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# Why We Need a Space Force

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The Trump administration's push to create a new military department, known as the Space Force, has generated a fair amount of skepticism and more than a few nerdy jokes. Despite being easy fodder for [late-night comedians](#), the way in which the U.S. military and intelligence community are organized for space is a serious national security issue because the [threats posed to U.S. space systems](#) by other nations are real and growing. A Space Force is needed to consolidate authority and responsibility for national security space in a single chain of command; to build a robust cadre of space professionals who can develop space-centric strategy and doctrine; and to avoid the conflicts of interest inherent in the other Services that have short-changed space programs for decades.

First, let's get a few misconceptions out of the way. The Space Force has nothing to do with the National Aeronautics and Space Administration (NASA), astronauts, protecting the planet from asteroids, or fighting aliens. This is about how we organize, train, and equip our existing space forces to protect U.S. national security interests here on Earth. And President Trump did not come up with the idea of creating an independent military department for space. The role of space within the military has been debated for more than two decades in various forms. As early as 1997, Air Force Chief of Staff Ron Fogleman [outlined a vision](#) to "transition from an air force to an air and space force, on an evolutionary path toward a space and air force." In 2001, the Rumsfeld Space Commission issued its [final report](#), which recommended a gradual evolution toward a separate Service for space by creating a Space Corps within the Air Force as an intermediary step. It noted that "near- and mid-term organizational adjustments should be fashioned so as to not preclude eventual evolution toward a Space Department." And just last year, before President Trump began [publicly touting the idea](#), the House passed [legislation](#) that would have created a Space Corps.

Other common misconceptions are that we're rushing into this debate without enough time to study the issue or that the Space Force is a solution in search of a problem. Neither is true. Numerous studies

over the past twenty years have examined the issue in detail, and different organizational constructs have been [proposed](#), [analyzed](#), and [debated](#). Some ideas have been tried in practice, and many of these have been discarded as [ineffective or insufficient](#). As the Office of Management and Budget (OMB) surmised in a [recent report to Congress](#), nearly all the studies and congressional commissions that have analyzed this issue agree that there are three central problems with how U.S. national security space is organized today.

First, authority and responsibility for space is fragmented. A [2016 Government Accountability Office \(GAO\) study](#) found that there are more than 60 different organizations strewn across the Department of Defense (DoD) and the intelligence community with responsibility for space acquisitions. While more than [80 percent](#) of DoD's unclassified space funding in a typical year is in the Air Force, key components of the space architecture, such as user terminals, ground control systems, some satellites, and many of the personnel that operate these systems, reside in the Army and Navy. Moreover, classified space funding for the National Reconnaissance Office and other intelligence agencies in the [Military Intelligence Program budget](#) may rival the Air Force's unclassified space funding in magnitude.

Real authority in the Pentagon is budget authority. When the budget for national security space is fragmented across so many different organizations, it means that no one has the authority to make enterprise-wide decisions and tradeoffs. As [GAO has noted](#), "there is no single individual, office, or entity in place that provides oversight for the overall space program acquisition structure." The Air Force cannot force the Army to speed up the fielding of next-generation GPS receivers and satellite communications terminals any more than the Army can compel the Air Force to delay launching its next-generation constellation of satellites. This lack of centralized leadership leads to slow decision making, disunity of effort in building new space capabilities, and a lack of accountability when space programs go over budget or fall far behind schedule. As [OMB has noted](#), the net effect of this is "delayed and diminished capabilities for combatant commanders, warfighters, and others."

The second problem is that the space workforce (both space operators and space acquisition personnel) is scattered across the Services and intelligence agencies, with too few people in each organization to create a viable and attractive career path. Moreover, personnel are moved in and out of space assignments every few years, limiting their ability to develop deep domain expertise. The [2008 Allard Commission](#), which was charged with studying the organization and management of national security

space, found that “it is exceptional for an Air Force Officer to remain in [a space] assignment for more than two years without an adverse impact on his or her career.”

One of the jobs of the Military Services is to organize personnel into domain-centric clusters to develop domain-centric strategy, doctrine, and policy. This works well for the air, maritime, and land domains because we have a cadre of professionals in each of the Military Services organized around their respective domains. But under our current space organizational construct, we do not have a unified, stable cadre of space-centric personnel that focus on developing space-centric strategy, doctrine, and policy.

The third core problem is that the Services have inherent conflicts of interest when it comes to space. Because the Services are organized around their primary domain of responsibility, space is viewed as a secondary or supporting function. The Air Force has long bemoaned the fact that it funds the vast majority of unclassified space systems and that the other Services place requirements on space systems that the Air Force is expected to fund. Former Air Force Chief of Staff General Michael Ryan summed up the Air Force’s institutional view of space aptly, noting in an [interview](#) that the Air Force “can’t afford to be the bank for all space systems,” and that “space is not a welfare system.” The Air Force would never say the same thing about its aviation programs.

When the Services must choose between space and their native domain, one should expect that they will choose what they are organized to do. For example, in the most recent defense budget downturn, Air Force funding for aircraft procurement and space procurement declined by roughly one-third each (adjusting for inflation) from FY 2010 to FY 2014. But once the overall budget started growing again, Air Force aircraft procurement funding rebounded by more than 50 percent while space procurement funding declined by another 17 percent. The Air Force should not be faulted when it chooses air over space—that’s what our domain-centric Services are designed to do. As Carl Builder noted in the [Masks of War](#), “the most powerful institutions in the American national security arena are the military services,” and the problem is there is no military Service that consistently advocates for space.

A consistent theme that emerges from more than two decades of hand-wringing is that the way national security space is organized is inadequate. Something’s got to change. One approach is to use the [Special Operations Command](#) model and create a combatant command for space. This approach has already been tried—U.S. Space Command existed from 1985 to 2002. What we learned from that experiment is

that a Space Command is not a substitute for a Space Force. The job of a combatant command is to employ forces, while the job of a Service is to organize, train, and equip those forces. While Space Command could help create a community of space professionals across the Services, much as Special Operations Command (SOCOM) has done for special operations forces, it will not fix fragmented authorities and responsibilities, nor will it eliminate the Services' conflicting interests when it comes to space programs and space personnel.

Another approach being championed within the Pentagon is to use the Missile Defense Agency model and create a Space Development Agency. This too would be an incomplete solution. While a development agency would help consolidate and synchronize space acquisitions, it would not help build a cadre of space professionals or develop space strategy, doctrine, and policy. It also runs the risk of creating orphaned capabilities—systems or technologies developed by an independent agency that never find a home within the operational elements of the Services.

A third approach that was most recently advocated by the House Armed Services Committee in the [FY 2018 National Defense Authorization Act](#) is to create a Space Corps within the Department of the Air Force. While this would help eliminate some of the conflicts of interest within the Air Force and begin to create a more robust cadre of space professionals, it would not fix the fragmented authorities and responsibilities for space because these extend beyond the Department of the Air Force. For a Space Corps to be effective, it would need to include the space-related organizations, programs, and personnel from the other Services and intelligence agencies as well.

With all of this in mind, I have concluded that only a separate department for space can adequately address the three central problems discussed above. Only a Department of the Space Force can fully integrate all the existing space organizations and personnel in the Services and intelligence agencies into one unified chain of command with one person, the Secretary of the Space Force, in charge of national security space. This would eliminate the fragmented authorities and responsibilities that have plagued national security space for decades; create a robust cadre of space professionals to develop space-centric strategy, doctrine, and policy; and remove the conflicts of interest that have short-changed space programs in the other Services.

I must confess that I was not convinced at first that a separate department for space was the right next step. While I felt that eventually, we would need to create something like a Space Force given the

growing economic and military importance of space, it seemed like too much change at once. Ideally, one would gradually transition to a Space Corps within the Air Force and then eventually to an independent Space Force, as previous studies have recommended. But Washington politics is not conducive to multi-phase reorganizations. If Congress passes legislation for an initial reorganization, there is no guarantee it will ever get around to finishing the job. We risk being left with a partial solution indefinitely.

The cost of creating the Space Force is also a legitimate concern. In a [leaked memo](#), the Air Force estimates it would cost nearly \$13 billion over five years to stand up both the Space Force and Space Command. To arrive at such a lofty figure, the Air Force assumed the broadest possible scope for the Space Force, even encompassing parts of NASA and the Department of Commerce. It also threw in a billion-dollar new headquarters building and assumed 13,000 new personnel would be needed. A Space Force that encompasses all of the space-related organizations in DoD and the intel community at the size they are today would likely be [similar in headcount to the Coast Guard](#) (roughly 50,000 active duty and civilian personnel). It therefore stands to reason that the new personnel needed to staff the Space Force's headquarters would be similar in size to the Coast Guard's headquarters staff (roughly 2,600 personnel, or about 5 percent of the total workforce), and all other Space Force personnel would be drawn from the existing space workforce spread across the Services and intel community. Using the same cost assumptions as the Air Force's estimate, the additional cost of standing up the Space Force would be less than \$3 billion over five years. This is a small price to pay for the many problems a Space Force would help address.

Space capabilities are already an indispensable component of U.S. military power, and the threats posed to U.S. space systems by China, Russia, and others are growing by the day. While reorganizing will certainly be disruptive in the short-term, it will be even more disruptive the longer we wait. If you believe that the threat environment is becoming more complex and challenging, then it's better to take the risk of disruption now rather than later. Much like aviation during the interwar period, space and counterspace technologies are rapidly evolving, and these capabilities are likely to play a decisive role in the next major war. I am convinced that the time for a separate military department for space is upon us, and we should not wait for another Pearl Harbor to prove it.

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