

Opinion: How To Seize Revolution In Hypersonics And Space

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The U.S. is on the brink of a tremendous tipping point of commercial, military and political opportunities. This historic moment is enabled by a combination of reusable rockets and hypersonic-vehicle technologies.

In fact, the coming intersection of reusable launch and hypersonic flight offers the kind of opportunity not seen since the invention of the steam-powered locomotive. These technologies could soon allow humans to travel anywhere on the globe in a couple of hours — and provide consistent low-cost access to space. This will be a tremendous boon to U.S. commerce. Meanwhile, a fleet of hypersonic military vehicles could revolutionize the way we defend our country. If the railroad opened and secured our continent, the combination of reusable rockets and hypersonics will open and secure our Solar System.

The vision of burgeoning economic growth on the space frontier and a hypersonic military protecting the peace is very real, but it is far from guaranteed. As with all great visions, creating the reality requires time, talent and treasure. Moreover, as Machiavelli pointed out 500 years ago, where the vision replaces existing systems and capabilities, those representing the status quo will fight to preserve the old order — no matter how superior the new systems and technologies may be. Change is hard and can only be accomplished with strong leadership, great people, short chains of command, incentives, and (often) money.



Credit: Alex Wong/Getty Images

As I point out in *Trump's America: The Truth About Our Nation's Great Comeback*, President Donald Trump and Vice President Mike Pence are at a near perfect nexus of opportunity. Three imperatives can help catapult the vision to a reality:

1. A programmatic imperative: This is easy, but it requires the will to budget equally for the technology of hypersonic rocket-powered spaceplanes, boost-glide vehicles, and atmospheric high-speed aircraft over the objections of those representing the status quo. We should establish a major spaceplane and hypersonics initiative within the Office of the Secretary of Defense, just as President Ronald Reagan did years ago with the Strategic Defense Initiative. A key part of this initiative should include investment in both near- and far-term technologies as well as experimental vehicles (X-planes) that prove the potential for aircraft-like access to space. The office should work closely with the military services, the Commerce Department, [NASA](#), other agencies and industry to achieve its goals. Although not all the technologies and systems will warrant industry cost share, many will, and the initiative should take advantage of this where appropriate.

2. A political imperative: Wherever money flows, political support is also needed. The support and advocacy of the president and vice president are critical; however, Congress controls the purse and must also be on board. To ensure Congress understands and supports the vision, it would be prudent to ask the Aerospace States Association, headed by state lieutenant governors, to evaluate the potential economic benefits of spaceplanes and hypersonic flight. Because all but two states have limited or no space launch capabilities, there likely will be strong interest in bringing active spaceports to the other 48 states. Indeed, a quarter century ago when I was speaker of the House and McDonnell Douglas Corp. was developing the reusable Delta Clipper launch system, the association was one of their strongest advocates. Their support convinced me and dozens of other representatives and senators to send a bipartisan letter of support to the defense secretary. Although our bureaucracy badly fumbled that decision, it did open an opportunity for entrepreneurs like [SpaceX](#)'s Elon Musk and Blue Origin's Jeff Bezos.

3. An economic imperative: A means to incentivize further private sector investment and government-sponsored growth is essential. Federal, state and municipal governments all have many mechanisms to create growth. Tax incentives also can encourage strong investment by institutional investors on Wall Street. As with any incentives, they need to be managed carefully, and the federal government clearly has an obligation not to incentivize systems and technologies that are impractical. The Commerce Department with its new charter to oversee the growth of space launch and satellite systems should step up to this

additional task, while working with the [Defense Department](#)'s spaceplane and hypersonic initiative.

America's future is at a global tipping point. If we make wise decisions, we will open the Solar System to commerce, settlement and industrialization in this century. If we make poor decisions, others will take the lead. We can also reap benefits on Earth from better transportation systems, global communications, improved resource management and vastly superior common defense. We can, in time, even ease the pressure to exploit every resource on our planet by transitioning to the limitless resources beyond. In the process, we can build a 21st-century economy that will provide millions of high-paying jobs, a greatly expanded tax base and the export of American freedoms and values to the space frontier. It will not be easy, but we did it once before when the West was young. We can do it again.

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