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The race into space

By Robert S. Walker

Are the Chinese serious about human space flight? Most definitely. And they are interested in doing more than simply going to low Earth orbit. They are headed for the moon.

For most of last year, the Commission on the Future of the U.S. Aerospace Industry looked at our nation's position relative to our global competition. Clearly, the Europeans are determined to challenge our preeminence in commercial aviation, and the challenge to our leadership in space is coming from the Pacific Rim.

The conclusion that the Chinese are engaged in an aggressive space program is my own, based upon the commission's findings, but not included in the panel's final report. What we saw and heard during our year of hearings and investigation convinced me that China intends to be on the moon within a decade and will announce they are there for a permanent stay. An investment of less than 1 percent of their growth revenues over the next decade would provide revenue for a very robust program.

When the aerospace commission visited the Russian cosmonaut training facility at Star City, we found a Chinese crew in residence. Since the Chinese space program seems to be basing its technology on Russian equipment, the presence of Chinese in Star City was not all that surprising. But where they were training was.

The day we were visiting, the Chinese crew was utilizing the EVA (extra-vehicular activity) building. You do not train for EVAs if you are doing simple orbital missions. EVAs are typically related to space-based construction work.

Put the Star City experience together with some direct discussions on the Pacific Rim and the picture becomes clear. Many Japanese space observers are convinced that China has a moon program and that, ultimately, Japan may be drawn into the competition. India already has created its own moon mission, in large part because they are monitoring Chinese space efforts.

At my Washington office a few weeks ago, I met with a visiting Japanese parliamentarian who specializes in science and technology issues. I related to him my belief that the Chinese would be on the moon within a decade with a declaration of permanent occupation. He disagreed. He smiled and said my conclusion was accurate but my timing was off. In his view, the Chinese would be on the moon within three to four years.

Regardless of who is right about the time frame, and I still believe that even a decade is ambitious, the fact remains that the Chinese are devoting resources and gearing up to do something that we are no longer technologically capable of achieving in the immediate future. We went to the moon, planted our flag, gathered samples, took credit for an amazing achievement in human history and then abandoned the effort. The space technology available to us today could not be used to replicate what we did 35 years ago.

For many Americans, our inability to compete in a new moon race will not be important. Been there, done that. But for our strategic thinkers and planners, there are some serious questions that arise from a Chinese moon capability.

First, a nation with the technological capacity to do a sustained moon program would have achieved an ability to build, integrate and utilize spacecraft. Without even ascribing any hostile intent to such a capability, our strategic planners would have to acknowledge the profound impact on the balance of power.

Second, the Chinese have a long history of undertaking projects designed to enhance their national image. As the second nation ever to land humans on the lunar surface, China would attain international prestige. As the nation that establishes a permanent presence on the moon, the Chinese would have an ongoing international impact.

Third, as the nation in position to exploit moon resources, China could leapfrog the world in some important earthbound technologies. Scientists have acknowledged the usefulness of H3 in helping achieve nuclear fusion success. The moon appears to be a large source of naturally occurring H3, a commodity that would be of such value that the transport back to Earth would be economically feasible.

So far, there has been little recognition of or concern about the Chinese moon program in U.S. policy circles. But it represents a real challenge to our leadership role in space.

Our response to the challenge should be aimed not at another moon program of our own, but the development of technologies that would give us the option of several different missions within a decade. Building new propulsion systems, such as nuclear plasma engines, would provide us with the ability to go back to the moon, but also to go to Mars in a mission taking weeks rather than months.

The Chinese moon program appears to be a go whether we get back in the game or not. Space dominance is a 21st-century challenge we dare not refuse. The aerospace commission concluded that stretching our technological reach with new power and propulsion options and developing the capacity to get to low Earth orbit regularly and less expensively would help us hold our space leadership position well into the future.

Robert S. Walker, former chairman of the House Science Committee, served last year as chairman of the Commission on the Future of the U.S. Aerospace Industry. He currently is chairman of Wexler and Walker Public Policy Associates.