# Resolution

#### Resolved: On balance, the benefits of creating the United States Space Force outweigh the harms.

# Pro

## Pro case

#### We stand in affirmation of the following:

Resolved: On balance, the benefits of creating the United States Space Force outweigh the harms.

### Definitions

#### Space Force

Farley 2020

Robert Farley is a policy analyst for the CATO Institute. Farley, Robert. “Space Force: Ahead of Its Time, or Dreadfully Premature?,” Policy Analysis no. 904, Cato Institute, Washington, DC, December 1, 2020. https://​doi​.org/​1​0​.​3​6​0​0​9​/​P​A.904. TNJ 2/18/21

The U.S. Space Force is an independent uniformed service under the authority of the Department of the Air Force. It was established on December 20, 2019, and was expected to be fully operational by 2021. Like the other services, the Space Force is headed by a four‐​star general (the chief of Space Operations) who is a member of the Joint Chiefs of Staff, and thus a contributor to the National Military Strategy. The official mission of the Space Force is to “organize, train, and equip space forces to protect U.S. and allied interests in space and to provide space capabilities to the joint force. Space Force responsibilities include developing military space professionals, acquiring military space systems, maturing the military doctrine for space power, and organizing space forces to present to our Combatant Commands.”[34](https://www.cato.org/policy-analysis/space-force-ahead-its-time-or-dreadfully-premature#_ednref34)

### Framing

#### The framing for today’s debate should be cost-benefit analysis. If the pro proves that the benefits of creating the United States Space force are greater than the harms, we should win

### Contention 1 is Economic Stablity

#### Russia and China are already developing military capabilities in space. Failure to develop a Space Force hurts US military competitiveness

Cordero 18

Michelle Cordero 7/27/18 interviewing Dean Cheng, senior research fellow in Heritage's Davis Institute for National Security and Foreign Policy and Member of senior research fellow in Heritage's Davis Institute for National Security and Foreign Policy. *Does the US Need a Space Force?* Heritage Foundation <https://www.heritage.org/space-policy/heritage-explains/does-the-united-states-need-space-force> TNJ 2/18/21

But the truth is, Trump's Space Force is no laughing matter. Did you know that our most powerful adversaries already have a Space Force? In 2015, Russia actually combined their Space Force that manages their satellites and associated tracking and control networks with their Air Force and aerospace and missile defense force to create what they now call their Russian Aerospace Forces. That same year China engaged in a massive reorganization of their military which saw the creation of the PLA Strategic Support Force bringing their electronic network, cyber and space warfare forces together into a single service. Shockingly they both also have some basic abilities that we do not. Dean Cheng: One of the things that the Chinese and Russians at this point can do that the United States can't, is that it can also put an astronaut into space. At this point, ever since we retired the space shuttles we have been hitching rides on Russian rockets in Russian capsules, even up to the International Space Station.

#### Satellites are key to the US economy – Space Force is needed to protect space tech

Farley 2020

Robert Farley is a policy analyst for the CATO Institute. Farley, Robert. “Space Force: Ahead of Its Time, or Dreadfully Premature?,” Policy Analysis no. 904, Cato Institute, Washington, DC, December 1, 2020. https://​doi​.org/​1​0​.​3​6​0​0​9​/​P​A.904. TNJ 2/18/21

But the military and civilian advantages created by greater use of space have also created new vulnerabilities. The U.S. military has become dependent on space to conduct its basic operations, just as the U.S. civilian economy’s dependence on space has increased. Competitors have access to space and increasingly the technologies necessary to attack U.S. satellites. Consequently, competitors can threaten damage against both the U.S. military and civilian economy by attacking space infrastructure. Moreover, the United States can no longer assume that satellites’ role in the nuclear enterprise will deter foes from attacking satellites tasked with conventional military missions.[11](https://www.cato.org/policy-analysis/space-force-ahead-its-time-or-dreadfully-premature#_ednref11) In 2007, China destroyed one of its satellites in low‐​Earth orbit (LEO), demonstrating its ability to threaten core U.S. communications infrastructure. Unfortunately, the satellite’s destruction produced an extensive debris field, some of which remains in orbit today. This field, full of fast‐​moving orbital objects, poses a long‐​term threat to the military and civilian use of LEO. As the demonstration made clear, a war in space could result in the long‐​term loss of some of the most valuable real estate in LEO, which would not only disrupt military operations but could also render civilian space infrastructure inoperable.[12](https://www.cato.org/policy-analysis/space-force-ahead-its-time-or-dreadfully-premature#_ednref12) The United States responded to China’s test with its own antisatellite test, during which it launched a Standard Missile‐​3 missile defense interceptor from an Aegis weapons system on a U.S. Navy warship.[13](https://www.cato.org/policy-analysis/space-force-ahead-its-time-or-dreadfully-premature#_ednref13) The U.S. test destroyed a satellite but produced a smaller debris field because it occurred at a lower altitude than the Chinese test, with most debris burning up as it reentered Earth’s atmosphere. Russia and India have both conducted antisatellite tests subsequently, with the Indian test leaving a debris field similar to that of the 2008 American test.[14](https://www.cato.org/policy-analysis/space-force-ahead-its-time-or-dreadfully-premature#_ednref14) Several major powers now have the demonstrated capacity to undertake antisatellite attacks that could destroy their opponents’ civilian and military communications infra­structures. Most of these antisatellite weapons involve interceptors launched from ground, sea, and air platforms. Moreover, the use of space assets to damage or destroy satellites also appears technically feasible. The argument that space is more important now than ever before is strategically sound. The U.S. civilian economy depends on space for its connectivity, and thus its prosperity. The U.S. military depends on space for communications and reconnaissance. However, concluding that space represents a key strategic interest for the United States does not imply or necessitate any specific institutional framework for pursuing that interest.

#### Economic collapse leads to war – even more likely given rising income inequality

Liu 18

Qian Liu, 11/13/18 Managing Director, Greater China, The Economist Group. World Economic Forum. The next economic crisis could cause a global conflict. Here’s why. <https://www.weforum.org/agenda/2018/11/the-next-economic-crisis-could-cause-a-global-conflict-heres-why> TNJ 2/19/21

The next economic crisis is closer than you think. But what you should really worry about is what comes after: in the current social, political, and technological landscape, a prolonged economic crisis, combined with rising income inequality, could well escalate into a major global military conflict. The 2008-09 global financial crisis almost bankrupted governments and caused systemic collapse. Policymakers managed to pull the global economy back from the brink, using massive monetary stimulus, including quantitative easing and near-zero (or even negative) interest rates. But monetary stimulus is like an adrenaline shot to jump-start an arrested heart; it can revive the patient, but it does nothing to cure the disease. Treating a sick economy requires structural reforms, which can cover everything from financial and labor markets to tax systems, fertility patterns, and education policies. Policymakers have utterly failed to pursue such reforms, despite promising to do so. Instead, they have remained preoccupied with politics. From Italy to Germany, forming and sustaining governments now seems to take more time than actual governing. And Greece, for example, has relied on money from international creditors to keep its head (barely) above water, rather than genuinely reforming its pension system or improving its business environment. The lack of structural reform has meant that the unprecedented excess liquidity that central banks injected into their economies was not allocated to its most efficient uses. Instead, it raised global asset prices to levels even higher than those prevailing before 2008. In the United States, housing prices are now 8% higher than they were at the peak of the property bubble in 2006, according to the property website Zillow. The price-to-earnings (CAPE) ratio, which measures whether stock-market prices are within a reasonable range, is now higher than it was both in 2008 and at the start of the Great Depression in 1929. As monetary tightening reveals the vulnerabilities in the real economy, the collapse of asset-price bubbles will trigger another economic crisis – one that could be even more severe than the last, because we have built up a tolerance to our strongest macroeconomic medications. A decade of regular adrenaline shots, in the form of ultra-low interest rates and unconventional monetary policies, has severely depleted their power to stabilize and stimulate the economy. If history is any guide, the consequences of this mistake could extend far beyond the economy. According to Harvard’s Benjamin Friedman, prolonged periods of economic distress have been characterized also by public antipathy toward minority groups or foreign countries – attitudes that can help to fuel unrest, terrorism, or even war.

#### Space force is key to deterring anti-satellite attacks

Broad 1/24/21

William J. Broad. 1/21/21 Science journalist and senior writer at The New York Times. How space became the next ‘great power’ contest between the US and China. <https://www-nytimes-com.ezproxy.lib.utah.edu/2021/01/24/us/politics/trump-biden-pentagon-space-missiles-satellite.html> TNJ 2/18/21

Beijing’s rush for antisatellite arms began 15 years ago. Now, it can threaten the orbital fleets that give the United States military its technological edge. Advanced weapons at China’s military bases can fire warheads that smash satellites and can shoot laser beams that have a potential to blind arrays of delicate sensors. And China’s cyberattacks can, at least in theory, cut off the Pentagon from contact with fleets of satellites that track enemy movements, relay communications among troops and provide information for the precise targeting of smart weapons. Among the most important national security issues now facing President Biden is how to contend with the threat that China poses to the American military in space and, by extension, terrestrial forces that rely on the overhead platforms. The Biden administration has yet to indicate what it plans to do with President Donald J. Trump’s legacy in this area: the Space Force, a new branch of the military that has been criticized as an expensive and ill-advised escalation that could lead to a dangerous new arms race. Mr. Trump presented the initiative as his own, and it now suffers from an association with him and remains the brunt of jokes on television. But its creation was also the culmination of strategic choices by his predecessors, Presidents George W. Bush and Barack Obama, to counter an emboldened China that raised bipartisan alarm. “There’s been a dawning realization that our space systems are quite vulnerable,” said Greg Grant, a Pentagon official in the Obama administration who helped devise its response to China. “The Biden administration will see more funding — not less — going into space defense and dealing with these threats.” The protective goal is to create an American presence in orbit so resilient that, no matter how deadly the attacks, it will function well enough for the military to project power halfway around the globe in terrestrial reprisals and counterattacks. That could deter Beijing’s strikes in the first place. The hard question is how to achieve that kind of strong deterrence. Lloyd J. Austin III, a retired four-star Army general who was confirmed last week as Mr. Biden’s secretary of defense, told the Senate that he would keep a “laserlike focus” on sharpening the country’s “competitive edge” against China’s increasingly powerful military. Among other things, he called for new American strides in building “space-based platforms” and repeatedly referred to space as a war-fighting domain. “Space is already an arena of great power competition,” Mr. Austin said, with China “the most significant threat going forward.”

### Contention 2 is Space War

#### Space war is coming – other countries are already developing space capabilities.

Villarino 19

José-Miguel Bello y Villarino. 6/7/19. Diplomatic Corps of Spain member and former policy/legal officer for European Commission on space research and policy issues. Science and diplomacy. Preventing a Cold War in space using European research and innovation programs. <https://www.sciencediplomacy.org/article/2019/preventing-cold-war-in-space-using-european-research-and-innovation-programs>. TNJ 2/19/21

As a result of this dynamic, we have today a militarized space, where a quarter of the active satellites have some military use.21 Space is today a theatre in war plans. From a legal point of view, this militarization was made possible through a particular interpretation of article IV of the 1967 Outer Space Treaty.22 This interpretation distinguishes between “peaceful purposes” – applicable to space in general – and “exclusively peaceful purposes” – restricted to certain celestial bodies. Military uses of the moon and other celestial bodies are then outrightly prohibited, but the “empty space” between celestial bodies can be militarized. This line of reasoning could also justify weaponization of that empty space, for example, placing weapons in a satellite. The only legal limit would be the ban on weapons of mass destruction in space established by the same article IV. To prevent it, the UN Assembly General passed in December 2014 UN Resolution 69/32 calling for “[n]o first placement of weapons in outer space”. This attempt to collectively agree on the non-weaponization of space received more limited support than previous PAROS resolutions. Four states voted against it and another forty-two abstained.23,24 It cannot even be excluded that militarization may have already happened.25 All of this is leading military actors to consider the Earth’s orbit a new “warfighting domain”.26 The U.S. Air Force’s “Transformation Flight Plan” of 2003 acknowledged that future adversaries could attack space assets, mainly from the ground, and that weapons in orbit may eventually be required to protect those assets.27 The current U.S. National Security Space Strategy refers to systems to “deny and defeat an adversary’s ability” to successfully carry out “attacks targeted at the U.S. space systems”.28 The most recent threat assessment of the U.S. intelligence community notes that both Russia and China “aim to have nondestructive and destructive counterspace weapons” to “reduce US and allied military effectiveness” and points to a military trend in China and Russia “designed to integrate attacks against space systems and services with military operations in other domains”.30

#### Deterrence is essential. Space war leads to total societal collapse.

Bender and Klimas 18

Bryan Bender and Jacqueline Klimas. 4/6/19. Politico. Space war is coming – and the US is not ready. <https://www.politico.com/story/2018/04/06/outer-space-war-defense-russia-china-463067>. TNJ 2/19/21

When the Pentagon talks about a space war, it doesn’t mean troops in celestial camouflage, maneuvering with jet packs and targeting the enemy with laser guns. The conflict could take many different — and largely silent — forms, ranging from jamming a GPS satellite to temporarily blinding a sensor with a laser or relying on a cyberattack to disrupt services. Then there is the potential for an actual physical attack — with a missile or laser — to destroy space assets. Some experts worry the most about that scenario, which was exemplified by a 2008 test in which China tested an anti-satellite laser to blow up one of its own satellites. That kind of space war would impose especially heavy costs on the U.S., because each such explosion creates debris that will linger forever — including the millions of pieces left over from that Chinese test. Even small pieces of matter traveling at 17,000 mph can do serious harm to the satellites that the United States so relies on. For example, a fleck of paint the size of a thumbnail once hit the 6-inch-thick windshield of one of NASA's space shuttles and went about 3 inches into the glass, an Air Force official said. No way exists to clear away the lethal clouds of space junk that a shooting war would create. “If deterrence fails, we lose,” the Air Force official said. That means that if shots are fired in space, the United States may not respond in kind and instead might fight back through other means — like a cyberattack or political retaliation — to avoid creating more space debris, Brig. Gen. John Shaw, the director of strategic plans, programs, requirements and analysis at Air Force Space Command, told reporters. “We have to be prepared ... for war to extend into space, but we’d like not to do it." But all the talk of an inevitable conflict raises concerns that the world may be facing the worst kind of space race — one that only heightens the chances of a conflict back on Earth. Some of the efforts underway could also violate the 1967 Outer Space Treaty, signed by the United States and most other nations. "The Outer Space Treaty very clearly says that space is only for peaceful purposes," said James Vedda, senior policy analyst at the Center for Space Policy and Strategy at The Aerospace Corp. and a noted expert on the 1967 pact. Cassandra Steer, acting executive director of the Center for Ethics and the Rule of Law at the University of Pennsylvania, said she has noticed "a discernible shift in international rhetoric” on the topic, as well as a lack of transparency by all the nations involved about their preparations for space conflict. The result is "a cyclical escalation which has led some commentators to describe this as a conceivable return to a Cold War-type arms race," said Steer, whose center is hosting a closed-door meeting this week of leading government and industry experts about the "weaponization of outer space." "An armed conflict in space would be catastrophic for all players," she added, "including neutral states, commercial actors and international civil society."

#### Only an independent Space Force can solve. We need a dedicated force focused on utilizing space tech and deterring attacks.

Cordero 18

Michelle Cordero 7/27/18 interviewing Dean Cheng, senior research fellow in Heritage's Davis Institute for National Security and Foreign Policy and Member of senior research fellow in Heritage's Davis Institute for National Security and Foreign Policy. *Does the US Need a Space Force?* Heritage Foundation <https://www.heritage.org/space-policy/heritage-explains/does-the-united-states-need-space-force> TNJ 2/18/21

Cheng: In the next conflict, if it involves a major power or even a mid-size power increasing, it will have operations in space. And by the way, those operations in space while we tend to focus on the really cool images of a kinetic anti-satellite weapon just colliding with and blowing up into fragments, could also include cyber attacks where the satellite turns itself off for example. And a lot of countries are developing that set of capabilities. So because a lot of people will have the ability to operate in space, because of the importance of space to us, we need to be thinking about that set of capabilities that is encompassed by our space systems. For better or worse, the only way you're going to do that at this point it seems is to have a service, a Space Force if you will, whose job is to be thinking about this. Living, eating, breathing, sleeping space. And thinking about what kinds of systems to acquire and part of that of course is how to pay for it.

## Other Cards

### Ext: Economy

#### China already has anti-satellite technology

Broad 1/24/21

William J. Broad. 1/21/21 Science journalist and senior writer at The New York Times. How space became the next ‘great power’ contest between the US and China. <https://www-nytimes-com.ezproxy.lib.utah.edu/2021/01/24/us/politics/trump-biden-pentagon-space-missiles-satellite.html> TNJ 2/18/21

For years, the Chinese studied — with growing anxiety — the American military, especially its invasions of Afghanistan in 2001 and Iraq in 2003. The battlefield successes were seen as rooted in space dominance. Planners noted that thousands of satellite-guided bombs and cruise missiles had rained down with devastating precision on Taliban forces and Iraqi defenses. While the Pentagon’s edge in orbital assets was clearly a threat to China, planners argued that it might also represent a liability. “They saw how the U.S. projected power,” said Todd Harrison, a space analyst at the Center for Strategic and International Studies, a Washington think tank. “And they saw that it was largely undefended.” China began its antisatellite tests in 2005. It fired two missiles in two years and then made headlines in 2007 by shattering a derelict weather satellite. There was no explosion. The inert warhead simply smashed into the satellite at blinding speed. The successful test reverberated globally because it was the first such act of destruction since the Cold War. The whirling shards, more than 150,000 in all, threatened satellites as well as the International Space Station. Ground controllers raced to move dozens of spacecraft and astronauts out of harm’s way. The Bush administration initially did little. Then, in a show of force meant to send Beijing a message, in 2008, it fired a sophisticated missile to shoot down one of its own satellites. Beijing conducted about a dozen more tests, including ones in which warheads shot much higher, in theory putting most classes of American spacecraft at risk. China also sought to diversify its antisatellite force. A warhead could take hours to reach a high orbit, potentially giving American forces time for evasive or retaliatory action. Moreover, the speeding debris from a successful attack might endanger Beijing’s own spacecraft. In tests, China began firing weak laser beams at satellites and studying other ways to strike at the speed of light. However, all the techniques were judged as requiring years and perhaps decades of development.

#### Space Force is key to protect vital US space tech

Garamone 20

Jim Garamone. 5/6/20 DOD News. Leaders Chart the Course as US Space Force Launches. <https://www.defense.gov/Explore/News/Article/Article/2177974/leaders-chart-the-course-as-us-space-force-launches/>. TNJ 2/19/21

The Space Force is needed now because potential adversaries see space as a warfighting domain, the general noted, and the strategic environment in space has changed. "We've seen Russia maneuver a satellite with characteristics of a weapon system in proximity to a U.S. satellite," he said. Russia has also tested a direct-ascent, anti-satellite weapon. "And just in the past few weeks, Iran attempted to launch an operational satellite in making a claim for becoming a space power," he said. Many of the American systems were designed and launched when space was a benign domain, Barrett said. They provide a range of capabilities that not only the U.S. military, but the civilian world takes for granted. These include the Global Positioning System, instantaneous communications, even the platform for the webinar. The systems are vulnerable to malign actors. "It is important for us to deter aggressive action against American assets," Barrett said. "But if deterrence fails, we need to be prepared to defend and, if necessary, shoot back."

### Ext: Space War

#### Space war likely

Bender and Klimas 18

Bryan Bender and Jacqueline Klimas. 4/6/19. Politico. Space war is coming – and the US is not ready. <https://www.politico.com/story/2018/04/06/outer-space-war-defense-russia-china-463067>. TNJ 2/19/21

War is coming to outer space, and the Pentagon warns it is not yet ready, following years of underinvesting while the military focused on a host of threats on Earth. Russia and China are years ahead of the United States in developing the means to destroy or disable satellites that the U.S. military depends on for everything from gathering intelligence to guiding precision bombs, missiles and drones. Now the Pentagon is trying to catch up — pouring billions more dollars into hardening its defenses against anti-satellite weapons, training troops to operate in the event their space lifeline is cut, and honing ways to retaliate against a new form of combat that experts warn could affect millions of people, cause untold collateral damage and spread to battlefields on Earth. “We are now approaching a point where ‘Star Wars’ is not just a movie,” said Steve Isakowitz, CEO of The Aerospace Corp., a government-funded think tank that serves as the military’s leading adviser on space. He said the U.S. can no longer afford to take its dominance for granted. "That supremacy in space has enabled us to have the world’s greatest war-fighting capability ... whether it is our soldiers on the field, our drones that fly overhead, our bombers that travel around the world, intelligence we collect," he told POLITICO. "More and more every day, literally, we become more dependent on it. "And our adversaries know that," he added in an interview. Americans' fears of a possible Soviet military advantage helped inspire the first space race after the Sputnik launch in 1957, and former President Ronald Reagan's "Star Wars" program in the 1980s sought to create a space-based shield against a nuclear missile attack. In recent decades, though, space has mostly been a realm for peaceful exploration and collaboration, typified by the Russian rockets that carry American astronauts to the International Space Station. But the worry that cooperation could turn to confrontation has been in the background for years. A 2001 report issued by then-Defense Secretary Donald Rumsfeld warned that an attack on space systems during a conflict “should not be considered an improbable act.” “If the U.S. is to avoid a ‘Space Pearl Harbor,’ it needs to take seriously the possibility of an attack on the U.S. space system,” the report said. Some experts speculate that military leaders never followed through on the warnings, in part because the terrorist attacks later that year drew far more attention to what resulted in two ground wars in the Middle East. One sign of the new urgency is President Donald Trump’s recent call for establishing a “space force” — a separate military branch responsible for ensuring American supremacy in space, a role now primarily played by the Air Force.

#### Space war would be catastrophic – deterrence is key

Zarybnisky 18

USAF Lt Col. Eric J. Zarybnisky. 3/28/18. USAF report. Celestial deterrence: Deterring aggression in the global commons of space. <https://apps.dtic.mil/dtic/tr/fulltext/u2/1062004.pdf>. TNJ 2/19/21

General John Hyten, the commander of United States Strategic Command, stated that the United States needs to deter aggression in space due to the impacts such actions would have on the use of space for global communication, navigation and timing, and intelligence collection.1F 1 A collision between two low Earth orbit satellites in 2009 resulted in more than 2,000 pieces of orbital debris2F 2 all moving 9 times faster than a bullet3F 3 that will remain in orbit for decades.4F 4 This collision, and the resulting debris, demonstrate the magnitude of harm that could come from war in space. Prevention is of the utmost importance because of the lasting effects of a space war. While the immediate loss of life from a space war would pale in comparison to nuclear war, longer-term impacts would be catastrophic across a range of capabilities. In the case of geosynchronous orbit, some of the most valuable real estate in space, orbital debris could forever endanger everything including space-based satellite television, weather reporting, and missile warning.5F 5 Unlike nuclear deterrence during the Cold War, deterring aggression in space does not have a fundamental philosophy such as Mutually Assured Destruction, which dictated a specific response to a nuclear attack. Reliance on satellites is neither equal among countries nor static over time. As more countries rely on space assets, policymakers need to understand the impact on deterrence, from both kinetic and non-kinetic engagements, to maintain the utility of the space environment. This paper argues that traditional deterrence theory is effective for kinetic space attacks but not for other types of attacks, namely non-kinetic physical, electromagnetic, and cyber. Underlying this argument is the fact that kinetic attacks can be readily attributed and a small number of countries have kinetic attack capability allowing for credible deterrence, which includes communication of the deterrent threat, without significant risk for miscalculation between countries. Traditional deterrence theory is not effective for other types of attacks including non-kinetic physical attacks (e.g., lasers or high-power microwaves), electromagnetic attacks (e.g., jamming) and cyber attacks, due to the challenges of attribution. Deterring kinetic aggression in space requires policymakers to develop a credible deterrent through exercises, budgetary authority, new international norms, and mechanisms to prevent inadvertent escalation.

### SF K2 US Hegemony

#### The military needs a centralized line of command for space. Splitting resources across departments creates disorganization and lack of accountability

Harrison 18

Todd Harrison. 10/3/18 Director, Defense Budget Analysis, Director, Aerospace Security Project and Senior Fellow, International Security Program. Center for Strategic and International Studies. Why We Need a Space force. <https://www.csis.org/analysis/why-we-need-space-force> TNJ 2/18/21

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.”

#### Space force is key to developing space-centric doctrine and attracting career-line personnel with expertise in space.

Harrison 18

Todd Harrison. 10/3/18 Director, Defense Budget Analysis, Director, Aerospace Security Project and Senior Fellow, International Security Program. Center for Strategic and International Studies. Why We Need a Space force. <https://www.csis.org/analysis/why-we-need-space-force> TNJ 2/18/21

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.

#### Space Force is key to developing doctrine both for space and for Multi-domain operations

Couch 20

Major Clayton W. Couch. 10/1/20 Air Force Tactical Exploitation of National Capabilities. Air Land Sea Application Center. Why United States Space Force Doctrine Development is Critical to Its Success. <https://www.alsa.mil/News/Article/2488073/why-united-states-space-force-doctrine-development-is-critical-to-its-success/> TJN 2/19/21

Doctrine is a word many combat warfighters throw into everyday discussions for various self-serving purposes, but they are reticent to actually read and understand it. While warfighters are privy to their small-unit tactics or weapon system employment, the general and widespread familiarity of joint (or Service) doctrine are often put on a shelf for dusting off during developmental education. One of the few exceptions are those who find themselves in academic circles of military Service advanced warfighting schools (either as employees or students). Unfortunately, it is not these individuals who write or update doctrine because they are bound for more, seemingly, important assignments like unit command. Finding the right process, people, and place to lead strategically imperative doctrine development is critical to Service branch success. With the recent creation of the United States Space Force (USSF), the question arises: Who will write USSF doctrine? Perhaps, it will fall on staff officers who find themselves assigned to academically inclined doctrine centers, longing to get back to a tactical warfighting unit. If so, what will happen? Space doctrine could become a strict copy of Air Force Annex 3-14, CounterSpace Operations and Joint Publication (JP) 3-14, Space Operations, relegating space operations to a supporting Service to the other domain. Another route may be adapting tactics, techniques, and procedures (TTP) hidden within the classified security stovepipe in which most military space capabilities now live and leave them in that classified space and unfit for the force at large to know, embrace, and understand. Either case is untenable for joint operations, much less the current development of multi-domain operations (MDO). Instead, Department of Defense (DOD) leadership must aggressively put its most talented military scholars and tacticians, from all Services, to task. Now is the prime opportunity. The newly created USSF is uniquely positioned to lead space and MDO doctrine development for four reasons. First, the space domain has the most global-reaching effect on the United States (US) military’s functional and geographic combatant commands while supporting effects for other instruments of national power, like information and the economy. Second, space (similar to cyber) integrates with all other military domains to support their operations, while the opposite does not always hold true. Third, there is a current momentum to develop space TTP and a general interest in space from the American public. Fourth, and perhaps most importantly, the “clean slate” presented by creation of the USSF affords a drive to create Service-specific doctrine which may force alignment of joint doctrine and multi-domain TTP.

#### Space force is key to protecting US interests in space

Perry 19

Dr. William Perry, Former US Secretary of Defense. May 2019. Open letter in support of establishing the US Space Force. <https://www.politico.com/f/?id=0000016a-8f91-d79f-adfb-af9179b90001>. TNJ 2/19/21

The United States is the world’s leader in the exploration and uses of outer space. America’s preeminent position in space activities has contributed to the nation’s political prestige, international influence, scientific knowledge, technological advancement, homeland security, and national defense. In addition, space contributes powerfully to America’s economic prosperity; indeed, practically every aspect of our daily lives is dependent on space capabilities. Consequently, U.S. National Security Strategy has for decades stated that freedom of access to and use of outer space is a vital national interest. Foreign powers are seeking to undermine the United States’ leadership position in space. China and Russia are developing, testing, and fielding space and counterspace weapon systems that threaten our ability to use space for national security and economic purposes, jeopardize U.S. and allied military forces, and put the U.S. homeland at risk. America’s long-standing strategic advantage in space is eroding. National security space organization and management has been a recurring issue for decades. The establishment of the U.S. Space Force as an independent armed service within the Department of the Air Force is a fiscally responsible approach to address the issue. The U.S. Space Force will organize, train, and equip forces to enable U.S. Space Command’s plans and operations, to include activities in support of other Combatant Commands and military services. The U.S. Space Force will develop military space culture and ethos; recruit, train, educate, promote, and retain scientists, engineers, and warriors with world-class space skills and talent; advocate for space requirements and resources; develop space doctrine and operational art; develop, field, and deliver advanced space capabilities; and steward resources to sustain America’s strategic advantage and preeminence in national security space activities. The establishment of a new military service for space is necessary for putting America on a path to effectively deter conflict from beginning in or extending into space, and, if deterrence fails, to defeat hostile actions and protect our economic and national security interests in space. We endorse the position of General John Hyten, USAF, Commander of U.S. Strategic Command, who recently testified, “We’re going to have a Space Force someday. I think what the Committee has to decide is when is that going to happen, and I think now is the time...you want to get ahead of the problem, not trail it, not come in response to a catastrophe. Get ahead of the problem.” And we applaud the statement of General Joseph Dunford, USMC, Chairman of the Joint Chiefs of Staff, who recently testified, “My best military advice, given the importance of space and the consequences of not doing all we can to optimize the Department to move forward in space, would be to move out now with what might be the 80% solution, refine as we go, and the Committee will have an opportunity to provide oversight to address some of the issues that have been raised.”

### AT: Other services solve

#### Only an independent space force can solve space capabilities and strategy. Any other solution creates administrative issues.

Harrison 18

Todd Harrison. 10/3/18 Director, Defense Budget Analysis, Director, Aerospace Security Project and Senior Fellow, International Security Program. Center for Strategic and International Studies. Why We Need a Space force. <https://www.csis.org/analysis/why-we-need-space-force> TNJ 2/18/21

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.

### AT: red tape

#### Space force needs to be its own division to create institutional focus on space

Loverro 18

Douglas Loverro 6/25/18 Space News *Why the United States needs a Space force.* <https://spacenews.com/why-the-united-states-needs-a-space-force/>TNJ 2/18/21

What the president proclaimed was not the beginning of the militarization of space, nor the start of a space arms race, but rather that military professionals who concentrate on space needed their own organization to truly focus their efforts on a singular task — to protect and defend U.S. and allied interests in space and to assure their other service brethren never find themselves lacking the space support they need. To do that would require a career of training, experiences, motivations, and insights, and a mixture of skills and specialties with a focus on space, that can’t be developed within the constraints of the current military branches. To develop the proper culture of space professionals who marry their personal and organizational identity to this domain, and jealously advocate for its advancement, takes more than a loose assemblage of individuals from different career fields who dabble in space during their career, but all too often view space as an assignment rather than as a home.

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.

#### Creating a designated space force reduces organizational fragmentation and streamlines administration of space-related military activity.

Harrison 18

Todd Harrison. 10/3/18 Director, Defense Budget Analysis, Director, Aerospace Security Project and Senior Fellow, International Security Program. Center for Strategic and International Studies. Why We Need a Space force. <https://www.csis.org/analysis/why-we-need-space-force> TNJ 2/18/21

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.”

### AT: militarization bad

#### Non-unique: Space is already militarized

Loverro 18

Douglas Loverro 6/25/18 Space News *Why the United States needs a Space force.* <https://spacenews.com/why-the-united-states-needs-a-space-force/>TNJ 2/18/21

The most common critique was that the president had suddenly militarized space. He hadn’t. That process began decades ago under President Eisenhower. In the National Aeronautics and Space Act of 1958, President Eisenhower and the Congress created NASA to control all U.S. space activities except those “peculiar to or primarily associated with the development of weapons, military space operations, or the defense of the United States.” That military job was handed to the Department of Defense. That same year, DoD created the Advanced Research Projects Agency (ARPA then, Defense ARPA or DARPA now) specifically to prevent the kind of technological surprise that Sputnik represented. ARPA quickly became the lead for all military space activities. While work actually took place in the Army, Navy, and Air Force, ARPA guided it; and over the next decade, just about every military mission we do today in space was birthed and tested. While in a classic sense many of those missions did not appear to be military weapons, they quickly became an integral part of the way the U.S. planned to execute war, specifically nuclear war. And in the nation’s first space policy, National Security Council Planning Board memo 5814, Eisenhower envisioned that “The effective use of outer space…will enhance [our] military capabilities.

#### Russia is already working on anti-satellite technology

Hitchens 19

Theresa Hitchens. 4/4/19. Breaking defense. Russia builds new co-orbital satellite: SWF, CSIS say. <https://breakingdefense.com/2019/04/russia-builds-new-co-orbital-satellite-swf-csis-say/>. TNJ 2/19/21

WASHINGTON: Russia has been working since 2011 to develop a next-generation on-orbit [anti-satellite (ASAT) weapon](https://breakingdefense.com/tag/asat/), according to two new studies by U.S. nongovernmental organizations. The Secure World Foundation’s “Global Counterspace Report,” finds that the Russian work on a space-based ASAT codenamed “Burevestnik” (also known as Project 14K168) is being undertaken in tandem with a larger effort to develop a space-based space situational awareness (SSA) capability. The SWF report, and one by the Center for Strategic and International Studies (CSIS) were released today and based on open source information. “Open source research done by analyst Bart Hendrickx suggests that the Cosmos 2491, 2499, 2504, and 2521 satellites are part of a project started in 2011 to develop space-based space situational awareness (SSA) capabilities and may play a supporting role for other counterspace weapons,” the SWF report says. “Publicly-available documents and patents suggest a link between those Cosmos satellites and procurement for a project designated Nivelir … under the control of the Central Scientific Research Institute for Chemistry and Mechanics (TsNIIKhM). Hendrickx also has uncovered evidence suggesting there is an active Russian co-orbital ASAT program codenamed Burevestnik (“Petrel”) or project 14K168, also managed by TsNIIKhM and also started in 2011.” Burevestnik “may be designed to target GEO satellites, although it may be targeted against LEO satellites instead.” The CSIS report, [Space Threat Assessment 2019](https://www.csis.org/analysis/space-threat-assessment-2019) includes similar information about the Burevestnik, based on information first published in Jane’s in September 2018. The co-orbital (i.e. a small satellite placed in a similar orbit to its target) weapon, CSIS states, “may be” aimed at targeting GEO satellites. The two studies are fraternal twins, in that the two organizations have been coordinating on both research and release of their findings. The SWF study is much more technical and detailed, aimed at educating policy-makers and the public on the state of counterspace technology development in key countries. The CSIS report, on the other hand, is looking at the counterspace capabilities of potential U.S. adversaries and focuses on characterizing threat levels. Thus, SWF is concentrating on the countries where the most research on potentially counterspace-related technologies is ongoing including the United States and India; whereas the CSIS study is focused on China, Russia, Iran and North Korea while including brief overviews of others such as Europe, India and Israel. Both studies are premised on the fact that there is too much secrecy surrounding global military space activities — a belief that is echoed by many in the U.S. national security space community. The most significant new information in SWF’s 2019 report, explains Brian Weeden, SWF technical adviser, includes the depth of the new evidence about the Russian SSA/co-orbital ASAT. “I think the most important bits are … about the recent Russian RPOs likely being an SSA/intelligence program and possibly supporting the new Burevestnik co-orbital program. That I think is pretty new disclosure in open source and Bart Hendrickx has done a great job tracking that.”

#### Russia and China are developing space tech that poses a direct threat to US interests.

Hitchens 19

Theresa Hitchens. 4/4/19. Breaking defense. Russia builds new co-orbital satellite: SWF, CSIS say. <https://breakingdefense.com/2019/04/russia-builds-new-co-orbital-satellite-swf-csis-say/>. TNJ 2/19/21

Chinese and Russian on-orbit experiments over the past five or so years have freaked out many in the U.S. Congress and the national security space community, and have in many instances been hyped by media reports. Indeed, on April 3, Ken Rapuano, assistant secretary of defense for homeland defense and global security, told the HASC Subcommittee on Strategic Forces that Russia and China are conducting “sophisticated on-orbit activities to counter space capabilities” as they continue “developing, testing and fielding a full suite of antisatellite (ASAT) weapons.” The specific on-orbit experiments have involved the Chinese SJ-12, SJ-15, SJ-17 satellites, and the Russian Cosmos 2499, Luch, and Cosmos 2521 satellites. But SWF takes a less alarmist view, arguing that the satellites appear to be used for intelligence purposes and satellite inspections. All of these programs show, SWF says, an “operational pattern” consistent with “slow, methodical, and careful approaches to rendezvous with other space objects in similar orbits. The satellites they are known to have approached were in similar orbits and based on the publicly available data they did not make huge changes to rendezvous with satellites in significantly different orbits.” The SWF study cautions against jumping to conclusions about the Russian and Chinese experiments. Rather than being weapons-related, the “most likely military utility of the capabilities demonstrated” by the remote proximity operations (RPO) is for “on-orbit SSA and close-up inspections.” The SWF study also reveals new information that shows tests by both countries essentially mimic operations undertaken by the four operational U.S. Geosynchronous Space Situational Awareness Program (GSSAP, also known as Hornet) satellites and the secretive Mycroft experimental inspection satellite (named for Sherlock Holmes’ older and smarter brother) launched in April 2018. The CSIS study says that: “none of China’s rendezvous and proximity operations (RPO) activities in LEO or GEO appear to have damaged other satellites.” This is not to say the Chinese and Russian on-orbit experiments are not aimed at ASAT weapons development, given what is known about both countries space doctrines and force posturing. Both countries are known to be developing, or have developed, terrestrially-based kinetic energy ASAT missiles. Both also are (like the United States) working on directed-energy programs for a variety of weapons applications. For example, both SWF and CSIS in their 2018/2019 studies have documented Russian use of electronic jamming of GPS in Syria, the Baltic region and Ukraine. CSIS, echoing publicly released U.S. Intelligence Community assessments, finds that the Russian and Chinese counterspace developments present significant threats to U.S. space systems. SWF is more demure about judgements but their study does conclude the evidence shows “significant research and development of a broad range of kinetic (i.e. destructive) and non-kinetic counterspace capabilities in multiple countries.” It cautions, however, that “only non-kinetic capabilities are actively being used in current military operations” by any country.

### AT: too expensive

#### An independent space force is key to solve budget deficits

Harrison 18

Todd Harrison. 10/3/18 Director, Defense Budget Analysis, Director, Aerospace Security Project and Senior Fellow, International Security Program. Center for Strategic and International Studies. Why We Need a Space force. <https://www.csis.org/analysis/why-we-need-space-force> TNJ 2/18/21

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.

#### Their cost estimates are overblown. The actual price of a space force is miniscule compared to the overall military budget.

Harrison 18

Todd Harrison. 10/3/18 Director, Defense Budget Analysis, Director, Aerospace Security Project and Senior Fellow, International Security Program. Center for Strategic and International Studies. Why We Need a Space force. <https://www.csis.org/analysis/why-we-need-space-force> TNJ 2/18/21

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.

# Con

## Con Case

#### We stand in negation of the following:

Resolved: On balance, the benefits of creating the United States Space Force outweigh the harms.

### Definitions

#### Space Force

Farley 2020

Robert Farley is a policy analyst for the CATO Institute. Farley, Robert. “Space Force: Ahead of Its Time, or Dreadfully Premature?,” Policy Analysis no. 904, Cato Institute, Washington, DC, December 1, 2020. https://​doi​.org/​1​0​.​3​6​0​0​9​/​P​A.904. TNJ 2/18/21

The U.S. Space Force is an independent uniformed service under the authority of the Department of the Air Force. It was established on December 20, 2019, and was expected to be fully operational by 2021. Like the other services, the Space Force is headed by a four‐​star general (the chief of Space Operations) who is a member of the Joint Chiefs of Staff, and thus a contributor to the National Military Strategy. The official mission of the Space Force is to “organize, train, and equip space forces to protect U.S. and allied interests in space and to provide space capabilities to the joint force. Space Force responsibilities include developing military space professionals, acquiring military space systems, maturing the military doctrine for space power, and organizing space forces to present to our Combatant Commands.”[34](https://www.cato.org/policy-analysis/space-force-ahead-its-time-or-dreadfully-premature#_ednref34)

### Contention 1 – International Cooperation

#### Space force is a direct threat to international cooperation over space.

Wemer 28

David A. Wemer. 11/20/18. Atlantic Council. Can international cooperation in space survive geopolitical competition on earth? <https://www.atlanticcouncil.org/blogs/new-atlanticist/can-international-cooperation-in-space-survive-geopolitical-competition-on-earth/>. TNJ 2/19/21

The problems with the Russian Soyuz launcher come at a time when international cooperation on the final frontier appears to be in retreat. Space has been a cornerstone of US-Russian cooperation since the last days of the Cold War, but it may not be able to weather continued tension between Moscow and Washington, especially as NASA grows wary of Russian technical competence. The United States has also shown the cold shoulder to the new kid in town: China. Since the mid-1990s, NASA has been required to seek congressional approval before undertaking any cooperation or contact with Chinese government officials. This rule has effectively limited NASA’s contact with the fastest-growing space power to discussions on civilian aerospace and earth science. While NASA continues to push for greater contact, the Trump administration’s growing displeasure with Beijing—along with very real concerns about intellectual property theft—makes it unlikely that Washington will warm to the idea of extensive cooperation with Beijing in space anytime soon. At the same time, space has dramatically shifted from a domain for science and exploration to a vitally important theater for economic and military expansion. Satellite orbits are now vital economic resources for countries around the world and US President Donald J. Trump’s stated desire for a new “Space Force” reflects a very real understanding amongst militaries that the final frontier is as much of a potential conflict zone as air, sea, or land. With an endorsement from the National Space Council, a new space-focused military branch looks imminent for the United States, which could further push Washington away from cooperating with other space partners, especially potential adversaries China and Russia. International cooperation has been the cornerstone of US forays into space since the early days of the Cold War. President Dwight D. Eisenhower specifically created NASA as a civilian agency in order to prevent the domination of space activities by the US military. NASA has nearly eight hundred active international agreements, which are vital for powering research in physics, chemistry, medicine, biology, and environmental science. This cooperation will be vital in addressing both space specific problems, such as increasing satellite traffic and dangerous orbital debris, but also in addressing close-to-home threats like climate change and natural disasters. Despite incredible leaps in technology, humanity’s desire to explore and utilize space still requires vast amounts of wealth and expertise, making the pooling of resources with international partners vital to achieving missions. Certainly, NASA will continue its vast cooperation with its natural partners such as Europe, Canada, and Japan. Indeed on November 16, NASA celebrated the arrival of a European-built service module, which will power NASA’s Orion spacecraft in development for possible human exploration of Mars. But the promise of the International Space Station, and indeed much of the cooperation in space, was the ideal that geopolitical competition could be forgotten beyond Earth’s atmosphere. For now, this international cooperation remains in place, as at this moment a German, an American, and a Russian are living 250 miles above the Earth, entirely dependent on each other and cooperation between their governments for their survival. As space becomes more and more intertwined with the global economy and geopolitical competition, humanity risks abandoning the spirit of cooperation and extending the conflicts of the Earth to the stars.

#### International cooperation is key to prevent a laundry list of threats from outer space, including asteroids and solar flares. These risks pose an existential threat to humanity.

Wilman 19

Dr. Richard Wilman. Assistant Professor of Physics, Durham University. 3/19/19. Durham University News. Tackling risks from outer space. <https://www.dur.ac.uk/news/newsitem/?itemno=38342>. TNJ 2/19/21

Q: What are the risks to Earth from outer space? The main focus is on natural cosmic hazards originating within the Solar System, such as the asteroid and cometary impact hazard. The Solar System contains a large population of rocky and icy debris, ranging from dust-grain sized particles (meteors or shooting stars) to bodies many kilometres in size capable of triggering a mass extinction if they hit the Earth, the best example being the impact that wiped out the dinosaurs 65 million years ago. Global catastrophes are extremely rare, but impacts from more modest-sized objects are not. In December last year, NASA detected an asteroid explosion over the Bering Sea with ten times the energy released by the Hiroshima atomic bomb. In 2013, a 20 metre asteroid exploded in the atmosphere above Chelyabinsk, in Russia, causing extensive property damage and injuring over 1,000 people, mainly due to flying glass. In 1908, an object several times larger exploded over Tunguska, Russia, and flattened around 2,000 square kilometres of remote Siberian forest – equivalent to the size of London within the M25. Such large impacts are expected roughly once per century, with potential for enormous loss of life and physical destruction if they strike a populated area. Impactors above roughly one kilometre in size – expected once per 100,000 years – would have global reach, triggering tsunamis, earthquakes and wildfires, and lofting vast amounts of dust into the atmosphere, leading to climatic cooling. Another threat comes from extreme space weather or disturbances in the solar wind – a fast outflow of magnetised plasma emanating from the Sun. Normally, the Earth’s atmosphere and magnetosphere shield us from most of its effects, but explosive events on the solar surface, such as solar flares, can cause bigger impacts. Unlike asteroid impacts, which pose a direct danger to life, the effects of space weather are mostly indirect, impacting critical electrical technologies on the ground and orbiting satellites, including power grids, communication systems, GPS systems and transport. Damage to this infrastructure or major disruptions to the services it provides could have huge consequences for economic output. Q: How can we guard against these dangers? We first need to better understand the science underlying natural cosmic hazards, and then take steps to reduce the impacts, if the threat cannot be removed. The Chelyabinsk event marked a turning point, when an apparently low-level, hypothetical threat became an actual event. Asteroid Day, a UN-sanctioned global awareness campaign, began in 2014 with public endorsement by Nobel Laureates, science and business leaders. As well as increasing public awareness, the campaign advocates the deployment of resources to increase the discovery of near-Earth asteroids by 100 times from the current level of around 1,000 per year. Within a decade, this would help identify the bulk of the million or so Chelyabinsk-sized bodies which could destroy a city. There are also moves towards better international coordination in surveillance and planning for impacts, as well as the development of fast response technologies to deflect or destroy potential impactors. For space weather, many of the same principles apply in preparation for what are low probability, but high impact events. In the UK, space weather now features on the National Risk Register as a scenario likely to occur at least once per century, raising awareness and helping policy makers, businesses and insurers to prepare. Q: What emerging threats might we see coming from outer space? So far, we have focussed on currently known threats that are part of the Solar System. Casting the net to much larger scales, the risks do not suddenly stop but the timescales on which they might happen become much longer- millions to billions of years. Examples include nearby supernova explosions or Gamma ray bursts elsewhere in the Milky Way, which could cause a mass extinction. To the best of our knowledge, there are currently no precursor candidates for such events sufficiently near the Earth. Nevertheless, we should not be too complacent about the long-term future of human life on Earth, as there are almost certainly dangers we do not currently know about. Indeed, the recent history of observational astronomy has shown that when we look at the Universe in a new way, new phenomena, including potential hazards, come to light. Speculatively, we might discover signals or phenomena which defy conventional explanation, and which are better attributed to intelligent life elsewhere in our Galaxy. Although traditional approaches to the search for extra-terrestrial intelligence – searching for radio signals transmitted by aliens – have drawn a blank, new facilities, combined with advances in computing, could lead to breakthroughs. While the search for life elsewhere in the Universe would be regarded by most as harmless, the arguably increased chances of making such a discovery has led to renewed concern from some. Q. What are the main threats from man-made space risks? These threats mostly centre on ensuring that humanity’s use of space remains sustainable. One major risk is space debris, fragments of defunct or abandoned spacecraft and rockets ranging in size from less than one centimetre up to several metres. At orbital speeds, collisions with even small fragments can cause terminal damage to an operational satellite. As access to space increases, particularly on the commercial front, there is a risk that space debris may grow unchecked, rendering entire orbits unusable. There is also a growing awareness of risks from intentional threats, including the vulnerability of satellites to direct physical or cyber attack from terrorists or rogue states. Related to this is the threat from state-to-state military conflict in space. The overarching governance framework for space – The Outer Space Treaty of 1967 – was created during the Cold War, and enshrines space as a global commons for the peaceful use of all mankind. In the current era of geopolitical upheaval, the risk of instability and conflict is growing and proposals by President Trump to create a Space Force are one sign of the increasing recognition of this threat.

### Contention 2 – Space War

#### Space Force is the catalyst for a global arms race

Grego 20

Laura Grego. 1/8/20. World Politics Review. The new U.S. Space Force will make space more dangerous, not less. <https://www.worldpoliticsreview.com/articles/28452/why-the-trump-space-force-will-make-space-more-dangerous>. TNJ 2/19/21

At least initially, the new Space Force represents only a modest organizational change, one that is essentially neutral in terms of personnel and budgetary impact. A skeptical Congress [appropriated only $40 million](https://appropriations.house.gov/sites/democrats.appropriations.house.gov/files/HR%201158%20-%20Division%20A%20-%20Defense%20SOM%20FY20.pdf) of its $738 billion military budget for the new endeavor. At the same time, it would be a mistake to dismiss the move as a lot of bluster over bureaucratic reshuffling. Creating the Space Force sets up structural changes and reinforces approaches that could hasten a costly and destabilizing arms race in space. Since the dawn of the space age in the 1950s, satellites have been used for strategic purposes such as gathering intelligence and detecting missile launches. Today, most modern militaries consider satellites indispensable for a variety of missions: guiding munitions and drones, communicating with globally deployed personnel, predicting weather patterns and surveilling targets. As a global power with military bases around the world, this dependence is particularly acute for the United States. But satellites are also fragile, vulnerable to interference, and expensive to replace, leaving the Pentagon in the uncomfortable position of relying on something that is difficult to defend. Consistent with this reality, [the Space Force’s primary charge](https://docs.house.gov/billsthisweek/20191209/CRPT-116hrpt333.pdf), as laid out in its authorizing legislation, is to provide “freedom of operation for the United States in, from, and to space.” To keep its satellites working dependably and safely, the Pentagon wants to ensure its systems are resilient to disruption. [Some Space Force proponents argue](https://spacenews.com/why-the-united-states-needs-a-space-force/) that this mission is important enough to merit its own dedicated organization, which can focus its resources on, for example, developing more durable systems and fielding space- and Earth-based backup systems should critical satellites be impaired. But keeping space secure also requires reducing the threats to satellites. On this score, the Space Force is likely to make space a more contentious and dangerous environment, not less. It’s not just Trump’s rhetoric about dominance in space that is harmful; resources for the new military service will be provided to “deter aggression in, from, and to space.” This will create incentives within the national security bureaucracy to hype the threat of space weapons, and to then build new weapons to counter them. In a [speech last spring outlining his priorities for space](https://www.defensenews.com/space/2019/04/16/air-force-leaders-on-space-deterrence-at-some-point-weve-got-to-hit-back/), Gen. David L. Goldfein, the chief of staff of the U.S. Air Force, stated that, “It’s not enough to step into the ring and just bob and weave… At some point, we’ve got to hit back.” What Goldfein failed to mention is that [the U.S. already has more sophisticated anti-satellite technology](https://swfound.org/media/206408/swf_global_counterspace_april2019_web.pdf) than potential adversaries like Russia and China. In fact, having anti-satellite weapons actually [does very little to keep one’s own satellites safe from attack](https://thebulletin.org/2008/07/can-space-weapons-protect-u-s-satellites/). Yet military leaders appear to believe that reserving the option to deny the use of space to potential adversaries is more important than the benefits that come with a less weaponized space. What’s more, unconstrained development of space weapons will make space more dangerous, costly and unpredictable to use. It will make conflict on Earth riskier, too. A space environment that is perceived as threatening may create an incentive to “use or lose” satellite-enabled military capabilities as a crisis approaches, potentially speeding up conflict. [Goldfein underscored this point](https://www.defensenews.com/smr/reagan-defense-forum/2019/12/07/air-force-chief-the-biggest-threat-posed-by-china-is-in-space/) in remarks following a series of space conflict simulations conducted by the Air Force last month. “In every war game,” he said, “we determined that if you move first in space, you’re not guaranteed to win. But if you move second, you’re likely to lose.”

#### Space militarization creates increased risk of miscalculation and escalation

Gleason and Hays 20

Michael P. Gleason and Peter L. Hays. October 2020. Center for Space Policy and strategy. A roadmap for assessing space weapons. <https://aerospace.org/sites/default/files/2020-10/Gleason-Hays_SpaceWeapons_20201005_1.pdf>. TNJ 2/19/21

In addition, some argue that space weapons present broader geopolitical risks due to their potential effects on deterrence and strategic stability. Space capabilities have a close relationship to nuclear stability and the potential for escalation between great powers. Space weapons could therefore alter how decisionmakers calculate nuclear deterrence. Many of the visions of space-to-Earth weapons imagine them having incredible speed and accuracy tied to the ability to target any point on Earth with minimal or even no warning. At enough scale and with sufficient destructive effects, such attributes would threaten a first-strike capability; i.e., the ability to wipe out a target country’s nuclear deterrent before it has a chance to launch a retaliatory strike. If so, nuclear deterrence may fail, a consideration that may outweigh all others. Similarly, some have comparable concerns about space-based ballistic missile defenses nullifying a country’s nuclear deterrent and providing a nuclear first-strike incentive for the country that possesses such capability. Earth-to-space weapons create concerns because targeting early warning satellites, strategic surveillance satellites, and nuclear command and control communication satellites could also be perceived as the immediate prelude to a nuclear first strike by an adversary, triggering a response on the nuclear escalation ladder. Even if space weapons do not fatally undermine nuclear deterrence, they still offer another path to rapid nuclear escalation. Space weapons might upset strategic stability in other ways as well. Space is considered an offensive dominant arena, meaning it is materially easier and less costly to attack a satellite—including space-based weapons—than to defend a satellite. Earth-to-space and space-to-space weapons provide an offensive capability for attacking targets in space. Political scientists contend that war is more likely when the offensive is dominant—especially if it is difficult to distinguish between offensive and defensive weapons—and argue that there are strong incentives for striking first should a conflict appear inevitable.13 Surprise attack is perceived as leading to large rewards. Space weapons provide a first-mover advantage for striking in space, but their speed could create crisis instability since decisionmakers—on all sides—will have very little time (perhaps only a handful of minutes) to decide what to do in the face of a sudden attack in space, creating a high risk of rapid escalation due to misunderstanding, miscommunication, and miscalculation. Finally, the use of destructive, non-reversible kinetic Earth-to-space or space-to-space weapons would likely leave a persistent cloud of debris and pose a long-term (potentially decades or much longer) hazard to all satellites, including commercial and scientific satellites as well as satellites from non-adversary nations. Using weapons with non-kinetic, non-permanent affects would mitigate this risk.

#### Deterrence is impossible and miscalculation escalates to nuclear war within minutes

Schütz 19

Torben Schütz. 7/25/19. German Council on Foreign Relations. The changing security environment in space demands new diplomatic and military answers. <https://dgap.org/en/research/publications/technology-and-strategy-0>. TNJ 2/19/21

Deterrence is difficult to achieve for space assets, as they are so fragile that none would survive a well-coordinated first strike against them. They are classic “use-it-or-lose-it” assets, and this aspect further decreases crisis stability. Only a massive deployment of ground-based ASAT capabilities, that would enable a retaliatory strike so that both actors would lose their space assets, might counter-balance this to a certain degree, as it allows for a so-called deterrence by punishment. However, even a (misinterpreted) threat to space assets could start a chain reaction and quickly escalate an incident in space to a wider war. Successful deterrence, therefore, requires situational awareness, attribution capabilities and resilient assets. Especially the latter two are notoriously difficult to achieve in space. While it might be easy to attribute a kinetic attack executed with a missile, the same is not true for ASAT attacks by other satellites, and, especially, not for cyberattacks and electronic warfare measures. Without clear attribution, however, it is difficult to deter any adversary, since he could speculate that an attack cannot be traced back to him – making deterrence and retaliation more difficult. Although cross-domain deterrence, i.e. threatening an actor through potential retaliation attacks on or by other-than-space assets, is always possible, it also amplifies the problems involved in traditional deterrence: A response has to be timely and proportionate, and it should not further expand of the conflict. Furthermore, most timeframes for a potential escalation in space are measured in minutes, or even less for directed-energy and certain space-based ASAT weapons. As a result, both, decision-making processes and the humans deciding on military activities in space (e.g. a counterattack), are subject to very significant time compression. This also decreases crisis stability since it might further encourage an aggressive first-strike behavior prompted by the desire not to lose valuable assets.

## Other Cards

### Ext: International Cooperation

#### Space force prevents international cooperation over arms control in space

Farley 2020

Robert Farley is a policy analyst for the CATO Institute. Farley, Robert. “Space Force: Ahead of Its Time, or Dreadfully Premature?,” Policy Analysis no. 904, Cato Institute, Washington, DC, December 1, 2020. https://​doi​.org/​1​0​.​3​6​0​0​9​/​P​A.904. TNJ 2/18/21

Given that services tend to pursue autonomy, the Space Force could pose some obstacle to future efforts for multilateral arms control in space. To be sure, neither the navies nor the air forces of the 20th century managed to prevent arms control. Nevertheless, if the Space Force manages to acquire the bureaucratic heft it needs to accomplish its core missions, it could act as an interest group within government to prevent the execution of strong multilateral arms control agreements. The record offers qualified reasons for concern about the role that the Space Force could play in future arms control negotiations. Services tend to resent the imposition of external limits on their procurement and force structure, although the extent of this resentment depends on organizational priorities. Still, the Space Force is unlikely to spearhead a drive for arms control within the U.S. government and probably will resist limitations imposed by such arms control on its core interests.

### Ext: Arms Race

#### Space militarization creates the possibility of war. Non-military international cooperation is the only viable space strategy.

Freeland et al 20

Steven Freeland, professor of international law, western Sydney university. David Kuan-Wei Chen, Executive Director, center for research in air and space law, mcgill university. Ram S. Jakhu, director, institute of air and space law, mcgill university. The conversation. ‘War in space’ would be a catastrophe. A return to rules-based cooperation is the only way to keep space peaceful. <https://theconversation.com/war-in-space-would-be-a-catastrophe-a-return-to-rules-based-cooperation-is-the-only-way-to-keep-space-peaceful-150947>. TNJ 2/19/21

The incoming Biden-Harris administration appears more interested in international cooperation, and much more cognisant of the challenges of climate change, pandemics and other global issues. A carefully calibrated space policy can do much to address “terrestrial” challenges, while still allowing for many positive space activities. Since 1967, human activity in space has been guided by the universally accepted principles embedded in the Outer Space Treaty. This has ensured we have had no military conflict in space, and required the exploration and use of space “for the benefit and in the interests of all countries”. Any alternative vision of the future of space is dreadful to consider. Rhetoric about the inevitability of “war in space” makes such conflict more likely and risks a “tragedy of the commons” in space. Any space war would have no clear winner. In a complex, globally shared arena such as space, it is important that states abide by accepted rules and established practices. The US has great scientific and technological advantages and a robust and competitive commercial space sector. Instead of seeking dominance, it can better serve the world (and itself) by focusing its leadership on harnessing space for the benefit of all humankind. In a promising sign, Biden and Harris’s NASA review team is composed of an outstanding group of space scientists as well as a former astronaut. The current administration re-established the National Space Council, which is chaired by the vice president, and this has reinvigorated American investment and leadership in space exploration. This includes an ambitious plan to return to the Moon under the terms of the Artemis Accords.

### Too expensive

#### Space force doesn’t fulfill a strategic gap and is too expensive.

Farley 2020

Robert Farley is a policy analyst for the CATO Institute. Farley, Robert. “Space Force: Ahead of Its Time, or Dreadfully Premature?,” Policy Analysis no. 904, Cato Institute, Washington, DC, December 1, 2020. https://​doi​.org/​1​0​.​3​6​0​0​9​/​P​A.904. TNJ 2/18/21

Does the United States need a military presence in space? Most informed opinions suggest that the answer is yes. Does the United States need a new independent service for managing that military presence? The answer is less obvious. In December 2019, Congress created the U.S. Space Force, which is meant to bolster U.S. military capabilities in a domain that the existing services have not prioritized. The wisdom of creating a new service is uncertain in the best of times, given the need of forces to coordinate across organizational borders. In the case of the Space Force, an even greater degree of uncertainty looms because the precise organizational structure of the service is unsettled. Indeed, most of the arguments against the creation of the Space Force have focused on either the lack of strategic necessity for creating a new service or the price tag associated with standing up a new organization.1 To understand the Space Force’s inception, this study investigates five interrelated questions. First, how has outer space changed to become a more important domain for military activities? Second, what is the relationship between the Space Force and its antecedents within the U.S. military? Third, how can traditional metrics of military effectiveness apply to the Space Force? Fourth, how will the Space Force affect the international strategic environment? And finally, how will the Space Force interact with civilian government agencies and the civilian space sector? This analysis initially establishes how the military space environment has changed since the last major U.S. military reorganization in 1947. It then examines how the existing institutions of the U.S. military have managed space up to this point, including a discussion of the theorization of military space power. The details of the establishment of the Space Force come next, followed by an assessment of the new problems its establishment introduces, including questions about military effectiveness and military culture. Finally, the analysis examines the potential implications of the Space Force for diplomatic, economic, and civilian management of space. This investigation determines that the Space Force’s establishment is hobbled by unclear goals and uncertain effects, contending that the Space Force lacks a clearly defined organizational culture and a clear strategic purpose, both core elements of organizational success, and that the decision to create the service is premature at best and irresponsible at worst.

#### The creation of space force is political posturing that increases risk of miscalculation and reduces international cooperation.

Fabian 19

Christopher David Phabian, MA in Science, UND. Fabian, Christopher David, "A Neoclassical Realist’s Analysis Of Sino-U.S. Space Policy" (2019). Theses and Dissertations. 2455. <https://commons.und.edu/theses/2455>. TNJ 2/19/21

The dual-use of space technologies results in an inability to conduct offense/defense differentiation, and creates mistrust, misperceptions, and miscalculations that can undermine political and strategic stability involving the space domain.471 When offense/defense differentiation cannot be accomplished, developing acceptable norms of responsible behavior, if only to reveal benign intentions and ritualize conflict, is preferable to an attempt to identify and ban specific technologies and capabilities.472 Therefore, the United States should seek to introduce a series of top-down TCBMs that codify a space code of conduct, work toward a treaty that bans the testing and use of destructive methods against space objects, and increase transparency and trust in U.S. space policy. Collectively, these initiatives could alleviate the fear of U.S. space domination. The infrastructure for introducing TCBM to the international community is well established. The UNCOPUOS is the principal international forum for the development and codification of laws and principles governing activities in outer space.473 A set of Space Debris Mitigation Guidelines was endorsed by the UNCOPUOS in 2007; however, this set of guidelines was nonbinding and contained ambiguous language, such as: “avoid intentional destruction and other harmful activities,” rather than specifically banning debris-causing space weapons.474 A working group under the Scientific and Technical Subcommittee set forth guidelines for the long term sustainability of space in 2016, but (like the Space Debris Mitigation Guidelines) these were non-binding.475 The UN General Assembly adopted the non-binding Resolution 69/32 that advised against the first placement of weapons in space with 126 in favor, 4 against (including the United States), and 46 abstentions.476 These measures, introduced through UNCOPUOS and the Conference on Disarmament (CD) show that space we aponization and debris mitigation TCBMs have received adequate attention in the United Nations. The United States’ decision to remain aloof in these forums in the face of the international consensus will damage U.S. prestige, raise fear of space weaponization, and threaten its space leadership. The United States should work through the CD to provide an alternative to China and Russia’s PPWT proposal. This proposal should ban the testing and use of debris-causing ASAT weapons and include a definition of “debris-causing” that allows for minor satellite breakups. This would keep space free of massive debris causing incidents in the event of a conflict, while simultaneously allowing the continued development of counterspace capabilities. No binding resolution will be established without an agreement between China and the United States, but (as discussed previously) a misalignment of strategic interests makes that outcome unlikely. Therefore, the United States must be prepared to make substantial concessions in order to gain acceptance from China. A variety of concessions may induce Chinese ratification: first, the U.S. could include a sidecar that bans on-orbit force application technologies in order to assuage fears that the U.S. intends to expand its global strike capability through the deployment of space weapons; second, the U.S. could reconsider its position on an ABM prohibition; third, the U.S. could pursue a bilateral non-first use pledge with China; fourth, the U.S. could open up the ISS program to China; and fifth, the U.S. could restructure ITAR regulations to increase interaction between Chinese and American commercial markets. In the absence of a formal treaty, the United States must nonetheless continue to work towards implementing TCBMs that seek to increase transparency, familiarity and clarity of intentions, and provide a basis for strengthening mutual trust building and confidence amongst states.477 Improving space situational awareness (SSA) through an international outreach effort is the ideal platform through which to accomplish these goals. SSA is vital to the long-term sustainability of the space environment because it helps mitigate natural environmental threats and identifies behavior that would be detrimental to responsible use and long-term sustainability.478 Therefore, SSA will be a foundational verification mechanism for potential treaties as well as an opportunity for cooperative trust building. 479 SSA is generally made up of two components: space surveillance and tracking (SST) and space traffic management (STM). First, SST involves using ground-based and space-based optical sensors and radars in order to track, characterize, and analyze space objects. Second, STM utilizes SST data in order to ensure safe passage through the space environment.480 Both SST and STM require cooperative efforts to be successful. SST necessitates a diverse, geographically dispersed sensor network to provide timely, accurate data on objects in a wide array of orbits.481 A single nation is not able to provide the geographical coverage needed for a comprehensive SST network. STM requires agreed upon standards of behavior to ensure spaceflight safety.482 There is currently no standardized regime for conducting the broad SSA mission in order to analyze and communicate threats to the space domain.483 This creates an opportunity for the U.S. to utilize its position of technical superiority in order to score a soft power coup by taking the lead in a global SSA initiative. The major obstacle to building an international SSA coalition is the military utility SST data, which can be used to reveal classified military capabilities and conduct ASAT targeting.484 The United States possesses the most comprehensive network of SST sensors and maintains a database of 20,000+ space objects.485 However, the U.S. military did not share this data until an Iridium satellite collided with a Russian military satellite, prompting the amendment of 10 U.S.C. § 2274 to authorize the provision of SSA services if they were consistent with national security interests.486 After this event, the U.S. Strategic Command’s SSA sharing program grew exponentially, providing close approach notices to satellite owner operators and freely sharing SST data on its website.487 This was a good first step, but an increase in the quantity of SST sensors in the past decade has done little to bolster space traffic management efforts due to the disjointed nature of the data.488 As the space community attempts to consolidate SST data as part of a broader SSA régime, multiple nascent SST data sharing organizations show that a U.S. centric model is not guaranteed.489 The U.S. could put itself in a dangerous situation if it attempts to control SST data for the purposes of military use; this could potentially result in having complete control over only a fraction of the SST market, while American commercial SST companies lose their competitive edge. 490 In order to leverage the proliferation of SST sensors, increased interest in orbital debris mitigation from the international community, and the extant U.S. technological advantage in SST, the U.S. needs to encourage a U.S. centric data sharing model. The first step in this process will be separating the SSA mission from its military origins. Space Policy Directive-3, National Space Traffic Management Policy, issued by President Trump on June 18, 2018, indicates that the White House intends to act in that manner. The space policy directive orders the U.S. government to do the following: pioneer new SST technologies, encourage the commercial SST market, create SST data interoperability, develop STM standards and best practices, improve U.S. domestic space object registry, and encourage SST data sharing. All this will be accomplished primarily by the Department of Commerce, reducing the role of the DoD in the SSA mission.491 SPD-3 is absolutely in line with the recommendations of this thesis. While the United States is attempting to build bridges in the international space community, it may be burning others at an equivalent rate. In order to reduce Chinese fear of U.S. space domination, American decision makers must be careful to avoid inflammatory and militaristic rhetoric. The groundwork for space warfighting was set by the George W. Bush administration on the heels of the Rumsfeld Commission’s “Space Pearl Harbor” warning. The 2006 U.S. National Space Policy maintained the right to deny adversaries use of space if those capabilities are hostile to U.S. national interests. 492 Note that the policy does not say “deny adversaries use of space if those capabilities are hostile to U.S. space assets,” which would infer a natural right to self-defense. Rather, the language of the space policy suggests that the U.S. has the right to interdict an adversary’s space capabilities if they provide space effects that are disadvantageous to national security. This is consistent with the militaristic vernacular in the United States Space Command Vision for 2020, which promises to provide full spectrum space dominance hinging on space control capabilities. The Vision for 2020 compares space to other warfighting domains (land, air, and sea) and asserts that during the early 21st century, space power will evolve into a separate and equal medium of warfare.493 This rhetoric, combined with technological developments during the Bush administration, made the prospect of U.S. space domination seem incipient to Chinese policy makers and reignited conversation about space weaponization.494 The Obama Administration brought more moderate rhetoric by excluding inflammatory language in the 2010 National Space policy, recommending space arms control, suggesting TCBMs for space stability, as well as allowing Bush era technology programs expire.495 This policy was received very well in Asia, allowing the Obama administration to open high level strategic dialog about space cooperation with China and strengthen relations with East Asian allies.496 However, inflammatory and militaristic rhetoric returned with the Trump administration. Secretary of the Air Force Heather Wilson and other top Air Force leaders resurrected the idea of space as a warfighting domain during testimony to Congress, saying that the Air Force needed to maintain its capability regardless of consensus on international norms.497 In 2017 Air Force Space Command created the National Space Defense Center to integrate space capabilities and C2 methods in order to help conduct a space war.498 President Trump echoed that space is a war-fighting domain by signing the Space Policy Directive-4 on 19 February 2019, which proposes the creation of a Space Force as the sixth branch of service.499 These reorganizations alone are not as inherently threatening or substantive as the weapons development programs pioneered during the early 2000s. However, the incendiary rhetoric that accompanied these reorganizations may have counteracted the potentially powerful TCBMs outlined in SPD 2-3. The White House should emphasize cooperative, collaborative space initiatives as part of future space policy directives, rather than set a course for unilateralist (America First) action.

### No Solvency

#### Lack of organizational culture is a barrier to space force success

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Still, the problem is less the specific cultural traits of the Space Force than the apparent absence of any strong organizational culture at all. We have no sense of how organizational culture will contribute to military effectiveness of the service. We have few clues from the antecedents of the Space Force regarding how the beliefs and assumptions of the organization will structure its day‐​to‐​day operation. Space Force organizational culture, a critical component of the success of the institution, will be a work in progress.

#### Space force doesn’t have the institutional support or history to succeed

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There are reasons to worry about the prospective political effectiveness of the Space Force. While the Space Force undoubtedly will have a presence in the defense industrial base, its budget will be much smaller than that of any of the other services. It will lack a base of veterans and a history of success to draw upon. It can offer Congress and state governors less in terms of industry or footprint. Its budgetary decisions will be housed under the same department as the service it is most likely to conflict with over missions and resources (the Air Force). The politicized nature of its birth may leave it a figurative orphan if President Trump does not win a second term. In short, the ability of the Space Force to command the bureaucratic and fiscal resources needed to conduct its mission is in dire question. As a point of comparison, when the Air Force won its independence from the Army in 1947, it had already completed the United States Strategic Bombing Survey, which evaluated the effectiveness of the bombing campaigns against Germany and Japan at tactical, operational, and strategic levels.48 The very act of compiling the survey was evidence of political effectiveness, as it gave Air Force leaders and their allies the tools needed then to fight for independence and then to fight post‐​independence battles for resources and bureaucratic turf. The Space Force has nothing remotely comparable to the Strategic Bombing Survey, and it is difficult to imagine how a document measuring effectiveness in such a way could be compiled.

#### Space Force won’t have enough institutional support to accomplish its goals

Farley 2020

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We have little sense thus far of the size or significance of the Space Force budget. As noted, the initial budget for the Space Force runs at $15 billion, which is by far the smallest of any independent service; the Marine Corps, the closest analogue to the Space Force, will have a budget of $46 billion in 2021.[52](https://www.cato.org/policy-analysis/space-force-ahead-its-time-or-dreadfully-premature#_ednref52) The Department of Defense projected new costs for establishing the Space Force at roughly $500 million per year for the first five years. The Congressional Budget Office, by contrast, estimated one‐​time costs at between $1 billion and $3 billion, with annual cost increases between $840 million and $1.3 billion.[53](https://www.cato.org/policy-analysis/space-force-ahead-its-time-or-dreadfully-premature#_ednref53) Another estimate, developed for Air Force Secretary Heather Wilson in 2018, projected a $13 billion five‐​year price tag for establishing and operating the Space Force.[54](https://www.cato.org/policy-analysis/space-force-ahead-its-time-or-dreadfully-premature#_ednref54) Because of the size of the force, personnel costs occupy a relatively small part of the budget; although, this could grow rapidly due to the need for maintaining technical expertise. Beyond these estimates, we have little concrete information to go on. The establishment of a service without its own department gives the Space Force less bureaucratic leverage than any of the other services apart from the Marine Corps. The Marine Corps enjoys an established tradition, a large community of veterans, and a strong relationship with Congress, all of which the Space Force lacks. Nevertheless, the Marine Corps budget as a percentage of the overall Department of the Navy allotment has tended to vary considerably, with percentages of the overall Navy budget varying from as low as 13 percent to as high as 23 percent.[55](https://www.cato.org/policy-analysis/space-force-ahead-its-time-or-dreadfully-premature#_ednref55) This variance stands in contrast to the relatively stable allotments across the three established military departments.[56](https://www.cato.org/policy-analysis/space-force-ahead-its-time-or-dreadfully-premature#_ednref56) The Space Force, without any of the advantages of the Marine Corps, will likely struggle to protect its slice of the budgetary pie, which means it could struggle to protect the very capabilities it was established to field.

#### No solvency - Space Force can’t achieve its objectives

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This leaves analysts in an unusual situation, insofar as we have relatively little information with which to generate good expectations about whether the Space Force will perform its mission effectively, how it will get along with other services, or how it will affect the international environment. We have only a vague sense of the answers to many of the questions that will determine the success of the Space Force as an institution. We have reason to suspect that the Space Force will negatively affect multilateral arms limitation negotiations; we do not know how well the Space Force will be on traditional metrics of military effectiveness; we can guess that the presence of a Space Force officer on the Joint Chiefs will increase the prominence of space considerations in the National Military Strategy; and we have some reason to expect that the Space Force will increase demands on the military budget. This very uncertainty is an indictment of the decision to create the Space Force now. The Air Force, for better or worse, had answers to all these questions at its birth. As it now exists, the Space Force appears to a be a kludge designed to protect the political aspirations of the president while not encroaching too much on the institutional prerogatives of the Air Force. Provisionally, many aspects of the Space Force seem problematic. Space is, if anything, a more intractable domain than air in terms of interservice conflict in that space assets are the sinews of the day‐​to‐​day activities of the services on land, at sea, in the air, and in cyberspace. The inclusion of the Space Force within the Department of the Air Force raises questions about how independent the Space Force will really be, and thus whether it will realize any of the promised gains. Finally, the lurking problem of the development of an independent space doctrine, which has in some historical cases resolved in favor of doctrines that favor independent, offensive operations, remains a long‐​term concern insofar as it would threaten to endanger peaceful use of the “space commons.” Space Force’s establishment as an independent service is premature. Even for an institutional system in which services have domain‐​specific responsibilities (rather than a system that asks services to think holistically about how to accomplish missions across multiple domains), the Space Force is immature. Creating the Space Force at this point does not necessarily create the conditions under which the service can mature in a healthy fashion. Rather, it introduces the Space Force into a political arena where it lacks the resources and the political heft to effectively establish its prerogatives among the other services. In effect, it is a service in name only; in reality, it remains Air Force Space Command, and there is little in its birth that suggests it will grow beyond this any time soon.