

There is no "space race" with China

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◀ The control rooms of the Chinese Chang'e-4, left, and the U.S. New Horizons probes as they made history on the far side of the moon and in deep space.



Johns Hopkins University Applied Physics Laboratory

There is no space race

The term has been a handy label since the Apollo era, but a space race is not what's playing out today between the United States and China. Space analyst **John Logsdon** offers a more nuanced view of the dynamic and what it might mean in the years ahead.

BY JOHN M. LOGSDON

After China landed its Chang'e-4 spacecraft and Yutu-2 rover on the far side of the moon in January, the Washington Post published an alarmist opinion essay under the headline "The new space race pits the U.S. against China. The U.S. is losing badly."

Viewing the U.S.-China space relationship as a race was typical of much of the commentary following the Chang'e-4 success. But characterizing U.S. competition with China as a race distorts reality in an unfortunate way, since it underestimates the stakes. The phrase suggests a zero-sum contest to be first to reach a defined finish line. In reality, the situation is nothing like the 1960s when the U.S. and Soviet Union competed to be first to send

humans to the lunar surface and return them to Earth. That scenario was indeed a race. Once a race is won, there is little incentive to keep racing. That's why upon winning the race to the moon, the U.S. cut short Project Apollo and lowered its ambitions in space.

The current U.S.-China relationship is not such a race. It is not driven by schedule or deadlines or by seeking a specific goal. Rather, it is an ongoing, high-stakes competition for space achievements and innovative approaches to accomplishing them. Both countries are setting out space plans that reflect their own interests and aspirations rather than the quest to be "first."

Competition in space is taking place in the context of the broader contest of developing advanced technologies such as artificial intelligence, quantum computing, advanced pharmaceuticals and high-value manufacturing. Both countries recognize that a leading position in such areas is the foundation of 21st-century economic and military power. Both aspire to be at the leading edge of technological innovation.

The competition is also geopolitical. The U.S. intends to remain the world's leading power and guarantor of a world order based on democratic politics and free market economics, a position it has held since the end of World War II. China is challenging that hegemonic status, seeking to become the dominant global country, spreading its authoritarian approach to governance and its state-centered approach to social and economic development. Both countries recognize that space achievements, in addition to their tangible benefits, remain potent symbols of a nation's vitality. NASA Administrator Jim Bridenstine, as Chang'e-4 landed, tweeted "this is a first for humanity and an impressive accomplishment!" The recognition that China was first to land on the lunar far side is an example of the continuing propaganda value (defined as "sending a message") of visible space accomplishments. That China got more propaganda benefit from the Chang'e-4 landing than the U.S. did from flying the New Horizons probe precisely by the space rock Ultima Thule 6 billion kilometers from Earth suggests the advantage of being the new entry in the space competition.

In that ongoing competition, the reality is that both countries can take a leading position — there is no need for there to be only one leader. Shared space leadership is not a foregone conclusion, however. Recent history suggests that a democracy like the U.S. faces severe challenges compared to authoritarian China in making a sustained commitment to space. Authoritarian governments with continuity in their leadership have the advantage of setting out a plan and sticking to it. Since 1992,

when China first stated its intent to develop the capabilities needed to send humans into orbit, it has announced a series of long-term plans for space and accomplished almost exactly what those plans projected. Meanwhile, as each U.S. administration since 2004 has declared resuming human travel beyond Earth orbit as its objective, strategies for accomplishing that goal have varied widely, and progress has come in fits and starts. If the U.S. is to remain in a leading space position, it needs to carry out the kind of effort that is stated in the Trump administration's Space Policy Directive-1, which calls for NASA to "lead an innovative and sustainable program of exploration with commercial and international partners to enable human expansion across the solar system."

Here may lie the real challenge to the U.S.: Can our republican system of government, aimed at accommodating diverse interests, retain enough focus on any long-term activity to stay at its cutting edge for decades? Doing so will require combining the energy and ambitions of the U.S. private sector with government interests in space to create an effort that will be competitive with China's open-ended push toward space dominance. There is no finish line in this competition.

There might also be room for cooperation between China and the U.S., in parallel with their competition. Today, the governments consult on issues of space safety and security, but congressionally initiated restrictions block discussions of mutual interests at the space program level. It may be that China's continued flaunting of the rules of international trade and technology exchange make any meaningful collaboration in civilian space activity impossible. But that will be impossible to discover if the two countries' space leaders cannot talk to one another. Meanwhile, European Space Agency astronauts are learning Chinese and training in Beijing for missions aboard China's forthcoming space station, and China has agreed with the United Nations to host international research projects aboard its orbital outpost. It is not in the U.S. interest to stand aside as China reaches out to work with other countries.

Just as the U.S.-Soviet Cold War relationship was the dominant feature of international relations in the second half of the 20th century, competition between the U.S. and China will define the coming decades. Writing in the *New York Times* in February, David Brooks asked: "If China is an existential threat to the liberal international order, do we have the capacity to improve our system so it can face the challenge — to invest in human capital, to reform our institutions, repair the social fabric and make our political system function once again?" The U.S.-China space competition can serve as one arena for answering that question. ★



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is professor emeritus at George Washington University and has written books on the space policies of U.S. Presidents Kennedy, Nixon and Reagan. He founded GW's Space Policy Institute in 1987 and directed it until 2008. Logsdon was a member of the Columbia Accident Investigation Board. He has a doctorate in political science from New York University and a Bachelor of Science in physics from Xavier University. He is editor of "The Penguin Book of Outer Space Exploration."