absolutely right that the VSD cannot and must not be executed by NASA, and that "returning to the moon should be regarded as part of human Space Development" (rather than solely an exploration effort).

My greatest concern is the recommendation that a Department of Space be created to plan and implement the VSD, and I question the wisdom of this approach. Here are some of the potential problems I see, and I expect other people will add to the list:

- My first reaction to a new cabinet-level department is, "Just what we need, a new huge government bureaucracy telling business how to operate."
- The authors write that this department "should manage projects based on strict business, cost-benefit and market principles." This certainly is how companies should manage the development of their products, but exactly how will a government agency help? What does any government agency know about running a business, especially if the people making the decisions are career government employees rather than managers and executives hired from corporations? And even if the latter were to occur, these people would still be beholden to their political masters.
- The authors state that "To be successful, the U.S. should build strong support and wide participation from the international community." Sounds nice, but the space devil is in the details. If this is going to be led by a Dept. of Space, it will happen too slowly and inefficiently, and be too political, to quickly nurture the called-for economic development of space. The best way for the U.S. Government to unleash U.S. companies for this effort is to 1) reform ITAR, 2) let companies develop company-to-company relationships on a global basis as they already know how to do, and 3) ask companies what help they need, and 4) remember that government should be a supporting partner while business takes the lead.

The government absolutely has a role to play, but not as an all-powerful cabinet-level department. What is the proper entity? Wiser people than I have debated this endlessly, and I certainly don't have THE SINGLE BEST ANSWER for how government should proceed. But if government is to act as a catalyst, perhaps a start would be to elevate the Office of Space Commercialization above its current berth within NOAA to an independent office within the Dept. of Commerce, and give it the mandate and funding to do the job. Perhaps an entirely new (but small) agency is needed, or something like a Chamber of Commerce or a Government-Corporate Council, or something else entirely new. But a Department of Space? No, that is too worrisome.