

Has the Air Force Been a Good Steward for Space?

Response to Remarks of Congressman Mike Rogers

This is a great question, and depending upon whom you ask, the answer varies considerably. Congressman Mike Rogers flatly asserts the answer is no, and it is past time to begin the process of wresting an independent space force from the Department of Defense.

Now, I consider myself a particularly passionate military space advocate. Others cast me as a zealot. Either way, I am an excellent choice for lead tenor in the choir to whom Congressman Rogers preaches. Space *is* a war-fighting domain that has too long been assigned to carry out supporting functions only. To be sure, so intensely do America and its allies rely on space support for their economic well-being and security obligations that space has become an inviting target for those who would do us harm. The economic collapse that could occur if space support were to be denied would happen alongside a *de facto* military retrenchment that would essentially bring American offensive operations to a worldwide halt. Something needs to be done before the United States cedes its once profound lead in space to others, and Congressman Rogers' four-point plan to prepare the way for an independent space service is a welcome call to action and one I support.

How he gets to his restructuring plan is, unfortunately, a bit heavy-handed. The congressman puts too much of the blame for not maximizing military potential in space primarily on the lead service for space activity: the USAF. While I have been critical of the Air Force's choices over the years, especially its vacillating views on the role of space in the joint fight—whether the domain is a seamless and natural whole (aerospace) or two distinct and separable domains under one service (air and space)—the cause of its ambivalence has not solely been conscious subordination of a function that takes funding away from the more exciting role of the Air Force—flying airplanes. Rather, the current malaise stems more from a lack of congressional and executive consensus on what America's military space presence should be, a malaise the congressman clearly wants to rectify. Is space a pristine global commons

where the atavistic tendencies of humans to wage war has no place; or is it just another frontier opened to human exploration that, like all others before it, will degenerate into lawlessness and anarchy if no credible and legitimate force is there to ensure cooperation and defend the space infrastructure from those who would degrade or destroy it?

The back and forth has resulted in a national policy that asserts the United States will use its military power to support the free passage of all in space who would go there for peaceful purposes and to guarantee access for America and its allies while preventing adversaries from operating there in times of conflict or war. But, despite repeated US insistence on a right to protect itself through defensive and offensive military capabilities in space, the US Air Force is not authorized to build or deploy the forces and weapons operating in and from space that would allow it to pursue its martial purpose. How is a military force supposed to carry out the defense of state interests without weapons? Here again, the congressman is spot on. If space is an increasingly contested war-fighting domain then let the military prepare and train to fight there.

The end is justifiable, but is the argument that gets us there sustainable? Perhaps not. There are specific arguments against the US Air Force's stewardship that need some counterbalancing explanation. First, Congressman Rogers points out that pilots are far and away the most likely to get promoted to general officer. He cites the most recent promotion to brigadier general as evidence. Of 37 nominated, fully 25 are pilots, and none are space careerists. Clearly, pilots are not 67 percent of all Air Force officers. But their promotion rates are higher than those of all other specialties. In the previous year, for example, 38 officers were promoted to one-star rank: 23 were pilots, three were space designated, three were maintenance, two intelligence, two acquisition, and one each for communications, logistics, public affairs, finance, and security police. Note there were none for cyber, the third portion of the officially named US Air, Space, and Cyber Force. And this is normal.

When one looks at promotion rates for the other services, the top ranks tend to go to those combatants generally associated with the tip of the spear. Infantry, armor, and artillery officers have the best rates of promotion in the Army, especially at the highest levels, just as line officers who have commanded ships have the highest promotion rates in the Navy. Pilots are the equivalent in the Air Force, the perceived face of those who carry the highest personal risk in conflict. Who are the war

fighters who put themselves in harm's way for space? The test pilots who became astronauts did fairly well on promotions when they were astronauts, but the retirement of the space shuttle effectively closed down even this extremely limited space option. For the foreseeable future, the war in space will be fought remotely, between machines controlled by an electromagnetic tether. Until space power is recognized as a martial activity equal to land-, sea-, and airpower, the space professional simply will not achieve comparable promotion rates with pilots.

This leads to the second quibble, which is actually an agreement spiced with a mild careful-what-you-wish-for caution. Before describing his excellent way ahead, the congressman correctly charts the history of the USAF's own process of liberation from the US Army for comparison. It took an act of Congress to get the Army to create the Army Air Corps, a quasi-independent structure that allowed for a cultural identity to form, including separate uniforms, insignia, and career tracks. Still, it took an executive order from President Franklin Roosevelt in 1942 to create an Army Air Force with a general officer of sufficient rank and authority to challenge direct Army subordination and determine the best use of limited strategic airpower assets—primarily long-range bombers. And yet it was not until 1947, via another act of Congress, that the Air Force became a co-equal service with the Army and Navy. In other words, it was not until the Army Air Corps demonstrated an effective and independent war-fighting capability that it was widely recognized as having achieved everything necessary for independence. Ultimately, Congressman Rogers asks us to think about where in the timeline is an independent space force relative to its steward? Is the frustrating lack of progress enough justification to separate space from air? Perhaps it is still too soon.

The US space forces do not have a legacy of war fighting equivalent to the all-volunteer Lafayette Escadrille and America's subsequent entry into World War I to get to the independent corps status of airpower in 1927. It certainly does not have the variety of missions, to include transport of fielded forces and their supplies to staging bases and remote combat locations, nor the massive multimillion Airmen flying tens of thousands of aircraft in World War II to essentially force a reorganization in 1942. And finally, it has no independent mission equivalent to postatomic strategic bombing from which to hang its metaphorical hat on the peg of independence. For these reasons I fear separating space

from the Air Force *completely* may be premature. Whatever lofty goals, security guarantees, and cost savings are projected, a service separated too early is unlikely to meet the goals projected for it in the short run, even if in the long run it exceeds all of them. In such a situation, the separation will be viewed as a failure, potentially doing more harm than good. A phased separation, like that of the Air Force from the Army, might be more appropriate.

Third—and on this issue I do have a direct challenge—is that Congressman Rogers’ lament that the Air Force’s educational priorities short-change space professionalism overstates the problem. While the previous two criticisms suggest the biggest problem facing space ascendancy may be the lack of a national consensus on the proper war-fighting role for space, this one is much more pointed; his criticism of Air University’s dedication to space education is factually superficial and substantially incorrect. Airpower, at Air University (AU), includes all three elements of air-, space, and cyber power. A discussion of the future of airpower in this definition necessitates that space and cyber are intrinsic to readings and lesson plans whenever they overlap. While it is true that only two of 450 contact hours (classroom instruction) are *dedicated* to space in the Air Command and Staff College (ACSC) curriculum, the congressman’s statement that “space-power thinking [occurs] during *only* two hours of the yearlong professional education” (emphasis added) at ACSC is completely false. In 2017, the topic of space was formally listed in the syllabi for 10 hours of instruction out of 45 hours in the Airpower II course, and 13 of 95 hours in the Joint Warfighting class. An hour-long space power brief is given to all students, and a two-hour capstone Q&A following the International Studies II course includes the perspectives of a space advocate. There are also seven electives devoted to space topics, including the influential two-term Space Horizons course that, while not required for space professionals, is highly competitive for the best Air Force officers in attendance. For the coming academic year, there will be four additional hours of space topics embedded in the year (two in the War Theory course and two more in the Airpower I course). Additionally, ACSC students have the opportunity to participate in war games that have space content, in tours of space facilities in and around Alabama, and in focus groups that prepare background information and white papers on space. Each student is required to write a professional

paper for graduation, and this year more than a dozen chose to write on space topics.

And, of course, ACSC is just one of the colleges operating at Air University. The Squadron Officer College dedicates several hours specifically to space and this year had a think tank competition between students for the best proposal to reenergize and recapitalize military space. The winning group's design was forwarded to the Chief of Staff of the Air Force. The School of Advanced Air and Space Studies (SAASS) has one of its 11 core courses on space (another on cyber). SAASS produces more than 40 master's theses and three to five PhDs dissertations per year, several of which have been dedicated to space topics. And Air University's space reach extends outside Alabama. The National Security Space Institute (NSSI) was established in Colorado Springs by Air Force Space Command in 2004 to provide tailored education and training to Air Force space professionals and the broader National Security Space community. In 2009, the NSSI was transferred to Air University, and it continues to offer professional continuing education to those in military space career fields. Last year, ACSC sent three of its newest faculty to NSSI to increase their general space knowledge, a program of faculty development that we believe will transfer to more spirited and informed classroom discussions. And finally, for the last two years, the Air University commander has spearheaded a national effort to achieve a breakthrough in cost-to-orbit launch capacity for the United States. To be sure, all of this is not enough space education to suit me, much less Congressman Rogers, but space PME is not as derelict as has been suggested. And the trajectory is upward. With calls for action from prominent civilian leaders, it may even gain par with other domains.

And, at least to some degree, while space PME will likely get more space specific for careerists if a space force is separated, will that do more harm to the Air Force officers who use space every day but now would have even less reason to cover space topics at AU than presently? I don't know, but the possibility of every Airman being generally versed in space operations—as is the goal today—might well be lost. In today's culture of joint operations, Airmen study land and sea campaigns as well as space and cyber ones. Army students have to learn the basics of airpower, as do Navy students. Fragmenting into a fourth service may enhance education for space professionals, but it certainly will not enhance it for everyone else.

It is the sense that the US Air Force does not care about space in general, and Air University does not care about space comprehensively, that prompted me to comment on this timely and thoughtful article. Both propositions are false, but that does not mean space has not been shortchanged by the USAF. At any rate, Congressman Roger's four-point plan addresses the most pressing problems space faces today. The bureaucracy that overlays military space needs to be replaced, and a clear line of responsibility to a space commander that has final authority is long overdue. Space funding needs to increase to relatively equal levels with the other services, even if that increase comes from decreases in the other services' budgets. The Air Force pays for 90 percent of the military budget for space, and the Army is the biggest user of space assets. It is time to rectify that inequity. Space needs to be normalized as a proper war-fighting domain, and all agencies that operate space assets need to be integrated into a comprehensive national space defense program. While following historical precedents it seems premature for a complete cutting of the cord that would result in a separate space force, but Congressman Rogers may be right that doing so may be the best and only way to get the DOD to properly focus on space. **SSQ**

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