

Dr. Linda Krug is the author of Presidential Perspectives on Space Exploration: Guiding Metaphors from Eisenhower to Bush, an investigation of presidential rhetoric about space and the space program, published in 1991. I emailed Dr. Krug to ask if she had any thoughts about President George W. Bush's 2004 speech on the space program; the following is the full text of her reply:

Hi Sam,

Thanks for your patience; my Dean duties seem always to get in the way of more intriguing activities!

I've had a chance to look at Bush 43's speech and some accompanying materials, and my thoughts are these:

1. Much has been said about the father-son relationship between Bush 41 and Bush 43; some critics have argued, for instance, that Bush 43 went back to Iraq to finish what Bush 41 had begun. It strikes me that this is also the case when looking at Bush 43's space speech of January 14, 2004. In Bush 41's July 20, 1989 speech, 41 calls for "Space Station Freedom, our critical next step in all our space endeavors ... then "back to the moon And then a journey into tomorrow, a journey to another planet, a manned mission to Mars. Each mission should and will lay the groundwork for the next."

Although much more complete and specific than his father's, Bush 43's speech follows the same game plan: completion of the space station, then ... "We will build new ships to carry man forward into the universe, to gain a new foothold on the moon and to prepare for new journeys to the worlds beyond our own."

2. Bush 43's space speech succeeds, however, where his father's fails. To begin, Bush 41 failed to tie his expansive new vision for NASA to specific funding, whereas Bush 43 ties his vision to what has become known as a "pay as you go" approach to space exploration. ("Most of the funding we need for the new endeavors will come from re-allocating \$11 billion from within that budget ... Future funding decisions will be guided by the progress that we make in achieving these goals").

3. More importantly, Bush 43 engages a strategy that few president have been able to accomplish: marrying the "awe" of space exploration with the "so what" of space use. In other words, Bush 43's speech contains a vision of what our space program should be and why. It is a speech that puts human space exploration back within our sights (and grasp) because it grounds space exploration in practical, definable, results. Notice that every time Bush 43 makes a reference to the *raison d'être* of space exploration, he follows it with a comment about what space exploration produces. Consider these examples:

§ NASA folks are "risk-takers and visionaries" who "have expanded human knowledge, have revolutionized our understanding of the universe" and who, at the same time "have "produced technological advances that have benefited all of humanity."

§ “Desire to explore and understand is part of our character.” “And that quest has brought tangible benefits that improve our lives in countless ways.” (gives examples of successes)

§ “Establishing an extended human presence on the moon could vastly reduce the cost of further space exploration, ...”

§ “And the fascination generated by further exploration will inspire our young people to study math, and science, and engineering, and create a new generation of innovators and pioneers”

4. For Bush 43, exploration always results in something pragmatic: “Through these efforts, we will develop the skills and techniques necessary to sustain further space exploration.”

5. In addition, Bush’s rhetoric “works the other way;” what we “get” from space exploration fuels our desire to continue to explore:

§ “Yet for all these successes, much remains for us to explore and to learn.”

§ “[We will] discover resources ... that will boggle the imagination, that will test our limits to dream.”

6. By merging the wonder of space exploration with the pragmatics of getting quantifiable results, Bush 43’s speech succeeds in moving the space program forward.

7. Or does it? While it does provide a tidy vision of what “could be” if we dream and work hard, this speech, like his father’s, is limited by its unmistakable “back to the future” aura. Unfortunately for Bush 43, the “future” of the space program is grounded in returning to a place we have already been, the moon. For all of its movement forward, Bush 43’s speech takes us back. What it gives us in vision (a bold “new” vision), in other words, it takes back in practicality (“back to the moon”). Bush does attempt to cast the return to the moon as a necessary but momentary endeavor “to establish a foothold” for further journeys. But the reality of his speech is that after completing the Space Station, after building a new space vehicle, then and only then will we ... return to the moon. For space enthusiasts who want the US space program to do much more, returning to the moon is a disappointment.

8. I have not followed the aftermath of the speech to any great extent. I know that NASA folks were energized by the speech, as it gave them some needed direction and goals. I know that many in Congress could not fathom where the funding for this ambitious project would come (and I suspect that Iraq and the war on Terrorism has shifted resources away from NASA’s long range goals). I also know that many scientists were/are critical of the program because of its emphasis on “human” exploration.

9. There is also more to be said about Bush's insistence that "this is a journey not a race." I suspect this may have something to do with trying to downplay the significance of the Chinese space program. It may also have something to do with the new line of thinking about "space tourism", what I have heard called "the new space race." There is clearly much more to be culled from Bush 43's speech.

Hope these thoughts help your thinking; please let me know if there's something specific you want me to address and I will try to do so.

Best,

Linda Krug