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Assuring American Access to the Ultimate High Ground: President Trump and the New U.S. Space Force

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The recent U.S. National Security Strategy (NSS) and National Defense Strategy (NDS) both focus U.S. security strategy on the importance of dealing with revisionist powers, namely Russia and the People's Republic of China (PRC).

One important consideration about these revisionist powers is that both have robust space capabilities. Both states possess substantial space-industrial complexes, producing a wide range of satellites and launch vehicles. Both states have the ability to launch their own satellites into space. Moreover, both states have substantial counter-space capabilities, having demonstrated the ability to track satellites and engage them. In terms of space capabilities, they pose substantially different potential threats than not only regional adversaries, such as Iran and North Korea, but also past enemies, such as Iraq, Serbia, Afghanistan, or Syria.

The implication is clear. In the event of future conflict with a major peer competitor, space *will* be a key battleground. Not only will all sides exploit space to support their forces' operations, but they will also be incentivized to deny others that same support—and will have the means to do so.

Securing “space dominance” or “space control,” however, is more than just a matter of possess-

ing space weapons. There must also be organization (someone to wield the weapons) and doctrine (understanding how those weapons can best be employed). Both China and Russia have been pursuing efforts along these lines.

In 2015, Russia established the Vozdushno-Kosmicheskiye Sily, or Russian Aerospace Forces. The forces combine the Russian air force, the Russian Aerospace and Missile Defense Forces (which in turn control both Russia's nuclear missile force and its strategic missile defenses), and the Russian Space Force (which apparently manages Russia's military satellites and associated tracking and control networks).

That same year, China engaged in a massive reorganization of the People's Liberation Army (PLA), which saw, among other things, the creation of the PLA Strategic Support Force (PLASSF). Whereas the Russians combined their air force with their Strategic Rocket Force and space elements, the Chinese pursued a very different approach. They brought their electronic warfare, network warfare (including cyber warfare), and space warfare forces together into a single service. If Russia's Aerospace Force is intended to fight for control of the air-space continuum, the PLASSF is apparently aimed at controlling the information domain, with space being an essential conduit for the collection and exploitation of information.

In both cases, the creation of these space-oriented organizations is likely to support the development of a doctrine governing their respective approaches to military space operations. For both the Russian and Chinese militaries, doctrine occupies a central role in their approach to warfighting, as they tend to adhere to it closely.

This paper, in its entirety, can be found at <http://report.heritage.org/ib4879>

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For the United States, though, it is not clear that the creation of a “space force” is necessarily the right solution. While a space force is intended to focus American military energies and efforts when it comes to space, the personnel and infrastructure costs associated with such an effort are far more likely to become all-consuming.¹ Moreover, whereas Russian and Chinese space efforts are dominated by the military and by state-run or state-directed space industrial complexes, the United States has a range of civilian agencies that also play a role in space. Similarly, the American space-industrial complex is privately run, with a variety of new entrants arising from such entrepreneurs as Elon Musk and Jeff Bezos.

What is clear, however, is that the U.S. military has not paid sufficient attention to thinking through how to approach the challenge of space when confronted with a peer competitor. Two decades of counter-insurgency, and a decade of fighting far-less-capable adversaries before that, have deeply eroded the skills and mental approaches necessary for confronting an enemy that can challenge the U.S. not only in the air and at sea, but also in outer space and information space. Both congressional and presidential actions reflect the concern that, in the event of a major power conflict, the U.S. military may find itself ill-prepared to contest, never mind control, the ultimate high ground.

Consequently, if an effective space force is to emerge, it must be oriented toward providing the U.S. with the ability to secure space dominance. This will mean bureaucratic streamlining—simply aggregating the current range of bureaucracies will not be enough. The U.S. Space Force should not be an outer space version of the Department of Homeland Security. It will also require a real focus on warfighting as a central mission.

To this end, the overall American military space enterprise needs to undertake several broader actions:

- **Support doctrinal and professional educational development in the space arena.** In order for a Space Force to succeed, it needs to
- **Develop and foster a better understanding of adversary space capabilities and doctrine.** A similarly important element for any space force is to understand the adversary’s capabilities and intentions. Russian and Chinese innovation in the organization of their space forces signals that they are thinking differently about space not only from how they have in the past, but from how we are in the present. It is therefore important that a U.S. Space Force not only develop a better understanding of Russian, Chinese, and other space powers’ space forces and doctrine, but that it ensures that this knowledge is more widely known. It is striking that in an article discussing the Trump Administration’s plan to establish the Space Force, various experts on space security never mention that Russia and China already field such forces!²
- **Implement acquisition reform.** One huge improvement by a Space Force would be to create a more effective acquisition system. Indeed, one of the reasons for limited exploitation of new technologies, and the stranglehold of legacy systems, is the current acquisition system. Army Chief of Staff General Mark Milley captured the frustrations with the current system when he observed, in disbelief, that replacing the Army’s pistol was taking two years of testing at a cost of \$17 million.³

1. John Venable, “Creating a ‘Space Corps’ Is Not the Solution to U.S. Space Problems,” Heritage Foundation *Backgrounder* No. 3254, October 17, 2017, <https://www.heritage.org/defense/report/creating-space-corps-not-the-solution-us-space-problems>.

2. Elizabeth Howell, “Trump’s Space Force Push Reopens Arguments About Military in Space,” Space.com, June 20, 2018, <https://www.space.com/40942-trump-space-force-reopens-military-debate.html> (accessed June 29, 2018).

3. Kyle Jahner, “Army Chief: You Want a New Pistol? Send Me to Cabela’s with \$17 Million,” *Army Times*, March 27, 2016, <https://www.armytimes.com/news/your-army/2016/03/28/army-chief-you-want-a-new-pistol-send-me-to-cabela-s-with-17-million/> (accessed June 29, 2018).

Space systems, and associated information technologies, exist in an environment where the state of the art changes far more quickly than pistols. The old acquisition approach has meant that systems are often obsolescent by the time they are fielded. A Space Force would make a huge contribution if it could shorten the time between lab bench and introduction to the field, rapid prototyping, and a general ability to field truly cutting-edge technology in large numbers.

Conclusion

The exact shape and nature of the Space Force remains to be seen, as it will still require congressio-

nal action. But this force could substantially improve overall U.S. security if it can innovate in such key areas as doctrine, public messaging, and acquisition to ensure that the U.S. maintains not only a technological lead, but intellectual lead, over potential space adversaries. This will be of increasing urgency, as other states, especially Russia and China, strive to secure the ultimate high ground of outer space for themselves.

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