

Does the U.S. Want A Space Program, or Not?

by Marsha Freeman

The U.S. manned space program has not had any long-term goals since President Reagan's 1984 proposal to build a space station. Although this was a limited project, and not an initiative to exploring the Solar System, it at least spanned more than one annual budget cycle, and was intended as an element of infrastructure laying the basis for farther exploration, later on.

As the Columbia Accident Investigation Board (CAIB) pointed out in its Aug. 28 report on the Space Shuttle accident, for decades, NASA has not been allowed to plan around a vision for the future, and adequate resources have been lacking even to keep the Shuttle flying as safely as can be expected.

In response to that CAIB report, Congressmen did their usual posturing, decrying NASA's lack of "vision"; meanwhile, they betrayed their real intent by stating that any such "vision" had to fit within NASA's (shrunk) budget! Other officials in Washington, and in the media, argued: Never mind "vision"; the Shuttle will *never* be safe enough to fly; there is not enough science done on each mission to justify the risk, *ad nauseam*.

Following the accident, President Bush pledged that America would continue the Shuttle program. Following the release of the CAIB report, "space" advisors in the White House, led by Vice President Dick Cheney, started scrambling around for a "vision" for the space program. But in the meantime, they refused to increase NASA's budget even by a paltry \$100 million to help fix the Shuttle.

The most eloquent responses to the latest attacks on science and reason have come from those who actually fly in space and face the risk, and from the families of the *Columbia* astronauts, whose loved ones made the "ultimate sacrifice" in the quest to explore.

Walt Cunningham was a member of the back-up Apollo 1 crew, when its prime crew died in a launchpad fire in 1967. He served on the Accident Investigating Committee that looked into the cause of that fire, and then flew on the Apollo 7 mission. In the September/October issue of *Space Times*, Cunningham made a plea to "get the Space Shuttle back in the air."

Cunningham's major point was that "there will always be risk associated with human spaceflight." Announcing the Apollo program, in May 1961, "President Kennedy did not say, 'We will make this spaceflight absolutely safe in this decade and when it is safe, we will go to the Moon,' " Cun-

ningham pointed out by way of illustration of currently-popular absurdities. There is no such thing as "100% foolproof and absolutely safe."

The Apollo astronaut makes a further point: that efforts to try to make a spacecraft safer can introduce *more* risk. Within hours of the loss of *Columbia*, NASA Shuttle Program Manager Ron Dittmore "was honest enough to say . . . there was absolutely nothing that could have been done to save the crew," Cunningham reported. This announcement stunned the Congress, and horrified the media and even NASA Administrator Sean O'Keefe. "What do you mean there was *nothing* NASA could have done to save the astronauts?" was the hue and cry. Says Walt Cunningham: "Second-guessers have had a field day speculating on what NASA could have done to save *Columbia*. Even if we had known STS-107 was in trouble, all the second-guessing schemes were virtually impossible, took dangerous shortcuts in procedures and training, and violated operating norms and mission rules developed over decades of spaceflight. They would all have introduced more risk to an already hazardous undertaking." He insists: "Let me repeat, there was absolutely nothing that could have been done to get the STS-107 back!"

That does not mean deciding not to fly, or that the space systems involved should not be improved. That means that after doing its best to lower the risk, the space-faring nation accepts it—as does every astronaut and cosmonaut who steps into a spacecraft.

War on Risk

Cunningham wrote: "Considering what it does, the Space Shuttle really has a good safety record. It is certainly the safest habitable space vehicle the United States has ever developed. Its record of two failures in 113 missions translates into reliability greater than 98%, and management decisions probably could have avoided both failures."

The *real* danger to the program, he insisted, is that—as in the political environment after the 1986 *Challenger* accident—"Once more, there is a real risk of overkill, as Congressional Committees, engineers, and managers have concluded they have a duty to take virtually all human risk out of the operation" of the Shuttle. "No country can afford such a luxury."

In order to put human space flight into perspective, Cunningham asks: "How many people died opening up the American West in the Nineteenth Century? How many aviation pioneers lost their lives in the years before commercial aviation took off in the 1920s?" The loss of those priceless human lives did not stop such endeavors. "It's time we acknowledged that space is the most dangerous environment into which humans have ever ventured. There will always be risk associated with human spaceflight. There are also gains to be made from the exploration of space. We should reduce the risk to the point where potential gain exceeds the perceived risk, and then get on with the job!"