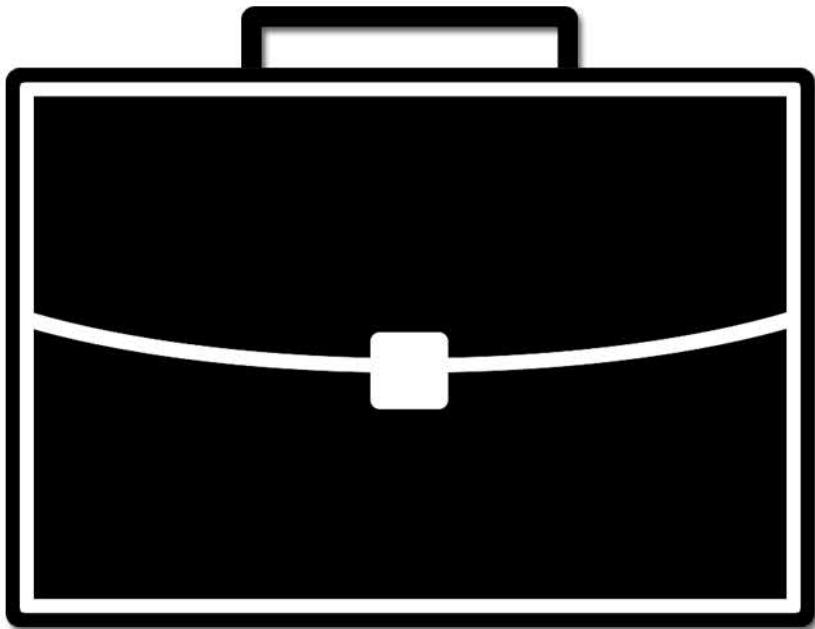


Champion Briefs

March 2021

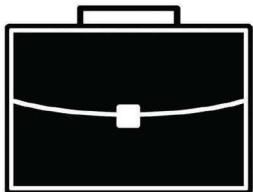
Public Forum Brief



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

Copyright 2021 by Champion Briefs, LLC

**All rights reserved. No part of this work may be reproduced or
transmitted in any form or by any means, electronic or mechanical,
including photocopying, recording, or by an information storage or
retrieval system, without the prior written permission of the
copyright owner and the publisher.**



Champion Briefs

Resources for Speech & Debate



About Our Briefs

Our briefs help students expand their knowledge base, improve their analytical skills, and prepare for competition. Each brief includes:

- Varied perspectives from expert writers
- In-depth topic analyses
- Cited evidence sorted by argument
- Peer-reviewed and edited guidance
- Background information & topic framing

Second Semester Subscriptions

Lincoln-Douglas

Non-Subscription: \$74.97

Subscription: \$69.99

Includes briefs for every Lincoln-Douglas debate topic from September through April plus briefs for the novice topic and for NSDA National Tournament

Public Forum

Non-Subscription: \$149.94

Subscription: \$134.99

Includes briefs for every Public Forum debate topic from September through April plus briefs for the NCFL and NSDA National Tournaments

PF/LD Combo

Non-Subscription: \$224.91
Subscription: \$194.99

We accept purchase orders
and all major credit cards

www.ChampionBriefs.com



Experience the #ISDDifference at ISD 2021!



Equal Access to Instructors

- Our junior instructors have been on the big stage and know how to prepare you to get there.
- We don't rank our labs. All students get access to our championship staff and individualized attention.



The Adults are in Charge

- Senior Instructors lead EVERY lab at ISD.
- We focus on skills, not tricks. We win the right way.
- Multiple NSDA Hall of Fame Members are on staff.



The ISD Family

- We're more than a camp. We form a community that will support you all season long.



Student Safety is Our Priority

- A dedicated residential life staff, including a 24/7 on-campus nurse that is available to all students.
- A firm and unapologetic zero tolerance policy for substance use and other egregious behavior.

ISD: Online
June 20 - July 3

ISD: Florida
June 26 - July 9

ISD: Carolina
July 11 - July 24

Learn more at ispeechanddebate.com!

The Evidence Standard

Speech and Debate provides a meaningful and educational experience to all who are involved.

We, as educators in the community, believe that it is our responsibility to provide resources that uphold the foundation of the Speech and Debate activity. Champion Briefs, its employees, managers, and associates take an oath to uphold the following Evidence Standard:

1. We will never falsify facts, opinions, dissents, or any other information.
2. We will never knowingly distribute information that has been proven to be inaccurate, even if the source of the information is legitimate.
3. We will actively fight the dissemination of false information and will provide the community with clarity if we learn that a third-party has attempted to commit deception.
4. We will never knowingly support or distribute studies, news articles, or other materials that use inaccurate methodologies to reach a conclusion or prove a point.
5. We will provide meaningful clarification to any who question the legitimacy of information that we distribute.
6. We will actively contribute to students' understanding of the world by using evidence from a multitude of perspectives and schools of thought.
7. We will, within our power, assist the community as a whole in its mission to achieve the goals and vision of this activity.

These seven statements, while simple, represent the complex notion of what it means to advance students' understanding of the world around them, as is the purpose of educators.

Letter from the Editor

The resolution for Public Forum Debate for March 2021 will be, “Resolved: On balance, the benefits of creating the United States Space Force outweigh the harms.” This topic represents an exciting chance to talk about the Space Force, something that has largely been considered a joke by many. The impacts of space development, research, exploration, and militarization are immense, and should provide debaters with a ton of fun potential arguments to write and explore. As a Public Forum debater, one of my all-time favorite resolutions was the October 2011 topic, “Resolved: Private sector investment in human space exploration is preferable to public sector investment.” My partner and I had a ton of fun with that resolution, and this one feels similar in that regard. For that reason, I’m excited to see what teams come up with on this topic – space is always a fun subject to discuss, and I’m sure Public Forum debaters will find new and interesting angles to approach the matter.

Analyzing the resolution briefly, debaters are tasked with considering a top-down view of all potential impacts of creating a Space Force. Impacts to the United States can be argued to be more important, but broader societal impacts and those to other countries certainly can’t be disregarded. The resolution’s breadth in that regard is what will allow debaters to consider potential tradeoffs and long-term impacts that may stem from developing a military branch specific to controlling space. Personally, I’m partial to some of the more “far-out” arguments, including: space-based solar power, space elevators, and deep-space exploration. For those of you who like to run contentions with convoluted link-chains leading to unusual impacts (much like I did), this will be a truly epic resolution.

Ultimately, in a very strange debate season, this is a strange but fun topic. Debating a resolution about space as a senior in high school was a highlight of debate for me, and I hope you’re all able to find arguments you find interesting and fun to talk about in your preparation. As always, I wish you the best of luck, and happy researching.

Michael Norton
Editor-in-Chief

Table of Contents

The Evidence Standard	5
Letter from the Editor	6
Table of Contents	7
Topic Analyses.....	10
Topic Analysis by Sara Catherine Cook.....	11
Topic Analysis by Jakob Urda.....	23
Topic Analysis by Tucker Wilke.....	30
General Information.....	43
Pro Arguments	54
PRO: Space Force establishes diversity norms	55
PRO: Space Force would let the US serve as a police force.....	60
PRO: Space Force expands US hegemony	65
PRO: Space Force is crucial for further space research	69
PRO: Space Force improves the economy.....	74
PRO: Space Force stops satellite warfare	78
PRO: Space Force improves military readiness	83
PRO: Creation of the Space Force improves other branches of the military.....	87
PRO: Space Force decrease potential conflict	92
PRO: Space Force protects military logistics.....	96
PRO: Space Force defends against ASATs.....	100
PRO: Space Force balances against Russia	104
PRO: Space Force balances against China	108
PRO: Space Force allows US to enforce the OST	112
PRO: Space weapon development can help solve space debris.....	115

Pro Responses to Con Arguments 119

A/2: Space Force trades off with other military functions	120
A/2: Space Force hurts the environment	123
A/2: Space Force is bad for the economy.....	126
A/2: Space Force escalates tensions with Russia	129
A/2: Space Force escalates tensions with China.....	132
A/2: Space Force protects military logistics.....	135
A/2: Space weapons create collateral damage	138
A/2: Space weapons are too expensive.....	142
A/2: Space Force will create a space weapons arms race	146
A/2: Space weapons have a high chance of miscalculation	149
A/2: Space weapons have no international regulations.....	153
A/2: Space Force will increase quality and threat of space debris	157
A/2: Creating a space force is a violation of the Outer Space Treaty	161
A/2: Creation of the Space Force undermines the Air Force.....	164
A/2: Creating a Space Force will lead to monopolization of space	169

Con Arguments 173

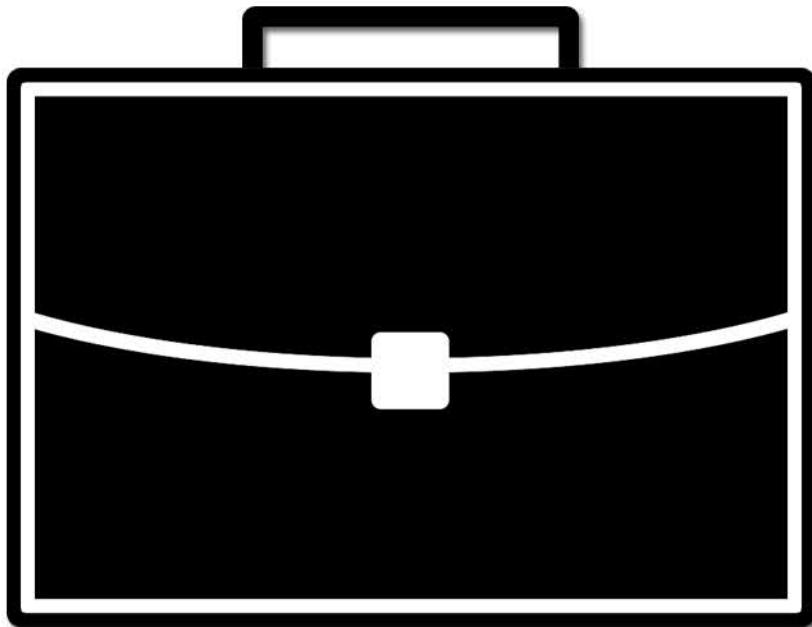
CON: Space Force trades off with other military functions	174
CON: Space Force hurts the environment	178
CON: Space Force is bad for the economy	182
CON: Space Force escalates tensions with Russia	186
CON: Space Force escalates tensions with China	190
CON: Space Force protects military logistics	194
CON: Space weapons create collateral damage	198
CON: Space weapons are too expensive	201
CON: Space Force will create a space weapons arms race.....	205
CON: Space weapons have a high chance of miscalculation	209
CON: Space weapons have no international regulations	213
CON: Space Force will increase quantity and threat of space debris	217
CON: Creating a space force is a violation of the Outer Space Treaty.....	220
CON: Creation of the Space Force undermines the Air Force	224
CON: Creating a Space Force will lead to monopolization of space	229

Con Responses to Pro Arguments	234
A/2: Space Force establishes diversity norms	235
A/2: Space Force would let the US serve as a police force.....	239
A/2: US hegemony in space.....	243
A/2: Space Force is crucial for further space research	248
A/2: Space Force improves the economy	252
A/2: Space Force stops satellite warfare	256
A/2: Space Force improves military readiness	260
A/2: Creation of the Space Force improves other branches of the military.....	264
A/2: Space Force decrease potential conflict	269
A/2: Space Force protects military logistics.....	273
A/2: Space Force defends against ASATs.....	276
A/2: Space Force balances against Russia	279
A/2: Space Force balances against China	282
A/2: Space Force allows US to enforce the OST	285
A/2: Space weapon development can help solve space debris.....	289

Champion Briefs

March 2021

Public Forum Brief



Topic Analyses

Topic Analysis by Sara Catherine Cook

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

Introduction

Space, the final frontier. This topic dives headfirst into an area that debaters have been writing "joke contentions" about for years. Strangely enough, this deep-dive is warranted as space becomes more and more important to our daily lives than we understand right now. With that being said, let's start by breaking down the wording of the topic itself and then talk about space. The first thing to notice about this topic is that it is a value resolution. This means that when analyzing this topic, we do not get to put on our magic policymaking hats and pretend we are changing anything by affirming the resolution. I like to think of value resolutions as weighing debates; the objective is not necessary to prove your opponent wrong but rather to show that your arguments are more important. Now you might be thinking: this is just the objective in every debate round. The difference is that in rounds with policy resolutions there will be a clear right and wrong to every argument, i.e. this policy will either increase or decrease poverty. Your job is to prove first that your argument is the true one. In a value debate, you are faced with a scenario where opposing arguments can both be true. For example, the Space Force could in some ways increase tensions with other countries and in other ways decrease them. Both of those claims can be true; you have to now show that yours matters more.

Let's talk about the creation of the U.S. Space Force. The founding of the Space Force in December of 2019 was not the first space-focused military initiative. The first Air Force space programs started during the Cold War in 1945, with the first dedicated space organization within the U.S. Armed Forces being founded in 1954, known today as the Space Force's Space and Missile Systems Center. Different space initiatives were unified under Air Force Command in 1982. Despite our limited knowledge of the effects space has on warfare, U.S. space forces supported operations in Vietnam, Grenada, Libya, and Panama. Interestingly enough, 2019 was not the first time a separate Space Force was proposed; the 2001 Space Commission argued for the creation of a Space Corps between 2007 and 2011 with a bipartisan proposal that would have created a Space Corps in 2017. This piece of the topic is especially useful as teams might find it insightful to look into the reasoning for why that bill did not pass. Finally, in 2019, the United States Space Force Act relocated the Air Force Space Command to a new independent military service, the U.S. Space Force. This creates a complication in the topic. Though changes are resulting from the specific relocation of the Space Force, the particular missions and roles of the Space Force will largely remain. This makes it incredibly important for teams to specifically link their arguments to the creation of the independent Space Force in 2019 rather than just space operations in general. Alternatively, some teams may choose to take a wider definition of creation and argue that the topic is actually about the practical creation of the Space Force, i.e. all of the space operations that the Space Force performs regardless of whether that started before or after it was established as a separate branch. While I will say this is probably not the intended interpretation of the topic, it is an argument that can be made and thus one team should be prepared for. In this case, either the scope of the round would widen to include all

space operations, or the debate would revolve around which interpretation of the topic is fairer or more educational for the round.

What does the Space Force do?

Now after understanding the founding of the Space Force and its implications of the topic you are probably wondering: What does the Space Force do? First, we need a bit more context. The United States has spent the past fifty or more years putting satellites into space. These satellites are now integral to most parts of our daily lives, including but not limited to: agriculture, television, phone, internet, and weather reports. In the military field, drones, naval ships, missile warning systems, and smart bombs all rely on satellite data. When this project began years ago, there were little to no threats involved with maintaining and using satellites, meaning there was no need for more than a section of the Air Force to be dedicated to Space. As of 2019, eleven countries now can send satellites into orbit. Even more so, there is only one military-related treaty regarding space. Referred to as the Outer Space Treaty, it essentially establishes that countries are not allowed to use nuclear weapons in space. Otherwise, space is essentially seen as free reign. We will discuss the specific threats in space later on. With that background, the Space Force is not a new initiative designed to explore new worlds or fight new adversaries as is true in shows like Star Trek. The U.S. Space Force is limited to supporting current projects. More specifically, the Space Force is challenged with maintaining, protecting, and expanding the U.S. fleet of advanced military satellites that form the backbone of military operations.

An immediate thought should be: Haven't we been doing this ever since the satellites were sent into orbit? The answer to this is yes, so now I want to outline some of the changes that resulted from the Space Force becoming its branch. The Space Force requested over 15 billion dollars for 2021 and likely may get even more. Space investments are also 15% higher than last year. As per usual, budgeting topics always draw in issues related to the national debt. Even more so, it is a fun exercise to ask the question of where the money would have gone otherwise. I would argue that the answer, in this case, is probably not as exciting. It is likely that regardless of whether the Space Force was a separate entity, Congress still would have given the same amount of money to space operations. One counter-argument to this would relate to perception; because the Space Force is its own entity, Congress is likely to perceive it as more important and thus award it more funding.

The second change that resulted from the creation of the Space Force is with bureaucracy. As we know by now, the Space Force was previously part of the Air Force. Separating the two not only makes it harder for collaboration between the different projects, but also creates potential inefficiencies like new training, new schools, and new bases. Even more so, the Space Force will likely use technological advancements as the reason that they should be exempt from the normal federal acquisition system. Though teams likely do not need to understand the intricacies of how federal acquisition works, they should know that this means that the Space Force will get large increases in funding to go towards new technology that often ends up failing, whereas in the Air Force they are subject to more standard procedures. One such example of this failure is the Missile Defence Agency. It was a mission to create a ballistic missile shield where the agency was allowed exemptions from the regulations

of the acquisition system. The result was a useless system that cost taxpayers 2.2 billion dollars and the Missile Defense Agency even more due to the lack of oversight that often accompanies new projects and technologies. At the same time, an argument can be made that these exemptions and freedom from the Air Force bureaucracy are necessary to truly advance space protection. Research and development after all always contain many failures before discovering the next large breakthrough.

Why Space is Important

Lastly, let's talk about the reason why this topic is important. The reason why space is so critical builds off of something we have already discussed: the importance of satellites to almost everything we do. This also makes satellites an ideal target for attack because knocking out or interfering with a satellite can cause so much damage so quickly. The UN now recognizes over 90 countries who are somehow in space, many developing or already having capabilities to destroy other satellites. In November of 2019, one of Russia's satellites released another satellite which ended up next to a U.S. spy satellite by January of 2020. Russia did pull their satellites away after the U.S. addressed them diplomatically, but in July a U.S. general confirmed that one of Russia's satellites fired a projection into space. This is the first time the U.S. has accused another country of a weapons test in space. It makes sense that space warfare could become the most strategic form of warfare in the next decade. Knocking out a satellite could have varied effects based on what the satellite is used for, but the range of effects includes knocking out power or spying capabilities, destabilizing the U.S. navy, or stopping an adversary from being able to respond to any sort of attack. This is both more and less risky than

other forms of warfare: riskier because of the sheer magnitude of the effect, but less risky because the U.S. likely lacks the most advanced detection and protection capabilities needed to stop an attack before it happens. Even more so, the cost of conflict is seemingly low to leaders. No immediate human lives are being put at risk compared to any sort of "boots on the ground" conflict. The rise of cyber-attacks we have seen over the past few years likely precedes the rise of space-related attacks coming shortly. What does this mean for the topic? This forms the basis for many of the military based arguments on either side. Your analysis should focus on whether the Space Force worsens or improves the situation with regards to the rising threats in space. You, of course, can disagree with me and argue that space attacks will not rise over the next decade. With that approach, you would want to pivot the round to other benefits or harms of the Space Force that are not related to the conflict.

Affirmative Argumentation

The first main Affirmative argument teams can make is one regarding protecting the satellites and how the Space Force improves our capability to do so. There are a few ways teams can make this argument. First and foremost, there are practical ways in which the Space Force may be better at protecting satellites than they were a part of the Air Force. This ties into both the funding and bureaucracy points we discussed in the introduction. When the Space Force has billions of dollars specifically directed into its program, it has the flexibility to decide how to allocate that. As part of the Air Force, space operations would likely take a backseat if some other pressing issue required a large percentage of funding, and the space operations sector would have to apply for and get approval for specific projects to receive funding for

them. The Space Force is also no longer under the direction of the Air Force meaning that they can pursue seemingly riskier projects that the Air Force may have not been willing to entertain. Both of these things could enhance the research and development of new technologies that would help us better protect satellites.

There are also perceptual ways in which the Space Force could deter conflict. Creating a new branch of the military signifies to other countries like China, Russia, etc. the U.S's commitment to preventing and responding to space conflict. This could deter attacks from adversaries because they know that either the U.S. can respond, or that the U.S. will stop the attack before it happens. Even more so, teams can make arguments related to counterbalancing. There are theories on every military-related topic that countries like China should be considered "revisionist". What this means is that their primary objective is to expand influence. This does not always happen via taking territory or picking on neighboring countries but can also relate to economic or perceptual dominance. The argument here would be that different adversaries are using space to assert global influence over other countries. That is, even if they never fire any sort of weapon, the number of satellites they have in space as well as their capability to destroy others will keep other countries at bay out of fear of being attacked. With this being said, teams on the Affirmative side can make the argument that the U.S. needs to have a dominant presence in space to "counterbalance" China and Russia's influence.

Though most of the arguments on this topic will be militarily related, there are some other interesting paths to go down regarding other projects the Space Force is executing. One example regards solar power. The Space Force is currently building and testing a spacecraft that will beam solar power to earth. The implications to this are obvious as renewable energy

produced at a higher level could help shift dependence away from fossil fuels and reduce carbon emissions. The tricky part about this argument will be establishing that something about it is unique to the creation of the Space Force specifically as the project was started before the Space Force was founded. Ultimately, there are plenty of reasons why the project could be more successful based on the new funding and freedoms in the creation of the Space Force. Additionally, the creation of the Space Force could further this type of project and create more renewable energy in the future which is probably a project that would not seem super important to the Air Force. If you don't feel inclined to read arguments related to conflict, I would encourage you to look into different ongoing projects the Space Force is conducting and make arguments about those.

Negative Argumentation

Again, let's start with some of the military-related arguments on the Negative side. First, I think there will be some logistical arguments to make regarding the specific creation of the Space Force. Namely, that the Space Force would be less effective without Air Force oversight via losing essential collaboration with other Air Force projects or access to further expertise from a much older program. This argument assumes that the projects being undertaken by the Space Force are good but rather that the creation of the Space Force as an independent agency will hinder their effectiveness.

Conversely, teams on the Negative side could make an argument regarding Space Force projects and objectives. The first is a perceptual argument regarding great power competition and its ramifications. This is the antithesis of the Affirmative argument about counterbalancing.

The argument here is that when the U.S. intensifies its influence in space via the Space Force, Russia, China, and other adversaries will follow suit and continue to test out weapons, develop more advanced defense systems, etc. Teams can draw similar conclusions with other arms races or instances where both countries somehow end up intervening economically or militarily in the same area. This could be disastrous as increasing presence not only increases the possibility of different countries developing weapons for space but also increases the risk of miscalculation. As mentioned earlier, decades ago people believed that space was too big for conflict, meaning that since space is so large the possibility of some sort of collision between smaller objects is infinitely small. Nowadays there are over 2000 satellites in space with more likely in the works, meaning that the possibility of accidents especially when space weapons are involved increases. Any sort of conflict would be devastating because of how much not only the U.S. but also other countries rely on satellites. External from miscalculation, just the procurement of weapons through a pseudo-arms race could lead to conflict as military buildups often lead both sides to believe that the other is advancing against them. Teams should also look to what effect the Space Force may have on our allies. The development of weapons by Russia or China could potentially have more consequences for allies who do not have the same capabilities as they would for the U.S.

There is also some potential for teams to make an argument about funding, i.e. that funding the Space Force will trade-off with other uses for that funding or will just overall increase the national debt. My concern about this argument is that it may be hard to prove that the creation of the Space Force as a separate branch necessarily was the catalyst of increasing funds. It would be easier to argue that funds would have been allocated to the Air Force as a

whole and that Air Force projects, which teams on the Negative would argue are good, are losing money. As military spending increases, we also see similar arguments from other topics about the national debt. This includes spending tradeoffs, potential negative economic effects like crowding out, or the effect our debt has on other countries' economies. These arguments will likely have weaker links into the creation of the Space Force specifically but can become good supporting arguments and can be useful when trying to avoid lengthy debates about whether tensions increase or decrease.

Conclusion

This will likely be a fun topic! I think that space is really interesting and that this topic will both introduce new ideas and carry some of the same themes as topics we have seen before. I have a couple of final pieces of advice for this topic. First, teams should pay extra attention to linking their argument specifically to the creation of the Space Force rather than just what the Space Force does. Many projects conducted by the Space Force existed when it was still part of the Air Force and thus, on the face, have nothing to do with the point of this topic. Secondly, draw on literature that is outside of the space realm especially when talking about some of the military topics. Though space is a new frontier, many of the arguments relating to the conflict we have seen before in other areas. Teams should look into historical evidence that describes phenomena like great power competition, deterrence, arms races and look specifically to the expansion and creation of new types of warfare throughout history. I hope you have a great month and I hope this was helpful!

Works Cited

“10 ways that satellites helped you today.” *Canadian Space Agency*. 8 Feb 2018.

<https://www.asc-csa.gc.ca/eng/satellites/everyday-lives/10-ways-that-satellites-helped.asp>

“Space Force: Inside America’s Newest Military Branch.” *TIME*. 23 Jul 2020.

<https://www.youtube.com/watch?v=hmSdI4yheeg>

Barbier, Reid. “The Purpose and Mission of the Space Force.” *American University School of International Service*. 23 Jul 2020. <https://www.american.edu/sis/centers/security-technology/the-purpose-and-mission-of-the-space-force.cfm#:~:text=The%20primary%20mission%20of%20the,military%20can%20hardly%20be%20overstated.>

Delbert, Caroline. “The Air Force Is Building a Spacecraft That Will Beam Solar Power To Earth.”

Popular Mechanics. 30 Dec 2020.

<https://www.popularmechanics.com/science/energy/a35092898/air-force-solar-power-beaming-spacecraft/#:~:text=The%20Air%20Force%20Is%20Building,Beam%20Solar%20Power%20to%20Earth&text=Solar%20power%20from%20space%20could,which%20will%20launch%20in%202024.>

Grazier, Dan. “Space Force: A Historical Perspective.” *Project on Government Oversight*. 16 Oct 2018. <https://www.pogo.org/analysis/2018/10/space-force-a-historical-perspective/>

Maucione, Scott. "DoD asks for \$705B for 2021, gives Space Force more than \$15B." *Federal News Network*. 10 Feb 2020. <https://federalnewsnetwork.com/defense-main/2020/02/dod-asks-for-705b-for-2021-gives-space-force-more-than-15b/>

About Sara Catherine Cook

Sara Catherine Cook is from Birmingham, Alabama, and competed for The Altamont School for three years in Public Forum Debate. She was one of the first teams from her school to qualify for the Tournament of Champions and NSDA Nationals, being the only team from her state to qualify to the TOC in the 2018-2019 season. She now attends Dartmouth College in Hanover, New Hampshire, where she plans to study Mathematics.

Topic Analysis by Jakob Urda

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

Introduction

The Space Force is one of the least understood elements of the United States military. It operates in a domain that few are familiar with, has unclear jurisdiction and authority, and is responding largely to threats that have not yet materialized. While it is easy for the average American to understand the need for a navy or air force, the space force is different altogether. America has not yet been attacked by space, and it is difficult to think of what threats could target us from that domain. Nevertheless, the essence of military strategy is the strength to imagine new and yet unseen threats. This topic promises to force debaters to think about uncharted territory and reward creative argumentation.

The job of debaters will be to clearly explain to judges why the space force exists and justifies (or does not justify) its budget. This requires teams to be able to break down complex ideas about military strategy, space technology, and bureaucratic politics in an easily digestible format for judges. By some measures, this is a very difficult task. Debaters must explain interstate rivalries, how those rivalries affect space, and how a space force could address those issues. There are so many new and unfamiliar links in even the simplest argument.

This burden to explain nuanced and complex ideas to judges will reward teams who do their research and delve into the intricacies of the topic. Even more important is the ability to

break down complex language into common parlance. Judges must be convinced that these esoteric and distant conversations about abstract national security issues are worth their time and attention. The topic will also have a special resonance with judges because the resolution affects their tax dollars, and debaters will have to justify the money which comes out of their paychecks being spent on the Space Force. The art of marrying research with rhetoric will set teams apart in March.

Strategic Considerations/Framing of the Debate

For national security topics, thinking of compelling arguments can be difficult. Cases often devolve into standard and abstract conversations about “national interests” and “conflict.” But these points are as vague as they are unpersuasive. Judges wonder what the tangible real-world effects of affirming or negating the resolution. Judges will also always vote off of a concrete impact that they can visualize over some esoteric harm that is weighed but never fully explained. This creates an imperative for debaters to invest heavily in their argument generation process before writing cases.

To create the best arguments on this topic, debaters should focus on points that have well-defined impacts which are specifically triggered by the resolution. These two imperatives can be summarized as "clarity" and "brink." Clarity is the idea that the judge should understand what your impact means to them, in the real world. It should be associated with clear actions and consequences that ideally materially impacts their life. Many impacts on this topic will be unclear, such as "increasing tensions." Judges do not understand what "increasing tensions"

with other countries means materially. This is a problem because even if the judge is inclined to think tension is important to focus on, they will almost certainly lack a rational basis for weighing the impact of increasing tensions against other impacts that your opponent may bring up.

On the other hand, brink impacts are those which are specifically triggered by the resolution. Many impacts on this topic will be scalar – a slight increase in a certain probability or an incremental reduction in spending. Judges have a hard time voting off of these impacts because it is unclear if enacting the resolution would make much of a difference. This makes it very easy for opponents to say impacts are non-unique – even if some part of the impact is specially generated by the Space Force, the overall impact may exist regardless of the implementation of the resolution. Debaters must do their best to isolate the Space Force as the discreet cause of the impact, as opposed to one-of-many causal contributors.

The best arguments have both clarity and brink. This means that the judge can associate the impact with specific high-impact phenomena and that they can be sure that the Space Force is the unique cause of those phenomena. These arguments will intuitively come first in a judge's mind when thinking about the topic. They will gravitate to these arguments and prioritize them when weighing out the unresolved claims in the round.

How can debaters think about which arguments satisfy the dual criteria of "clarity" and "brink." One test is to think "If the space force did not exist, [INSERT IMPACT] would not happen anymore." This test forces debaters to consider whether their impacts leave a material impact on the world and whether the resolution is singularly responsible for that impact. If the

statement is true, then the impact may be strong, if the statement sounds strange then the argument may be too vague.

One point which many debaters will make is that the space force will reduce international tensions with China. We can apply our test here to see if the point is clear and has brink. "If the space force did not exist, [international tensions with China] would not happen anymore." This statement sounds absurd – it is unclear what impact of "international tensions" would disappear. It is intuitively wrong because international tension existed before the space force existed. It is also unclear what "international tensions" means in this context because it is not a defined thing. Thus, the point does not have a clear impact, nor does it achieve the brink. Debaters should be wary of arguing points like this because judges will have a hard time weighing them.

On the other hand, this test can help identify arguments that may be strong. For instance, imagine testing the point that the space force trades off with a particular spending program. The statement would look like "If the space force did not exist, [spending reductions for a certain welfare program] would not happen anymore." This sentence seems reasonable and compelling. It presents the judge with a defined picture of what will happen without the space force and seems compelling.

Strong teams will run arguments that have both clarity and brink. Prioritize these criteria when planning your arguments.

Affirmative Argumentation

The affirmative should start by considering basic arguments about how the Space Force will improve specific important economic innovations and streamline military logistics. These arguments can be centered around specific discrete outcomes that provide debaters the base for effective weighing. Most debaters will have some blocks to these points – the solution is to get more specific. For instance, the more specific a team is about which innovations the space force enables, the more difficult it will be for general blocks to be responsive.

The space force has the potential to catalyze many important economic areas. Space technologies intersect telecommunications, electronics, and robotics. These are all critical emerging technologies that will form the backbone of our future economy. For example, telecommunications technologies such as 5G are "bedrock" innovations which allow other technologies to be built such as self-driving cars and AI applications. Thus, early investments in telecommunications can pave the way for better innovations in the future.

One reason this argument is powerful is that it can be grounded in historical reality for the judge. There are plenty of examples of technologies that exist as a direct result of the space race with the Soviet Union during the cold war. This means that judges will be already familiar with the concept at work and be able to wrap their heads around the impact. Use examples such as satellite communications and microwaves as technologies that shape our world today and were only possible because of federal funding of space-based research and development.

Affirmative teams should ground their arguments in tangible examples to make their impacts seem more real to their judges. In this topic, it is very easy to get wrapped up in

nebulous impacts that do not resonate. But by appealing to past precedent, teams can make the impacts of the space force real and material.

Negative Argumentation

The negative should also think about starting their topic research by looking at points that are intuitively familiar to judges. This means using examples from similar programs in the past and sticking to explicit tradeoffs. Some points like this include looking at funding tradeoffs with specific welfare programs and initiating conflicts over specific flashpoints.

The negative should avoid broad arguments such as “the space force will increase international tensions” or “the space force is expensive” because these arguments are difficult to weigh and to conceptualize. Instead, these points should be reformulated around specific events or turning points. For example, “increases tensions with Russia” could be replaced with “harms Russo-American joint spaceflight programs.” The latter is much more tangible and can be tied to specific impacts. This in turn makes it weighable.

One avenue that negative teams should consider is to pick specific welfare programs and argue that the space force budget will trade off with them. This means that the billions of dollars we spent on the space force could have gone to a far more productive investment which more directly benefits the lives of average Americans. This argument is potentially strong because there is a long list of welfare programs that are instantly recognizable to judges which can stand in as powerful impacts – think of food stamps or the section 8 housing program.

Teams that want to look into welfare arguments need to be sure to adequately warrant the inherency of the tradeoff. There must be a reason provided that the Space Force budget

comes from the pile of money allocated to welfare and not from deficit financing or some other mechanism.

This topic is vast and offers a wide range of debates on topics ranging from security issues to political ones. Debaters will be forced to research deeply and cover a breadth of issues and explain them to judges who are unfamiliar with them. The topic will reward those who diligently research and think creatively. Concentrate on well thought out research and simple but high impact contentions. Good luck and have fun!

About Jakob Urda

Jakob grew up in Brooklyn, New York. He attends the University of Chicago, where he will receive a BA in Political Science, and is interested in security studies and political economy. Jakob debate for Stuyvesant High School where he won Blake, GMU, Ridge, Scarsdale, Columbia, the NCFL national championship, and amassed 11 bids. He coached the winners of the NCFL national tournament, Harvard, and Blake.

Topic Analysis by Tucker Wilke

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

Introduction

With the "regular season" of Public Forum debate wrapping up in February, we arrive at one of the stranger months of the debating calendar: March. Several states have no tournaments in March, with many others having their state championship tournaments and NSDA district qualifiers as well. After the notoriously intense and competitive months of January and February, teams may be feeling a bit fatigued when it comes to research and preparation, and those planning on competing in the months following March may also want a bit of a break. Luckily, the month of March is ripe for collaboration! Since the vast majority of tournaments in March are intra-state, (or even intra-district) teams should lean on the connections and friendships that they've made throughout the year to collaborate on research. This is not an excuse for teams to skimp out on doing their work completely, but collaboration can lighten the load and expose teams to a diverse set of arguments. Additionally, for teams feeling fatigued by the intense rote research of the prior months, the topic committee has provided them with what promises to be a fun, more light-hearted debate this month, as the topic is "Resolved: On balance, the benefits of creating the United States Space Force outweigh the harms." With that, let's get into the strategies and arguments that will dominate the coming month of debate!

Strategic Considerations

The NSDA/CFL qualifying tournaments, as well as state championship tournaments, often look and feel very different than normal regular-season tournaments. Qualifying tournaments are often set up in a single or double elimination format, running as many rounds as are needed until the qualifying teams remain, while state championship tournaments are structured like normal tournaments, but are usually choc full of excellent teams. Thus, in each of these tournaments, debaters are not afforded any easy warmup rounds, as every round promises to be challenging and high-stakes. For that reason, debaters must get into round one ready to go, and keep their energy and enthusiasm high throughout the entire day while also maintaining their focus, which is no easy task while on Zoom. Furthermore, these tournaments often have judging pools with mixed experience levels, and qualifying tournaments often start having panels very early on, making it as important as ever for teams to make sure their debating style can appeal to judges of all types. This means as little jargon as possible, speaking at a reasonable speed, and focusing on warranting and weighing. Teams cannot afford to drop a round because they were "too technical."

In many ways, this topic poses the opposite challenges for communicating effectively with judges than the prior month. Where West African Urbanization was dense, esoteric, and even boiling the key parts of it down into an argument that any judge could understand was difficult, this topic, due to the dominant perception of the Space Force, may seem silly to some judges. Thus, teams will have to manage the severity of their language, especially in their weighing, such that it shows judges that there are actual stakes involved in the topic. This is especially true for pro teams, who need to make the space force sound as legitimate and

important as is reasonably possible. There are real substantive impacts on both sides of this debate, even as the topic initially seems rather lighthearted to many judges. Teams that can strike the proper balance between acknowledging the perception the judge likely has about the Space Force while still treating the debate seriously are likely to be very effective and be rewarded with high speaker points.

Even with a topic as straightforward as this one, there are a couple of phrases in the wording of the resolution that is important to think about. For the second month in a row, the resolution starts with "On balance" meaning that the debate will be judged under a straightforward cost-benefit analysis framework. Furthermore, the specification of looking at "the benefits" of its creation should help to focus the debate on the actual impacts of the agency, rather than the charade around its creation. This means that even if, as critics posit, President Trump came up with the idea on a whim to please his supporters, and made lots of decisions about the creation of the program unilaterally, which many see as a regrettable way to make policy on principle, so long as the pro can prove that the creative force itself does more good than harm, they'll be able to win the round.

Affirmative Argumentation

In addition to showing the tangible benefits of a Space Force, pro teams will first have to overcome the likely perception of the Space Force in the minds of many of their judges. Many people, especially the general political lean of people at debate tournaments, will likely think of Space Force in the context of seeing a clip of people chanting it at President Trump's rallies, the agency being made fun of on a late-night comedy show, or the Netflix sitcom of the same name

satirizing the agency. Even people who support the agency will likely not be able to name its core responsibilities. It is therefore essential for pro teams to spend time in their case explaining what exactly Space Force does, and giving background on the state of the military and space operations to show why Space Force needed to be created. When given only four minutes to make their case, debates are often hesitant to spend that precious time on anything other than warrants and impacts, and while that's a very understandable impulse, teams should rethink it in this instance. After all, many rounds may come down to whether or not the judge walks out of the room believing that space force is a legitimate, necessary government agency whose purpose and duties they can understand, so the sooner pro teams start establishing that idea, the better. Just as the government, in the words of *Time* magazine, must convince "the American public that the Space Force is not an unnecessary vanity project for [President Trump] but an idea that has been under consideration for decades," pro teams need to do the same for their judges.¹ For that reason, I also recommend that debaters try talking to friends and family about their reactions when they think of the Space Force, and then reading their case to them and seeing how effectively it moves that perception. I know that it is not a traditional way to think about case writing but it may prove very useful for this topic. With that, let's try to tackle the issues above: why do we now have a Space Force, and what does it do?

The first key piece of context that pro teams should look to establish is that the idea of a Space Force did not come out of nowhere. As public intellectual and science communicator Neil

¹ <https://www.youtube.com/watch?v=hmSdl4yheeg>

Degrasse Tyson has explained, the United States already functionally had a Space Force, called the United States Space Command, which is under control of the Air Force. That department launches satellites, including the ones that run the Global Positioning System (GPS) as well as military spy/surveillance satellites.² Banks, hospitals, naval ships, drones, phones, and gas pumps are just a few of the technologies and organizations that rely on these satellites. The responsibility for the control of these satellites will now just shift over to the Space Force.

So once pro teams have established what exactly the Space Force will do and why their responsibilities are important, the next question they must answer is why shifting these responsibilities over to an entirely new branch of the military is necessary. Intuitively, along with an independent branch of the military comes more attention and funding, which means that pro teams can spend much of their time discussing why the key responsibilities of the Space Force require increased attention compared to what they've been getting in the past. So in addition to establishing that the Space Force did not come out of nowhere, pro teams also must show that the Space Force gives more resources to space projects than existed under its prior status. What new information or developments would warrant this new attention?

The first one that comes to mind is space operations from the adversaries of the U.S. As mentioned above, tons of critical aspects of security and society rely on satellites, so the disruption or destruction of those satellites by a foe could be disastrous. Just last year, U.S. and UK intelligence officials made the first-ever accusation towards Russia of firing an "in orbit anti-satellite weapon," (though Russia claims they were using the technology to perform checks on

² <https://www.rollingstone.com/tv/tv-news/neil-degrasse-tyson-space-force-colbert-722935/>

their equipment).³ China and Russia are both thought to have the weaponry to make these attacks as *The Diplomat* notes that “Chinese and Russian capabilities could potentially include cyber and electromagnetic attacks, jamming operations, and ground-based lasers as well as anti-satellite (ASAT) missiles.”⁴ The consequences of such an attack would be dire, as, given all of the functions of satellites found above, it should come as no surprise that a major attack (cyber or physical) on these satellites could put millions of lives in danger.⁵

This is where the Space Force comes in. Just about all of the writers/experts in the articles referenced above discuss the fact that the U.S. is, on the whole, underprepared for these satellite attacks (though they disagree on how underprepared they are). As Axios explains, one of the main duties of the Space Force is to “shore up national security interests in space.”⁶ It can accomplish this first and foremost by developing new technologies to defend U.S. satellites in space, something that they would likely treat as a priority and that will get significant funding, which may not be the case if the Space Force had remained a smaller division of the Air Force. In addition to developing these more defensive technologies, the Space Force plays a key role in deterring conflict from adversaries, both by developing new offensive technologies to, as *The Diplomat* puts it, “make clear that no adversary will gain the advantage they seek in space,” and by just signaling to other countries that these are threats the U.S. takes seriously and is prepared to defend itself against (another unique benefit of

³ <https://www.bbc.com/news/world-europe-53518238#:~:text=Russia%20the%20UK%2C%20the%20US,in%20orbit%20or%20in%20space>.

⁴ <https://thediplomat.com/2016/01/us-admiral-warns-of-chinas-and-russias-growing-space-weapons-armenal/>

⁵ <http://interactive.satellitetoday.com/the-growing-risk-of-a-major-satellite-cyber-attack/>

⁶ <https://wwwaxios.com/space-attacks-us-vulnerable-russia-satellites-3f169464-0abe-4ceb-aab9-7b5f2db29a0a.html>

having the Space Force as its branch of the military).⁷ At the end of the day, pro teams that want to design their case in this way have to think about the two things they must accomplish to make this a round-winning argument: first, that threats from space are a real, serious problem, and second, that the Space Force leaves the U.S. better able to handle those threats. That being said, while both of those components are important, I suspect that in many rounds, if the pro team can successfully make the judge worry about satellite threats, they will be very well-positioned to win the round, even if they only prove a marginal benefit from the creation of the Space Force compared to its operations. For that reason, pro teams should strongly consider a strategy centered around security and deterrence when designing their cases.

A second possible route for pro teams concerns an ancillary, yet crucial, benefit of the military work: research and development. In addition to helping with security, the research that goes into these satellite defense mechanisms will create new products and technologies that will benefit massive numbers of people. Looking broadly at space research, there was a study done on the UK Space Agency which found that the private benefit of R&D to innovators was 3-4x the public expenditure put in, and spillover benefits to the broader public were “significantly larger.”⁸ This should come as no surprise, the military has a history of contributing to useful technologies as a result of their research, such as microwaves, GPS, and the entire internet.⁹ Moreover, there is a laundry list of inventions that have come as a result of space research.¹⁰ It

⁷ <https://thediplomat.com/2016/01/us-admiral-warns-of-chinas-and-russias-growing-space-weapons-arsenal/>

⁸ https://www.ukspace.org/wp-content/uploads/2019/04/Spillovers-in-the-space-sector_March2019.pdf

⁹ <https://www.usatoday.com/story/money/2019/05/16/15-commercial-products-invented-by-the-military/39465501/>

¹⁰ <https://www.usatoday.com/story/money/2019/07/08/space-race-inventions-we-use-every-day-were-created-for-space-exploration/39580591/>

can seem difficult to make arguments about the importance of technologies that do not exist yet, so teams that are considering this argument should try to find out as much as they can about the specific research done by the Space Force and which industries it may be able to help. The potential impacts of this innovation in the real world are massive, and teams have successfully made arguments about research and innovation on prior topics, so it certainly can be done. That said, designing an entire case around this argument may be a bit tricky. After all, many judges intuitively would not think that research into some new technologies justifies the creation of an entirely new branch of the military, especially one that they may well think is a vanity project from Trump. It may therefore be strategic to pair this argument with other claims about the need for increased security. Teams that want to go all-in on this argument, however, should do so by paying careful attention to the wording of the resolution, which, as mentioned earlier, only looks to compare the net benefits or harms of the creation of the space force. Thus, clever teams can effectively make the argument that even if the creation of a brand new military branch was not *necessary* if there are even one or two major innovations that spillover from the Space Force, the benefits of its creation will have outweighed the harms. So even if the judge does not like Trump, is not inclined to support his projects, and has seen the late-night comedy shows that have raked Space Force over the coals, they can still believe all of those things and conclude that it will do more good than harm. That weighing can be very effective, but its mileage will vary with different judges and circuits, so teams should think about the flavor of their circuit to determine the efficacy of this argument. Hopefully, debaters that came into this thinking that the Space Force or the topic itself was silly now see the

potential benefits of the force and the intrigue of this topic. With that said, let's look at the con side.

Negative Argumentation

While the negative side has many possible routes of argumentation, in contrast to the pro arguments, which can complement each other, many of the potentially effective negative strategies will operate from differing worldviews. This is something that gets overlooked a lot when teams are building their case, as they make two arguments, each of which relies on different fundamental premises about the issue at hand. This often goes overlooked when teams are designing their cases, and when clever opposing teams point out the tension in the case, most debaters will try to get out of it by simply saying they're making an "even if" argument. While that will be sufficient in some cases, especially with technical judges, the fact remains that when crafting a narrative for a case, having internal consistency is a great benefit. Importantly, this topic comes down to a couple of major questions including Do Russia and China pose real threats to U.S. security in space? Is the U.S. currently unprepared to face those threats? Is the Space Force uniquely good at bolstering U.S. military capabilities? When brainstorming cases, one useful tactic can be to consider the different ways one might answer those questions, and doing so will naturally create arguments and anticipate what the debate may come down to at the end of the round. With all that in mind, let's look at how some con teams may answer those questions, and what their strategies would be accordingly.

One con strategy could be to agree that the Space Force is effective at increasing the capabilities of the U.S. concerning satellites and space, but that those capabilities are not necessary because Russia and China are not currently posing threats, and this would only serve

to spark an arms race. The benefit of this argument is that, while the terrain is different, the warrants are nearly the same as arguments about the conventional or nuclear arms race.

Before the Space Force, the Air Force handled the satellite security and military capabilities, and our capabilities were about in line with Russia and China, meaning that there is an equilibrium.

By creating the Space Force, the United States has raised the bar for space weaponry and security, which will force Russia and China to work to meet and exceed that bar, causing an arms race in space. There may already be signs of this happening, as the reported firing of a satellite weapon by Russia came after the creation of the U.S. Space Force, and given that space weaponry is a new field, an arms race right now could be uniquely catastrophic.¹¹ There are, of course, numerous studies that show that arms races increase tensions and increase the likelihood of conflict.¹² Even if conflict never happens, increased tensions can disrupt trade, which hurts the economy and prevents people from getting access to jobs and affordable goods, and even the fear that comes from an arms race has adverse impacts on people's health.

This is a viable argument, but there are a couple of things that teams should keep in mind when making it. On the plus side, many teams have likely made arguments about arms races on other topics, and since many of the warrants and impacts are similar, they will likely be able to effectively explain and weigh the argument. That said, the same applies for the teams they will be debating against, many of whom likely have go-to responses for an arms race. This need not deter people from running it, but they should make sure they have good frontlines

¹¹ <https://www.bbc.com/news/world-europe-53518238#:~:text=The%20US%20and%20UK%20have.%2Dsatellite%20weaponry%22%20as%20concerning>

¹² https://www.jstor.org/stable/29777471?seq=1#metadata_info_tab_contents

prepared. Secondly, this argument does concede that the Space Force will bolster the security of U.S. satellites compared to a world without them (there would not be a unique link into an arms race otherwise). Teams should be aware that their case makes that concession, and just be sure to hammer home why the risk of conflict or a security breach was low before the Space Force, and why the arms race it sparks makes the situation far worse.

Another option for teams that do not want to agree to that assumption is to argue that the Space Force is ineffective. This strategy agrees that Russia and China pose threats to satellite security, but maintains that the United States Space Command that existed before the Space Force was sufficient to handle those threats and that the Space Force is less effective. As Deborah Lee James, former head of the Air Force, explains that in the past, "space was already a critical domain for [the Air Force] and for the joint force" and that the creation of the Space Force does not help, since "inherent in every organization is bureaucratic thrashing... it's just an extra thing out there that will take away time, attention, and money."¹³ Indeed, con teams interested in making this argument can agree with a lot of what pro teams say about the need for security in space, and try to frame the debate as simply a comparison between having the Space Force be part of the Air Force or its entity. As the quotation above explains, there are real reasons why the increased bureaucracy that comes from having the Space Force be independent can hamper its efficacy, especially in conjunction with evidence about the amount of money that gets wasted in the Pentagon each year.

¹³ <https://www.youtube.com/watch?v=hmSdl4yheeg&t=1s>

This argument is also a place where con teams can bring up the public perception of Space Force, including the late-night comedy jabs, the Netflix series, and all the other gripes. The fact that satellite security is so important is exactly why it is so bad to have the branch of the military that deals with it be tied to a radically controversial and unpopular president, as well as a joke to much of the public. It means that government officials are less likely to take it seriously (as recently happened in a White House press conference), Democratic politicians are less likely to want to publicly show support for it due to its reputation and ties to Trump and are even less likely to spend money on it. Furthermore, the reputation of the Space Force may make it harder to recruit people to join, making them lose out on top talent. All of those are unique harms that come from the Space Force being its own entity, all of them hamper the efficacy of space-based operation, and none of them would be an issue if the control of satellite security remained under the United States Space Command.

Thus, as you can see, con teams have multiple very viable options for strategy, spending on how they answer the fundamental questions of the round. Efforts to combine these arguments will likely cause trouble since it is just difficult to argue both that a Space Force will cause an arms race and that it is less effective at weapons development than the United States Space Command. Whichever route they pick, this promises to be an interesting topic that poses very unique challenges compared to the topics of the prior months. Good luck!

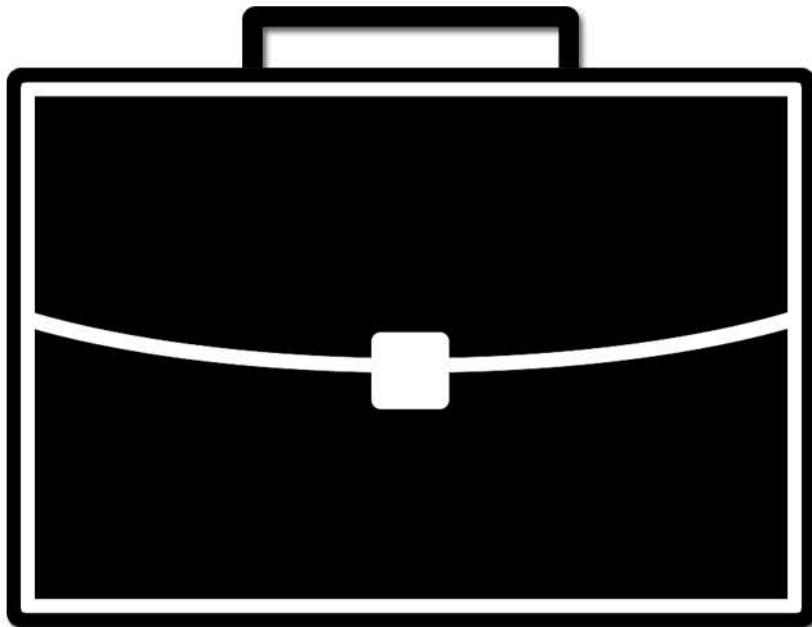
About Tucker Wilke

Tucker is from Westchester, New York, where he attended the Hackley School. He is now attending Brown University, where he debates for the Brown Debating Union and studies English and Economics. Over the course of his career, Tucker amassed 8 bids to the Tournament of Champions. In addition, he reached the Quarterfinals at Bronx, Glenbrooks, UK, Ridge and Princeton, Semifinals at Penn and Columbia, and championed the Scarsdale Invitational. He was ranked as high as 7th in the country in his senior year. As a coach for Hackley, his students have reached semifinals at Blake and Quarters at Penn.

Champion Briefs

March 2021

Public Forum Brief



General Information

General Information

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

Foreword: We, at Champion Briefs, feel that having deep knowledge about a topic is just as valuable as formulating the right arguments. Having general background knowledge about the topic area helps debaters form more coherent arguments from their breadth of knowledge. As such, we have compiled general information on the key concepts and general areas that we feel will best suit you for in- and out-of-round use. Any strong strategy or argument must be built from a strong foundation of information; we hope that you will utilize this section to help build that foundation.

The history of space militarization

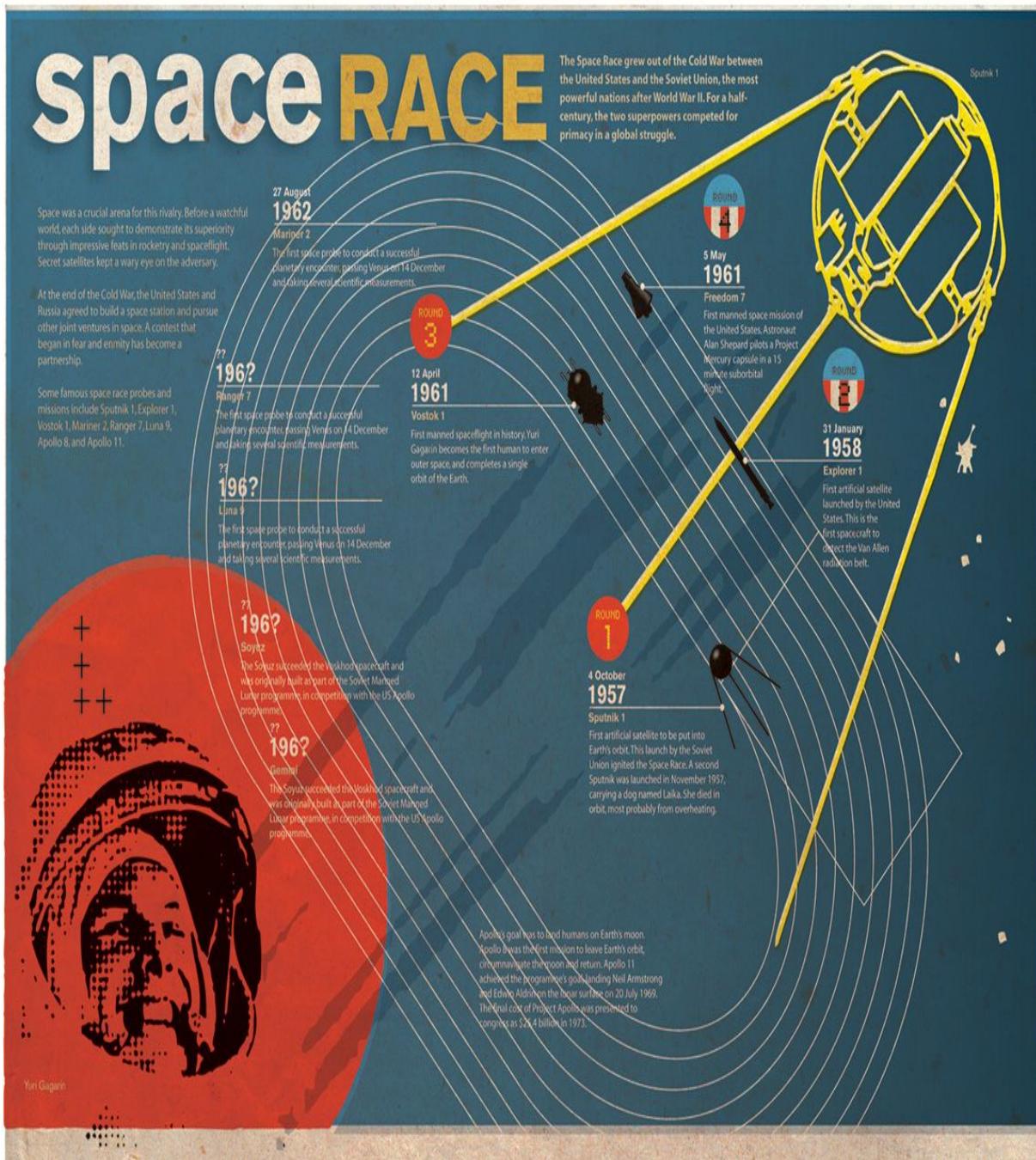
In the most recent meeting of the National Space Council on Oct. 23, officials discussed how to implement a proposed new branch of the military called the Space Force. And over and over, they've pointed to the long history of American military leadership in space as justification for the organizational need.

It's a history that some space fans don't even realize exists. But when, for example, U.S. Vice President Mike Pence argues for the Space Force by saying that space has always been a military realm, he's portraying history accurately and isn't confessing to a violation of international treaties.

Let's start from the beginning — literally, with the earliest days of space exploration. When the U.S. launched its first satellites, there was no NASA. Instead, the Army, the Air Force and even the Navy were all thinking about space. "The bottom line point is that the military has been involved in space activities since there were space activities," John Logsdon, a space historian at George Washington University, told Space.com. To reduce interbranch bickering, President Dwight D. Eisenhower established the Defense Advanced Research Projects Agency (DARPA) to oversee all military space work. [What Is the US Space Force?]

But Eisenhower was also talked into creating a separate civilian agency — what became NASA. And if you've heard plenty about NASA's work, even its geopolitical Apollo program, but not so much about DARPA's, that's not surprising. "Well, in a sense it was on purpose, to have on one hand an open civilian agency doing things that the country could brag about, while at the same time on the other side you were doing national security things that you didn't talk about," Logsdon said. "NASA was a very effective way of shifting the attention to the civilian side."

Instead, it's designed to pull together all the work different branches of the military do in space, from watching for missile deployments to monitoring spacecraft put into orbit. "Space has from the start been militarized, but so far not overtly weaponized," Logsdon said. "There is maybe not a bright bold red line, but a somewhat fuzzy line that has not yet been crossed."



Trump's Space Force

When President Trump signed a \$738 billion defense spending bill on Friday, he officially created the Space Force. It's the sixth branch of the U.S. Armed Services, and the first new military service since the Air Force was created in 1947.

"Space is the world's newest war-fighting domain," President Trump said during the signing ceremony. "Amid grave threats to our national security, American superiority in space is absolutely vital. And we're leading, but we're not leading by enough. But very shortly we'll be leading by a lot."

The idea was widely mocked when it was first floated, providing fodder for late night hosts, newspaper cartoonists and comedy writers. Senior military officials have previously raised concerns about what it will cost, and former Defense Secretary Jim Mattis warned against rushing into creating the force without clearly defined goals.

"This is not a farce. This is nationally critical," Gen. John Raymond, who will lead the Space Force, told reporters on Friday. "We are elevating space commensurate with its importance to our national security and the security of our allies and partners."

Raymond acknowledged it would take time to develop the force. "It's going to take some time to grow this, but we are moving out with due diligence to make sure that we do this right," he said.

About 16,000 Air Force active duty and civilian personnel are being assigned to the Space Force. There's still a lot to figure out, including the force's uniform, logo, and even its official song.

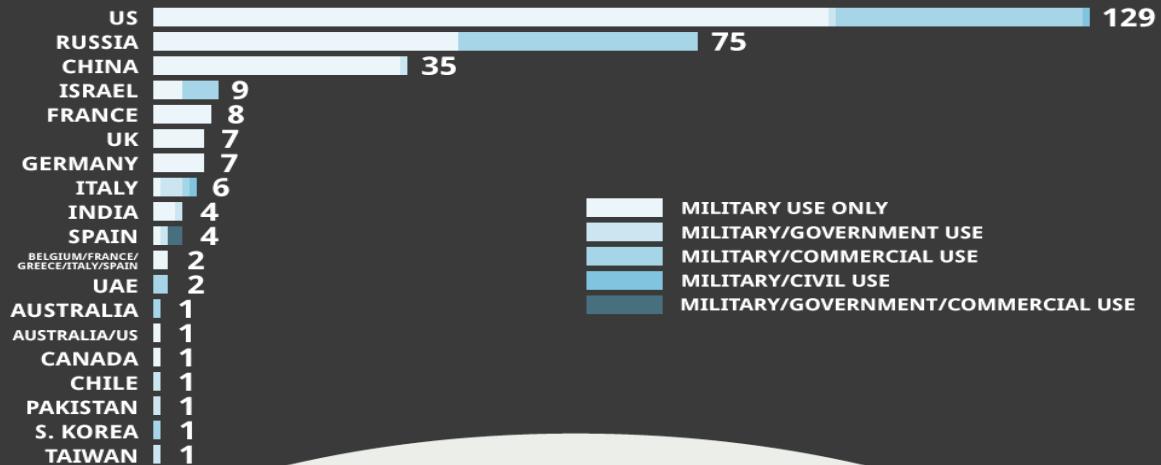
The Space Force will fall within the Department of the Air Force, but after one year it will have its own representation on the Joint Chiefs of Staff, according to the text of the law that created it. That makes it similar in structure to the Marine Corps, which is a part of the Department of the Navy but has its own seat on the Joint Chiefs.

THE MILITARIZATION OF SPACE

THE 1967 OUTER SPACE TREATY STATES THAT SPACE SHOULD BE USED FOR "PEACEFUL PURPOSES." THIS DIRECTIVE HAS NOT PREVENTED MILITARIES FROM POPULATING SPACE WITH HUNDREDS OF SATELLITES. BELOW WE CONSIDER THE MILITARIZATION OF SPACE SO FAR.



THE NUMBER OF MILITARY SATELLITES BY COUNTRY



HOW MILITARY SATELLITES ARE COMMONLY USED



Satellite communication is perhaps the most important space capability for a military, allowing for real-time command and control of forces deployed anywhere in the world.



Early warning satellite systems were created by the U.S. and the U.S.S.R. to watch for missile attacks by the other during the Cold War. Both the U.S. and Russia continue to update their systems today.



Intelligence satellites are used for imagery or signal interception. The most advanced remote sensing satellites are believed to have resolutions of up to six inches.



Navigation satellites are used to guide soldiers, identify targets, and for weapon guidance. Currently, the U.S., Russia, and China maintain navigation satellite constellations, while the EU's is still in development.

HOW SATELLITES COULD BE ATTACKED



The easiest way to negate a satellite is to disrupt its communications signals, and the technology required to do so is easily attainable. For example, Iraq used GPS jamming equipment during Operation Iraqi Freedom in 2003.



Rockets or missiles could either be used to release a payload of metal pellets or gravel into the path of a satellite. Or they could be used to target the satellite directly with more sophisticated sensor technology.



Detonating a nuclear weapon in space would create an electromagnetic pulse that would be highly destructive for all unprotected satellites in the area.



Ground-based low-power lasers could be used to temporarily disrupt, or "dazzle," satellites. High-powered lasers could potentially be used to "heat to kill" electronics on satellites in low orbit.



Space-based negation technology would likely take the form of microsatellites that could be maneuvered near a satellite and exploded. This capability is entirely theoretical.

The economic interests

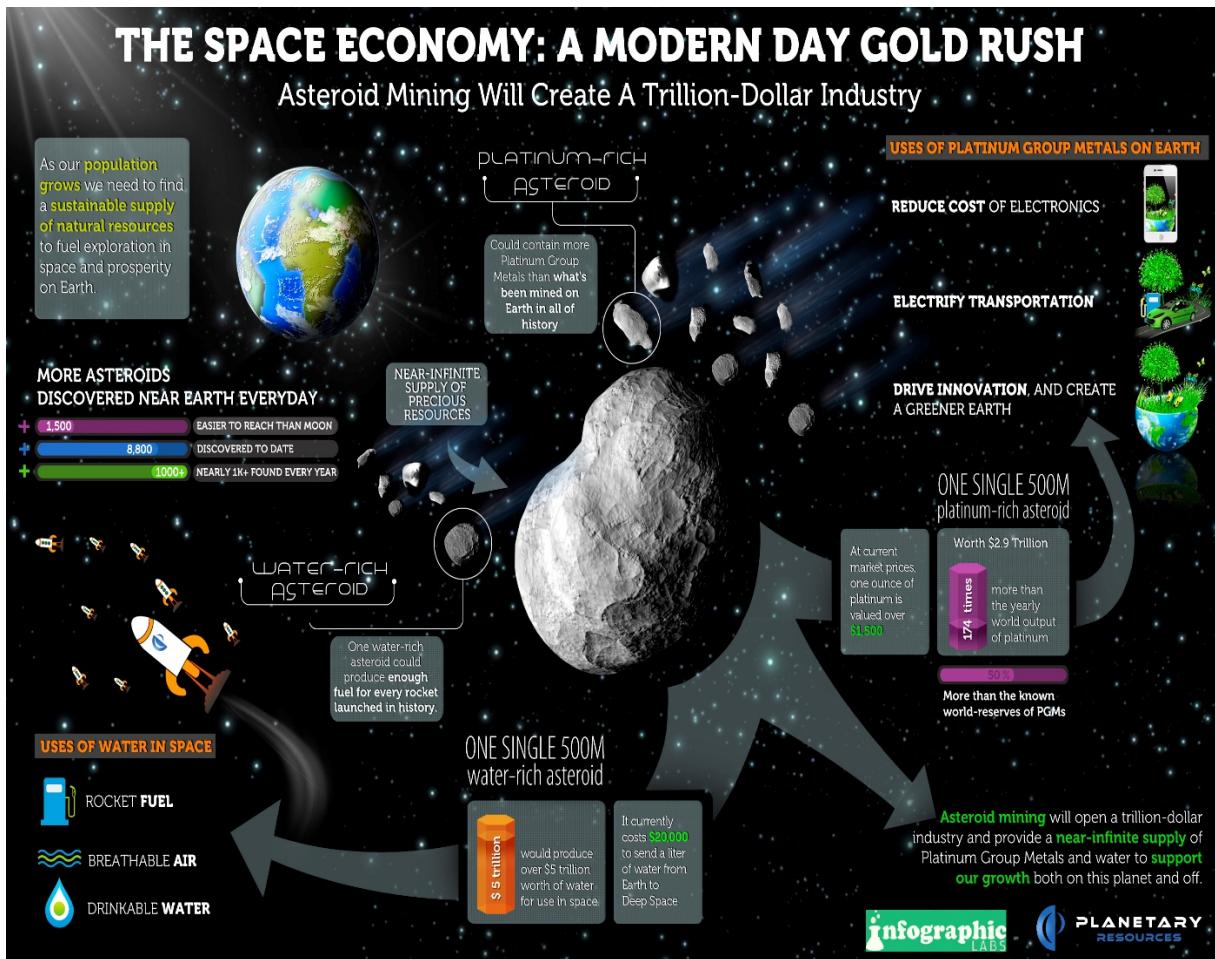
America needs a Space Force for the same reason it needed a Navy: to secure American interests, especially commerce upon the great ocean that is space. In the 19th century, America realized the tremendous benefits that would be possible were it to become a seafaring nation. With the desire to be seafaring came a need for a Navy to secure its citizens, their property and their transport far from American shores.

Today, America is likewise waking up to the vast potential of space commerce in the inner solar system. Tech billionaires lead the way with personal investments to create access to an expanding and diverse space economy. Elon Musk of Tesla and SpaceX has developed and is developing reusable rockets to make humanity multi-planetary. The world's richest man, Amazon's Jeff Bezos is spending his personal fortune to begin a multi-generational mission ultimately to enable trillions of people living and working in space and to move heavy industry off Earth to protect the Earth's environment. They are not alone. A tremendous and well-financed ecosystem of private start-ups is pursuing everything from air-launched rockets to lunar and asteroid mining.

We are in the midst of a space industrial revolution — a revolution in transportation, mining and manufacture that will unlock a billion-fold greater resources than on Earth, and ultimately lead to an economic expansion larger even than what the New World became for Europe.

In space are stupendous amounts of accessible metals — far, far more than has ever been mined (or could be mined) on Earth. This includes rare and valuable metals like platinum. We now have the technology to 3-D print those materials into factories in space, and to produce orbital power stations to light the entire world with constant green energy. Space solar power satellites are a game changer, allowing the entire world to develop without environmental impact. The leader of that industry will command the century ahead.

There will be a need to secure those interests. There will be threats both from natural hazards and from human hazards. Wherever there is profit there is likely to be conflict.



Barriers to Space Development

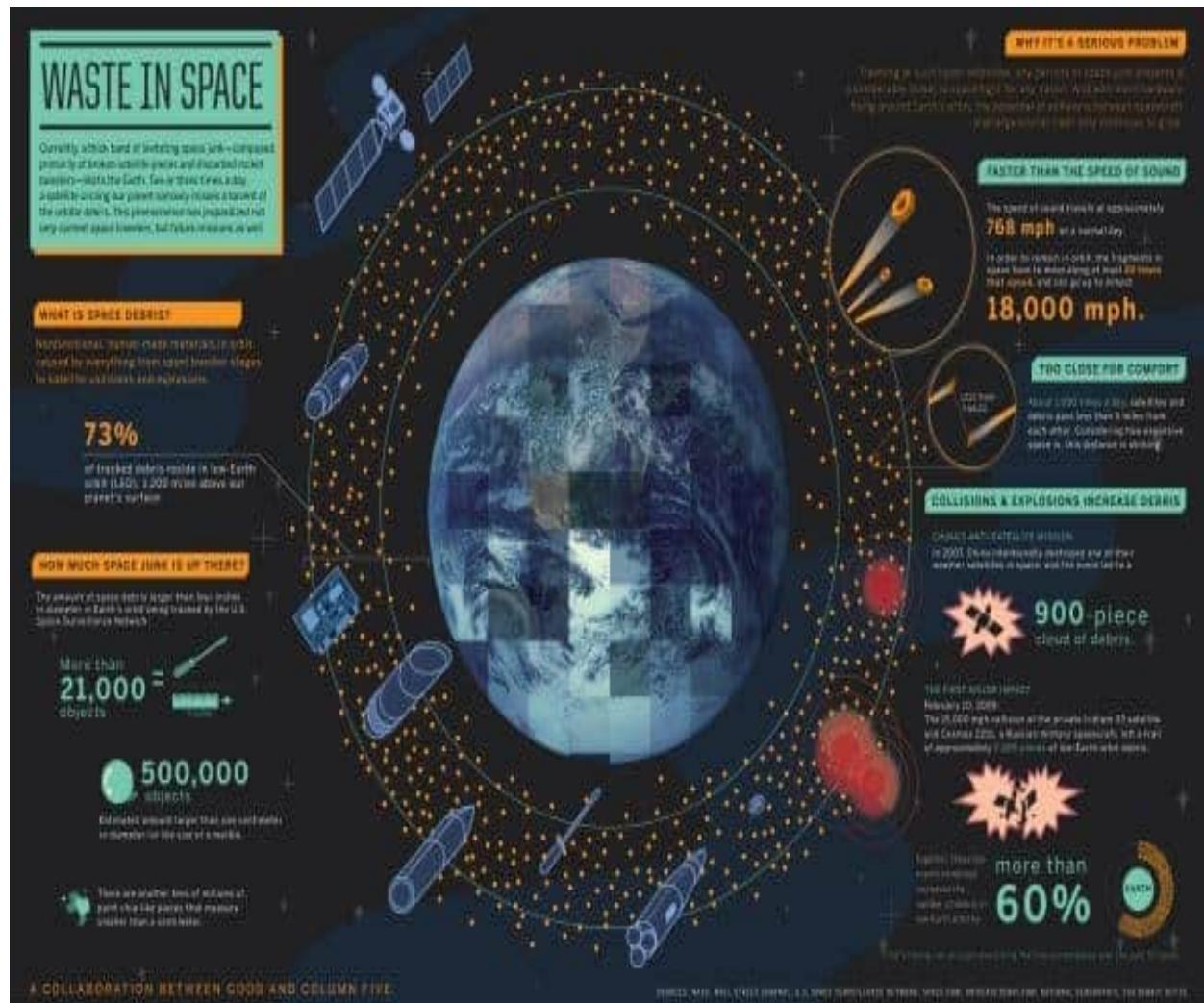
In 2010, the United Nations developed the Space Debris Mitigation Guidelines on the Peaceful Uses of Outer Space. This guide sets out the guidelines for debris mitigation including steps like limiting debris released during normal operations as well as minimizing the potential break-ups during operational phases and limiting the probability of accidental collisions in orbit. The Inter-Agency Space Debris Coordination Committee (IADC) and the UN Committee on the Peaceful Uses of Outer Space (UNCOPUOS) have both attempted to tackle the issue of post-mission disposal of space debris, but since these rules are not binding, many states do not follow them.

Unfortunately, since across both domestic and international bodies there has been a lack of focus on the importance of preventing space debris, the space junk issue has only been more aggravated. Even though the United Nations has committed to keeping space clean, many individual nations have not followed in the path of prevention and clean up. For instance, in 2007, a Chinese anti-satellite test (ASAT) created over 2,000 new pieces of debris in low-earth orbit. In the year 2000, there were approximately 7,500 debris and objects in space and by the year 2020, this count has risen to over 23,000.

In 2019 the U.S. government recommitted its support for the space program with its passage of S.1790, the National Defense Authorization Act for Fiscal Year 2020. Subtitle D of this Act includes the creation of the Space Force, reestablishing America's commitment to outer space. Along with the new Space Force, this Act recognized the risks of space debris, and established a congressional committee report to outline plans and recommendations to remediate risks caused by space debris.

Through the creation of the U.S. Space Force, the U.S. government is increasingly shifting toward space as a critical government sector. With the importance of space flight to the U.S. government's initiative, the United States cannot afford to take risks of flight delays or shuttle damages due to space debris. With the upsurge of debris and lack of measures by nations with space and satellite capabilities, the U.S. program faces many risks that non-space faring nations do not. With the lack of binding international treaties dedicated to reducing space debris, this

puts U.S. national security and the U.S. Space Force at risk before it has even gotten off the ground.



Works Cited

Bartels, Meghan. "Space has always been militarized, just not weaponized – not yet anyway."

Space.com. 11/1/18. <https://www.space.com/42298-space-weaponized-already-military-history.html>

Diniums Nib. Space Infographic. Diniums Nib. 8/30/11. <http://diniums-nib.blogspot.com/2011/08/space-infographic.html>

Eige, Katie. "Confronting Space Debris with the Space Force." National Security Law Brief. 3/13/20. <https://nationalsecuritylawbrief.com/2020/03/13/confronting-space-debris-with-the-space-force>

Garretson, Peter. "The purpose of a Space Force is a spacefaring economy." The Hill. 6/26/19. <https://thehill.com/opinion/technology/450519-the-purpose-of-a-space-force-is-a-spacefaring-economy>

Kennedy, Merrit. "Trump created the Space Force. Here's what it will actually do." 12/21/19. <https://www.npr.org/2019/12/21/790492010/trump-created-the-space-force-heres-what-it-will-do>

Tabouli, Julie. "Space Waste". 12/18/11. Daily Infographic. <https://www.dailyinfographic.com/space-waste-infographic>

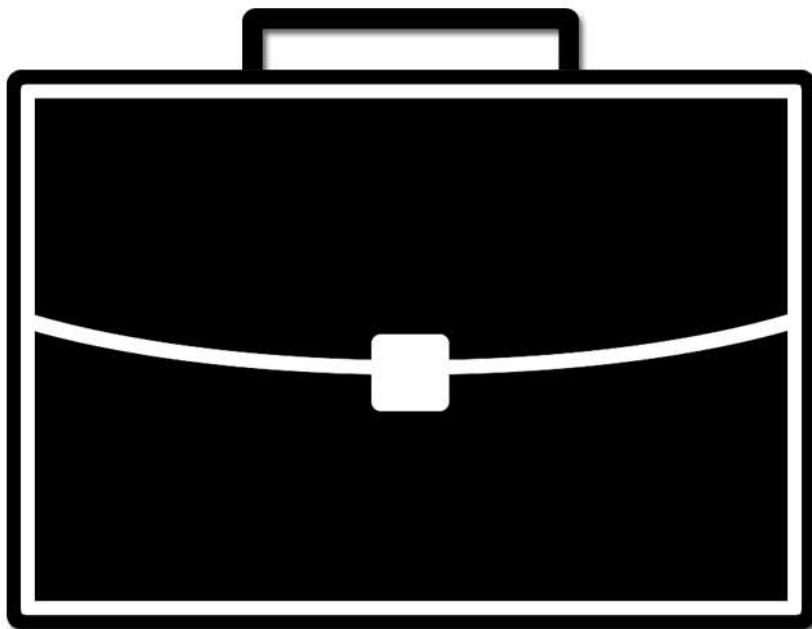
"The Militarization of Space." Visually. <https://visual.ly/community/Infographics/technology/militarization-space>

"The Space Economy" Infographic Labs. 5/8.12. <https://infographiclabs.com/news/the-space-economy/>

Champion Briefs

March 2021

Public Forum Brief



Pro Arguments

PRO: Space Force establishes diversity norms

Argument: Because the space force is a totally new branch of the military, it can establish a precedent for diversity norms.

Warrant: The military has historically been unrepresentative

Bishop Garrison, 8-12-2020, "Challenges to Improving Racial Representation in the Military," Center for a New American Security.

<https://www.cnas.org/publications/commentary/challenges-to-improving-racial-representation-in-the-military>

Though the U.S. military appears as one of the true meritocracies in our society, **many unaddressed legacies from the nation's past regarding race and equity linger.**

Unresolved racial stress impacts all aspects of society, consistently leading to unequal treatment and tragic death for civilians and imbalances within the military. Nationwide protests demanding change have initiated dialogue across all levels and communication platforms in American society, giving many hope our country will finally address generations of inequity rather than merely have another moment of speeches and little action. **While the scope of this movement may finally lead our country to address systemic racism and inequality, structural limitations and public perception will continue to affect the military's ability to recruit and retain top tier, diverse talent. If military leaders are serious about their desire to improve overall diversity and inclusion efforts in the services—and many have recently conveyed their support—they must address head on several issues of race and representation in the military.** Leadership should consider how representation is reflected in all levels of leadership; how and where young, diverse talented is recruited; how to speak on and engage U.S. policies that may have a detrimental impact on recruiting and retaining talent; and how

to address the issue of generational family service that often does not include diverse families.

Warrant: The Space Force has put out a plan to address inequalities

Secretary of the Air Force Public Affairs. 7-8-2020, "Department of the Air Force stands up Diversity and Inclusion Task Force," United States Space Force. 8 Jul. 2020. Web. 5 Feb. 2021.

<https://www.spaceforce.mil/News/Article/2268049/department-of-the-air-force-stands-up-diversity-and-inclusion-task-force/>

The Department of the Air Force, in support of both the U.S. Air Force and U.S. Space Force, stood up a special task force June 9, to address the issue of racial, ethnic and other demographic disparities and their impact on the forces. Also, on June 2, Secretary of the Air Force Barbara M. Barrett and service chiefs, Air Force Chief of Staff Gen. David L. Goldfein and USSF Chief of Space Operations Gen. Jay Raymond, directed the Inspector General to independently review the service's record on military discipline as well as leader development opportunities for Black/African American Airmen and Space Professionals. The task force is charged with identifying and changing policies, procedures, barriers and other practices that may be unfairly impacting underrepresented Air and Space Professionals. It is postured to identify near-term problems and solutions that will have immediate benefits for members, with a focus on policies particularly impacting minority members. It has been tasked to be mindful of not impacting or assuming results from the IG's review, and is therefore focused on immediate actions versus identification and action toward longer-term systemic and cultural issues the IG might identify. **"Clearly we have to acknowledge our Air and Space Forces are not immune from racism and the challenges of inequity. As a force that depends on unity, inclusion, and a common strength of purpose, we are committed to being better every day until all within our ranks feel a true sense of"**

belonging that allows them to maximize their talents," said Lt. Gen. Brian Kelly, deputy chief of staff for Manpower, Personnel and Services. "This is why we stood up the task force, to move out quickly and deliver immediate improvements for our services."

Capitalizing on continuous feedback from the force and the momentum from current national events, the task force is an agile cross-functional team of military and civilian Air and Space Professionals that represent communities within the services that bring subject matter expertise to the changes being considered.

Warrant: The newness of the Space Force allows for diversity to be fundamental

Dan Boyce, Colorado Public Radio Via The Ap, 09-06-2020, "Space Force aims to set standard for diversity, inclusion in the military," Air Force Times. 6 Sep. 2020. Web. 5 Feb. 2021. <https://www.airforcetimes.com/news/your-air-force/2020/09/06/space-force-aims-to-set-standard-for-diversity-inclusion-in-the-military/>

And she pointed to several different efforts: outreach initiatives targeted to recruiting women and people of color, mentoring panels to help those service members advance, and a "heavy emphasis" on training senior officers to recognize unconscious bias. She said the Space Force is fostering a culture where a warfighter can speak to superiors about their concerns without fear of retribution. "**Inclusion is not a zero-sum game,**" Baker said. "**By leveraging our diverse talents, no one is going to be left out. The pie does not get smaller. It gets bigger.**"

Impact: Inequality in military branches leads to less efficiency

Jason Lyall. 7-28-2020. "Why is Diversity Important in the Military." The Washington Post. 28 Jul. 2020. Web. 5 Feb. 2021.

<https://www.washingtonpost.com/politics/2020/07/28/military-is-making-changes-response-black-lives-matter-protests-thats-good-fighting-wars/>

Why is inequality in the military so harmful? Inequality erodes battlefield performance in four specific ways. First, shutting certain groups out of senior decision-making robs the army of diverse thinking, reinforcing a “group think” mentality that tends to lead to deadly conservatism on the battlefield. By excluding certain voices, militaries saddled with high inequality become locked into predictable, usually second-best, tactics and approaches that leave them vulnerable to enemies. Second, inequality means different ethnic groups have varying status, and this sows tensions and erodes trust among soldiers. In turn, this can hobble cooperation and coordination on chaotic battlefields. Third, soldiers drawn from targeted ethnic groups may suffer a loss of morale, making them less likely to fight for a government they distrust — and more likely to surrender. Fourth, prior exposure to government-directed discrimination or violence builds strong bonds among soldiers within the same ethnic group. **Those who feel discriminated against may use these ties to organize escape or otherwise subvert military authorities. Military commanders may then be forced to devote greater resources to policing their own soldiers, creating new vulnerabilities that enemies could potentially exploit.**

Impact: More diverse militaries are more effective

Jason Lyall. 7-28-2020. "Why is Diversity Important in the Military." The Washington Post. 28 Jul. 2020. Web. 5 Feb. 2021.

<https://www.washingtonpost.com/politics/2020/07/28/military-is-making-changes-response-black-lives-matter-protests-thats-good-fighting-wars/>

Removing the structural barriers to inclusion will be one important area of focus.

Nonwhite personnel continue to be underrepresented at senior levels, a problem that worsens as one advances up the ranks. Women and nonwhite personnel also experience slower rates of promotion. Progress toward inclusion has also proceeded in fits and starts. Since 1945, the U.S. military has launched at least a half-dozen initiatives to stamp out racial inequalities.

For the U.S. military, investing in its people, not just military hardware, and redoubling a commitment to meaningful inclusion would bolster the war-fighting advantages of diversity.

Analysis: This argument is best used by teams who are familiar with cases about improving race relations and who genuinely care about reform of discriminatory systems. Teams unfamiliar with cases like these or teams seeking to capitalize on recent social movements will find it hard to convince judges and competitors they are not being performative. Teams interested in this argument should attempt to establish both the importance of the space force in the coming decades along with researching the potential spillover of positive change in one military branch to the other. Another tip would be to frame the round in terms of fighting inequalities.

PRO: Space Force would let the US serve as a police force

Argument: The space force would allow the US to become the unofficial police of outer space, something important considering current abuses happening in space.

Warrant: Currently, countries abuse the freedom of space.

Denise Chow, 5-5-2020, "Chinese rocket debris passed over NYC, LA as it fell to Earth, scientists say," NBC News. 5 May, 2020. Web. 8 Feb. 2021.
<https://www.nbcnews.com/science/space/chinese-rocket-debris-passed-over-n-y-c-l-it-n1206311>

A 20-ton piece of a Chinese rocket passed over New York City and Los Angeles before it crashed to the Earth this week, scientists tracking its descent say. **The debris, which came from a rocket that was launched in early May, is the fifth-largest piece of space junk to plunge uncontrolled through Earth's atmosphere, according to experts who track space debris and satellites. It's the largest object in nearly three decades to plunge to Earth unexpectedly, demonstrating the potential danger of such large objects as they make uncontrolled re-entries from low-Earth orbit.** The U.S. Space Force's 18th Space Control Squadron, which tracks space junk and re-entries from Vandenberg Air Force Base, California, confirmed that the rocket stage passed through Earth's atmosphere Monday at 11:33 a.m. ET as it was flying over the Atlantic Ocean. About 15 to 20 minutes before that, the debris sailed over New York City, according to Jonathan McDowell, an astronomer at the Harvard-Smithsonian Center for Astrophysics.

Warrant: Space needs a police force

Sarah Scoles. 06-19-2018. "Space Really Does Need Traffic Cops." Wired. 19 Jun. 2018.

Web. 8 Feb. 2021. <https://www.wired.com/story/space-really-does-need-traffic-cops/>

Right now, most of what's up there isn't even functional---it's more than 90 percent space junk. **For that reason, the directive signed by Trump recommends "active removal," in which debris is taken out rather than left to decay downward at its own pace.** This is not a new idea, and Obama's 2010 National Space Policy exhorted the US to dig into active removal, but little forward movement has happened there. Perhaps because it's a fraught prospect. Any active remover—be it a harpoon, or a net, or a robotic arm—could peacefully deorbit a defunct American satellite, or it could mess with a foreign sat. That is, perhaps, why Trump's policy says the US should develop standard protocols for "rendezvous and proximity operations." Under the new directive, the Defense Department will continue to track and catalog space debris and functional satellites. It already keeps watch over more than 20,000 objects using the Space Surveillance Network, a system of optical and radar equipment spread around the globe. A new "Space Fence" will soon come online that can see smaller space bits. The DOD will now provide the "releasable" part of its (vast) catalog to the Department of Commerce. Which, in turn, **will be expected to incorporate other orbital and safety data—from other agencies, from the private sector, from other countries—and take the lead in creating an open orbital-data repository.** With its multitude of information, **the Commerce Department will now be responsible for telling satellite operators when they're in trouble and what to do about it.** Obviously, the directive gives some guidance about how to deal with the traffic jams already happening. **Which is good. But better is that it also aims to function like that highway patrol cop parked on the side of the interstate—preemptively slowing down troublemakers barreling down the turnpike.**

Warrant: US could serve as the space police

Talal Husseini. 03-29-2019. "US military space force: what do we know so far." Airforce Technology. 29 Mar. 2019. Web. 5 Feb. 2021. <https://www.airforce-technology.com/features/us-military-space-force/>

"Not having rules and engagement is worrisome, so how people test and develop technology is important, but how we share this critical domain — I would expect anyone who tests does not put at risk anyone else's assets. There are certain basic principles." **The initial role of the US military space force could be to act as a kind of space police, using its authority to tell other states what they can and cannot do in space, and reinforcing US rules on space with its military might.** How that will go down with Russia and China remains to be seen, of course. However, one person that remains sceptical over the necessity of a US space force is the Project on Government Oversight military analyst Dan Grazier. He told Space News: "History shows that the creation separate military service will add bureaucratic barriers and largely serve its own ends, making it more difficult for the other branches to get the support they need to achieve their missions on Earth."

Warrant: America already holds some authority in space

George Long. 2017. "NASA Space Police Wield Full Force of Law." Space Journal of Asgardia. 2017. Web. 8 Feb. 2021. <https://room.eu.com/article/nasas-space-police-wield-full-force-of-law>

What is not generally known is that **the US employs a similar zero tolerance stance for unlawfully possessing what is now known as an 'extracted space resource'**. This zero tolerance regime, like the war on drugs, has its roots in the late 1960s, is still in force, and engages in zealous seizure operations. Unlike the war on drugs, the supply source for extracted space resources is extremely limited thereby making transactions in minuscule amounts very lucrative. While the supply source may change in light of the US

law allowing for the commercial extraction of space resources by licensed private ventures, it is doubtful that the zero tolerance regime will dissipate. **A glance at the current deployment of the policy may offer a glimpse into a potential space age American law enforcement regime.** In 2015 the United States enacted a law defining 'space resource' to mean an 'abiotic resource in situ in outer space', which includes but is not limited to water and minerals. This definition is considered to include abiotic or non-biotic resources located on the Moon, planets and other celestial bodies. There was no legal definition for 'space resource' prior to 2015, but that does not mean space resources were non-existent. Between 1969 and 1972, the Apollo programme conducted six crewed Moon missions that garnered about 382 kilograms of rocks, core samples, pebbles, sand and dust extracted from the lunar surface. The US has consistently maintained that it owns all lunar material collected during the Apollo missions unless it knowingly transferred title to another. It does not base its ownership claim on a specific unambiguous law passed by Congress, but instead asserts its title claim through a series of administrative directives issued by NASA. **Apparently, no foreign government has ever protested or objected to the United States claiming ownership over the extracted lunar material.**

Impact: The US being in space and serving as the police force would create long term norms

Joe Moye, 12-11-2020, "Bad Idea: Disestablishing the Space Force," Defense360. 11 Dec. 2020. Web. 5 Feb. 2021. <https://defense360.csis.org/bad-idea-disestablishing-the-space-force/>

However, Space Command is not like Special Operations Command, nor should it be. There is an important difference between force generation and force employment. Space Command is and should remain focused on force employment in coordination with other combatant commands. Given the scope of their responsibilities, we should not burden Space Command with also serving as the primary advocate for disparate

space capabilities spread across multiple services. **Additionally, having both Space Command and the Space Force expands our nation's influence in establishing positive norms and standards for conduct in space.**

Analysis: This argument echoes past arguments about how America has a role as a global police force. The argument is familiar: when order is needed, a country or group needs to take charge and ensure that there are rules and regulations on what can be done. Space is possibly the region most easily discussed in this conversation as it is the current moment that brings up the issue of space policing for the first time since countries are newly able to increase their exploration. Teams interested in this argument should try to create a narrative about the current and imminent threat to safety if space goes unpoliced.

PRO: Space Force expands US hegemony

Argument: Since space is a new frontier, it is an open arena for countries to display dominance and expand their influence.

Warrant: Space is the new frontier once again

Goldman Sachs Team, 7-11-2016, "What if I Told You... Space Is Once Again the New Frontier," Smithsonian Magazine. 11 Jul. 2016. Web. 5 Feb. 2021.

<https://www.smithsonianmag.com/sponsored/what-if-i-told-you-space-once-again-new-frontier-180959457/>

The space race is reigniting, catalyzing changes in the new space economy. The industry stagnated after the major scientific and commercial achievements of the 20th century, but new players and technology are reopening space as the next frontier.

Noah Poponak, the senior Aerospace and Defense analyst at Goldman Sachs Research, describes space as becoming “smaller, closer, and cheaper” as the industry reinvents itself. Poponak explains that diminishing barriers to entry—combined with geopolitical tensions—have led to a renewed focus on space activity, with major implications for scientific research, defense, and communications. Launch-to-orbit costs, the greatest hurdle for new entrants, have fallen to less than 10 percent of what they were five years ago and are likely to continue dropping as new technologies like reusable rocketry are introduced, opening space to new applications, technologies, and competitor

Warrant: Whichever country holds power in space challenges American dominance

Robert Burns, 1-28-2021, "Biden seen likely to keep Space Force, a Trump favorite," AP NEWS. 28 Jan. 2021. Web. 5 Feb. 2021. <https://apnews.com/article/joe-biden-space-force-edcb01683ab38e740ae87530c49ecd4e>

WASHINGTON (AP) — To the last moments of his presidency, Donald Trump trumpeted Space Force as a creation for the ages. And while President Joe Biden has quickly undone other Trump initiatives, the space-faring service seems likely to survive, even if the new administration pushes it lower on the list of defense priorities. The reason Space Force is unlikely to go away is largely this: Elimination would require an act of Congress, where a bipartisan consensus holds that America's increasing reliance on space is a worrying vulnerability that is best addressed by a branch of the military focused exclusively on this problem. **The new service also is linked to an increasing U.S. wariness of China, which is developing capabilities to threaten U.S. satellites in space and which has become, in the minds of some, the singular national security challenge. Russia, too, stands accused by Washington of seeking to challenge American dominance in space.** "They're building capabilities to use space against us. We have to be able to respond to that," Gen. John Hyten, vice chairman of the Joint Chiefs of Staff, told the National Security Space Association, an advocacy group, last week, referring to Russia and China.

Warrant: China is actively in pursuit of hegemony

Maj. Liane Zivitski, 6-23-2020, "China wants to dominate space, and the US must take countermeasures," Defense News. 23 Jun. 2020. Web. 8 Feb. 2021.
<https://www.defensenews.com/opinion/commentary/2020/06/23/china-wants-to-dominate-space-and-the-us-must-take-countermeasures/>

China is determined to replace the U.S. as the dominant power in space. While proclaiming its peaceful intentions, Beijing's doctrine considers space a military domain, and it is investing heavily in space infrastructure designed to secure both economic and military advantages. To ensure that it continues to compete from a position of strength, the U.S. must invest sufficient resources in preparing its new Space

Force to defend America's national interests and security in space. Beijing's rapidly improving capabilities are clear to see. On May 5, China successfully launched the Long March-5B rocket designed to eventually transport astronauts into space. This was the first successful launch of any Long March rocket this year after failed attempts to launch the Long March-3B in April and Long March-7A in March. Three weeks later, China completed back-to-back launches from two separate launch facilities placing Earth-imaging and technology demonstration satellites into orbit. China plans to launch more than 60 spacecraft in over 40 launches in 2020, and has led global launches over the past two years.

Warrant: US hegemony in space means that allies and enemies don't feel like the US is backing down

Joe Moye, 12-11-2020, "Bad Idea: Disestablishing the Space Force," Defense360. 11 Dec. 2020. Web. 5 Feb. 2021. <https://defense360.csis.org/bad-idea-disestablishing-the-space-force/>

Yet we do not need to wait for tomorrow: threats exist today. Even now, our lives are unquestionably dependent on our unfettered ability to use space. General Raymond recently said that the Space Force was created due to "the compelling case our competitors have created for us." Chinese and Russian space capabilities and counterspace threats are well-documented. China's rapidly maturing space program is increasingly becoming the pace setter in this domain. Dr. Mir Sadat, a former policy director for the U.S. National Security Council, has argued that we are in "a race for dominance over cislunar access, operations, and resources." **Stagnating the Space Force, or rolling it back into the Air Force, would send mixed signals to our partners and allies on the priority of space — especially those following our lead to bolster their own space forces.** Some argue that the solution is to mirror special operations by making United States Space Command "service-like" and retaining the actual capability within the traditional services.

Impact: US hegemony prevents wide scale conflict

Alex Ward, 08-22-2014, "Only US Can Prevent Great Power War," The Diplomat. 22 Aug. 2014. Web. 5 Feb. 2021. <https://thediplomat.com/2014/08/only-us-can-prevent-great-power-war/>

But Gilpin's preconditions shouldn't be misconstrued as predictive or fatalistic. Indeed, the United States, as the hegemon, has the capability (and responsibility) to preserve the international order and lead the world out of this mess. By keeping good relations with partners and allies, deterring adversaries, reversing the perception of its decline, and leveraging technological capabilities for global good, there is a decent chance that the U.S. can make the great-power-war-incubation period fade away. Should the United States not seize this moment, and ensure that China is a responsible partner in the current global system alongside it, then the chance of a great power war cannot be dismissed, however remote.

Analysis: This argument is similar to arguments about global affairs and conflicts where American hegemony is thought to be a deterrent/ beneficial to establishing and maintaining order. Teams running this argument must prove that either US hegemony is a good thing in space or set up a comparative between China and America and prove that American hegemony in space is preferable. Teams should look into whether or not hegemony would lower the possibility of space conflict by establishing a main power that can influence potential tense situations in space.

PRO: Space Force is crucial for further space research

Argument: Exploring and gaining knowledge about space is critically important and the Space Force will benefit outer space research

Warrant: Space exploration is important to the future

James Hataway, 7-20-2019, "The future of space exploration," UGA Today. 20 Jul. 2019.
Web. 9 Feb. 2021. 2=<https://news.uga.edu/roger-hunter-future-space-exploration/>

"We are, by nature, explorers. We are descended from those who dared to leave the caves, and to see what was beyond the horizon. Our cave-dwelling ancestors painted, among other things from their world, the heavens on their cave walls. Thousands of years later, our curiosity led us to better understand our world and those points of light in the night sky beyond that graced those crude drawings. **Exploring brings out the best in us; it also represents, in my mind, a willingness to leave something behind for our descendants.** I recall reading an article by a former NASA administrator who was also answering a similar question. He spoke of 'deferred gratification' as a compelling notion that drives exploration. **There may not be an instant realization of 'return on investment' but the investment, intuitively, answers a call from our nature—to leave behind something better and to advance our civilization."**

Warrant: Space exploration will lead to a better earth

Ethan Siegel, 10-26-2017, "Why Exploring Space And Investing In Research Is Non-Negotiable," Forbes. 26 Oct. 2017. Web. 9 Feb. 2021.
<https://www.forbes.com/sites/startswithabang/2017/10/26/even-while-the-world-suffers-investing-in-science-is-non-negotiable/?sh=b343d0716470>

Among all the activities which are directed, controlled, and funded by the American government, the space program is certainly the most visible and probably the most debated activity, although it consumes only 1.6 percent of the total national budget, and 3 per mille [less than one-third of 1 percent] of the gross national product. As a stimulant and catalyst for the development of new technologies, and for research in the basic sciences, it is unparalleled by any other activity. In this respect, we may even say that the space program is taking over a function which for three or four thousand years has been the sad prerogative of wars. How much human suffering can be avoided if nations, instead of competing with their bomb-dropping fleets of airplanes and rockets, compete with their moon-travelling space ships! This competition is full of promise for brilliant victories, but it leaves no room for the bitter fate of the vanquished, which breeds nothing but revenge and new wars. **Although our space program seems to lead us away from our earth and out toward the moon, the sun, the planets, and the stars, I believe that none of these celestial objects will find as much attention and study by space scientists as our earth. It will become a better earth, not only because of all the new technological and scientific knowledge which we will apply to the betterment of life, but also because we are developing a far deeper appreciation of our earth, of life, and of man.**

Warrant: American space research is currently not moving fast enough

Dirk Schulze-Makuch, 11-13-2013, "Think Space Exploration Isn't Moving Fast Enough?

You're Not Alone.," Air & Space Magazine. 13 Nov. 2013. Web. 9 Feb. 2021.

<https://www.airspacemag.com/daily-planet/think-space-exploration-isnt-moving-fast-enough-youre-not-alone-180947680/>

Another possibility is that we really are running out of ideas. "You're the ones who've been slacking off!" said Michael Crow, president of Arizona State University, addressing

science fiction writers at the Future Tense Conference a couple of years ago. Good science fiction not only helps us set goals, but also shows ways to reach the envisioned technological future. According to writer Neal Stephenson, implementing new technologies on a heroic scale is no longer the childish preoccupation of a few nerds, but is the only way for the human species to escape from its current predicaments. One outcome of the Future Tense Conference was the proposal to produce an anthology of new science fiction, referred to as the Hieroglyph Project, to show new pathways to invention and discovery. Finally, two years later, one of the major academic science publishers took up this idea and came out with a new Science and Fiction book series. Just envisioning the future won't take us there, however. Maybe it's just me, but I miss the cowboy mentality of the 1960s. **We decided to go to the Moon and we did it – even if it seemed dangerous, reckless, even insane. Now we're on a much more timid course, exploring from our safe, computer-generated virtual environments. Perhaps this is the true solution of the Fermi Paradox – the reason why we haven't met other spacefaring civilizations. It's time to turn things around.**

Impact: Space Tech contributes to many real work important developments

Iutech, 2-27-2018, "Why Space Technology Is Important to Everyone on Earth," Indiana Tech, 27 Feb. 2018. Web. 8 Feb, 2021.
<https://blogs.iu.edu/iutech/2018/02/27/why-space-technology-is-important-to-everyone-on-earth/>

That all sounds good in theory, but what actual results have we seen from pursuing space-related advancement? **Arthritis improvement. In one recent study, Rush University paired up with the National Institutes of Health to make space travel easier on astronauts' joints. Because microgravity conditions take a toll on astronauts' bodies, scientists need a way to compensate for that damage. Their insights have**

broader implications for arthritis and joint pain, and could lead to new treatments and technologies to ease that pain.

Infrared ear thermometers. When was the last time you had your temperature checked at a doctor's office? Chances are, you used an infrared ear thermometer. This commonplace technology was supported by NASA back in 1991, as it relied on the same temperature-taking technology used to measure the temperature of stars and planets.

Artificial limbs. In an effort to improve the capabilities of its robotic and extravehicular activities, NASA helped fund Environmental Robots Inc.'s breakthrough artificial muscle systems, which also used robotic sensing and actuation. These technologies were used for space exploration, but have also been revolutionary in creating more comfortable, functional prostheses for individuals.

Baby formula. Baby formula seems removed from space exploration entirely, but it actually arose from a NASA research attempt to determine how microalgae could be used as a nutritional supplement on long trips. This work resulted in the invention of Formulaid, which is now a critical component of most baby formulas.

Invisible braces. If you're thinking NASA invented invisible braces to help keep astronauts' teeth aligned, you're way off base here. The reality is, the material primarily used for invisible braces began life as a component for an advanced missile tracking (transparent polycrystalline alumina—TPA). The material's ability to absorb light, its high strength (stronger than steel), and its smoothness makes it perfect for both applications.

Water filters. Water and similar supplies present a massive challenge to space travelers. Even in the early days, NASA knew the best way to solve the problem was to recycle water that was being excreted or otherwise wasted—hence water filters, which have since been adopted by commercial companies and further developed for residential use.

Analysis: This argument could be run very effectively, but teams should be aware of a few things they must establish before gaining significant offense off of it. Teams should focus

heavily in developing this argument on establishing the status quo of American failure to expand space research at an aggressive rate and also in establishing that efficacy of space research. Once these two things are established, the narrative becomes easy to communicate to judges. This is also an argument where teams may consider running two different impact scenarios based off of the experience of the judge.

PRO: Space Force improves the economy

Argument: creating a Space Force improves the economy

Warrant: Space Force is needed to secure American economic interests

Peter Garretson,, 6-26-2019, "The purpose of a Space Force is a spacefaring economy,"
TheHill, <https://thehill.com/opinion/technology/450519-the-purpose-of-a-space-force-is-a-spacefaring-economy>

The purpose of a Space Force is a spacefaring economy © needs a **Space Force for the same reason it needed a Navy: to secure American interests, especially commerce upon the great ocean that is space.** In the 19th century, America realized the tremendous benefits that would be possible were it to become a seafaring nation. With the desire to be seafaring came a need for a Navy to secure its citizens, their property and their transport far from American shores. Today, **America is likewise waking up to the vast potential of space commerce in the inner solar system. Tech billionaires lead the way with personal investments to create access to an expanding and diverse space economy.** Elon Musk of Tesla and **SpaceX has developed and is developing reusable rockets to make humanity multi-planetary.** The world's richest man, Amazon's Jeff Bezos is spending his personal fortune to begin a multi-generational mission ultimately to enable trillions of people living and working in space and to move heavy industry off Earth to protect the Earth's environment. They are not alone. A tremendous and well-financed ecosystem of private start-ups is pursuing everything from air-launched rockets to lunar and asteroid mining. **We are in the midst of a space industrial revolution — a revolution in transportation, mining and manufacture that will unlock a billion-fold greater resources than on Earth, and ultimately lead to an economic expansion larger even than what the New World became for Europe.**

Warrant: Space has access to precious metals

Peter Garretson,, 6-26-2019, "The purpose of a Space Force is a spacefaring economy,"
TheHill, <https://thehill.com/opinion/technology/450519-the-purpose-of-a-space-force-is-a-spacefaring-economy>

In space are stupendous amounts of accessible metals — far, far more than has ever been mined (or could be mined) on Earth. This includes rare and valuable metals like platinum. We now have the technology to 3-D print those materials into factories in space, and to produce orbital power stations to light the entire world with constant green energy. Space solar power satellites are a game changer, allowing the entire world to develop without environmental impact. The leader of that industry will command the century ahead. There will be a need to secure those interests. There will be threats both from natural hazards and from human hazards.

Warrant: Space could be home to conflict, mandating a Space Force to protect industry

Peter Garretson,, 6-26-2019, "The purpose of a Space Force is a spacefaring economy,"
TheHill, <https://thehill.com/opinion/technology/450519-the-purpose-of-a-space-force-is-a-spacefaring-economy>

Wherever there is profit there is likely to be conflict. While America opened the moon, our “eighth continent,” we will not be alone in space. Many capable nations are already spacefaring, and many more will be. The most capable are the great powers. American history warns us not to be dependent on the largess of foreign powers. A formative experience for our early nation were the demands of the Barbary states for tribute and safe passage, and later when the British Navy would impress our sailors. **Autocratic powers are not kind to traders who don’t have navies.** We can expect the same in space. But nations will not be the only actors. **Even now a few U.S. corporations have space programs that would have been the envy of superpowers in the Cold War. They**

will soon be joined by corporations from a diversity of nations. Eventually, some may choose to break the law, with or without the encouragement of their home state.
Whether as pirates or privateers Americans and their interests far from our shores will be at risk. As our interests develop — and they will develop fast — we cannot leave them unprotected. With such a vast frontier before it, we should seek to ensure it is a domain of liberty for ourselves, our posterity and anyone who wishes to participate under our umbrella. Merchant, pioneers and settlers have always required guardians to make secure the frontier.

Warrant: Space Force headquarters will bring economic growth

Peter Suciu, 7-13-2020, "Economic Impact of the Future Space Force Headquarters," ClearanceJobs, <https://news.clearancejobs.com/2020/07/13/economic-impact-of-the-space-force-headquarters/>

While the future HQ will be on a far smaller scale than other current U.S. military commands, it is the economic impact that comes from corporate investment that is driving communities across the country to compete. Economic Impact is the Draw "The economic impact of the new Space Command headquarters will be huge, and it will be a driver for new private sector corporate investment," explained John Boyd, principal of The Boyd Company and site selection expert. "**It is estimated that the HQ will employ 1,500 highly paid workers and is estimated to approach \$1 billion in construction costs,**" Boyd told ClearanceJobs. "On top the salaries for the 1,500 workers, the **economic benefit to the selected region will be enormous when factoring in new tax revenue and the bump it will give the housing and retail markets.** There will also be a stimulus related to increased corporate travel and tourism revenue and opportunities for philanthropic, advertising and sponsorship opportunities for regional programs."

Supplier and STEM Magnet The Space Command HQ could have other impacts as well. It will likely be a magnet for suppliers in aerospace, avionics, IT, and even the

telecommunications industry. There will also be the “prestige” of housing the headquarters. That in itself could attract STEM related industries to the region. “Space equals innovation and star power,” added Boyd. “Think about the world’s most high profile celebrity CEO’s – Elon Musk, Jeff Bezos, and Richard Branson, along with director James Cameron and Google’s Larry Page’s asteroid mining project – they all are in the space business. This ‘star power’ brings a lot of extra ‘sizzle’ to this dynamic industry.”

Impact: economic growth helps people through government programs

Tejvan Pettinger, 11-28-2018, "Pros and cons of an increase in economic growth,"

Economics Help,

<https://www.economicshelp.org/macroeconomics/macroessays/evaluate-benefits-growth/>

Higher investment in public services. **With higher GDP the government will be able to collect more taxes; this is because people as incomes rise and people spend more they will pay more income tax and VAT.** This is beneficial because **the government can use this increased revenues to reduce the level of government borrowing and/or spend more on public services and investment in the country infrastructure.** This investment in public services can help improve the long-term performance of the economy. For example, better infrastructure enables a lower cost of trade. Therefore, growth can cause a virtuous cycle of higher investment leading to higher growth – which enables more investment.

Analysis: This argument is useful as it has a higher probability than many of the conflict based narratives of this topic. Furthermore, it allows the pro to make a strategic concession when the con raises the cost of the Space Force by conceding then saying economic growth outweighs. Finally, if teams find addition evidence on rare earth minerals in space they can use this evidence to boost that argument.

PRO: Space Force stops satellite warfare

Argument: Space Force protects satellites from attacks

Warrant: Space Force consolidates information on Satellites

W.J. Hennigan, 11-26-2019, "America Really Does Have a Space Force. We Went Inside to See What It Does," Time, <https://time.com/5869987/spaceforce/>

Another reason for Space Force's creation is that national satellites are currently controlled by multiple services and agencies, which can lead to excessive secrecy and the lack of information sharing known in the intelligence world as hypercompartmentalization. During the Obama Administration, it once took officials four months to assemble a briefing on U.S. space capabilities for then Vice President Joe Biden because **information was scattered among so many top-secret classifications and few officials had access to all of them**, recalls Robert Cardillo, former director of the U.S. National Geospatial-Intelligence Agency.

Warrant: China and Russia developing technology to challenge U.S. satellites

John Venable, 11-17-2020, "U.S. Space Force," Heritage Foundation, <https://www.heritage.org/2021-index-us-military-strength/assessment-us-military-power/us-space-force>

Both China and Russia have developed doctrine, organizations, and capabilities to challenge U.S. access to and operations in the space domain. Concurrently, their use of space is expanding significantly. Both nations regard space access and denial as critical components of their national and military **strategies**⁹ and are investing heavily in ground-based anti-satellite (ASAT) missiles and orbital ASAT programs that may deliver a kinetic strike capability,¹⁰ as well as co-orbital robotic interference that can

alter signals and mask denial efforts, or even pull adversary satellites necessary for surveillance, navigation, and targeting out of orbit.¹¹ These nations have demonstrated the capability to put American space assets at risk, and until very recently, the United States had not taken steps to protect those systems, much less to develop its own warfighting capability in that domain.

Warrant: Space Force Satellites detects incoming missiles

Sandra Erwin, 3-6-2020, "Space Force's 2021 budget plan is heavy on satellites and launch," SpaceNews, <https://spacenews.com/space-forces-2021-budget-plan-is-heavy-on-satellites-and-launch/>

Missile warning satellites The Space Force is requesting \$2.3 billion in 2021 to continue the development of the Next-Generation Overhead Persistent Infrared (Next-Gen OPIR) constellation. These satellites provide initial missile warning of a ballistic missile attack on the United States, deployed forces and allies. The first Next-Gen OPIR constellation, known as Block 0, will have three geosynchronous Earth orbit (GEO) and two Polar satellites. The prime contractors are Lockheed Martin for the GEO satellites and Northrop Grumman for the polar satellites. The Next-Gen OPIR system will augment and eventually replace the existing Space Based Infrared System (SBIRS) satellites. The two final spacecraft in the SBIRS constellation, made by Lockheed Martin, are scheduled to launch in 2021 and 2022. The Air Force in 2017 decided to end the production of new SBIRS satellites and transition to Next-Gen OPIR which was designed to be more survivable against electronic and cyberattacks. The first Next-Gen OPIR GEO satellite will be delivered in 2025 and the first Polar satellite in 2027, according to budget documents. All five Block 0 satellites are expected to be on orbit by 2029. The budget includes \$498 million for the Next-Gen OPIR ground system, also known as Future Operationally Resilient Ground Evolution (FORGE). Raytheon was selected in January to develop the FORGE operating system for data processing.

Impact: Space Force Satellites can assist conventional conflict

Nathan Strout, 9-15-2020, "US Space Force confirms Space Based Infrared System

detected missile attack in January," C4ISRNET,

<https://www.c4isrnet.com/battlefield-tech/space/2020/09/15/space-forms-confirms-space-based-infrared-system-detected-missile-attack-in-january/>

WASHINGTON — **The U.S. Space Force confirmed that its Space Based Infrared System satellites were used to detect more than a dozen Iranian missiles aimed at U.S. war fighters in Iraq in January, giving Americans and their partners crucial warning.** On Sept. 15, Chief of Space Operations Gen. John “Jay” Raymond specifically credited space professionals assigned to the 2nd Space Warning Squadron at Buckley Air Force Base, Colorado, with providing that early warning, saving the lives of American and coalition forces. “They operated the world’s best missile warning capabilities and they did outstanding work, and I’m very very proud of them,” he said during prepared remarks at the virtual Air Force Association 2020: Air, Space and Cyberspace Conference.

Impact: Satellites are key for a variety of things

Union of Concerned Scientists, 2-13-2014, "What Are Satellites Used For?,"

<https://www.ucsusa.org/resources/what-are-satellites-used>

Satellite-based navigation systems like the Navstar Global Positioning Systems (known colloquially as GPS) enable anyone with a handheld receiver to determine her location to within a few meters. GPS locators are increasingly included in in-car direction services and allow car-share services like Zipcar to locate their cars. GPS-based systems are used by civilians and the military for navigation on land, sea, and air, and are crucial in situations like a ship making a difficult course in a harbor in bad weather or troops lost

in unfamiliar territory, where other navigation tools may not exist. Business & finance Communications satellites have the ability to rapidly communicate between a number of widely dispersed locations. This is an important tool, allowing big manufacturing companies and department stores to perform inventory management, provide instant credit card authorization and automated teller banking services to even small towns, pay-at-the-pump gas at freeway gas stations, and video conferencing for international corporations. Weather Satellites provide meteorologists with the ability to see weather on a global scale, allowing them to follow the effects of phenomena like volcanic eruptions and burning gas and oil fields, to the development of large systems like hurricanes and El Niño. Climate & environmental monitoring Satellites are some of the best sources of data for climate change research. Satellites monitor ocean temperatures and prevailing currents; data acquired by satellite-borne radars were able to show sea levels have been rising by three mm a year over the last decade. Imaging satellites can measure the changing sizes of glaciers, which is difficult to do from the ground due to the remoteness and darkness of the polar regions. Satellites can determine long-term patterns of rainfall, vegetation cover, and emissions of greenhouse gases.

Impact: Satellites key to stop global warming

Environmental Defense Fund, 12-1-2019, "This space technology can cut climate pollution on Earth," <https://www.edf.org/climate/space-technology-can-cut-climate-pollution-earth>

MethaneSAT, being developed by EDF affiliate MethaneSAT LLC, will provide global high-resolution coverage, exceeding anything in orbit or on the drawing board today. The technology driving the satellite will fill gaps left by other satellite systems. Because it will focus only on methane, MethaneSAT will be quicker and less expensive to launch than the complex, multi-function satellites built by government space agencies, so we

can get data sooner. We're sharing the data to drive action **MethaneSAT is designed to map and measure oil and gas methane emissions worldwide, including roughly 50 major oil and gas regions accounting for more than 80 percent of global production. It will also have the ability to assess emissions from agriculture, landfills and other human-made sources. Like EDF's efforts using technological innovation to drive environmental change, the MethaneSAT mission is about turning data into action.**

Analysis: This primarily provides impacts that can be used with several other arguments. It is advisable that teams have a satellite contention with multiple links and impacts. This will diversify the paths to the ballot

PRO: Space Force improves military readiness

Argument: Creating a Space Force improves military readiness

Warrant: Development of new technology will improve readiness

Scott Maucione, 2-10-2020, "DoD asks for \$705B for 2021, gives Space Force more than \$15B," Federal News Network, <https://federalnewsnetwork.com/defense-main/2020/02/dod-asks-for-705b-for-2021-gives-space-force-more-than-15b/>

The Defense Department is requesting \$705.4 billion in 2021 in a budget it says will focus on dominance across the air, sea, land, space and cyberspace by investing in joint programs that bring the domains together. **"Future wars will be waged not just in the air, on the land or at sea, but also in space and cyberspace; dramatically increasing the complexity of warfare,"** Deputy Defense Secretary David Norquist said Monday during a briefing at the Pentagon. **"This budget reflects that challenge by pulling together all of the pieces of the National Defense Strategy that have been built over the past two years."** The budget, which is largely flat compared to last year's \$718 billion request, **will focus on modernizing current systems, building space and cyber programs, accelerating innovation in emerging technologies and builds onto the military's readiness gains,** Norquist said.

Warrant: Space Force has made significant progress in improving readiness

Dr. Mark T. Esper, 10-15-2020, "Secretary Esper Discusses Readiness and Modernization at the Heritage Foundation," U.S. DEPARTMENT OF DEFENSE, <https://www.defense.gov/Newsroom/Transcripts/Transcript/Article/2384489/secretary-esper-discusses-readiness-and-modernization-at-the-heritage-foundation/>

The Air Force and Space Force have also made significant progress in rebuilding readiness across multiple aircraft fleets, satellite constellations, and mission sets, while actively pursuing the development of integrated systems such as the Advanced Battle Management System. Key in this effort has been our investment in Weapon System Sustainment, with a nine percent funding increase yielding tangible improvements in aircraft availability and training opportunities. And, as the priority for manning, “first to fight” front-line units have seen increased readiness as high as 45 percent over the past two years.

Warrant: creating the space force improves space readiness

Philip Neri, 11-5-2020, "Ready or Not? A Proposal for a Readiness Framework," No Publication, <https://smallwarsjournal.com/jrnl/art/ready-or-not-proposal-readiness-framework>

The joint force mix is simply how a military determines the desired amount of forces per service. While that sounds simple enough, **the services are primarily interested in readying their own forces. The underlying assumption to this approach is that each service can pursue its own readiness interests and, when conflict arrives, align to produce a joint mix of synergistic capabilities able to defeat an opponent.** The inverse is incorporating diverse sets of capabilities into a single service to manage their readiness. The underlying assumption in that logic is that the services will prioritize and resource all capabilities adequately. On December 20, 2019, President Donald Trump signed into law the creation of the United States Space Force.^[8] **Similar to the US Air Force’s separation from the US Army to focus on the air domain, the administration determined that the US should adjust the joint force mix to avoid assuming the latter risk by establishing a force solely oriented on the space domain.** This is not to make the case for or against the US Space Force. Rather, it is to demonstrate that the joint force

mix, whatever its makeup, has an influence on readiness in general and force structure in particular.

Warrant: Space Force improves infrastructure readiness

Lifford M. Theory, 4-20-2020, "Infrastructure Readiness In The United States Space Force," OTH, <https://othjournal.com/2020/04/20/infrastructure-readiness-in-the-united-states-space-force/>

The USSF Civil Engineer Division and Civil Engineer Squadrons are tackling a growing challenge to provide mission assurance for evolving space platforms by improving the construction and sustainment of resilient infrastructure systems linked to critical space mission sites worldwide. **The USSF focuses on three complementary lines of effort: 1) creating improved standards that align infrastructure capabilities** (including resilience) with space mission assurance requirements; **2) creating decision-quality risk management data to inform investments in critical infrastructure**, and the ability to operate, maintain, and sustain the infrastructure supporting those space missions; **and 3) creating an accountability process and mechanism for effective communication of infrastructure readiness** and status for distinct mission assurance requirements. These lofty goals are a considerable challenge; nevertheless, **progress in these efforts is absolutely essential to meet the intent of the 2018 National Defense Strategy (NDS).**

Impact: Readiness is key to winning battles

Mark F. Cancian and Seamus P. Daniels, 4-18-2018, "The State of Military Readiness: Is There a Crisis?," No Publication, <https://www.csis.org/analysis/state-military-readiness-there-crisis>

Readiness is important because it increases the chances that forces will be successful in conflicts. Although many factors determine success on the battlefield—leadership,

tactics, sophistication of equipment, and numbers—history clearly shows that high readiness forces are more likely to be successful. A classic example of readiness risk is Task Force Smith, which was deployed from Japan to Korea in June 1950 to stem the North Korean invasion of the south. Occupation forces in Japan had been maintained at a very low level of readiness. The assumption had been that another conflict would be preceded by a long period of mobilization such as had occurred in World War II. Task Force Smith, poorly trained and hastily thrown together, was badly defeated. Its experience showed that future wars might be “come as you are” and that forces needed to be kept at higher readiness levels in peacetime than had been the case earlier in U.S. history. **There are secondary benefits that derive from high readiness. Troops that train extensively and have all the equipment they need will have higher morale and confidence. This benefits retention. No one joins the military to sit in the barracks. They join to go to the field, to fly aircraft, or to sail at sea.**

Analysis: military readiness is an important issue when considering if we are prepared for a conflict. Even without a conflict, readiness may act as a deterrent and fit well in a sub point. Furthermore, there are arguments about the role private military contractors play in military readiness that must be considered.

PRO: Creation of the Space Force improves other branches of the military

Argument: creation of the Space Force improves other branches of the military

Warrant: Space Force adds a voice to the table

Joe Moye, 12-11-2020, "Bad Idea: Disestablishing the Space Force," Defense360,

<https://defense360.csis.org/bad-idea-disestablishing-the-space-force/>

Likewise, an independent space military service unifies and elevates space capabilities to compete for resources on par with the other services. A single service specifically focused on developing military space capabilities reduces duplication and costs, increases speed of acquisition, and creates overall unity of effort. It also allows the other services to focus their organic space programs toward being better consumers of space. Finally, **the creation of the Space Force added a seat at the table of the Joint Chiefs of Staff. This ensures that space advocacy and military advice is included in every subject in which the Joint Chiefs are involved. Absent the chief of space operations, space advocacy and advice are once again left to the chief of staff of the Air Force, who understandably might have competing interests and priorities. Space requires an independent voice at the table.** The Defense Department has yet to finish realigning the remaining appropriate military space programs to the Space Force. General Raymond is correctly taking a deliberate pace in establishing this new service. **It does not appear that new service “growing pains” have degraded current operations thus far, so we should give leadership the time they need to do this right. At this point, premature plateauing of progress or reversal would hinder the positive momentum generated by centralizing military capability, competence, and advocacy in the space domain.** Returning space components to the Air Force, Army, and Navy would diminish

advocacy and relegate space capabilities to lower priorities behind each service's native domain(s).

Warrant: space force cuts bureaucracy

C. Todd Lopez,, 9-15-2020, "Space Force Chief: U.S. Doesn," U.S. DEPARTMENT OF DEFENSE,

<https://www.defense.gov/Explore/News/Article/Article/2348614/space-force-chief-us-doesnt-want-war-in-space-must-be-prepared-for-it>

"Since establishment, we've been in the business of slashing bureaucracy, delegating authority and enhancing accountability at every crossroad," Raymond said. "My opinion: big organizations are slow. We must move at speed to outpace the threats that we face." The general said the Space Force, **in an effort to reduce bureaucracy, implemented a large-scale reorganization that involved removing two echelons of command, including a numbered Air Force and an O-6-level command.** "We've also reduced the size of our planned staff at the Pentagon," Raymond said. "Back when we started, the Pentagon staff was going to be over 1,000 people. That was the initial plan. We've slashed that by 40%. We're shortening the distance between decision makers and you, the experts, conducting our mission." **Also part of eliminating bureaucracy, Raymond said, is a hard look at the agencies that exist now that are involved in acquisition for the space enterprise. He said Congress has identified some 65 different organizations involved in space-related acquisition.**

Warrant: Space Force consolidates organizations

Grant, Dustin L., and Matthew J. Neil. The Case for Space: A Legislative Framework for an Independent United States Space Force. AIR UNIV MAXWELL AFB AL MAXWELL AFB, 2020. <https://media.defense.gov/2020/Feb/12/2002248561/-1->

1/0/WF_73_GRANT_NEIL_THE_CASE_FOR_SPACE_A_LEGISLATIVE_FRAMEWORK
_FOR_AN_INDEPENDENT_UNITED_STATES_SPACE_FORCE.PDF

The current US construct for managing space lacks consistency. Notwithstanding the issues of lack of centralized space management within the DOD, nationally, there is not a single overarching federal entity charged with managing US space efforts, despite an overarching need for one. Space has become ubiquitous, with multiple dissimilar agencies each handling diverse components of the US space effort and without any central coordinating body. For example, NASA is responsible for controlling all space activities “sponsored by the United States.”⁵⁵ However, excepted explicitly from NASA’s purview are “activities peculiar to or primarily associated with the development of weapons systems, military operations, or the defense of the United States (including the research and development necessary to make effective provision for the defense of the United States).”⁵⁶ These activities fall to the DOD. Thus, **even though NASA is responsible for controlling all space activities, not all activities fall to them.** We have separate entities governing commercial space and national security space. **Though NASA seemingly handles commercial space activities and the DOD handles national security space activities, the two often overlap.** DOD policy is that its space-related activities will not only ensure security in space and maintain our national security advantages there but also “energize the space industrial base that supports US national security.”⁵

Impact: Space Force improves training and advice

Loren Grush, 12-11-2019, "Space Force may finally become real — but it won't be an overhaul," Verge, <https://www.theverge.com/2019/12/11/21004914/space-force-military-branch-ndaa-2020-joint-chiefs>

While it may feel as though the Air Force Space Command is simply getting a new name, there are a few key distinctions. For one, **the Space Force would get full Title 10 authority, which would give the branch the ability to make its own decisions about operating and training people to use equipment.** Under the current regime, the Air Force is the one with Title 10 authority, and it will make decisions based on recommendations from the Air Force Space Command. **“That organization doesn’t already have its own independent decision making authority, and this will kind of elevate that out,” says Johnson.** The NDAA also establishes that **the Space Force will be run by a newly created chief of space operations who will report directly to the US secretary of the Air Force. This CSO will also be a member of the Joint Chiefs of Staff,** a group of senior military personnel that advises the president. So while the CSO will report directly to the Air Force Secretary, they will also have a way to reach the president without a mediator. **“They can give some independent advice to the President, alongside the other chiefs,” says Weeden. “But they’re under the authority of the Secretary of the Air Force when it comes to making decisions.”**

Warrant: Space Force’s only job is to protect satellites

Reid Barbier*, 7-23-2020, "The Purpose and Mission of the Space Force," American University, <https://www.american.edu/sis/centers/security-technology/the-purpose-and-mission-of-the-space-force.cfm>

The Space Force will act as a conduit for space-based intelligence and technology to reach the rest of the military, for instance by making sure that battlefield commanders have real-time access to satellite reconnaissance. The Space Force is designed to be much more than a maintenance unit however, as multiple threats have emerged in recent years that require a substantial updating of American space presence. **Satellites are extremely vulnerable to attack, which could turn America’s reliance on them into a dangerous weakness and potentially cripple American military operations globally.**

China in particular has homed in on this vulnerability by building a growing arsenal of anti-satellite missiles and technologies, including cyber-attacks. The Space Force's most urgent mission is finding ways to defend satellites in order to maintain America's preeminence in space.

Impact: Space Force key to protecting satellites

W.J. Hennigan, 7-23-2020, "America Really Does Have a Space Force. We Went Inside to See What It Does," Time, <https://time.com/5869987/spaceforce/>

The mission of protecting America's vulnerable orbital networks falls to U.S. Space Command and Space Force, which since December has the same status as the Army, Navy, Air Force and Marines. The Pentagon has decades of experience building and deploying satellites, the military operates many of the most important ones, and it has arguably the best strategic planning skills of any organization on the planet. It also already employs 20,000 people whose jobs are to oversee and manage America's space-based GPS, communications, weather and ballistic-missile-warning systems.

Analysis: this argument may work best as an internal link to a satellite contention as it's difficult to generate unique impacts off it. However, it also serves to turn many con arguments about overblown government agency, making it a useful spike. It is recommended that you expand on the impact scenario with addition warrants beyond this argument.

PRO: Space Force decrease potential conflict

Argument: Creating the Space Force decreases the chances of a conflict through deterrence.

Warrant: Deterrence is key to preventing a war

David Montgomery, 12-3-2019, "Trump's proposal for a Space Force was widely mocked. But could it be a stroke of stable genius that makes America safe again?", Washington Post,
<https://www.washingtonpost.com/magazine/2019/12/03/trumps-proposal-space-force-was-widely-mocked-could-it-be-stroke-stable-genius-that-makes-america-safe-again/?arc404=true>

The Air Force won't discuss "counterspace" weapons the United States may be developing, if any. However, the security-focused publication Defense One reported earlier this year that **Pentagon officials have sought funding for research into space-based laser technology that could be used to defend against missiles**. And the Secure World Foundation published a lengthy report in April assessing counterspace capabilities of China, Russia and the United States. It said **America's ability to maneuver satellites for defensive or maintenance purposes could be turned to offensive uses, and it also said the United States has ground-based means to electronically jam satellite signals. The ultimate goal is to deter a war in space**. In the Pentagon's view, space must be considered a warfighting domain precisely to keep it peaceful. "We think **the best way to avoid conflict from extending into space is not only to be able to compete in that conflict but to win that conflict**," Manor explains. "**To leave no doubt in an adversary's or potential adversary's mind that we will triumph.**"

Warrant: conflict in space is coming, Space Force is key to deter conflict

Fred Kennedy, 7-22-2020, "It's Time To Equip The U.S. Space Force With The Ability To Project Force," Forbes,

<https://www.forbes.com/sites/fredkennedy/2020/07/22/its-time-to-equip-the-us-space-force-with-the-ability-to-project-force/?sh=1447f0f04518>

Space is a domain like any other – air, sea, and land, and we should treat it as such.

Conflict will occur in space as it has in every other domain; to believe otherwise would be shockingly naïve and irresponsible. The U.S. must prepare now to deter bad actors from taking actions which threaten our space capabilities, or resoundingly defeat them (in the space domain and elsewhere) should deterrence fail. You cannot safely dismiss the Antarctica argument. It drives a long-standing diplomatic conversation that continues to the present day. Its adherents seek to define and proscribe the use of “space weapons,” but little meaningful progress has been made on this front. The United Nations’ Committee on the Peaceful Uses of Outer Space (COPUOS) and Committee for Disarmament have debated measures that would require member states to refrain from deploying weapons in space, or to commit to “no first placement.” These deliberations continue despite their increasingly academic character: **The Chinese fired a direct-ascent weapon at one of their own satellites in 2007, destroying it and creating a cloud of debris in low earth orbit that persists to the present day. The next year, the U.S. shot down one of its own satellites with a Standard Missile. India conducted a similar test in 2019, prompting condemnation from NASA Administrator Jim Bridenstine when it was determined that debris from the Indian demonstration might pose a threat to the International Space Station. Russia followed suit in April of this year with a test of its own. Multiple nations, including the U.S., have experimented with techniques for close inspection of satellites, which can serve peaceful purposes (e.g., refueling or repair) or more bellicose ones. For better or worse, this genie is now out of its bottle.**

Warrant: Space deterrence secures conventional deterrence

Morgan, Forrest E. Deterrence and First-Strike Stability in Space: A Preliminary Assessment. RAND PROJECT AIR FORCE SANTA MONICA CA, 2010.
https://www.rand.org/content/dam/rand/pubs/monographs/2010/RAND_MG916.pdf

Although this assessment focuses specifically on space deterrence and first-strike stability in space, it is important to appreciate the interdependencies between these factors and general deterrence and stability **writ large. Given the extent to which space support enhances U.S. conventional military capabilities, an adversary weighing the risks and potential benefits of war with the United States might be encouraged toward greater aggression by the belief that attacking space systems would degrade U.S. warfighting capabilities** enough to enable the attainment of objectives at acceptable costs. As a result, **weaknesses in space deterrence can undermine general deterrence. Conversely, if a prospective adversary concludes that the probable cost-benefit outcome of attacking U.S. space systems is unacceptable, it is forced to weigh the risks and benefits of aggressive designs in the terrestrial domain against the prospect of facing fully capable, space-enhanced U.S. military forces. In sum, effective space deterrence fortifies general deterrence and stability**

Impact: Protecting satellites is vital

David Montgomery, 12-3-2019, "Trump's proposal for a Space Force was widely mocked. But could it be a stroke of stable genius that makes America safe again?", Washington Post,
<https://www.washingtonpost.com/magazine/2019/12/03/trumps-proposal-space-force-was-widely-mocked-could-it-be-stroke-stable-genius-that-makes-america-safe-again/?arc404=true>

Consider the value of our satellites to our way of life, not to mention our way of war: The United States has 901, more than any other country. Thirty-one of them provide GPS, which we rely on not just for driving, but for banking, agriculture, robotics, maintaining the power grid and much more. Other satellites enable phone calls, track the weather, monitor environmental disasters and help chart the course of climate change. Satellites are there to provide early warning of nuclear attack, coordinate missile interceptors and keep watch on other powers' adherence to arms control treaties. When U.S. forces are in conflict, satellites provide them with communications, navigation, reconnaissance, tactical missile detection and weapons targeting. Given all of this, it should make us nervous that in recent years China has demonstrated the ability to shoot down satellites with missiles. India did the same this past spring, and Russia is testing such a weapon. China and Russia also are developing methods to disrupt satellites by other means, such as with lasers or electronic jammers, according to U.S. officials. The Department of Defense has been quietly working on both the potential threat to our satellites and the larger issue of maintaining space superiority during the past couple of presidential administrations, primarily through space experts in the Air Force. Creating a Space Force would elevate and focus those efforts, the thinking goes. It would foster a singular military space culture, which would nurture innovation in satellite strategy and defense, strengthen earthbound forces and potentially help safeguard future spacefaring.

Analysis: Deterrence is likely to be a stock argument on this topic as it frequently appears on any military related topic. In space particularly, the role satellites play is vital to our nation.

PRO: Space Force protects military logistics

Argument: The military is critically dependent on satellites for communication and logistics.

America needs a Space Force to protect these assets.

Warrant: US military depends on satellites

Bryan Bender. "Space war is coming — and the U.S. is not ready." Politico. April, 2018.

<https://www.politico.com/story/2018/04/06/outer-space-war-defense-russia-china-463067>

"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."

Warrant: US is increasingly vulnerable in space

Bryan Bender. "Space war is coming — and the U.S. is not ready." Politico. April, 2018.

<https://www.politico.com/story/2018/04/06/outer-space-war-defense-russia-china-463067>

““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.”

Warrant: America needs to ready itself to avoid a “Space Pearl Harbor”

Bryan Bender. “Space war is coming — and the U.S. is not ready.” Politico. April, 2018.

<https://www.politico.com/story/2018/04/06/outer-space-war-defense-russia-china-463067>

“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.”

Warrant: The US needs a space force to be ready for space warfare

Douglas Loverro. “Why the United States needs a Space Force.” Space News. June 2018.

<https://spacenews.com/why-the-united-states-needs-a-space-force/>

“Space needs jealous advocacy. When the Chinese shot down their own satellite in 2007, Air Force and other DoD leaders were heard saying that there was no way to

defend space. The president got it right. We need a Space Force. Space is too critical for the nation's defense not to have an organization that speaks for its importance, defends it against all comers, and jealously advocates for new missions and new responsibilities. Space is too crucial to national security to be stalled by a lack of focus and an unwillingness to respond until pushed. President Trump on June 18 ordered the Pentagon to create a separate military service to focus on national security space. Outside a cohort of people who have worked this issue for many years, the announcement was met with a different mixture of reactions — Star Wars humor, political derision and interservice sarcasm. The reactions reveal a broad misunderstanding of what a Space Force would do or what it would look like.”

Warrant: The Space Force will dramatically enhance our space presence

Douglas Loverro. “Why the United States needs a Space Force.” Space News. June 2018.
<https://spacenews.com/why-the-united-states-needs-a-space-force/>

“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.”

Analysis: This argument is strong because it gives the judge a sense of urgency. Foreground why space is vital for our military capabilities and weigh the magnitude of losing space capabilities to justify the space force.

PRO: Space Force defends against ASATs

Argument: Anti-Satellite Missiles are an increasing threat for the United States military. Worse, the military lacks the capabilities to defend against them.

Warrant: Many countries are developing ASATs

Dwayne A. Day. "To attack or deter? The role of anti-satellite weapons." DefenseNews.

April, 2020. <https://www.thespacereview.com/article/3927/1>

"China, Russia, and India are all reported to have anti-satellite capabilities. The Director of National Intelligence's annual report to Congress stated that the PRC and Russia have operational ASATs for targeting low Earth orbiting satellites, and the PRC is "probably" developing capabilities for geostationary orbit. Even the French, who were vehemently opposed to American ASATs in the 1980s and one of the loudest advocates of ASAT arms control, have now declared their intent to develop an anti-satellite weapon. The United States demonstrated the ability to knock low-flying satellites out of orbit over a decade ago and has made major classified expenditures on space systems in recent years, making it entirely possible that the US has an unacknowledged ASAT program of its own."

Warrant: Russia is developing ASATs specifically to target US capabilities

Dwayne A. Day. "To attack or deter? The role of anti-satellite weapons." DefenseNews.

April, 2020. <https://www.thespacereview.com/article/3927/1>

"Last week, Russia conducted another anti-satellite (ASAT) test, apparently one of a series they have been undertaking as part of what increasingly looks to be a broad-ranging ASAT program. This follows a recent statement by the commander of US

Space Command, General John Raymond, who acknowledged something that amateur space trackers have noticed for a few months: a Russian satellite appears to be “stalking” USA 245, an American reconnaissance satellite, raising the possibility that the Russian satellite might have offensive capabilities. As Bart Hendrickx noted in a 2018 article in Jane’s Intelligence Review, there was ample evidence that Russia was developing a co-orbital anti-satellite weapon designated “Burevestnik,” although the satellite that may be following USA 245 is probably of a different but related type named “Nivelir.”.”

Warrant: American space assets are vulnerable

Brian G. Chow. “Growing U.S. satellite vulnerability: The silent ‘Apocalypse Next’.” Space News. August, 2018. <https://spacenews.com/growing-u-s-satellite-vulnerability-the-silent-apocalypse-next/>

“Unlike ground-launched missiles designed to knock out orbiting satellites, which give hours of warning before they can hit key targets in geosynchronous orbits, the spacecraft (i.e., satellites) China and Russia are developing can destroy an intolerable number of our critical satellites with little or no warning. Faced with the prospect of waging air, land and naval warfare without the support of America’s key satellites, America’s military would be wary of waging any military campaigns at all. Chinese and Russian induced “space deterrence” could prove even more effective and likely against the U.S. than them threatening nuclear strikes. They could inflict such a strategic calamity, moreover, literally silently with little or no fanfare.”

Warrant: ASATs can be stealthy

Brian G. Chow. "Growing U.S. satellite vulnerability: The silent 'Apocalypse Next'." Space News. August, 2018. <https://spacenews.com/growing-u-s-satellite-vulnerability-the-silent-apocalypse-next/>

"What is these specialized Russian and Chinese systems' ostensible purpose? The Russians and Chinese say they are designed to reduce the growing amount of orbiting debris and to refuel, repair and refresh China's and Russia's existing fleet of satellites. These "peaceful" spacecraft are often equipped with a robotic arm(s) in order to grab space debris or a satellite needing service. Unfortunately, these can also be applied with malevolent intent; bending antennae and distorting solar panels to disable a satellite that is working perfectly and do so while creating little or no space debris. Also, if a spacecraft can refuel a satellite, it can also empty the fuel tank. If it can repair or upgrade a satellite by installing a new component, it must have already mastered the prerequisite of taking away the malfunctioning component. There is nothing to prevent it from removing a functioning component and purposely neglecting to put it back."

Warrant: The US needs a comprehensive ASAT doctrine

Robert Burns. "Mattis: US needs Space Force to counter Russia, China." Military News. August, 2020. <https://www.militarytimes.com/news/your-military/2018/08/14/mattis-us-needs-space-force-to-counter-russia-china/>

"With merely a few years to prepare for satellite defense, the U.S. must be self-reliant, with cooperation from its allies and friends, to deter and defend against satellite attacks especially during the early 2020s. Bodyguard satellites and self-defense zones are both fair and effective and can be implemented in time to counter the devastating space threats of the 2020s and beyond, provided that the U.S. starts now."

Analysis: This argument is a classic call to action – there are new and dangerous weapons and the US must evolve to respond. Think of innovation such as the airplane and how they resulted in a revolution in military affairs.

PRO: Space Force balances against Russia

Argument: Russia has always been a serious competitor to the United States in space. A space force will allow the United States to better balance against Russia's advanced capabilities in this field.

Warrant: Russia wants to dominate space

Paul Luzin. "Russia is behind in military space capabilities, but that only drives its appetite." DefenseNews. April, 2020.

<https://www.defensenews.com/opinion/commentary/2020/04/02/russia-is-behind-in-military-space-capabilities-but-that-only-drives-its-appetite/>

"As the U.S. Space Force develops, Russia continues to bolster its own military space assets, each challenging the other's dominance in outer space, despite the two partnering in the domain on research and exploration. Specifically, Russia is working to expand its anti-access/area denial approach in outer space in the form of electronic warfare, increasing sustainability of its communication systems, and developing offensive capabilities against ground-based space infrastructure. According to the Union of Concerned Scientists' satellite database and space-launch reporting, there are more than 2,200 satellites in orbit, and over 1,000 of them belong to American companies, government services and scientific institutions, including 189 military satellites."

Warrant: Russia has a significant space presence

Paul Luzin. "Russia is behind in military space capabilities, but that only drives its appetite." DefenseNews. April, 2020.

<https://www.defensenews.com/opinion/commentary/2020/04/02/russia-is-behind-in-military-space-capabilities-but-that-only-drives-its-appetite/>

"it's estimated that annual spending on the development of Russia's military satellite constellation — satellites, launch vehicles and launches — is \$1 billion. Spending on Russian space navigation system GLONASS (currently made up of 27 satellites) in 2019 was \$437 million, and spending on military launch site Plesetsk is at least \$100 million annually. All these efforts plus the cost of maintenance for other ground-based defense space infrastructure and personnel means that Russia's military space program is about \$1.6 billion. **The biggest part of Russia's military satellite constellation involves 51 communication spacecraft, with 16 Earth-observation satellites. This differs from the American, Chinese and European ones, where Earth-observation satellites dominate.** For instance, the U.S. has 56 Earth-observation satellites and 49 communication satellites, but China has 57 Earth-observation satellites and only three communication satellites."

Warrant: Russia sees space as a part of its asymmetric warfare to counter the US

Paul Luzin. "Russia is behind in military space capabilities, but that only drives its appetite." DefenseNews. April, 2020.

<https://www.defensenews.com/opinion/commentary/2020/04/02/russia-is-behind-in-military-space-capabilities-but-that-only-drives-its-appetite/>

"This imminent industrial weakness inevitably drives Moscow to try to nullify the advantages of the U.S. and other leading powers. However, Russia's actions toward this effort — like the strange orbital maneuvering of experimental Russian satellites or the testing of air defense missiles with potential anti-satellite capabilities — should not be overestimated. There is no sense of targeting hundreds of satellites in many orbits, and it is impossible to target them reticently. Here, Moscow just searches for material

tools that will enhance its position in political bargaining with the U.S. **Where Russia is really trying to improve its military space capabilities is in the following: opportunities for jamming and radio intelligence; sustainability of its command, control and communication systems; and the offensive capabilities against ground-based space infrastructure. The goal here is to prevent its adversaries from using of their space-related infrastructure..”**

Warrant: Space Force will counter Russia

Robert Burns. “Mattis: US needs Space Force to counter Russia, China.” Military News.

August, 2020. <https://www.militarytimes.com/news/your-military/2018/08/14/mattis-us-needs-space-force-to-counter-russia-china/>

“U.S. Space Force is necessary to protect American satellites from being targeted by attack weapons in the hands of China and Russia, Defense Secretary Jim Mattis said Tuesday. Mattis' comments came days after Vice President Mike Pence announced ambitious plans to create a sixth, separate U.S. military warfighting service by 2020 to ensure American dominance in space. Speaking during a trip to Brazil, Mattis said repeatedly that the U.S. has no plans to put weapons in space, but he emphasized the vital and growing role that satellites play not just in military operations but in the world economy.

Warrant: Top Government officials recognize the need to counter Russia

Robert Burns. “Mattis: US needs Space Force to counter Russia, China.” Military News.

August, 2020. <https://www.militarytimes.com/news/your-military/2018/08/14/mattis-us-needs-space-force-to-counter-russia-china/>

Mattis' point about countering the space capabilities of other nations was reinforced Tuesday by the State Department's top arms control official, Yleem Poblete, speaking in Geneva at the U.N. Conference on Disarmament. She said that despite Russian claims it wants to prevent an arms race in outer space, Moscow is developing new anti-satellite missiles and has given its forces a mobile laser system. She also voiced suspicion about Russia's deployment last October of a satellite whose behavior she said was inconsistent with its supposed purpose of conducting in-orbit space inspections. "Russian intentions with respect to this satellite are unclear and are obviously a very troubling development," Poblete said. Russia denies any hostile intent..

Analysis: This argument will be intuitive to many judges because Russia has always been a competitor to the United States. Make the argument that space is merely an extension of a preexisting rivalry.

PRO: Space Force balances against China

Argument: China is an increasing threat and has quickly become a peer competitor to the United States militarily. China's military is capable of waging an all-spectrum conflict against the US, including in space.

Warrant: China wants to dominate space

Maj. Liane Zivitski. "China wants to dominate space, and the US must take countermeasures." DefenseNews. June 23, 2020.

<https://www.defensenews.com/opinion/commentary/2020/06/23/china-wants-to-dominate-space-and-the-us-must-take-countermeasures/>

"China is determined to replace the U.S. as the dominant power in space. While proclaiming its peaceful intentions, Beijing's doctrine considers space a military domain, and it is investing heavily in space infrastructure designed to secure both economic and military advantages. To ensure that it continues to compete from a position of strength, the U.S. must invest sufficient resources in preparing its new Space Force to defend America's national interests and security in space."

Warrant: China is taking aggressive actions in space

Maj. Liane Zivitski. "China wants to dominate space, and the US must take countermeasures." DefenseNews. June 23, 2020.

<https://www.defensenews.com/opinion/commentary/2020/06/23/china-wants-to-dominate-space-and-the-us-must-take-countermeasures/>

"Beijing's rapidly improving capabilities are clear to see. On May 5, China successfully launched the Long March-5B rocket designed to eventually transport astronauts into

space. This was the first successful launch of any Long March rocket this year after failed attempts to launch the Long March-3B in April and Long March-7A in March. Three weeks later, China completed back-to-back launches from two separate launch facilities placing Earth-imaging and technology demonstration satellites into orbit. China plans to launch more than 60 spacecraft in over 40 launches in 2020, and has led global launches over the past two years.”

Warrant: China is preparing to weaponize space

Maj. Liane Zivitski. “China wants to dominate space, and the US must take countermeasures.” DefenseNews. June 23, 2020.

<https://www.defensenews.com/opinion/commentary/2020/06/23/china-wants-to-dominate-space-and-the-us-must-take-countermeasures/>

“These capabilities are a cause for concern because of Beijing’s concurrent investment in space weapons. The Pentagon recently warned China has developed and fielded ground- and space-based anti-satellite, directed-energy, and electronic warfare capabilities that place the peaceful use of international space at risk. Evidence suggests China could be developing up to three different anti-satellite systems. China launched its first successful ground-based direct ascent anti-satellite missile, the SC-19, in 2007, and spent the last decade improving follow-on versions. In 2018, the People’s Liberation Army formed military units that began initial operational training with anti-satellite missiles. The SC-19 is now assessed operational and capable of targeting low-Earth orbit satellites. China also fielded sophisticated on-orbit capabilities, such as satellites with robotic arm technology for inspection and repair, which the U.S. Defense Intelligence Agency assesses could also function as a weapon.”

Warrant: Space Force will counter China

David Vergun. "Space Force Leader Discusses Newest Military Service." US DOD News.
OCT. 27, 2020.

<https://www.defense.gov/Explore/News/Article/Article/2396174/space-force-leader-discusses-newest-military-service/>

"Space Force Gen. John W. "Jay" Raymond, the chief of space operations and commander of the U.S. Space Command, attended a virtual event with the National Defense University Foundation in Washington, D.C. The partnership with the National Reconnaissance Office has never been better, Raymond said. Today, the Space Force shares a strategy, an operations center and even programs. "What's driving us together is largely the threat," he said, meaning mostly from Russia and China.

Although the NRO and the Space Force have distinct missions, Raymond said where they come together is to protect and defend. "Going forward, we need to broaden that relationship even greater," he said.."

Warrant: The Space Force will impact our competition against China in all domains

David Vergun. "Space Force Leader Discusses Newest Military Service." US DOD News.
OCT. 27, 2020.

<https://www.defense.gov/Explore/News/Article/Article/2396174/space-force-leader-discusses-newest-military-service/>

Partnering with other services is also critical since whatever happens in the space domain affects the other domains, he said. An example of this partnership is the Space Force's high priority on working with the services to begin the Joint All-Domain Command and Control system, which connects sensors to shooters across multiple domains, he said. Partnering with the commercial industry is also important in areas such as commercial launch capabilities and large communications satellites, he said. And

with the proliferation of small, low-earth orbit and higher-earth orbit satellites, working with the private sector will be even more important, as they can get very capable satellites built very quickly.

Analysis: This argument is strong because it is simple – China is becoming an increasing threat to the United States, especially in space. It just makes sense that a space force would counter this measure.

PRO: Space Force allows US to enforce the OST

Argument: As other nations continue to build weapons in space, the United States will need to develop its own space force in order to keep up with global powers, and prevent them from spiraling into an arms race.

Warrant: China would have developed space weapons anyway

Manson, Katrina, and Christian Shepherd. US Military Officials Eye New Generation of Space Weapons. 2 Sept. 2020, <https://www.ft.com/content/d44aa332-f564-4b4a-89b7-1685e4579e72>.

Jana Robinson, who leads space security at the Prague Security Studies Institute, said China had assisted 60 countries with 125 space transactions to date. She characterised such assistance, which often involved large-scale financing, as an attempt to expand China's global space footprint and "capture" the space sector for geopolitical ends by inducing dependency or even control over the space sectors of recipient countries.

Wang Yawei, an international relations scholar at Renmin University in Beijing, said China's development of BeiDou was a natural step for a country of its size and should not be seen as part of a space arms race.

Warrant: Space arms race is inevitable

Blatt, Talia. "Anti-Satellite Weapons and the Emerging Space Arms Race." Harvard International Review, 26 May 2020, <https://hir.harvard.edu/anti-satellite-weapons-and-the-emerging-space-arms-race/>.

There are two conflicting views on how the US could mitigate the worst effects of an ASAT arms race. **The first, put forward by Secretary of Defense Donald H. Rumsfeld in**

2001, is fairly simple: Space militarization is inevitable, and the United States will have to rely on superior capabilities to prevent conflict—essentially, end the arms race by winning it. This is classic escalation dominance theory: the idea that sustainable deterrence can be created when a nation escalates conflict to a level greater than their adversary can match. However, the nature of an arms race makes escalatory advantages inherently ephemeral, and the advances Russia and China have made since Rumsfeld's 2001 report suggest that relying on US space superiority might be a poor strategy. Even if it were possible, attaining escalation dominance would require near constant weapons testing, which produces more debris.

Argument: The United States is actively trying to reduce proliferation

Warrant: US has made efforts in the past to reduce space weaponization at the UN

Shlein, Lisa. Nuclear Arms Race, Weaponization of Outer Space High on US Disarmament Agenda | Voice of America - English. 1 Oct. 2020,
<https://www.voanews.com/usa/nuclear-arms-race-weaponization-outer-space-high-us-disarmament-agenda>.

Efforts to rein in a potential nuclear arms race and the weaponization of outer space will be high on the United States agenda at an upcoming United Nations disarmament meeting. A hybrid meeting of the U.N. General Assembly First Committee, which deals with disarmament issues, will be held as part of the UNGA session in New York between October 6 and November 6. Over the last 10 years, the United States reportedly has been trying to lessen the need for nuclear weapons as part of its strategic doctrine. U.S. Ambassador to the Conference on Disarmament in Geneva, Robert Wood, says these efforts have not been matched by Russia and China. If this continues, he said, the U.S. will have to confront and respond to these two giant hegemonic, authoritarian powers. **“One of the things we are trying to do is to bring not**

only Russia to the table, but also China—to have a tri-lateral arms negotiation, to deal with not only strategic nuclear weapons, but non-strategic nuclear weapons, new systems that Russia is developing, because we think this is the direction we are going in the future,” he said.

Warrant: The US is committed the the Outer Space Treaty

Javitz, Eric. Disarmament Documentation: US Speech on Outer Space, May 28. 28 May 2002, <http://www.acronym.org.uk/old/archive/docs/0205/doc17.htm>.

Most important, however, is the Outer Space Treaty, to which the United States remains firmly committed. The Outer Space Treaty puts celestial bodies off limits to all nuclear weapons or other weapons of mass destruction and prohibits States Parties from placing in orbit or stationing such weapons in outer space - a far-reaching non-proliferation measure in itself. It also provides that celestial bodies shall be used exclusively for peaceful purposes and prohibits their use for military establishments or maneuvers, or for testing any type of weapons. In addition, the Outer Space Treaty clearly establishes that States Parties retain jurisdiction and control over objects they have launched into outer space, and have international responsibility for national objects in outer space, including whatever damage the launched item may cause.

Analysis: If the United States does not become more involved in space, other nations will continue to control the space, and conflict will emerge. If the United States were to invest in a space force, it could use its power to prevent escalation and enforce regulations put in place by the OST.

PRO: Space weapon development can help solve space debris

Argument: For the United States to establish a military presence in space, that would require the cleanup of space debris.

Warrant: International guidelines require cleaning up space debris left behind

Pultarova, Tereza. "Meet the Space Custodians: Debris Cleanup Plans Emerge." Space.Com, 26 Apr. 2017, <https://www.space.com/36602-space-junk-cleanup-concepts.html>.

The U.S. Space Surveillance Network currently tracks some 18,000 objects larger than 4 inches (10 centimeters), of which only 1,200 are intact, operational satellites. In addition to that, there are 750,000 so-called "flying bullets" about 0.4 inches (1 cm) in size and around 150 million fragments smaller than 1 millimeter. **International guidelines recommend that operators remove spacecraft from low-Earth orbit (LEO) within 25 years from the end of the craft's mission**, but only 60 percent of missions actually do that, Holger Krag, the head of the European Space Agency's (ESA) Space Debris Office, said during the final presentation at the 7th European Conference on Space Debris. The conference took place in Darmstadt, Germany, between April 18 and April 21. [Space Junk Cleanup: 7 Wild Ways to Destroy Orbital Debris]

Warrant: The U.S. would be required to cleanup after any testing or research.

National Academy Press. Orbital Debris: A Technical Assessment. 1995. www.nap.edu, doi:10.17226/4765.

Three articles in the Outer Space Treaty contain language pertinent to orbital debris issues. Article VI declares, "States party to this treaty shall bear international

responsibility for national activities in outer space." Article VII makes states party to the treaty internationally liable for damage caused by objects (and the component parts of those objects) that they launch or have launched into space. **Finally, Article IX allows states that have reason to believe that a planned activity or experiment would cause potentially harmful interference with other space activities to "request consultation" concerning the activity or experiment.** The Liability and Registration Conventions further explore the liability of states for damage caused by their space objects. The Liability Convention makes states liable for damage "caused elsewhere than on the surface of the Earth to a space object of one launching state or to persons or property on board such a space object of another launching state ... only if the damage is due to its fault or the fault of persons for whom it is responsible." The Registration Convention seeks to provide information for use in determining liability by mandating that all launching states notify the UN of any objects they launch and provide the UN with the objects' orbital parameters. Article VI of the Registration Convention directs nations with monitoring or tracking facilities to aid in the identification of space objects that caused damage.

Argument: Space debris removal programs are already beginning

Warrant: The European Space Agency approved a space debris removal program

Staff. ESA Commissions World's First Space Debris Removal. 12 Sept. 2019,
https://www.esa.int/Safety_Security/Clean_Space/ESA_commissions_world_s_fi
rst_space_debris_removal.

ClearSpace-1 will be the first space mission to remove an item of debris from orbit, planned for launch in 2025. The mission is being procured as a service contract with a startup-led commercial consortium, to help establish a new market for in-orbit servicing, as well as debris removal. Following a competitive process, a consortium led

by Swiss startup ClearSpace – a spin-off company established by an experienced team of space debris researchers based at Ecole Polytechnique Fédérale de Lausanne (EPFL) research institute – will be invited to submit their final proposal, before starting the project next March. “This is the right time for such a mission,” says Luc Piguet, founder and CEO of ClearSpace. “The space debris issue is more pressing than ever before. Today we have nearly 2000 live satellites in space and more than 3000 failed ones.

Example: American military tech companies are already working to address this: Raytheon SpaDE System is working to clear space debris

Adams, Dallon. “Earth Day Space Take: Cleaning up Space Debris around Our Home Planet.” TechRepublic, 20 Apr. 2020,
<https://www.techrepublic.com/article/earth-day-space-take-cleaning-up-space-debris-around-our-home-planet/>.

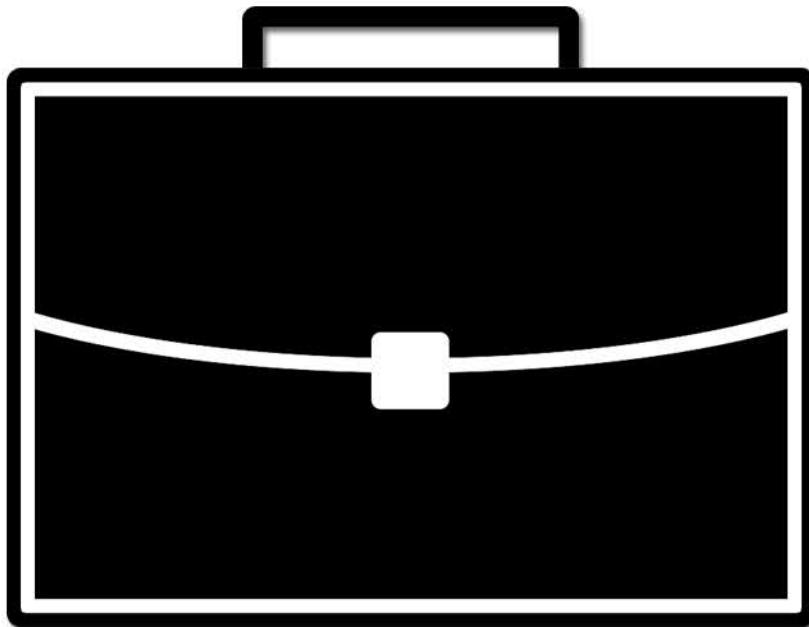
Raytheon BBN Technologies is focusing its effort on space debris removal around an entirely different set of deorbiting solutions. As part of the Space Debris Elimination (SpaDE) system, the company is harnessing the inherent energy of our atmosphere to alter the path of debris in orbit. The SpaDE system directs bursts of upper atmospheric gasses directly into the trajectory of a particular piece of debris to increase drag and expedite the deorbiting process. **The company believes this system has multiple comparative advantages and lacks the inherent risks associated with introducing new craft into orbit.** "With a wide cloud, the precise determination of the debris is not necessary, and the density of the cloud can be varied so that deorbit time can be controlled. Also, since we're using gases ejected from the atmosphere, this method does not introduce potential new space debris. The gas particles dissipate and settle back into the atmosphere," said Daniel Gregory, principal investigator for Raytheon BBN Technologies.

Analysis: Space debris is a massive issue in the sense that it prevents the launching of new satellites and makes space travel dangerous in general. If the Untied States is to establish a military presence in space, that would require a substantial amount of investment in space debris clearing, something the U.S. would certainly be capable of doing.

Champion Briefs

March 2021

Public Forum Brief



Pro Responses to Con Arguments

A/2: Space Force trades off with other military functions

Answer: Space Force is cheap

Warrant: Space Force will not cost the government much money

Marcus Weisgerber. "Space Force Actually May Be Bargain, New Cost Estimate Says"

September 2018. Defense One.

<https://www.defenseone.com/policy/2018/11/space-force-actually-may-be-bargain-new-cost-estimate-says/152939/>

““Most of this is just a simple matter of reorganization and whether or not you think that’s worth it,” Harrison said Monday. “The added cost is a handful of F-35s or less than the audit. I don’t think cost actually should be that big of factor in their decision. I think a bigger factor is whether or not it’s needed.” An Air Force F-35 in fiscal 2020 is expected to cost about \$80 million each. Harrison believes a Space Force would only cost between \$300 million and \$550 million per year in additional funds.”

Warrant: Virtually none of the funding is new

Marcus Weisgerber. "Space Force Actually May Be Bargain, New Cost Estimate Says"

September 2018. Defense One.

<https://www.defenseone.com/policy/2018/11/space-force-actually-may-be-bargain-new-cost-estimate-says/152939/>

"Harrison compared the costs for small, medium, and large-sized forces. A lesser Space Corps kept within the Air Force comprised of about 27,300 uniformed military and civilians would cost about \$11.3 billion annually, he said. A "Lite" Space Force — of about 35,800 military and civilians would cost about \$13.4 billion annually. A "Heavy"

Space Force of about 48,500 military and civilian workers would cost about \$21.5 billion annually. “Ninety-six percent of the funding in all three options is not new funding, it’s just transfers from other accounts that already exist in the services,” Harrison said..”

Analysis: This block is significant because it shows that the space force does not actually cost enough money to trigger the serious tradeoffs discussed by the other side.

Answer: Space Force is a good use of money

Warrant: Setting aside money lets the military protect space investment

Jackson Barnett. “Space Force gets its own ‘werx’ innovation center” FedScoop. November 2020. <https://www.fedscoop.com/spacewerx-space-force-air-force-innovation/>

“Despite the lower budget numbers, **Harrison said creating a space force will allow DoD to protect money set aside purely for space. “In this past budget cycle when the overall funding came down, we saw space funding declining as well,” Harrison said. “Then, when the budget started growing, space hasn’t grown quite as much in the Air Force like aviation programs have.** If you have a separate service for space it’s going to be able to grow and decline just like the other overall services and not be disadvantaged. In that sense, it probably ends up with more funding in the future.””

Warrant: The overall cost is low

Jackson Barnett. “Space Force gets its own ‘werx’ innovation center” FedScoop. November 2020. <https://www.fedscoop.com/spacewerx-space-force-air-force-innovation/>

"As for how much the space force might cost taxpayers per year to operate, Harrison said the budget would likely be similar to that of the U.S. Coast Guard, at about \$11.3 billion to \$21.5 billion. A vast majority of that budget would come from the other military services' current spending, however. "More than 96 percent of the budget is transferred from other parts of DoD and would not add to the top-line defense budget," the report said. The new funding for the space force is "less than one tenth of a percent of the total national defense budget."

Analysis: This response helps judges contextualize how much "bang for the buck" we get from the space force. It is less than a tenth of the US national defense budget and allows us to protect a critical area of defense spending. Seems worth it.

A/2: Space Force hurts the environment

Answer: Space Force is good for the environment

Warrant: Space Force boosts the USFG's eco capabilities

Peter Garrison. "The Space [Force's](#) relevance to the green agenda" September 2018. Defense One. <https://thehill.com/opinion/technology/517240-the-space-forces-relevance-to-the-green-agenda#:~:text=The%20Space%20Force%20also%20plays,increasingly%20monitor%20our%20terrestrial%20environment>.

"The Space Force also plays a pivotal role in protecting the space environment itself. It provides traffic alerts to prevent satellite collisions (and therefore space debris), and it helps to develop norms of behavior that regulate the space information services which increasingly monitor our terrestrial environment. Militaries are, of course, concerned about climate security and human security. Yet their first focus — and the one driving all of these innovations — is national security. As is the case with most tools and technology, something built for one purpose ends up being useful for other purposes. Military space technology has and will continue to advance the security of Earth's climate and biosphere. It can also help the United States to secure a better, and greener, future."

Warrant: Space Force can build out space based solar capabilities

Peter Garrison. "The Space Force's relevance to the green agenda" September 2018. Defense One. <https://thehill.com/opinion/technology/517240-the-space-forces-relevance-to-the-green-agenda#:~:text=The%20Space%20Force%20also%20plays,increasingly%20monitor%20our%20terrestrial%20environment>

agenda#:~:text=The%20Space%20Force%20also%20plays,increasingly%20monitor%20our%20terrestrial%20environment.

“But the service is also doing more in this domain. **The USSF, for instance, is taking the lead on what will become the ultimate green energy technology: space-based solar power. Ignored for decades by both NASA and the Department of Energy, space-based solar power is unique as a renewable energy source because it is far more efficient than its terrestrial counterpart and requires much less land.** Moreover, its vast availability would allow a mature system to meet current global demand many times over.”

Analysis: This block is strong because it shows how the space force can actually help with the climate by building out net new environmental capabilities.

Answer: Space exploration is important for solving climate change

Warrant: New green tech can be discovered from space research

Jackson Barnett. “Space Force gets its own ‘werx’ innovation center” FedScoop. November 2020. <https://www.fedscoop.com/spacewerx-space-force-air-force-innovation/>

“Spaceflight, however, has the potential to be more than just a planetary escape hatch for eccentric billionaires. **Whether in today’s Earth-orbiting spacecraft or the outposts that may someday be built on the moon and Mars, to exist beyond Earth, we must somehow replicate all of our planet’s life-giving essentials off-world. Technologies that recycle practically everything—that make water, air and food as renewable and self-sustaining as possible—are essential for current and future human spaceflight.**”

Warrant: Space has already resulted in many successful innovations

Jackson Barnett. "Space Force gets its own 'werx' innovation center" FedScoop.

November 2020. <https://www.fedscoop.com/spacewerx-space-force-air-force-innovation/>

"Technology transfer from space-related R&D, Anderson says, has sparked significant innovations not only in eco-friendly products but also in the broader fields of transportation, health care and communications. The problem is that space agencies are not effectively communicating such success stories to the general public. "Space companies are notoriously bad at talking about what they are doing," Anderson says."

Analysis: This is a turn. One the macro level it is better for us to invest in the space force because doing so may yield innovations which address the root cause of climate change.

A/2: Space Force is bad for the economy

Answer: Space Force is cheap

Warrant: Most of the funds are just reorganizations

Marcus Weisgerber. "Space Force Actually May Be Bargain, New Cost Estimate Says"

September 2018. Defense One.

https://www.rand.org/pubs/research_briefs/RB9657.html

"The estimate from Washington's resident defense spending guru Todd Harrison of the Center for Strategic and International Studies argues **that creating a Space Force, large or small, amounts to nothing more than a reorganization in which money would be transferred out of the Air Force, Army and Navy into the new military service.**

Harrison's estimates assume a version of Space Force smaller than what the U.S. Air Force has proposed, which includes several additional agencies, and closer to what the Pentagon's Office of the Secretary of Defense is seeking. "**Most of this is just a simple matter of reorganization and whether or not you think that's worth it,"** Harrison said Monday. "**The added cost is a handful of F-35s or less than the audit.** I don't think cost actually should be that big of factor in their decision. I think a bigger factor is whether or not it's needed."

Warrant: Costs will be low

Marcus Weisgerber. "Space Force Actually May Be Bargain, New Cost Estimate Says"

September 2018. Defense One.

https://www.rand.org/pubs/research_briefs/RB9657.html

"Deputy Defense Secretary Patrick Shanahan, who is overseeing the creation of the Space Force, said last week at the Pentagon that it would cost "single digit, not a double-digit" billions of dollars to create the new branch. "It might be lower than \$5" billion, Shanahan said. Harrison said his estimate lines up with the defense secretary's, but wants to see more than estimates. "One of the golden rules in budget analysis is never rely on budget data that is presented orally," Harrison said. "Until he's written it down, we don't really know for sure what he meant."

Analysis: This block is a delink which makes the argument that most of the costs are inflated. Use this block to easily outweigh your opponent's argument.

Answer: Space Force will grow the economy

Warrant: Space Force has programs to catalyze private sector innovation

Jackson Barnett. "Space Force gets its own 'werx' innovation center" FedScoop. November 2020. <https://www.fedscoop.com/spacewerx-space-force-air-force-innovation/>

"The year-old Space Force will have its own rapid acquisition center to work with private sector companies to field new technology for military applications, Air Force leaders say. The new unit, dubbed SpaceWERX, will field commercial technology into Space Force's growing tech portfolio, as the AFWERX program does for the Air Force. It's fitting Space Force will get its own "werx" unit, since it will rely heavily on commercial technology to carry out its mission, says Will Roper, head of acquisition, technology and logistics for the Department of the Air Force which houses Space Force."

Warrant: Space Force members will be especially trained to foster innovation

Jackson Barnett. "Space Force gets its own 'werx' innovation center" FedScoop. November 2020. <https://www.fedscoop.com/spacewerx-space-force-air-force-innovation/>

"The Los Angeles Air Force Base is also home to the Space and Missile Systems Center (SMC) and the Space Force's DevSecOps coding unit Kobayashi Maru. Space Force has hosted Pitch Day events in the past that have given private, often small companies access to quick contracts and Roper said that SpaceWERX will offer more opportunities year round. Los Angeles has a long history of aeronautics companies, and is home to NASA's Jet Propulsion Laboratory. **"We really should have done this years ago, because your team of rockstars have done amazing work in commercial innovation in space,"** Roper said during the AFWERX event while speaking with Lt. Gen. JT Thompson, who runs SMC. As the newest military branch, Space Force has placed emphasis on "digital fluency" in its ranks, requiring new recruits and transitioning officers to take online courses in coding and other technology basics. That fluency is needed since so much of their work will be based in ever-changing technology systems, leaders have said. With SpaceWERX, the services hopes to see even more emerging technology come through the doors..""

Analysis: This is a disadvantage. Even if the space force costs a lot of money, it generates innovation which is the bedrock of economic growth. Use examples such as DARPA and the Manhattan project to convince your judge that Federal innovation matters.

A/2: Space Force escalates tensions with Russia

Answer: Russia wants conflict

Warrant: Russia is a revisionist power

James Dobbins. "What's the Potential for Conflict with China, and How Can It Be Avoided?" September 2020. RAND.

https://www.rand.org/pubs/research_briefs/RB9657.html

"The China-Russia relationship has become an increasingly robust, pragmatic strategic partnership since 2014, in part because the United States is pursuing policies that have driven the two countries closer together. **Presidents Vladimir Putin and Xi Jinping are both authoritarian leaders whose primary preoccupation is regime survival and who are allergic to Western criticisms of their domestic systems and the repressive policies of their respective governments.** China and Russia are revisionist powers in as much as they share a commitment to creating a "post-West" global order which takes their interests into account and is conducive to authoritarian rule.."

Warrant: Russia is helping China fight the US

James Dobbins. "What's the Potential for Conflict with China, and How Can It Be Avoided?" September 2020. RAND.

https://www.rand.org/pubs/research_briefs/RB9657.html

"Since Russia's 2014 seizure and annexation of Crimea from Ukraine and the West's subsequent attempts to isolate Russia, Putin has increasingly turned to China, which has enabled Russia to surmount the isolation and flourish on the world stage. Sino-Russian economic and energy ties are expanding. China is economically more

important to Russia than vice versa and is Russia's number one trading partner and the second-largest purchaser of Russian military hardware. The new Power of Siberia gas pipeline will increase their energy interdependence. Sino-Russian cooperation in the military and high-tech fields is also growing. **Their joint military exercises and air patrols, as well as joint work on artificial intelligence and biotechnology pose challenges to the United States.**"

Analysis: This block challenges the assumption of your opponent's argument that Russia is a power which the US can collaborate it. Show the judge that this is fundamentally untrue because Russia is a revisionist power.

Answer: Space Force is needed to balance against Russian aggression

Warrant: Russia is already behaving dangerously in space

Sandra Erwin. "U.S. Space Force unveils doctrine explaining its role in national security" Space News. November 2017. <https://spacenews.com/u-s-space-force-unveils-doctrine-explaining-its-role-in-national-security/>

"Russia conducted a weapons test using one of its satellites earlier this week, the U.S. Space Force's top officer says, an allegation that if true would represent a troubling escalation of space-based warfare at a time of increased attention on the new prospective battleground. **Gen. John "Jay" Raymond said in a statement Thursday that Russia had conducted a "non-destructive test of a space-based anti-satellite weapon."** **The Space Force had expressed concerns about this same satellite system earlier this year."**

Warrant: Russia is generally militarizing space and the US needs to respond

Sandra Erwin. "U.S. Space Force unveils doctrine explaining its role in national security" Space News. November 2017. <https://spacenews.com/u-s-space-force-unveils-doctrine-explaining-its-role-in-national-security/>

"Space Force in April slammed Russia for conducting a test of ground-based missiles it said could be capable of destroying American satellites in low-earth orbit. Raymond said at the time that the test "is further proof of Russia's hypocritical advocacy of outer space arms control proposals designed to restrict the capabilities of the United States while clearly having no intention of halting their counter-space weapons programs." In a press release on Thursday that included Raymond's latest remarks, Space Force said that last week's test "is another example that the threats to U.S. and allied space systems are real, serious, and increasing," and highlights what it considers the importance of having created the Space Force.*"**

Analysis: This block is persuasive because you can make the case that the US space force is the key to keeping Russia in check. Even if Russia is not attacking the US now, they are clearly building the capabilities to do so.

A/2: Space Force escalates tensions with China

Answer: China wants conflict

Warrant: China is a revisionist power in East Asia

James Dobbins. "What's the Potential for Conflict with China, and How Can It Be Avoided?" September 2020. RAND.

https://www.rand.org/pubs/research_briefs/RB9657.html

"Conflicts in the region involving nations other than China are more likely. Possible conflicts might arise on its periphery involving Korea, Taiwan, one or more countries of Southeast Asia, or India, roughly in that descending order of probability. These more likely conflicts will be with opponents quite different from China and will call for capabilities quite dissimilar from those required to deal with a real peer competitor. Individually, these contingencies will be less consequential than a conflict with China, but collectively they will shape the international environment in which both countries interact and fundamentally influence Chinese perceptions of U.S. power and resolve."

Warrant: China could initiate cyber conflict

James Dobbins. "What's the Potential for Conflict with China, and How Can It Be Avoided?" September 2020. RAND.

https://www.rand.org/pubs/research_briefs/RB9657.html

"A U.S.-China conflict might also break out in—and perhaps be confined to—cyberspace. Cyber war might be an overture to armed hostilities, or the conflict could remain there. Escalation within cyberspace could take the form of efforts to penetrate sensitive networks such as intelligence. **If warning networks were breached, the United**

States might retaliate against networks that affect Chinese trade, which could lead to escalatory attacks such as "soft kill" of satellites."

Analysis: This block delinks your opponent's assumption that China is a cooperative power. If China is aggressive then the best strategy is to pursue defensive balancing.

Answer: Space Force is not aggressive

Warrant: Space Force exists to deter conflict

Sandra Erwin. "U.S. Space Force unveils doctrine explaining its role in national security" Space News. November 2017. <https://spacenews.com/u-s-space-force-unveils-doctrine-explaining-its-role-in-national-security/>

"Raymond, who also serves as commander of U.S. Space Command, insists that the United States wants space to remain a peaceful environment. "Our goal is not to get into a conflict, we want to deter it," he said. "But if deterrence were to fail, then we need to protect our ability to conduct the joint and coalition fight." Raymond described the capstone document as the "foundation of our professional body of knowledge as we forge an independent military service committed to space operations."

Warrant: Space Force serves many nonmilitary ends

Sandra Erwin. "U.S. Space Force unveils doctrine explaining its role in national security" Space News. November 2017. <https://spacenews.com/u-s-space-force-unveils-doctrine-explaining-its-role-in-national-security/>

"The document also makes a point that access and control of space is not just a military concern but a national one due to the role of space in the global economy and the world's increasing dependence on space for critical products and services. "Space is simultaneously a source and conduit through which a nation can generate and apply diplomatic, informational, military and economic power," the Space Force document says. "The United States must cultivate, develop and advance spacepower in order to ensure national prosperity and security."

Military space forces, the document says, have a duty to "preserve that prosperity and security."'"

Analysis: This block attacks the link of the argument that the Space Force is aggressive. Clearly, the space force serves many civilian ends and exists to respond to and deter conflict, not aggress.

A/2: Space Force protects military logistics

Answer: The space force will hinder our Military's ability to respond

Warrant: Space Force hinders joint operations

Loren Thompson. "Ten Ways A Space Force Will Make America Weaker" October 2020.

Forbes. <https://www.forbes.com/sites/lorenthompson/2018/08/27/ten-ways-a-space-force-will-make-america-weaker/?sh=4377431a34b0>

"It will create new barriers to joint force integration. Organizations have boundaries that get in the way of cooperating with other organizations -- particularly when they are competing for missions and resources. One reason the 9-11 attacks succeeded was that intelligence and law enforcement agencies did not share information because they were protecting their bureaucratic turf. A great deal of effort has been invested in tearing down those walls. But standing up a Space Force would create new barriers to cooperation."

Warrant: Space Force will be hampered by a small budget

Loren Thompson. "Ten Ways A Space Force Will Make America Weaker" October 2020.

Forbes. <https://www.forbes.com/sites/lorenthompson/2018/08/27/ten-ways-a-space-force-will-make-america-weaker/?sh=4377431a34b0>

"It will lack the resources to be a co-equal service. President Trump says he wants the Space Force to be "separate but equal" with the Air Force. But the entire space workforce in the defense department and intelligence community -- 27,500 people according to Sandra Erwin of Space News -- represents less than 1% of the personnel employed by the Pentagon. The budget for all national security space activities totals

less than two days' worth of federal spending per year. So a Space Force will not be "separate but equal" with other services."

Analysis: This block is a disadvantage. Sure, space is important. But the space force is ill equipped to handle the defense of it and will trade off with other important resources.

Answer: The Space Force will not be effective at protecting logistics

Warrant: Historical attempts at space command have failed

Bryan Nakayama. "3 Reasons Trump's New Space Force Would Be a Disaster" Fortune Magazine. November 2017. <https://fortune.com/2018/06/21/trump-space-force-bad-idea/>

"The United States Space Command, which existed from 1985 to 2002, only consolidated its control over military space programs in the mid-1990s due to bureaucratic infighting. This meant, for example, that the Command was unable to quickly update its doctrine or operational plans until the late 1990s. The creation of a Space Force would reproduce the same tensions and more because of the scale of organizational change. It would undermine the effectiveness of military space operations and lead to a loss of the flexibility necessary for a rapidly changing world."

Warrant: The US should spend money on other things

Bryan Nakayama. "3 Reasons Trump's New Space Force Would Be a Disaster" Fortune Magazine. November 2017. <https://fortune.com/2018/06/21/trump-space-force-bad-idea/>

“What’s more, President Trump’s proposed Space Force could undermine the status of space as a place of exploration and cooperation. Powerful states develop military systems in a tit-for-tat fashion, and a Space Force would trigger a response from other space-faring nations, potentially leading to the weaponization of space. Space cooperation between the United States and the Soviet Union during the Cold War served as a crucial pressure release valve in times of high tensions.”

Analysis: This block clearly shows that there are significant disadvantages to creating a space force. There is no reason to do it if it will not achieve its objectives and has negative spillovers.

A/2: Space weapons create collateral damage

Answer: Space debris removal programs are already beginning

Warrant: The European Space Agency approved a space debris removal program

Staff. ESA Commissions World's First Space Debris Removal. 12 Sept. 2019,

https://www.esa.int/Safety_Security/Clean_Space/ESA_commissions_world_s_first_space_debris_removal.

ClearSpace-1 will be the first space mission to remove an item of debris from orbit, planned for launch in 2025. The mission is being procured as a service contract with a startup-led commercial consortium, to help establish a new market for in-orbit servicing, as well as debris removal. Following a competitive process, a consortium led by Swiss startup ClearSpace – a spin-off company established by an experienced team of space debris researchers based at Ecole Polytechnique Fédérale de Lausanne (EPFL) research institute – will be invited to submit their final proposal, before starting the project next March. “This is the right time for such a mission,” says Luc Piguet, founder and CEO of ClearSpace. “The space debris issue is more pressing than ever before. Today we have nearly 2000 live satellites in space and more than 3000 failed ones.

Warrant: Raytheon SpaDE System is working to clear space debris

Adams, Dallon. “Earth Day Space Take: Cleaning up Space Debris around Our Home

Planet.” TechRepublic, 20 Apr. 2020,

<https://www.techrepublic.com/article/earth-day-space-take-cleaning-up-space-debris-around-our-home-planet/>.

Raytheon BBN Technologies is focusing its effort on space debris removal around an entirely different set of deorbiting solutions. As part of the Space Debris Elimination (SpaDE) system, the company is harnessing the inherent energy of our atmosphere to alter the path of debris in orbit. The SpaDE system directs bursts of upper atmospheric gasses directly into the trajectory of a particular piece of debris to increase drag and expedite the deorbiting process. **The company believes this system has multiple comparative advantages and lacks the inherent risks associated with introducing new craft into orbit.** "With a wide cloud, the precise determination of the debris is not necessary, and the density of the cloud can be varied so that deorbit time can be controlled. Also, since we're using gases ejected from the atmosphere, this method does not introduce potential new space debris. The gas particles dissipate and settle back into the atmosphere, " said Daniel Gregory, principal investigator for Raytheon BBN Technologies.

Analysis: This is a good response because it shows that the impact of space debris is only short term. In the long term, we will be able to clean it up. This means that the impact of the con's argument is significantly mitigated and easy to outweigh.

Answer: Space regulations require the removal of space debris

Warrant: International guidelines require cleaning up space debris left behind

Pultarova, Tereza. "Meet the Space Custodians: Debris Cleanup Plans Emerge."

Space.Com, 26 Apr. 2017, <https://www.space.com/36602-space-junk-cleanup-concepts.html>.

The U.S. Space Surveillance Network currently tracks some 18,000 objects larger than 4 inches (10 centimeters), of which only 1,200 are intact, operational satellites. In addition to that, there are 750,000 so-called "flying bullets" about 0.4 inches (1 cm) in size and

around 150 million fragments smaller than 1 millimeter. **International guidelines recommend that operators remove spacecraft from low-Earth orbit (LEO) within 25 years from the end of the craft's mission**, but only 60 percent of missions actually do that, Holger Krag, the head of the European Space Agency's (ESA) Space Debris Office, said during the final presentation at the 7th European Conference on Space Debris. The conference took place in Darmstadt, Germany, between April 18 and April 21. [Space Junk Cleanup: 7 Wild Ways to Destroy Orbital Debris]

Warrant: UN regulations require consultation before harming space activities

National Academy Press. Orbital Debris: A Technical Assessment. 1995. www.nap.edu, doi:10.17226/4765.

Three articles in the Outer Space Treaty contain language pertinent to orbital debris issues. Article VI declares, "States party to this treaty shall bear international responsibility for national activities in outer space." Article VII makes states party to the treaty internationally liable for damage caused by objects (and the component parts of those objects) that they launch or have launched into space. **Finally, Article IX allows states that have reason to believe that a planned activity or experiment would cause potentially harmful interference with other space activities to "request consultation" concerning the activity or experiment. The Liability and Registration Conventions further explore the liability of states for damage caused by their space objects. The Liability Convention makes states liable for damage "caused elsewhere than on the surface of the Earth to a space object of one launching state or to persons or property on board such a space object of another launching state ... only if the damage is due to its fault or the fault of persons for whom it is responsible."** The Registration Convention seeks to provide information for use in determining liability by mandating that all launching states notify the UN of any objects they launch and provide the UN with the objects' orbital parameters. Article VI of the Registration Convention directs

nations with monitoring or tracking facilities to aid in the identification of space objects that caused damage.

Analysis: This is a good response because it shows that if space debris is made, there is a high chance that the perpetrator would comply with international law and clean it up. This means that there is a low likelihood that this impact would last very long. This significantly mitigates the con's argument.

A/2: Space weapons are too expensive

Answer: Space Force will be a lean, inexpensive machine

Warrant: Current efforts aim to reduce bureaucracy

Lopez, Todd. "Space Force Chief: U.S. Doesn't." U.S. DEPARTMENT OF DEFENSE, 15 Sept. 2020, <https://www.defense.gov/Explore/News/Article/Article/2348614/space-force-chief-us-doesnt-want-war-in-space-must-be-prepared-for-it/>.

To plan for warfare at the speeds and distances required to operate in space, the Space Force must be lean, agile and fast. The new military service has been working on all of those things since it stood up in December, Raymond said. A **big part of the leaning effort, he said, is the reduction of bureaucracy.** "Since establishment, we've been in the business of slashing bureaucracy, delegating authority and enhancing accountability at every crossroad," Raymond said. "My opinion: big organizations are slow. We must move at speed to outpace the threats that we face." The general said the Space Force, in an effort to reduce bureaucracy, implemented a large-scale reorganization that involved removing two echelons of command, including a numbered Air Force and an O-6-level command. "We've also reduced the size of our planned staff at the Pentagon," Raymond said. "Back when we started, the Pentagon staff was going to be over 1,000 people. That was the initial plan. **We've slashed that by 40%.** We're shortening the distance between decision makers and you, the experts, conducting our mission."

Warrant: How money is spent matters more than how much money is spent on the military

O'Hanlon, James N. Miller and Michael E. "Quality over Quantity: U.S. Military Strategy and Spending in the Trump Years." Brookings, 2 Jan. 2019,

<https://www.brookings.edu/research/quality-over-quantity-u-s-military-strategy-and-spending-in-the-trump-years/>.

The U.S. armed forces need to innovate and invest in breakthrough capabilities, and to improve immediate readiness, but they can do so at their current overall size.

Investing in modernization and readiness rather than growth, paired with more clever and efficient management of the military, can allow today's U.S. military of roughly 1.3 million active-duty troops, just over 900,000 reservists, and almost 750,000 full-time civilians to do the job. By giving up most plans for expansion, the military services can ensure that modernization and readiness get the resources they crucially require. There is a case for \$733 billion in 2020, to be sure—and there is no case at all for cutting below \$700 billion, as would happen if the existing provisions of the 2011 Budget Control Act again kicked in (that legislation lasts through 2021 before expiring).

But how money is spent matters more than how much money is spent on defense.

Analysis: This is a good response because it shows that the expenses will not be excessive. Compared to other parts of the military, US expenditure on space weaponry will be efficient and unwasteful. This response can thus significantly mitigate the con's impact.

Answer: The US already spends billions on the military

Warrant: The US spends more than the next ten countries combined

Staff. "The United States Spends More on Defense than the Next 10 Countries Combined." Peter G Foundation, 15 May 2020,
<https://www.pgpf.org/blog/2020/05/the-united-states-spends-more-on-defense-than-the-next-10-countries-combined>.

The Stockholm International Peace Research Institute (SIPRI) recently released an update to its military expenditure database, which shows that the United States spends considerably more on defense than any other country in the world. The database reported that in 2019, the United States spent \$732 billion on national defense, which was more than the next 10 countries combined. U.S. defense spending increased substantially from 2018 to 2019 relative to other countries. In 2018, the United States spent more than the next eight countries combined. In 2019, that number increased to 10 mainly because U.S. spending increased by \$49 billion and spending by Saudi Arabia decreased by \$13 billion. Those two changes combined to create enough room for two new countries — South Korea and Brazil — to enter the comparison.

Warrant: The US spends hundreds of billions on defense

Collins, Patrick. "Why Does the US Spend So Much on Defense?" Defense One, 26 Jan. 2020, <https://www.defenseone.com/ideas/2020/01/why-does-us-spend-so-much-defense/162657/>.

Yes, the United States spends a lot on defense. Probably even more than you think. In fiscal 2019, the Defense Department's budget, plus money appropriated for nominally unanticipated operational expenses, was \$686 billion. A DOD chart shows that amount as part of a trend of generally rising budgets since the September 11, 2001, terrorist attacks, with some reductions after drawdowns in Iraq and Afghanistan began. To put U.S. military spending in context, it is useful to compare what it spends to that of others. In fiscal 2018, the Defense Department's budget of \$649 billion — not even counting the contingency fund — was larger than the combined spending of the next seven largest militaries: \$609 billion (China, Saudi Arabia, India, France, Russia, UK, Germany).

Analysis: This is a good response because it effectively mitigates the con's impact. The US already spends more on its military than any other country in the world. This means that any increase in spending would amount to nothing more than a drop in the bucket.

A/2: Space Force will create a space weapons arms race

Answer: Other nations will develop space weapons either way

Warrant: China would have developed space weapons anyway

Manson, Katrina, and Christian Shepherd. US Military Officials Eye New Generation of Space Weapons. Financial Times. 2 Sept. 2020,
<https://www.ft.com/content/d44aa332-f564-4b4a-89b7-1685e4579e72>.

Jana Robinson, who leads space security at the Prague Security Studies Institute, said China had assisted 60 countries with 125 space transactions to date. She characterised such assistance, which often involved large-scale financing, as an attempt to expand China's global space footprint and "capture" the space sector for geopolitical ends by inducing dependency or even control over the space sectors of recipient countries.

Wang Yawei, an international relations scholar at Renmin University in Beijing, said China's development of BeiDou was a natural step for a country of its size and should not be seen as part of a space arms race.

Warrant: Space arms race is inevitable

Blatt, Talia. "Anti-Satellite Weapons and the Emerging Space Arms Race." Harvard International Review, 26 May 2020, <https://hir.harvard.edu/anti-satellite-weapons-and-the-emerging-space-arms-race/>.

There are two conflicting views on how the US could mitigate the worst effects of an ASAT arms race. **The first, put forward by Secretary of Defense Donald H. Rumsfeld in 2001, is fairly simple: Space militarization is inevitable, and the United States will have to rely on superior capabilities to prevent conflict—essentially, end the arms race by**

winning it. This is classic escalation dominance theory: the idea that sustainable deterrence can be created when a nation escalates conflict to a level greater than their adversary can match. However, the nature of an arms race makes escalatory advantages inherently ephemeral, and the advances Russia and China have made since Rumsfeld's 2001 report suggest that relying on US space superiority might be a poor strategy. Even if it were possible, attaining escalation dominance would require near constant weapons testing, which produces more debris.

Analysis: This is a good response because it renders the entire argument nonunique. If countries are going to develop space weapon arsenals with or without Space Force, then Space Force plays no role in the proliferation of space weapons. This means that it is impossible for the judge to vote for the con on this argument.

Answer: The United States is actively trying to reduce proliferation

Warrant: US has made efforts in the past to reduce space weaponization at the UN

Shlein, Lisa. Nuclear Arms Race, Weaponization of Outer Space High on US Disarmament Agenda | Voice of America - English. 1 Oct. 2020,
<https://www.voanews.com/usa/nuclear-arms-race-weaponization-outer-space-high-us-disarmament-agenda>.

Efforts to rein in a potential nuclear arms race and the weaponization of outer space will be high on the United States agenda at an upcoming United Nations disarmament meeting. A hybrid meeting of the U.N. General Assembly First Committee, which deals with disarmament issues, will be held as part of the UNGA session in New York between October 6 and November 6. Over the last 10 years, the United States reportedly has been trying to lessen the need for nuclear weapons as part of its strategic doctrine. U.S. Ambassador to the Conference on Disarmament in Geneva,

Robert Wood, says these efforts have not been matched by Russia and China. If this continues, he said, the U.S. will have to confront and respond to these two giant hegemonic, authoritarian powers. **“One of the things we are trying to do is to bring not only Russia to the table, but also China—to have a tri-lateral arms negotiation, to deal with not only strategic nuclear weapons, but non-strategic nuclear weapons, new systems that Russia is developing, because we think this is the direction we are going in the future,”** he said.

Warrant: The US is committed the the Outer Space Treaty

Javitz, Eric. Disarmament Documentation: US Speech on Outer Space, May 28. 28 May 2002, <http://www.acronym.org.uk/old/archive/docs/0205/doc17.htm>.

Most important, however, is the Outer Space Treaty, to which the United States remains firmly committed. The Outer Space Treaty puts celestial bodies off limits to all nuclear weapons or other weapons of mass destruction and prohibits States Parties from placing in orbit or stationing such weapons in outer space - a far-reaching non-proliferation measure in itself. It also provides that celestial bodies shall be used exclusively for peaceful purposes and prohibits their use for military establishments or maneuvers, or for testing any type of weapons. In addition, the Outer Space Treaty clearly establishes that States Parties retain jurisdiction and control over objects they have launched into outer space, and have international responsibility for national objects in outer space, including whatever damage the launched item may cause.

Analysis: This is a good response because it shows that the United States could itself mitigate whatever risks of an arms race might come. This potentially mitigates the con's impact by showing that even if the incentive to get more arms increases, the US might be able to stop our adversaries from doing so. This takes out the con's impact.

A/2: Space weapons have a high chance of miscalculation

Answer: Conventional MAD is more likely to bring miscalculation

Warrant: Opting for MAD instead of space weapons increases odds of miscalculation

Pry, Peter. Have Russia And China Already “Militarized” Space? | RealClearDefense. 16

July 2020,

https://www.realcleardefense.com/articles/2020/07/16/have_russia_and_china_already_militarized_space_115469-full.html.

Another big problem with banking on MAD instead of SANE and space-based defenses to deter World War III is that “strategic stability” is not what it used to be, as during the bipolar Cold War between the U.S. and USSR. Russia, China, North Korea, and soon (if not already) Iran comprise a more complex and aggressive multi-polar constellation of nuclear powers. The possibilities for nuclear war by design or miscalculation have increased exponentially. Finally, it could be a fatal mistake for the U.S. to forego SANE’s “Star Wars” and continue relying on MAD’s “Dr. Strangelove” trusting that China, Russia, and perhaps others have not already “militarized” space with aggressive clandestine programs designed to sweep the skies of U.S. satellites, and thereby win the next war at the outset. Indeed, given China and Russia's contempt for international norms and noncompliance with treaties, it is likely norms and treaties are no significant obstacles to their clandestine militarization of space.

Warrant: SANE can replace MAD, reducing miscalculation risks

Pry, Vincent. “Time to Replace Mutual Assured Nuclear Destruction with a Shield of Space-Based Defenses.” The Washington Times, 14 Dec. 2020,

[https://www.washingtontimes.com/news/2020/dec/14/time-to-replace-mutual-assured-nuclear-destruction/.](https://www.washingtontimes.com/news/2020/dec/14/time-to-replace-mutual-assured-nuclear-destruction/)

Space-based defenses could work a new revolution in military affairs: making nuclear missiles obsolete; canceling the powerful technological advantages and incentives that presently favor nuclear blackmail and aggression, striking first, and surprise attack; and inaugurating a much safer, more stable era dominated by strategic defenses. The long nuclear nightmare called mutual assured destruction (MAD) could be replaced with the shield of space-based defenses and a new strategic principle — strategic assured national existence (SANE). SANE would replace the “mutual hostage relationship” of MAD, that threatens destruction of populations, with intercepting the mass destruction weapons that threaten life. SANE and space-based weapons to implement this defensive strategy is consistent with the ethos of democracies and Judeo-Christian “just war” principles, and so should be more popular and politically sustainable than the offensive nuclear capabilities necessary to underwrite MAD.

Analysis: This is a good response because it turns the con's argument into a reason to vote for the pro. Since space weapons have a lower chance of miscalculation than other weapons, this means that having more space weapons reduces the risk of miscalculation overall.

Answer: Miscalculation has never occurred

Warrant: Miscalculation has never resulted in nuclear war

Staff. “Nuclear Miscalculation.” The William J. Perry Project, 2020,
<https://www.wjperryproject.org/nuclear-miscalculation>.

While miscalculation has never resulted in a nuclear launch, it has resulted in several extremely close calls. In 1983, Russian satellite nuclear warning systems detected the

launch of five U.S. nuclear missiles at Russia. At the time, there was no identifiable system failure. Were it not for the actions of a skeptical Lt. Colonel who independently reported the event to military leadership as a false alarm, it's likely that a launch would have occurred.

Warrant: Accurate surveillance technology makes miscalculation unlikely

Hersmann, Rebecca. "When Is More Actually Less? Situational Awareness and Nuclear Risks." War on the Rocks, 2 Aug. 2019,
<https://warontherocks.com/2019/08/when-is-more-actually-less-situational-awareness-and-nuclear-risks/>.

For most of the nuclear age, enhanced strategic situational awareness — the ability to characterize the operating environment, detect nuclear and conventional strategic attacks, and discern real attacks from false alarms — has been viewed as beneficial to crisis stability. **By improving the accuracy and timeliness of warning, increasing visibility and clarity regarding adversary actions, and extending decision time in crisis, enhanced situational awareness reduces the risk of miscalculation at the nuclear level and alleviates use-or-lose pressures that could incentivize a nuclear first strike.** Moreover, the systems that traditionally provided this strategic warning operated at long range, from outside of adversary territories, and generally in ways that were not particularly concerning to an adversary. Today, existing and emerging technology offers the prospect of insight into adversary actions and activities with unprecedented speed and precision. The combination of new sensor technologies, platforms for their deployment, high-bandwidth networks, and artificial intelligence (AI) tools is transforming the potential field of view at the conventional and strategic levels of conflict.

Analysis: This is a good response because it severely mitigates the con's impact. Even if a miscalculation would be devastating, there are exceedingly low odds that it would ever happen. The proof of this is the fact that nuclear miscalculation has never occurred, so it would be reasonable to think space weapon miscalculation would not occur either.

A/2: Space weapons have no international regulations

Answer: The UN has made efforts to regulate space weapons

Warrant: The UN Space Disarmament Commission is working to create regulations

OConnor, Sarah. We're All Losers in the Space Arms Race . 21 May 2020,
https://www.realcleardefense.com/articles/2020/05/21/were_all_losers_in_the_space_arms_race_115310-full.html.

For its 2018–2020 cycle, the UN Disarmament Commission’s Outer Space Working Group will prepare a set of recommendations to promote the practical implementation of transparency and confidence-building measures in outer space activities. While such measures are a step in the right direction, they should not be viewed as a panacea. More needs to be done to ensure space remains accessible and operational for both military and civilian purposes. **Space as a battlefield is not inevitable, but “you can work yourself into it”, cautions Joan Johnson-Freese.** So far, only France and the U.S. have officially recognised the prospect of armed conflict in outer space, but the limited constraints on behaviour have given countries such as Russia, China and India the scope to continue to develop and test their counterspace capabilities.

Warrant: The UN has gathered delegates to discuss space weapon safety

UN. Raising Alarm over Possible Space Wars, First Committee Delegates Explore Ways to Build New Order for Preventing Celestial Conflict, Confrontation | Meetings Coverage and Press Releases. 24 Oct. 2018,
<https://www.un.org/press/en/2018/gadis3609.doc.htm>.

To prevent outer space from becoming another military battlefield, delegates today explored ways to establish a rules-based order to securely govern that sphere, which they called “a common asset for humanity”, as the First Committee (Disarmament and International Security) continued its work. “Taking into consideration the extreme fragility and volatility of the outer space environment,” Egypt’s representative said, “it must not be allowed to turn into another battlefield or a scene for military conflicts that could have catastrophic implications.” Echoing the views expressed by the Arab Group, African Group and the Non-Aligned Movement, he stressed that outer space is a shared heritage owned equally by all the peoples of the world and a common asset for humanity. Therefore, there is a clear need for a legally binding instrument to prevent an arms race and fill existing legal gaps. Such an instrument should have a comprehensive scope that includes four prohibitions: the placement of any weapons, defensive or offensive; armed attacks against satellites or any outer space assets; intentional, harmful interference that interrupts the normal functioning of such assets; and developing, testing and stockpiling weapons designed to attack outer space assets.

Analysis: This is a good response because it shows that efforts are currently under way in international organizations to regulate space weapons. This means that the impact is at best short term since there will soon be regulations to stop conflict.

Answer: There are unilateral efforts to reduce space proliferation

Warrant: Russia has called for space disarmament

Lauder, John, et al. How to Avoid a Space Arms Race. Rand Corporation. 26 Oct. 2020,
<https://www.rand.org/blog/2020/10/how-to-avoid-a-space-arms-race.html>.

On September 22, Russian President Vladimir Putin proposed that leading space powers agree to prohibit the “stationing” of weapons in space and the “threat or use

of force” against space objects. There's hardly anything new in Putin's pronouncement. As far back as 1985, the USSR called for a ban on “space strike weapons.” Moscow has sounded variations on the same theme, often aided and abetted by China, ever since. **Both nations share a common desire to curb the U.S. technological prowess in developing advanced space capabilities, especially those that might be applied to missile defense or anti-satellite operations.** Ironically, both Russia and China are actively developing and testing a variety of technical approaches to threaten U.S. and allied space assets in the event of a crisis or conflict. Twice this year, Russia has tested different systems capable of destroying U.S. satellites.

Warrant: PAROS treaty aims to stop space proliferation

Nuclear Threat Initiative Staff. Proposed Prevention of an Arms Race in Space (PAROS) Treaty | Treaties & Regimes | NTI. 23 Apr. 2020,
<https://www.nti.org/learn/treaties-and-regimes/proposed-prevention-arms-race-space-paros-treaty/>.

Under the draft treaty submitted to the CD by Russia in 2008, State Parties would commit to refrain from placing objects carrying any type of weapon into orbit, installing weapons on celestial bodies, and threatening to use force against objects in outer space. State Parties would also agree to practice agreed confidence-building measures. A PAROS treaty would complement and reaffirm the importance of the 1967 Outer Space Treaty, which aims to preserve space for peaceful uses by prohibiting the use of space weapons, the development of space-weapon technology, and technology related to “missile defense.” The treaty would prevent any nation from gaining a military advantage in outer space.

Analysis: This is a good response because it shows that individual states are taking important measures on their own to stop unsafe activities in space. This could indicate that international regulations are not necessary if states are taking these precautions on their own.

A/2: Space Force will increase quality and threat of space debris

Answer: For the United States to establish a military presence in space, that would require the cleanup of space debris.

Warrant: International guidelines require cleaning up space debris left behind

Pultarova, Tereza. "Meet the Space Custodians: Debris Cleanup Plans Emerge."

Space.Com, 26 Apr. 2017, <https://www.space.com/36602-space-junk-cleanup-concepts.html>.

The U.S. Space Surveillance Network currently tracks some 18,000 objects larger than 4 inches (10 centimeters), of which only 1,200 are intact, operational satellites. In addition to that, there are 750,000 so-called "flying bullets" about 0.4 inches (1 cm) in size and around 150 million fragments smaller than 1 millimeter. **International guidelines recommend that operators remove spacecraft from low-Earth orbit (LEO) within 25 years from the end of the craft's mission**, but only 60 percent of missions actually do that, Holger Krag, the head of the European Space Agency's (ESA) Space Debris Office, said during the final presentation at the 7th European Conference on Space Debris. The conference took place in Darmstadt, Germany, between April 18 and April 21. [Space Junk Cleanup: 7 Wild Ways to Destroy Orbital Debris]

Warrant: The U.S. would be required to cleanup after any testing or research.

National Academy Press. Orbital Debris: A Technical Assessment. 1995. www.nap.edu, doi:10.17226/4765.

Three articles in the Outer Space Treaty contain language pertinent to orbital debris issues. Article VI declares, "States party to this treaty shall bear international

responsibility for national activities in outer space." Article VII makes states party to the treaty internationally liable for damage caused by objects (and the component parts of those objects) that they launch or have launched into space. **Finally, Article IX allows states that have reason to believe that a planned activity or experiment would cause potentially harmful interference with other space activities to "request consultation" concerning the activity or experiment.** The Liability and Registration Conventions further explore the liability of states for damage caused by their space objects. The Liability Convention makes states liable for damage "caused elsewhere than on the surface of the Earth to a space object of one launching state or to persons or property on board such a space object of another launching state ... only if the damage is due to its fault or the fault of persons for whom it is responsible." The Registration Convention seeks to provide information for use in determining liability by mandating that all launching states notify the UN of any objects they launch and provide the UN with the objects' orbital parameters. Article VI of the Registration Convention directs nations with monitoring or tracking facilities to aid in the identification of space objects that caused damage.

Answer: Space debris removal programs are already beginning

Warrant: The European Space Agency approved a space debris removal program

Staff. ESA Commissions World's First Space Debris Removal. 12 Sept. 2019,
https://www.esa.int/Safety_Security/Clean_Space/ESA_commissions_world_s_fi
rst_space_debris_removal.

ClearSpace-1 will be the first space mission to remove an item of debris from orbit, planned for launch in 2025. The mission is being procured as a service contract with a startup-led commercial consortium, to help establish a new market for in-orbit servicing, as well as debris removal. Following a competitive process, a consortium led

by Swiss startup ClearSpace – a spin-off company established by an experienced team of space debris researchers based at Ecole Polytechnique Fédérale de Lausanne (EPFL) research institute – will be invited to submit their final proposal, before starting the project next March. “This is the right time for such a mission,” says Luc Piguet, founder and CEO of ClearSpace. “The space debris issue is more pressing than ever before. Today we have nearly 2000 live satellites in space and more than 3000 failed ones.

Example: American military tech companies are already working to address this: Raytheon SpaDE System is working to clear space debris

Adams, Dallon. “Earth Day Space Take: Cleaning up Space Debris around Our Home Planet.” TechRepublic, 20 Apr. 2020,
<https://www.techrepublic.com/article/earth-day-space-take-cleaning-up-space-debris-around-our-home-planet/>.

Raytheon BBN Technologies is focusing its effort on space debris removal around an entirely different set of deorbiting solutions. As part of the Space Debris Elimination (SpaDE) system, the company is harnessing the inherent energy of our atmosphere to alter the path of debris in orbit. The SpaDE system directs bursts of upper atmospheric gasses directly into the trajectory of a particular piece of debris to increase drag and expedite the deorbiting process. **The company believes this system has multiple comparative advantages and lacks the inherent risks associated with introducing new craft into orbit.** "With a wide cloud, the precise determination of the debris is not necessary, and the density of the cloud can be varied so that deorbit time can be controlled. Also, since we're using gases ejected from the atmosphere, this method does not introduce potential new space debris. The gas particles dissipate and settle back into the atmosphere," said Daniel Gregory, principal investigator for Raytheon BBN Technologies.

Analysis: The United States couldn't simply disregard space debris. In order for the Space Force to succeed, it will need to emphasize the clearing and removal of space debris, which it is already doing through the private sector.

A/2: Creating a space force is a violation of the Outer Space Treaty

Answer: Space Force is not the reason for militarization of space, violations of OST.

Warrant: China would have developed space weapons anyway

Manson, Katrina, and Christian Shepherd. US Military Officials Eye New Generation of Space Weapons. 2 Sept. 2020, <https://www.ft.com/content/d44aa332-f564-4b4a-89b7-1685e4579e72>.

Jana Robinson, who leads space security at the Prague Security Studies Institute, said China had assisted 60 countries with 125 space transactions to date. She characterised such assistance, which often involved large-scale financing, as an attempt to expand China's global space footprint and "capture" the space sector for geopolitical ends by inducing dependency or even control over the space sectors of recipient countries.

Wang Yawei, an international relations scholar at Renmin University in Beijing, said China's development of BeiDou was a natural step for a country of its size and should not be seen as part of a space arms race.

Warrant: Space arms race is inevitable

Blatt, Talia. "Anti-Satellite Weapons and the Emerging Space Arms Race." Harvard International Review, 26 May 2020, <https://hir.harvard.edu/anti-satellite-weapons-and-the-emerging-space-arms-race/>.

There are two conflicting views on how the US could mitigate the worst effects of an ASAT arms race. **The first, put forward by Secretary of Defense Donald H. Rumsfeld in 2001, is fairly simple: Space militarization is inevitable, and the United States will have to rely on superior capabilities to prevent conflict—essentially, end the arms race by**

winning it. This is classic escalation dominance theory: the idea that sustainable deterrence can be created when a nation escalates conflict to a level greater than their adversary can match. However, the nature of an arms race makes escalatory advantages inherently ephemeral, and the advances Russia and China have made since Rumsfeld's 2001 report suggest that relying on US space superiority might be a poor strategy. Even if it were possible, attaining escalation dominance would require near constant weapons testing, which produces more debris.

Answer: The United States is actively trying to reduce proliferation

Warrant: US has made efforts in the past to reduce space weaponization at the UN

Shlein, Lisa. Nuclear Arms Race, Weaponization of Outer Space High on US Disarmament Agenda | Voice of America - English. 1 Oct. 2020,
<https://www.voanews.com/usa/nuclear-arms-race-weaponization-outer-space-high-us-disarmament-agenda>.

Efforts to rein in a potential nuclear arms race and the weaponization of outer space will be high on the United States agenda at an upcoming United Nations disarmament meeting. A hybrid meeting of the U.N. General Assembly First Committee, which deals with disarmament issues, will be held as part of the UNGA session in New York between October 6 and November 6. Over the last 10 years, the United States reportedly has been trying to lessen the need for nuclear weapons as part of its strategic doctrine. U.S. Ambassador to the Conference on Disarmament in Geneva, Robert Wood, says these efforts have not been matched by Russia and China. If this continues, he said, the U.S. will have to confront and respond to these two giant hegemonic, authoritarian powers. **“One of the things we are trying to do is to bring not only Russia to the table, but also China—to have a tri-lateral arms negotiation, to deal with not only strategic nuclear weapons, but non-strategic nuclear weapons, new**

systems that Russia is developing, because we think this is the direction we are going in the future," he said.

Warrant: The US is committed to the Outer Space Treaty

Javitz, Eric. Disarmament Documentation: US Speech on Outer Space, May 28. 28 May 2002, <http://www.acronym.org.uk/old/archive/docs/0205/doc17.htm>.

Most important, however, is the Outer Space Treaty, to which the United States remains firmly committed. The Outer Space Treaty puts celestial bodies off limits to all nuclear weapons or other weapons of mass destruction and prohibits States Parties from placing in orbit or stationing such weapons in outer space - a far-reaching non-proliferation measure in itself. It also provides that celestial bodies shall be used exclusively for peaceful purposes and prohibits their use for military establishments or maneuvers, or for testing any type of weapons. In addition, the Outer Space Treaty clearly establishes that States Parties retain jurisdiction and control over objects they have launched into outer space, and have international responsibility for national objects in outer space, including whatever damage the launched item may cause.

Analysis: Militarization of space was going to happen regardless of whether Trump had created the Space Force. Furthermore, the U.S. is actively working to reduce the proliferation of space-based weapons in part because it is a signatory of the OST.

A/2: Creation of the Space Force undermines the Air Force

Argument: Creation of the Space Force improves other branches of the military

Warrant: Space Force adds a voice to the table

Joe Moye, 12-11-2020, "Bad Idea: Disestablishing the Space Force," Defense360,

<https://defense360.csis.org/bad-idea-disestablishing-the-space-force/>

Likewise, an independent space military service unifies and elevates space capabilities to compete for resources on par with the other services. A single service specifically focused on developing military space capabilities reduces duplication and costs, increases speed of acquisition, and creates overall unity of effort. It also allows the other services to focus their organic space programs toward being better consumers of space. Finally, **the creation of the Space Force added a seat at the table of the Joint Chiefs of Staff. This ensures that space advocacy and military advice is included in every subject in which the Joint Chiefs are involved. Absent the chief of space operations, space advocacy and advice are once again left to the chief of staff of the Air Force, who understandably might have competing interests and priorities. Space requires an independent voice at the table.** The Defense Department has yet to finish realigning the remaining appropriate military space programs to the Space Force. General Raymond is correctly taking a deliberate pace in establishing this new service. **It does not appear that new service “growing pains” have degraded current operations thus far, so we should give leadership the time they need to do this right. At this point, premature plateauing of progress or reversal would hinder the positive momentum generated by centralizing military capability, competence, and advocacy in the space domain.** Returning space components to the Air Force, Army, and Navy would diminish advocacy and relegate space capabilities to lower priorities behind each service’s native domain(s).

Warrant: space force cuts bureaucracy

C. Todd Lopez,, 9-15-2020, "Space Force Chief: U.S. Doesn," U.S. DEPARTMENT OF DEFENSE,

<https://www.defense.gov/Explore/News/Article/Article/2348614/space-force-chief-us-doesnt-want-war-in-space-must-be-prepared-for-it>

"Since establishment, we've been in the business of slashing bureaucracy, delegating authority and enhancing accountability at every crossroad," Raymond said. "My opinion: big organizations are slow. We must move at speed to outpace the threats that we face." The general said the Space Force, **in an effort to reduce bureaucracy, implemented a large-scale reorganization that involved removing two echelons of command, including a numbered Air Force and an O-6-level command.** "We've also reduced the size of our planned staff at the Pentagon," Raymond said. "Back when we started, the Pentagon staff was going to be over 1,000 people. That was the initial plan. We've slashed that by 40%. We're shortening the distance between decision makers and you, the experts, conducting our mission." **Also part of eliminating bureaucracy, Raymond said, is a hard look at the agencies that exist now that are involved in acquisition for the space enterprise. He said Congress has identified some 65 different organizations involved in space-related acquisition.**

Warrant: Space Force consolidates organizations

Grant, Dustin L., and Matthew J. Neil. The Case for Space: A Legislative Framework for an Independent United States Space Force. AIR UNIV MAXWELL AFB AL MAXWELL AFB, 2020. https://media.defense.gov/2020/Feb/12/2002248561/-1/-1/0/WF_73_GRANT_NEIL_THE_CASE_FOR_SPACE_A_LEGISLATIVE_FRAMEWORK_FOR_AN_INDEPENDENT_UNITED_STATES_SPACE_FORCE.PDF

The current US construct for managing space lacks consistency. Notwithstanding the issues of lack of centralized space management within the DOD, nationally, there is not a single overarching federal entity charged with managing US space efforts, despite an overarching need for one. Space has become ubiquitous, with multiple dissimilar agencies each handling diverse components of the US space effort and without any central coordinating body. For example, NASA is responsible for controlling all space activities “sponsored by the United States.”⁵⁵ However, excepted explicitly from NASA’s purview are “activities peculiar to or primarily associated with the development of weapons systems, military operations, or the defense of the United States (including the research and development necessary to make effective provision for the defense of the United States).”⁵⁶ These activities fall to the DOD. Thus, even though NASA is responsible for controlling all space activities, not all activities fall to them. We have separate entities governing commercial space and national security space. Though NASA seemingly handles commercial space activities and the DOD handles national security space activities, the two often overlap. DOD policy is that its space-related activities will not only ensure security in space and maintain our national security advantages there but also “energize the space industrial base that supports US national security.”⁵

Impact: Space Force improves training and advice

Loren Grush, 12-11-2019, "Space Force may finally become real — but it won't be an overhaul," Verge, <https://www.theverge.com/2019/12/11/21004914/space-force-military-branch-ndaa-2020-joint-chiefs>

While it may feel as though the Air Force Space Command is simply getting a new name, there are a few key distinctions. For one, the Space Force would get full Title 10 authority, which would give the branch the ability to make its own decisions about

operating and training people to use equipment. Under the current regime, the Air Force is the one with Title 10 authority, and it will make decisions based on recommendations from the Air Force Space Command. “**That organization doesn’t already have its own independent decision making authority, and this will kind of elevate that out,**” says Johnson. The NDAA also establishes that **the Space Force will be run by a newly created chief of space operations who will report directly to the US secretary of the Air Force.** This CSO will also be a member of the Joint Chiefs of Staff, a group of senior military personnel that advises the president. So while the CSO will report directly to the Air Force Secretary, they will also have a way to reach the president without a mediator. “They can give some independent advice to the President, alongside the other chiefs,” says Weeden. “But they’re under the authority of the Secretary of the Air Force when it comes to making decisions.”

Warrant: Space Force’s only job is to protect satellites

Reid Barbier*, 7-23-2020, "The Purpose and Mission of the Space Force," American University, <https://www.american.edu/sis/centers/security-technology/the-purpose-and-mission-of-the-space-force.cfm>

The Space Force will act as a conduit for space-based intelligence and technology to reach the rest of the military, for instance by making sure that battlefield commanders have real-time access to satellite reconnaissance. The Space Force is designed to be much more than a maintenance unit however, as multiple threats have emerged in recent years that require a substantial updating of American space presence. **Satellites are extremely vulnerable to attack, which could turn America’s reliance on them into a dangerous weakness and potentially cripple American military operations globally.** China in particular has homed in on this vulnerability by building a growing arsenal of anti-satellite missiles and technologies, including cyber-attacks. The Space Force’s

most urgent mission is finding ways to defend satellites in order to maintain America's preeminence in space.

Impact: Space Force key to protecting satellites

W.J. Hennigan, 7-23-2020, "America Really Does Have a Space Force. We Went Inside to See What It Does," Time, <https://time.com/5869987/spaceforce/>

The mission of protecting America's vulnerable orbital networks falls to U.S. Space Command and Space Force, which since December has the same status as the Army, Navy, Air Force and Marines. The Pentagon has decades of experience building and deploying satellites, the military operates many of the most important ones, and it has arguably the best strategic planning skills of any organization on the planet. It also already employs 20,000 people whose jobs are to oversee and manage America's space-based GPS, communications, weather and ballistic-missile-warning systems.

Analysis: Ultimately, while certain branches may lose a bit of funding and resources, the overall structure of the military will be much clearer by separating out the Space Force. In fact, creating more demand for top scientists will benefit all branches in time.

A/2: Creating a Space Force will lead to monopolization of space

Answer: Space Force increases U.S. hegemony which secures and protects space.

Warrant: Space is the new frontier once again

Goldman Sachs Team, 7-11-2016, "What if I Told You... Space Is Once Again the New Frontier," Smithsonian Magazine. 11 Jul. 2016. Web. 5 Feb. 2021.

<https://www.smithsonianmag.com/sponsored/what-if-i-told-you-space-once-again-new-frontier-180959457/>

The space race is reigniting, catalyzing changes in the new space economy. The industry stagnated after the major scientific and commercial achievements of the 20th century, but new players and technology are reopening space as the next frontier.

Noah Poponak, the senior Aerospace and Defense analyst at Goldman Sachs Research, describes space as becoming “smaller, closer, and cheaper” as the industry reinvents itself. Poponak explains that diminishing barriers to entry—combined with geopolitical tensions—have led to a renewed focus on space activity, with major implications for scientific research, defense, and communications. Launch-to-orbit costs, the greatest hurdle for new entrants, have fallen to less than 10 percent of what they were five years ago and are likely to continue dropping as new technologies like reusable rocketry are introduced, opening space to new applications, technologies, and competitor

Warrant: Whichever country holds power in space challenges American dominance

Robert Burns, 1-28-2021, "Biden seen likely to keep Space Force, a Trump favorite," AP NEWS. 28 Jan. 2021. Web. 5 Feb. 2021. <https://apnews.com/article/joe-biden-space-force-edcb01683ab38e740ae87530c49ecd4e>

WASHINGTON (AP) — To the last moments of his presidency, Donald Trump trumpeted Space Force as a creation for the ages. And while President Joe Biden has quickly undone other Trump initiatives, the space-faring service seems likely to survive, even if the new administration pushes it lower on the list of defense priorities. The reason Space Force is unlikely to go away is largely this: Elimination would require an act of Congress, where a bipartisan consensus holds that America's increasing reliance on space is a worrying vulnerability that is best addressed by a branch of the military focused exclusively on this problem. **The new service also is linked to an increasing U.S. wariness of China, which is developing capabilities to threaten U.S. satellites in space and which has become, in the minds of some, the singular national security challenge. Russia, too, stands accused by Washington of seeking to challenge American dominance in space.** "They're building capabilities to use space against us. We have to be able to respond to that," Gen. John Hyten, vice chairman of the Joint Chiefs of Staff, told the National Security Space Association, an advocacy group, last week, referring to Russia and China.

Warrant: China is actively in pursuit of hegemony

Maj. Liane Zivitski, 6-23-2020, "China wants to dominate space, and the US must take countermeasures," Defense News. 23 Jun. 2020. Web. 8 Feb. 2021.
<https://www.defensenews.com/opinion/commentary/2020/06/23/china-wants-to-dominate-space-and-the-us-must-take-countermeasures/>

China is determined to replace the U.S. as the dominant power in space. While proclaiming its peaceful intentions, Beijing's doctrine considers space a military domain, and it is investing heavily in space infrastructure designed to secure both economic and military advantages. To ensure that it continues to compete from a position of strength, the U.S. must invest sufficient resources in preparing its new Space

Force to defend America's national interests and security in space. Beijing's rapidly improving capabilities are clear to see. On May 5, China successfully launched the Long March-5B rocket designed to eventually transport astronauts into space. This was the first successful launch of any Long March rocket this year after failed attempts to launch the Long March-3B in April and Long March-7A in March. Three weeks later, China completed back-to-back launches from two separate launch facilities placing Earth-imaging and technology demonstration satellites into orbit. China plans to launch more than 60 spacecraft in over 40 launches in 2020, and has led global launches over the past two years.

Warrant: US hegemony in space means that allies and enemies don't feel like the US is backing down

Joe Moye, 12-11-2020, "Bad Idea: Disestablishing the Space Force," Defense360. 11 Dec. 2020. Web. 5 Feb. 2021. <https://defense360.csis.org/bad-idea-disestablishing-the-space-force/>

Yet we do not need to wait for tomorrow: threats exist today. Even now, our lives are unquestionably dependent on our unfettered ability to use space. General Raymond recently said that the Space Force was created due to "the compelling case our competitors have created for us." Chinese and Russian space capabilities and counterspace threats are well-documented. China's rapidly maturing space program is increasingly becoming the pace setter in this domain. Dr. Mir Sadat, a former policy director for the U.S. National Security Council, has argued that we are in "a race for dominance over cislunar access, operations, and resources." **Stagnating the Space Force, or rolling it back into the Air Force, would send mixed signals to our partners and allies on the priority of space — especially those following our lead to bolster their own space forces.** Some argue that the solution is to mirror special operations by making United States Space Command "service-like" and retaining the actual capability within the traditional services.

Impact: US hegemony prevents wide scale conflict

Alex Ward, 08-22-2014, "Only US Can Prevent Great Power War," The Diplomat. 22 Aug. 2014. Web. 5 Feb. 2021. <https://thediplomat.com/2014/08/only-us-can-prevent-great-power-war/>

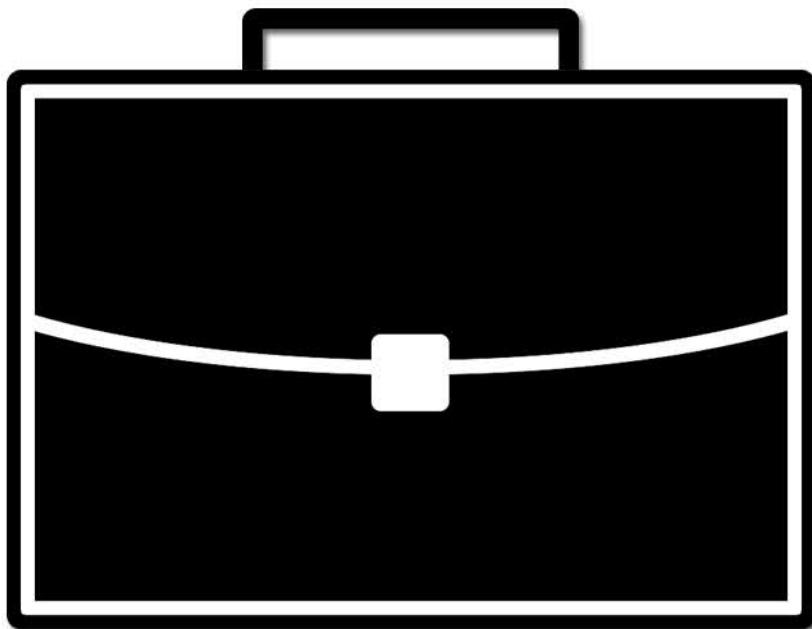
But Gilpin's preconditions shouldn't be misconstrued as predictive or fatalistic. Indeed, the United States, as the hegemon, has the capability (and responsibility) to preserve the international order and lead the world out of this mess. By keeping good relations with partners and allies, deterring adversaries, reversing the perception of its decline, and leveraging technological capabilities for global good, there is a decent chance that the U.S. can make the great-power-war-incubation period fade away. Should the United States not seize this moment, and ensure that China is a responsible partner in the current global system alongside it, then the chance of a great power war cannot be dismissed, however remote.

Analysis: Regardless of whether the United States is wholly altruistic in its pursuit of power in space, it's a stabilizing actor that would be preferable to several others who seek power. U.S. hegemony would prevent those other actors, like China, from creating even more dangerous circumstances as space slowly militarizes.

Champion Briefs

March 2021

Public Forum Brief



Con Arguments

CON: Space Force trades off with other military functions

Argument: The Space Force, like any other large bureaucratic organization, has parochial interests which compete for funding with its peer organizations. In context this means it will suck funding from the rest of the military.

Warrant: Space Force will compete with other important space programs in the military

Sandra Erwin. "Concerns grow about Space Force diverting funds from other military priorities." Sandra Erwin. March 2019. <https://spacenews.com/concerns-grow-about-space-force-diverting-funds-from-other-military-priorities/>

"Experts warn that if the Space Force is set up as an independent service, its substantial administrative costs could eat up funds that might otherwise be spent training and equipping forces with next-generation space technology. Political disagreements aside, the Trump administration's push to create a separate branch of the military for space is being challenged on grounds that an expensive bureaucracy could undermine the central goal of boosting military capabilities to defend satellites and the nation's access to space. Vice President Mike Pence said the administration would ask Congress for \$8 billion over the next five years to get the Space Force off the ground. It's unclear if Pence meant this would be new money to be added to the Pentagon budget top line or whether these funds would be redirected from other accounts. **Experts are warning that if the Space Force is set up as an independent service, its substantial administrative costs could eat up funds that might otherwise be spent training and equipping forces with next-generation space technology."**

Warrant: Space Force does not need to be a separate branch

Sandra Erwin. "Concerns grow about Space Force diverting funds from other military priorities." Sandra Erwin. March 2019. <https://spacenews.com/concerns-grow-about-space-force-diverting-funds-from-other-military-priorities/>

“There is no argument that there has to be more investment in space capability, but will the overhead cost of the Space Force eat into investments and other warfighter priorities?” said Wesley Hallman, senior vice president for policy at the National Defense Industrial Association. “It’s always a competition for resources,” Hallman told SpaceNews. A retired Air Force officer, Hallman said he welcomes the administration’s interest in space but would like to see more analysis on whether creating a new military branch is the best approach. He noted that his association’s members have not taken an official a position on the Space Force.”

Warrant: Space Force may materially trade off with important military priorities

Sandra Erwin. "Concerns grow about Space Force diverting funds from other military priorities." Sandra Erwin. March 2019. <https://spacenews.com/concerns-grow-about-space-force-diverting-funds-from-other-military-priorities/>

“We all want this to work,” he said. But does it have to be a separate service? “That implies you have to have an independent recruiting command, basic training, a service academy, a medical corps. Are you going to create those redundancies because you decided this needs to be an independent service?” Hallman said. “There’s going to be an overhead bill that you’re not currently paying. How do we ensure that this ends up being more space capability? Is it going to take resources from efforts to build a 355 ship navy? Will it take resources from buying 1,763 F-35 fighters that the Air Force needs?” He suggested it might be more efficient to set up the Space Force under the umbrella of the Department of the Air Force — like the Marine Corps, which is part of the Department of the Navy..”

Warrant: Air force is currently underfunded

Sandra Erwin. "Space Force's small launch program looks to pick up pace after a year of delays" Space News. Jan 2021. <https://spacenews.com/space-forces-small-launch-program-looks-to-pick-up-pace-after-a-year-of-delays/>

"Air and space are critical domains for our national security, yet our nation has consistently failed to invest sufficiently in these requirements. As a result, today's U.S. Air Force is older and smaller than at any time in its history, even as it begins to birth the new U.S. Space Force with massive funding needs of its own. The Department of the Air Force, which encompasses both the Air Force and the Space Force, faces daunting demands. Within the budget of a single service, it must modernize its geriatric fleet to remain the world's predominant Air Force, while building up the nascent Space Force to ensure it remains ahead of its near-peer competitors, China and Russia."

Warrant: Space Force is taking funds from the air force

Sandra Erwin. "Space Force's small launch program looks to pick up pace after a year of delays" Space News. Jan 2021. <https://spacenews.com/space-forces-small-launch-program-looks-to-pick-up-pace-after-a-year-of-delays/>

"The new Space Force is now entering an orbit that will demand funding increases to pay for new capabilities. It too must compete with Air Force modernization and pass-through funding to achieve its objectives. This is all light years away from real transparency and good governance in national security. The services rationalize budget resource shortfalls by saying they will simply "accept more risk," but few truly understand what that means. Accepting risk means acknowledging the military may not be able to deter future conflicts. It means American lives will be put in jeopardy because

our military will be unable to protect them. It means America may need to stand down in some circumstances rather than confronting adversaries."

Analysis: This argument is strong because it forces your opponents to justify their impacts relative to other pressing national security concerns. This doubles their burden by making them weigh upfront in order to even get the judge's attention.

CON: Space Force hurts the environment

Argument: Space missions, including the ones done by the space force, are a massive contributor to climate change. Because of the impact of climate change we should shy away from these ventures.

Warrant: Space launches are bad for climate change

J. A. Dallas. "Environmental impact of rocket launches must be taken seriously." Elsevier Journal. March 2019. <https://www.journals.elsevier.com/journal-of-cleaner-production/news/environmental-impact-of-rocket-launches-must-be-taken-seriously#:~:text=Sustainable%20space%20travel,ands%20persist%20in%20the%20soil>.

"As well as stratospheric ozone, launch emissions have the potential to impact climate change through the release of black carbon into the stratosphere. They also can impact ecosystem and human health through the release of toxic chemicals that can enter surface waters and persist in the soil. Launch emissions can cause direct effects, from the combustion of the propellant, and indirect effects, from the mixing of ambient air into the exhaust plume, which can cause different reactions at different altitudes. The team discovered that the quantity and type of propellant used had the biggest effect on the nature and magnitude of the environmental impacts associated with space launches."

Warrant: Launch chemicals may deplete the ozone layer

J. A. Dallas. "Environmental impact of rocket launches must be taken seriously." Elsevier Journal. March 2019. <https://www.journals.elsevier.com/journal-of-cleaner-production/news/environmental-impact-of-rocket-launches-must-be-taken-seriously#:~:text=Sustainable%20space%20travel,ands%20persist%20in%20the%20soil>

seriou#:^text=Sustainable%20space%20travel, and%20persist%20in%20the%20s
oil.

“Dallas and her colleagues reviewed more than 40 studies that considered a range of rocket and propellant types, and the resulting impacts on climate, stratospheric ozone, ecosystems and human health. **While the effects of different rocket and propellant types varied, all had the potential to cause stratospheric ozone depletion. Ozone in the stratosphere forms a layer that prevents the sun’s damaging ultraviolet rays from reaching the surface.** The discovery of a hole in the ozone layer caused by refrigerant chemicals in 1982 caused a ban on these chemicals, so anything that may cause renewed ozone depletion is of global concern. Rocket launches are the only source of ozone-depleting chemicals that are deposited directly into the stratosphere, meaning increased numbers of launches could cause significant damage..”

Warrant: America needs an environmental lens to space

J. A. Dallas. “Environmental impact of rocket launches must be taken seriously.” Elsevier Journal. March 2019. <https://www.journals.elsevier.com/journal-of-cleaner-production/news/environmental-impact-of-rocket-launches-must-be-taken-seriou#:^text=Sustainable%20space%20travel, and%20persist%20in%20the%20s>
oil.

“In 2018, the number of rocket launches exceeded 100 for the first time since 1990, at the peak of construction of the International Space Station. As commercial spaceflight increases, and the possibility of colonies on the Moon and Mars become closer to reality, the environmental impact of emissions from increased rocket launches must be considered before it is too late. **“Our understanding must be improved to ensure the prevention and effective mitigation of any harmful environmental impacts resulting from both individual launch events and the possible cumulative effects of frequent**

“launches,” says lead author Jessica Dallas, from the University of New South Wales, Sydney, Australia. “While economic and technical considerations are vital to the success of any space mission, it is important also that environmental considerations be included to avoid long-term environmental damage.”.”

Warrant: Space Force is starting to ramp up the launch of satellites and rockets

Sandra Erwin. “Space Force’s small launch program looks to pick up pace after a year of delays” Space News. Jan 2021. <https://spacenews.com/space-forces-small-launch-program-looks-to-pick-up-pace-after-a-year-of-delays/>

“Small satellite launches by the U.S. Space Force slowed considerably in 2020 due to the pandemic and technical setbacks. Small rocket missions that slipped to 2021 include launches by Virgin Orbit, Rocket Lab and Space Vector. “Some of the small launch providers ran into technical challenges during the development of their systems and that has delayed missions into 2021,” said Lt. Col. Ryan Rose, chief of the small launch and targets division of the Space and Missile Systems Center’s launch enterprise. “COVID-19 also had an impact on the execution of these missions,” Rose told SpaceNews in an interview from Kirtland Air Force Base, New Mexico..”

Warrant: Space Force is increasing funding to newcomers in the rocket launch space

Sandra Erwin. “Space Force’s small launch program looks to pick up pace after a year of delays” Space News. Jan 2021. <https://spacenews.com/space-forces-small-launch-program-looks-to-pick-up-pace-after-a-year-of-delays/>

“Two other Space Force launches that slid into 2021 are Space Test Program missions awarded to Virgin Orbit, a sister company to Richard Branson’s space venture Virgin Galactic. The company intends to deploy satellites using rockets released from under

the wing of a Boeing 747 airliner. Virgin Orbit's LauncherOne has yet to reach orbit.

The company's first attempt failed in May when the rocket's first-stage engine shut down a few seconds after ignition. Another test flight was planned for late 2020 but the company had to stand down temporarily to allow employees "precautionary quarantines" amid the pandemic, Virgin Orbit said. A new launch attempt could happen this month at the Mojave spaceport in California. One of Virgin Orbit's Space Force contracts is to launch the STP-27VP mission from the island of Guam in the Western Pacific. A second Virgin Orbit Space Force mission planned for 2021 is STP-S28, also from Guam."

Analysis: The environment is one of the most important issues of our time and judges know this. Make the case that no space force activity is more important than climate change. Weigh the impact of lives lost from ozone collapse or global warming.

CON: Space Force is bad for the economy

Argument: The Space Force is incredibly wasteful and expensive. The US military budget is already too high and does not drive essential national outcomes. We should not invest in another wasteful project.

Warrant: Space Force will cost billions

Mike Gruss. "Space Force to cost \$2 billion, include 15,000 personnel in first five years."

Defense News. March 2019.

<https://www.defensenews.com/space/2019/03/01/space-force-to-cost-2-billion-include-15000-personnel-in-first-five-years/>

"The Trump administration plans to spend \$2 billion in new funding over a five-year period to create its Space Force, during which roughly 15,000 space-related personnel will transfer from existing roles. Officials unveiled those details and the Pentagon's legislative proposal for the new military service March 1. Defense leaders sent the formal proposal to Congress Feb. 27 after President Donald Trump ordered its creation in June. While many of the details have yet to be determined — will the service have a bootcamp (unclear), its own service academy (no), their own uniforms (possible) or recruitment centers (probably) — a Space Force would share resources such as an acquisition chief, general counsel and chaplains with the broader Department of the Air Force."

Warrant: America already spends a lot of money on space

Mike Gruss. "Space Force to cost \$2 billion, include 15,000 personnel in first five years."

Defense News. March 2019.

<https://www.defensenews.com/space/2019/03/01/space-force-to-cost-2-billion-include-15000-personnel-in-first-five-years/>

"In September, Secretary of the Air Force Heather Wilson floated a cost of \$13 billion for the Space Force, while an independent estimate from the Center for Strategic and International Studies put the additional costs at around \$550 million per year. However, senior department officials said March 1 that the Pentagon plans to spend about \$72 million on setting up a headquarters for the service with about 200 staffers in fiscal 2020. As the force ramps up, those costs could rise to about \$500 million per year. Those costs are in addition to the roughly \$10 billion the Department of Defense already spends on unclassified space programs."

Warrant: Space Force will eat up resources from other departments

Mike Gruss. "Space Force to cost \$2 billion, include 15,000 personnel in first five years." Defense News. March [2019](#).

<https://www.defensenews.com/space/2019/03/01/space-force-to-cost-2-billion-include-15000-personnel-in-first-five-years/>

"All told, roughly 15,000 "highly technical" personnel from existing offices will move under the aegis of the Space Force by the end of FY24. Those individuals may be transferred both voluntarily and involuntarily, and will move with the grade, rank, duty, and pay status they had previously. While in the past decade Air Force Space Command has been described as including as many as 40,000 employees, not all of those workers were strictly focused on space and may have provided support functions. **Some new general officer roles will be required to fill out the Space Force, which requires Congressional authorization.** Just how many is unclear, with the proposal promising a report to Congress on that issue sometime in FY20. One challenge in setting up the Space Force during this period will be collaboration with the intelligence

community, whose National Reconnaissance Office (NRO) will remain independent of the new military branch.”

Warrant: Even military leaders agree that the space force is massively wasteful of taxpayer dollars

Markian Dobczansky. “Why Russia and America Need Each Other” Wilson Center.

December 2008. <https://www.wilsoncenter.org/publication/why-russia-and-america-need-each-other>

“In the past, leading Department of Defense (DOD) officials have opposed the creation of a new military branch. At the time of the original proposal, Air Force Chief of Staff General David Goldfein acknowledged that while there are improvements to be made to the military’s approach to space, a new branch would bloat bureaucracy and hinder a space corps’ ability to operate efficiently. Secretary of Defense James Mattis also lobbied against a Space Force in July 2017, calling the formation of an additional branch “premature” as he sought to “reduce overhead” at DOD. In a similar statement, Air Force Secretary Heather Wilson stated that a sixth branch would “make it more complex, add more boxes to the organization chart, and cost more money,” which she argues would better directed toward “lethality” rather than bureaucracy. The proposal of a space force brings forth several questions regarding the structure and role of this new military branch. Because it would be independent of the Air Force, a space force would require a new command structure and the addition of thousands of highly specialized employees. Many of these positions would likely be filled by the Air Force Space Command, which only consists of 35,000 service members. I.”

Analysis: The Space Force will cost America billions of dollars and has been opposed by senior military commanders. We should be wary of spending money on anything so large without a clear payoff.

CON: Space Force escalates tensions with Russia

Argument: The Space Force antagonizes Russia. This is unnecessary and detrimental to United States interests.

Warrant: Russia is opposed to US domination of space

Kyle Rempfer. "Russia warns of a 'tough response' to creation of US space force." Air Force Times. December 2018.

<https://www.airforcetimes.com/flashpoints/2018/06/21/russia-warns-of-a-tough-response-to-creation-of-us-space-force/>

"Russian diplomats and politicians are promising repercussions if President Donald Trump's order to build a U.S. space force is met, citing a treaty banning nuclear weapons in outer space. "Militarization of outer space is the path to disaster," Victor Bondarev, head of the Russian Parliament's Upper House Committee on Defense and Security, told state media Tuesday." Let's hope the American political elite still have the remnants of reason and common sense," Bondarev said. "But if the United States withdraws from the 1967 treaty banning nuclear weapons in outer space, then, of course, not only ours, but also other states, will follow with a tough response aimed at ensuring world security." Bondarev appeared to be referencing the 1967 Outer Space Treaty, one of several "non-armament" treaties that sought to prevent "a new form of colonial competition" in the cosmos, according to the U.S. State Department's archives.."

Warrant: Russia is scared that the US is militarizing space against Russia

Kyle Rempfer. "Russia warns of a 'tough response' to creation of US space force." Air Force Times. December 2018.

<https://www.airforcetimes.com/flashpoints/2018/06/21/russia-warns-of-a-tough-response-to-creation-of-us-space-force/>

"We don't want China and Russia and other countries leading us. We've always led. We've gone way far afield for decades now," Trump said. Leadership within the Pentagon and Air Force have appeared mostly opposed to the idea of a separate space force, citing budget constraints and possible impediments to the Air Force's own ability to wage war. Russian Foreign Ministry spokeswoman Maria Zakharova also criticized the formation of an American space force Wednesday, according to state media. "**What makes this piece of news most alarming is the purpose of the instruction was described in very clear terms — dominance in space,**" Zakharova said. "Naturally, we keep the closest watch on Washington's intentions and analyze the likely effects," she added. "**A military buildup in space, in particular, after the deployment of weapons there, would have destabilizing effects on strategic stability and international security.**"

Warrant: Russian space forces are peaceful

Kyle Rempfer. "Russia warns of a 'tough response' to creation of US space force." Air Force Times. December 2018.

<https://www.airforcetimes.com/flashpoints/2018/06/21/russia-warns-of-a-tough-response-to-creation-of-us-space-force/>

"**While Russia does have a branch of the military described as "space forces," their activities are "purely defensive," the spokeswoman said.** Russian Space Forces are a branch of the larger Russian Aerospace Forces, and provide advanced missile defense services. The units historically incorporated under the Russian Space Forces operate radars and satellites involved in early-warning systems, according to a 2002 article archived by Stanford University. **The branch appears to be comparable to U.S. Air Force**

Space Command. "Our country is not interested in tackling any tasks in space with the use of attack weapons," Zakharova said."

Warrant: US and Russia need to cooperate with each other

Markian Dobczansky. "Why Russia and America Need Each Other" Wilson Center.

December 2008. <https://www.wilsoncenter.org/publication/why-russia-and-america-need-each-other>

"In spite of these disagreements, Trenin emphasized that **Russia and the United States need one another and that cooperation between the two countries is essential.** On a wide range of issues, U.S. and Russian interests coincide, including non-proliferation of weapons of mass destruction, managing the rise of China, dealing with the difficult situation in the Middle East, and resolving "frozen conflicts." In addition, Russia needs American assistance to modernize and integrate its economy into the global market, and to gain access to American markets, he said. The United States needs Russia's cooperation in the fight against terrorism, he said. Positive relations between the two countries would lead to a more stable world, and would enhance both countries' security. In connection with this, Trenin believes that a new global institution needs to be formed to maintain stability and security. This organization would be similar to the G-8, in that it would provide a forum for the discussion of major problems confronting the world, he said, but would be more inclusive than the G-8, because it would not require a country to be "democratic." The group could include all the G-8 members, as well as China, India, and Brazil. Russia wants to be given a seat at the table where decisions are made, Trenin stressed, and such an organization could be one way to accomplish this goal."

Analysis: Russia and the US need to cooperate on a whole host of international issues for the sake of global security and stability. Make the case to the judge that this cooperation is not worth throwing away for the space force.

CON: Space Force escalates tensions with China

Argument: China is a rising economic and military power. Building a space force is inherently antagonistic and will preclude cooperation over important issues

Warrant: China does not like the space force

Staff Reporters. "China attacks US Space Force as threat to peace." The Associated Press. December 2019. <https://www.airforcetimes.com/news/your-military/2019/12/23/china-attacks-us-space-force-as-threat-to-peace/>

"Rising space power China on Monday attacked the newly created U.S. Space Force as a "direct threat to outer space peace and security." Foreign Ministry spokesman Geng Shuang told reporters that China is "deeply concerned about it and resolutely opposed to it. "The relevant U.S. actions are a serious violation of the international consensus on the peaceful use of outer space, undermine global strategic balance and stability, and pose a direct threat to outer space peace and security," Geng said at a regular briefing. China's space program has advanced rapidly since its first crewed mission in 2003. In a report last February, the Pentagon asserted that China and Russia have embarked on major efforts to develop technologies that could allow them to disrupt or destroy American and allied satellites in a crisis or conflict."

Warrant: China wants outer space to be peaceful

Staff Reporters. "China attacks US Space Force as threat to peace." The Associated Press. December 2019. <https://www.airforcetimes.com/news/your-military/2019/12/23/china-attacks-us-space-force-as-threat-to-peace/>

"China in 2007 conducted an unannounced missile strike against one of its own defunct satellites, creating an enormous amount of space debris. Geng dismissed such concerns, calling them "unfounded counter charges" that merely provided the U.S. with a justification for its own actions. **China, he said, has consistently opposed the weaponization of space and believes international treaties on arms control in outer space need to be negotiated.** "We hope that the international community, especially the major powers concerned, will adopt a cautious and responsible attitude to prevent outer space from becoming a new battlefield and work together to maintain lasting peace and tranquility in outer space," he said."

Warrant: The steady, peaceful operation of space is key to many facets of American life

Staff Reporters. "China attacks US Space Force as threat to peace." The Associated Press. December 2019. <https://www.airforcetimes.com/news/your-military/2019/12/23/china-attacks-us-space-force-as-threat-to-peace/>

"The establishment of the Space Force is seen by the U.S. military as a recognition of the need to more effectively organize for the defense of U.S. interests in space — especially satellites used for navigation and communication. The Space Force is not designed or intended to put combat troops in space. Space has "evolved into a war-fighting domain of its own," Defense Secretary Mark Esper told reporters Friday. **Space has become increasingly important to the U.S. economy and to everyday life. The Global Positioning System, for example, provides navigation services to the military as well as civilians. Its constellation of about two dozen orbiting satellites is operated by the 50th Space Wing from an operations center at Schriever Air Force Base in Colorado.**"

Warrant: Political competitions makes cooperation over climate change hard

Aimee Barnes. "How the US and China Could Renew Cooperation on Climate Change"

Columbia. December 2020.

<https://www.energypolicy.columbia.edu/research/commentary/how-us-and-china-could-renew-cooperation-climate-change>

"Averting global climate catastrophe depends in large part on progress by the world's two greatest powers and emitters: the United States and China. However, relations between these two countries—particularly on climate action—have deteriorated over the past four years. With a new presidential administration set to enter the White House in January 2021, there is an opportunity for the US and China to build trust and cooperation on climate change in a way that supports a cooperative and dynamic bilateral relationship more broadly."

Warrant: To cooperate on climate change we need to build bilateral trust

Aimee Barnes. "How the US and China Could Renew Cooperation on Climate Change"

Columbia. December 2020.

<https://www.energypolicy.columbia.edu/research/commentary/how-us-and-china-could-renew-cooperation-climate-change>

"The most promising potential areas for US-China cooperation fall into three broad categories: renewing a shared commitment to global climate governance under the Paris Agreement; building trust to enable renewed bilateral cooperation, such as on technology innovation and investments; and supporting subnational leaders' progress in both countries through platforms where they can productively convene. Recognizing that a climate-safe future is bound up in our mutuality, these two world powers can promote a new era of climate action and resiliency."

Analysis: It is hard to deny that cooperation between the US and China is essential to stopping climate change. Make the case to the judge that we need to play nice with Beijing so that we can work together on these important issues.

CON: Space Force protects military logistics

Argument: The military is critically dependent on satellites for communication and logistics.

America needs a Space Force to protect these assets.

Warrant: US military depends on satellites

Bryan Bender. "Space war is coming — and the U.S. is not ready." Politico. April, 2018.

<https://www.politico.com/story/2018/04/06/outer-space-war-defense-russia-china-463067>

"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."

Warrant: US is increasingly vulnerable in space

Bryan Bender. "Space war is coming — and the U.S. is not ready." Politico. April, 2018.

<https://www.politico.com/story/2018/04/06/outer-space-war-defense-russia-china-463067>

““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.”

Warrant: America needs to ready itself to avoid a “Space Pearl Harbor”

Bryan Bender. “Space war is coming — and the U.S. is not ready.” Politico. April, 2018.

<https://www.politico.com/story/2018/04/06/outer-space-war-defense-russia-china-463067>

“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.”

Warrant: The US needs a space force to be ready for space warfare

Douglas Loverro. “Why the United States needs a Space Force.” Space News. June 2018.

<https://spacenews.com/why-the-united-states-needs-a-space-force/>

“Space needs jealous advocacy. When the Chinese shot down their own satellite in 2007, Air Force and other DoD leaders were heard saying that there was no way to

defend space. The president got it right. We need a Space Force. Space is too critical for the nation's defense not to have an organization that speaks for its importance, defends it against all comers, and jealously advocates for new missions and new responsibilities. Space is too crucial to national security to be stalled by a lack of focus and an unwillingness to respond until pushed. President Trump on June 18 ordered the Pentagon to create a separate military service to focus on national security space. Outside a cohort of people who have worked this issue for many years, the announcement was met with a different mixture of reactions — Star Wars humor, political derision and interservice sarcasm. The reactions reveal a broad misunderstanding of what a Space Force would do or what it would look like."

Warrant: The Space Force will dramatically enhance our space presence

Douglas Loverro. "[Why](#) the United States needs a Space Force." Space News. June 2018.
<https://spacenews.com/why-the-united-states-needs-a-space-force/>

"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."

Analysis: This argument is strong because it gives the judge a sense of urgency. Foreground why space is vital for our military capabilities and weigh the magnitude of losing space capabilities to justify the space force.

CON: Space weapons create collateral damage

Argument: Space weapons are extremely powerful and will cause too much space infrastructure damage if ever used.

Warrant: Space Force aims to collect the most powerful weapons possible

Garamone, Jim. "Esper: Air Force, Space Force Leading Charge to New Technologies." U.S. DEPARTMENT OF DEFENSE, 16 Sept. 2020,
<https://www.defense.gov/Explore/News/Article/Article/2349408/esper-air-force-space-force-leading-charge-to-new-technologies/>.

The secretary stated that America's air, space and cyber warriors "will be at the forefront of tomorrow's high-end fight." That means confronting near-peer competitors China and Russia. That means shifting the focus from defeating violent extremist groups to deterring great power competitors. It means fighting a high-intensity battle that combines all domains of warfare, he said. "In this era of great power competition, we cannot take for granted the United States' long-held advantages," Esper said. The last time an enemy force dropped a bomb on American troops was in the Korean War. "China and Russia, seek to erode our longstanding dominance in air power through long-range fires, anti-access/area-denial systems and other asymmetric capabilities designed to counter our strengths," he said. "Meanwhile, in space, Moscow and Beijing have turned a once peaceful arena into a warfighting domain."

Warrant: There are many satellites that could be hit by a space weapon

Billings, Lee. "War in Space May Be Closer Than Ever." *Scientific American*, 10 Aug. 2015, <https://www.scientificamerican.com/article/war-in-space-may-be-closer-than-ever/>.

The emptiness of outer space might be the last place you'd expect militaries to vie over contested territory, except that outer space isn't so empty anymore. About 1,300 active satellites wreath the globe in a crowded nest of orbits, providing worldwide communications, GPS navigation, weather forecasting and planetary surveillance. For militaries that rely on some of those satellites for modern warfare, space has become the ultimate high ground, with the U.S. as the undisputed king of the hill. **Now, as China and Russia aggressively seek to challenge U.S. superiority in space with ambitious military space programs of their own, the power struggle risks sparking a conflict that could cripple the entire planet's space-based infrastructure.** And though it might begin in space, such a conflict could easily ignite full-blown war on Earth.

Warrant: Satellites could be hurt in a space strike

Undark, Ramin Skibba. "The Ripple Effects of a Space Skirmish." *The Atlantic*, 12 July 2020, <https://www.theatlantic.com/technology/archive/2020/07/space-warfare-unregulated/614059/>.

For example, the thousands of everyday satellites that already circle low-Earth orbit, below an altitude of 1,200 miles, could potentially suffer collateral damage. More than half of those satellites are from the U.S.; many of the rest are from China and Russia. They provide key services like internet access, GPS signals, long-distance communications, and weather information. Any missile that smashes into a satellite—either as an attack or during a test—would disperse thousands of bits of debris. Any one of those pieces, still hurtling at orbital speeds, could take out another spacecraft and create yet more debris. **"It's very easy to**

pollute space,” Burbach said. “The debris doesn’t discriminate. If you create debris, it might just as well come back and hit one of your own satellites. So I think we’re pretty unlikely to see countries actually use those capabilities.” Still, he said, “it would be worrying to see countries showing off that [they] can do it and start testing.”

Impact: Destroying satellites could be devastating for the world since we depend on them

Blatt, Talia. “Anti-Satellite Weapons and the Emerging Space Arms Race.” Harvard International Review, 26 May 2020, <https://hir.harvard.edu/anti-satellite-weapons-and-the-emerging-space-arms-race/>.

If debris knocks out a satellite, an increasingly likely possibility in a world with ASAT tests, then the aforementioned conflict scenarios become more likely. Conflict aside, ASAT-based debris clouds are terrifying in their own right. **Public health, transportation, climate science, and a litany of other crucial infrastructures are dependent on satellites that are now at risk. Satellite GPS is a cornerstone of the modern economy; some pundits believe that the slightest glitch in GPS satellites could shock the stock market and further destabilize an unstable global economy.** During the pandemic, satellites are playing a crucial role in geospatial data collection for infectious disease modeling. Essentially, it is hard to imagine a world without satellites, but that is a possible outcome given that there are no reliable methods of withdrawing debris from space.

Analysis: This is a good argument because the impact affects the entire globe. Space debris has the potential to wipe out all of the benefits we get from using satellites. This could mean a huge hit to the economy, or worse the immediate loss of life. This argument is thus very easy to weigh on scope.

CON: Space weapons are too expensive

Argument: Space weapons would cost billions of dollars, which could increase the national debt tremendously and harm the economy.

Warrant: Space Force aims to invest in the most cutting edge technology

Garamone, Jim. "Esper: Air Force, Space Force Leading Charge to New Technologies."

U.S. DEPARTMENT OF DEFENSE, 16 Sept. 2020,

<https://www.defense.gov/Explore/News/Article/Article/2349408/esper-air-force-space-force-leading-charge-to-new-technologies/>.

The military guidebook for the future is the National Defense Strategy. The strategy calls on the military to divest legacy systems, reinvest savings in higher priority systems and make the tough choices required to break from the status quo and continue outpacing the competition, Esper said. The fiscal 2020 Defense Department research and development budget is the largest in history, he said, and it concentrates on critical technologies such as hypersonic weapons, directed energy and autonomous systems. "In the Air Force, specifically, we are modernizing our force for the 21st century with aircraft such as the B-21, the X-37 and the Next Generation Air Dominance platform," Esper said. "Equally important, we are transforming the way we fight through the implementation of novel concepts such as Dynamic Force Employment, which provides scalable options to employ the joint force while preserving our capabilities for major combat."

Warrant: Space weapons could cost hundreds of billions

Staff Writer. "Report Says Many Space Weapons Systems Would Carry Huge Cost - Via Satellite -." Via Satellite, 12 Nov. 2007,

[https://www.satellitetoday.com/uncategorized/2007/11/12/report-says-many-space-weapons-systems-would-carry-huge-cost/.](https://www.satellitetoday.com/uncategorized/2007/11/12/report-says-many-space-weapons-systems-would-carry-huge-cost/)

Placing weapons in space or installing systems in orbit to defend space assets such as satellites from attack could be inordinately expensive, according to a report from the Center for Strategic and Budgetary Assessments (CSBA). **Price tags for various types of systems could range from the tens of billions of dollars to hundreds of billions**, according to CSBA figures based on its own calculations and estimates of other experts, in the report by Steven M. Kosiak, vice president – budget studies with CSBA, a defense-oriented Washington think tank. Many castigate any move to place weapons in space, wishing it to remain a peaceful realm with a right of free passage for all, and Kosiak states that it appears no nation has yet placed weapons in orbit. At the same time, he notes that some observers say it is only a matter of time before weapons of war arrive at the final frontier. He examines four categories of possible weaponization of space:

Systems to defend the United States and its interests against ballistic missile strikes.

Space-based weapon systems that could, while in orbit, attack ground-based targets, both those actually on the surface of the planet and enemy airborne threats.

Systems to destroy or disable enemy satellites, effectively meaning a U.S. satellite that would assail enemy spacecraft in orbit.

A system to defend U.S. satellites against enemy anti-satellite weapons.

Warrant: Even an austere arsenal would cost hundreds of billions

Grego, Laura. "No, Space-Based Missile Defense Will Not Cost Only \$20 Billion. (Spoiler: That's Only the Launch Costs.)." Union of Concerned Scientists, 24 Sept. 2018, <https://allthingsnuclear.org/lgrego/space-based-missile-defense-will-not-cost-only-20-billion>.

This also sets aside the fact that the total mass of interceptors needed on orbit is quite sensitive to assumptions such as how many missiles the system is expected to counter, whether those missiles are solid- or liquid-fueled, and the amount of decision time required—conditions that are explored in studies such as those coordinated by the American Physical Society in 2003 and the National Academies of Sciences, Engineering & Medicine in 2012. **The National Academies study concluded that the life cycle costs for even an “austere and limited-capability” set of 650 satellites would be at least \$300 billion in 2010 dollars, or 10 times more expensive than other missile defense options they examined. This estimate included the costs that Griffin did not, which are clearly substantial.**

Impact: Military spending increases the deficit and harms economic growth

Hiller, Patrick. “The Effects of Military Spending on Economic Growth · Peace Science Digest.” Peace Science Digest, 2 Jan. 2018,
<https://peacesciencedigest.org/effects-military-spending-economic-growth/>.

Increased military spending leads to slower economic growth. Military spending tends to have a negative impact on economic growth. Over a 20-year period, a 1% increase in military spending will decrease a country’s economic growth by 9%. Increased military spending is especially detrimental to the economic growth of wealthier countries. The debate over how military spending impacts a country’s economy has been fiercely argued, and the results of studies trying to understand this relationship have been mixed. Early researchers ran into trouble due to inadequate time frame or country data. Others have studied only certain types of countries or periods in time, leading to results that could arguably be caused by other social, political, or economic factors. Past research, for example, was highly influenced by military spending data in the Cold War era. After the Cold War, the reduced military spending was matched with an era of strong economic growth, which provided for a very different economic

environment than what was seen during periods of high military spending during the Cold War era. **To overcome past limitations, this study analyzes military spending by a large and diverse group of countries over the span of 45 years, with special attention to global events that may otherwise influence major economies.**

Analysis: This is a good argument because the impact extends far beyond merely the military impacts related to Space Force. The threat to the US economy means that millions of impoverished people could be impacted by the decision to spend more on space weapons. This allows the con to easily outweigh on scope.

CON: Space Force will create a space weapons arms race

Argument: With the accumulation of new space weapons, other nations will be inspired to do the same, creating an arms race.

Warrant: Space weapons will make space into a war-fighting domain

Hennigan, JW. "America Really Does Have a Space Force. We Went Inside to See What It Does." Time, 23 July 2020, <https://time.com/5869987/spaceforce/>.

Regardless of the seemingly contradictory Russian positions, some U.S. critics and arms-control analysts say the creation of Space Force makes conflict more likely. A new orbital arms race has turned space into a “war-fighting domain,” like air, land and sea, and will funnel billions of dollars to newfangled technology that increases the possibility of war, both up there and down here. A separate branch of the armed forces for space, these critics fear, risks militarizing U.S. space policy and promoting weapons in space. On June 17, the Pentagon unveiled a Defense Space Strategy that made clear the U.S. will counter Russian and Chinese space weapons, coordinate with allies and prepare for war in space. Those looking for a less martial alternative point to Cold War treaties that reduced the chances of conflict with the USSR. Despite the advancements of space weapons, there are no enforceable rules for military action in space. **The 1967 Outer Space Treaty forbids countries from deploying “nuclear weapons or any other kinds of weapons of mass destruction” in space. But that language is broad, arms-control analysts say, and could not foresee the rapid pace of technology now in development.** “In the absence of any international agreements about protecting satellites and the outer-space environment, more countries are developing weapons that can destroy satellites in orbit,” says Laura Grego of the Union of Concerned Scientists.

Warrant: Tensions are rising over space weapons

Billings, Lee. "War in Space May Be Closer Than Ever." *Scientific American*, 10 Aug. 2015,
<https://www.scientificamerican.com/article/war-in-space-may-be-closer-than-ever/>.

The long-simmering tensions are now approaching a boiling point due to several events, including recent and ongoing tests of possible anti-satellite weapons by China and Russia, as well as last month's failure of tension-easing talks at the United Nations. Testifying before Congress earlier this year, Director of National Intelligence James Clapper echoed the concerns held by many senior government officials about the growing threat to U.S. satellites, saying that **China and Russia are both "developing capabilities to deny access in a conflict," such as those that might erupt over China's military activities in the South China Sea or Russia's in Ukraine.** China in particular, Clapper said, has demonstrated "the need to interfere with, damage and destroy" U.S. satellites, referring to a series of Chinese anti-satellite missile tests that began in 2007.

Warrant: Russia could encourage the US to join an arms race

Bateman, Aaron. "As Russia Stalks US Satellites, a Space Arms Race May Be Heating Up." *Bulletin of the Atomic Scientists*, 22 May 2020,
<https://thebulletin.org/2020/05/as-russian-satellites-stalk-us-ones-is-a-space-arms-race-heating-up/>.

Moscow's aggressive behavior in space could prompt the United States to pursue more assertive policies, like the reinvigoration of Cold War-era anti-satellite weapons programs. In 2019, former Secretary of the Air Force Heather Wilson said that at some point, the United States needs the ability to "hit back." Russia's destabilizing actions in

space could, therefore, fuel a dangerous arms race in space. The coronavirus pandemic is further eroding the strength of international institutions like the World Health Organization and countries seem to be retreating into nationalist positions. At this critical moment, security challenges that have important implications for the future of humanity must not be dismissed. **The post-Cold War-era treaty New START has provisions that protect national security satellites from interference. The treaty is set to expire in 2021, and it is not clear if the United States and Russia will successfully negotiate an extension.** Even though countries of the world are facing an unprecedented crisis, now is the time to bolster international cooperation beyond Earth's atmosphere.

Impact: Arms races increase the risk of conflict

Gangopadhyay, Partha. "Is an Arms Race Just a Race to the Bottom? | SIPRI."

STOCKHOLM INTERNATIONAL PEACE RESEARCH INSTITUTE, 26 Sept. 2013,

<https://www.sipri.org/commentary/blog/2013/arms-race-just-race-bottom>.

This action–reaction framework is consistent with several prominent international relations models such as the security dilemma, the spiral model, and structural neorealist theory. **It is well-documented in the existing literature that military spending can pose a security dilemma, when a state chooses to retaliate to the military build-up of another state because it is unaware of the rival's true intentions. The reciprocated increases in arming potentially engender a spiral of hostilities, increasing the chances for the outbreak of armed conflict.** In the latest works on arms races it is usually assumed that a sequence of states, or leaders of these states, each chooses in turn one of two options, A (to arm) or B (not to arm), with each state observing all of its predecessors' choices. They have common preferences among the two choices but do not know which is better. Each state knows the costs and benefits of its own military build-up, but it is unsure of the costs and benefits of its rivals in the arms race.

Analysis: This is a good argument because it shows that there might be a war between superpowers developing space weapons. Such a war could kill millions if not billions. Thus, this argument is very easy to weigh on scope and magnitude.

CON: Space weapons have a high chance of miscalculation

Argument: Space weapons posturing has the potential to be misconstrued as offensive, which could trigger a miscalculation.

Warrant: Few regulations could easily lead to escalation

Undark, Ramin Skibba. "The Ripple Effects of a Space Skirmish." *The Atlantic*, 12 July 2020, <https://www.theatlantic.com/technology/archive/2020/07/space-warfare-unregulated/614059/>.

So far, there are relatively few international policies or norms about what's allowed in modern-day space and what's not. The SWF report notes that an incident or misunderstanding could escalate tensions if it's perceived as an attack. The lack of guidance has left room for a range of activities. Weeden said that in December 2019, the Trump administration signaled its intention to strengthen the United States' space weaponry and protect its spacecraft from possible attacks by Russia and China by transforming the Air Force Space Command into the U.S. Space Force. That shift "brought a full-time operational focus to the space domain, which was a needed change," wrote Lieutenant Colonel Christina Hoggatt, a Space Force spokesperson, in a statement to Undark. **With these forces, the Defense Department seeks to "strengthen deterrence" and improve capabilities to "defend our vital assets in space,"** she wrote. This emphasis, Burbach said, likely means that the U.S. military will focus on making satellites more resilient to attack, rather than developing offensive weapons.

Warrant: Space weapons tend to be very offensive

Trevithick, Joseph. "Space Force Just Received Its First New Offensive Weapon." The Drive, 13 Mar. 2020, <https://www.thedrive.com/the-war-zone/32570/space-force-just-received-its-first-new-offensive-weapon>.

U.S. Space Force has begun operating a new offensive weapon system, an upgraded version of a ground-based satellite communications jamming system, for the first time in its short history. The first iteration of the Counter Communications System entered U.S. Air Force service in 2004 and the program has now gotten transferred to the newest branch of the American military. The Space Force declared it had reached initial operational capability with the Counter Communications System Block 10.2, or CCS B10.2, on Mar. 9. The Harris Corporation, which merged with L3 Technologies last year to form L3Harris Technologies, had received the contract from the Air Force to develop this upgraded variant of the system in 2014. The National Defense Authorization Act for the 2020 Fiscal Year, which Congress passed and President Donald Trump signed in December 2019, officially established Space Force as a separate service within the Department of the Air Force. Units and assets previously assigned to Air Force Space Command now form the core of the new service, which is still very much in the process of standing up. **"CCS is the only offensive system in the United States Space Force arsenal," Lieutenant Colonel Steve Brogan, the Combat Systems branch materiel leader within the Space Force's Space and Missile Systems Center's (SMC) Special Programs Directorate, said in an official news piece about the system in January 2020. "This upgrade puts the 'force' in Space Force and is critical for Space as a warfighting domain."**

Warrant: Space weapons make miscalculation more likely

Blatt, Talia. "Anti-Satellite Weapons and the Emerging Space Arms Race." Harvard International Review, 26 May 2020, <https://hir.harvard.edu/anti-satellite-weapons-and-the-emerging-space-arms-race/>.

Additionally, accidental warfare, or strategic miscalculation, is uniquely likely in space. It is much easier to hold an adversary's space systems in jeopardy with destructive ASATs than it is to sustainably defend a system, which is expensive and in some cases not technologically feasible because of limitations on satellite movement. **Space is therefore considered offense-dominant; offensive tactics like weapons development are prioritized over defensive measures, such as improving GPS or making satellites more resistant to jamming.** As a result, countries are left with poorly defended space systems and rely on offensive posturing, which increases the risk that their actions are perceived as aggressive and incentivizes rapid, risky counterattacks because militaries cannot rely on their spaced-based systems after first strikes. As a result, countries are left with poorly defended space systems and rely on offensive posturing, which increases the risk that their actions are perceived as aggressive and incentivizes rapid, risky counterattacks because militaries cannot rely on their spaced-based systems after first strikes.

Impact: A single strike could kill 90 percent of the US

Knox, Patrick. "China's Secret Space Weapons Could Kill 90% of People on US Soil, Report Warns." The US Sun, 28 June 2020, <https://www.the-sun.com/news/1052363/space-weapons-kill-90-of-people-us-mainland/>.

The report by the EMP Task Force on Homeland and National Security, a coalition of industry, security and government officials, lays bare a doomsday scenario of a preemptive attack. **EMPs use low-yield nuclear weapons detonated in the atmosphere to create a wave of energy that fries electronic equipment and may knock out the power grid.** A cyber attack would then be used to cripple the internet. **With no power, the nation would be plunged into chaos which could lead to rioting and famine.** The task force claims an EMP would result in a meltdown in the economy and society

which could kill between 70 and 90 percent — or 295million people. Its report was published as relations between the two powers collapse amid the coronavirus pandemic, which President Donald Trump continues to blame on China.

Analysis: This is a good argument because the impact is very easy to weigh on magnitude and scope. If a space weapon is launched accidentally, this could potentially kill millions of people. This means that it is very easy to outweigh any argument that the pro may bring up.

CON: Space weapons have no international regulations

Argument: Without international regulations, the possibility of warcrimes and unintentional conflict is much higher in space.

Warrant: There are no settled methods for space war deterrence

Manson, Katrina, and Christian Shepherd. US Military Officials Eye New Generation of Space Weapons. 2 Sept. 2020, <https://www.ft.com/content/d44aa332-f564-4b4a-89b7-1685e4579e72>.

No generally agreed deterrence theory exists for space, but such approaches have traditionally relied on the threat of deploying overwhelming force to discourage others. The 1967 Outer Space Treaty bans nuclear weapons in space, leaving the field open to other weapons, such as ground-based jammers and anti-satellite missiles. **US military officials have been alarmed by the number of space launches by China in recent years. Thirty-two successful launches occurred last year and more than 40 are forecast for this year. In June, Beijing completed its constellation of 35 BeiDou third-generation satellites, which run the country's alternative to GPS.** China has promoted BeiDou as an alternative to GPS to regional partners as part of its "belt and road" initiative, a high-profile investment plan to build up its trade ties and geopolitical clout across Eurasia. Beijing has already approved the military-grade version for use by Pakistan.

Warrant: The United States has been unwilling to join Space Weapon treaties

Pappalardo, Joe. "Space Weapons Are Coming and Nothing Can Stop Them Now." Popular Mechanics, 25 Jan. 2018,

<https://www.popularmechanics.com/space/satellites/a15884747/no-treaty-will-stop-space-weapons/>.

Foreign Minister Sergey Lavrov is fired up. In comments to the Russian media this month, Lavrov excoriated the United States for refusing to back the Prevention of an Arms Race in Outer Space (PAROS), a treaty to ban the placement of conventional weapons in space. “The United States continues nurturing plans to militarize outer space, I mean the deployment of weapons in outer space,” Lavrov said. “Which will, naturally, have very adverse consequences for problems of international security.” The Obama administration wouldn’t go for the treaty, and neither will the Trump White House. It’s not hard to see why. The Air Force has flown a secretive unmanned space plane into orbit and tested hypersonic weapons that, if they ever work, could strike targets worldwide. The Pentagon has launched satellites that can maneuver to keep an eye on other spacecraft, which is a defensive move—but also could be the first step toward attacking them.

Warrant: Possible misuse of space weapons necessitates treaties to regulate them

UN. Stronger Rules Must Guarantee Outer Space Remains Conflict-Free, First Committee Delegates Stress, Calling for New Laws to Hold Perpetrators Accountable | Meetings Coverage and Press Releases. 17 Oct. 2017,
<https://www.un.org/press/en/2017/gadis3583.doc.htm>.

Amid fears of an arms race in outer space, coupled with the transformation of that domain into a zone of conflict, several speakers in the First Committee (Disarmament and International Security) warned today against its misuse, with some calling for new laws and mechanisms to hold perpetrators accountable. While space exploration offered abundant opportunities as a global common good, there were no comprehensive legal and regulatory mechanisms to prevent States from using it for

military purposes, Kazakhstan's representative said. Speaking on behalf of the Non-Aligned Movement, Indonesia's delegate called for negotiations in the Conference on Disarmament of a universal legally binding instrument on the prevention of an arms race in outer space. Similarly, Paraguay's representative called for action to address the issue of damages caused by space activities and the creation of an appropriate legal regime regulating that aspect.

Impact: Past treaties have successfully stopped deadly conflict

Graham, Thomas. "Space Weapons and the Risk of Accidental Nuclear War | Arms Control Association." Arms Control Association, 2005,
<https://www.armscontrol.org/act/2005-12/features/space-weapons-risk-accidental-nuclear-war>.

Yet, where would we be without the nuclear Nonproliferation Treaty? Likely, more than 40 states would be armed with nuclear weapons, meaning that every conflict would run the risk of going nuclear, and nuclear weapons would be so widespread it would be impossible to keep them out of the hands of terrorist organizations. Where would we be without the strategic arms limitation and reduction agreements of the 1970s, 1980s, and 1990s? Likely, the United States and Russia would have so many nuclear weapons and long-range ballistic missiles, they could never be controlled. Where would we be without the Outer Space Treaty? Nuclear weapons could be orbiting the Earth with the capability to strike anywhere, anytime without warning. Where are we now in the wake of the dissolution of the Anti-Ballistic Missile (ABM) Treaty? We possibly could be on the verge of actively considering the development and deployment of space-based ABM systems that would address no current or foreseeable threat but could unhinge strategic stability.

Analysis: This is a good argument because it essentially shows why increasing space weapons will inevitably lead to war. There are no regulations in place to stop that. Thus, this impact has a high probability and is very easy to weigh.

CON: Space Force will increase quantity and threat of space debris

Argument: Increased tensions due to militarization of space will only create conflict and therefore more space debris.

Warrant: Tensions are rising over space weapons

Billings, Lee. "War in Space May Be Closer Than Ever." *Scientific American*, 10 Aug. 2015,
<https://www.scientificamerican.com/article/war-in-space-may-be-closer-than-ever/>.

The long-simmering tensions are now approaching a boiling point due to several events, including recent and ongoing tests of possible anti-satellite weapons by China and Russia, as well as last month's failure of tension-easing talks at the United Nations. Testifying before Congress earlier this year, Director of National Intelligence James Clapper echoed the concerns held by many senior government officials about the growing threat to U.S. satellites, saying that **China and Russia are both "developing capabilities to deny access in a conflict," such as those that might erupt over China's military activities in the South China Sea or Russia's in Ukraine.** China in particular, Clapper said, has demonstrated "the need to interfere with, damage and destroy" U.S. satellites, referring to a series of Chinese anti-satellite missile tests that began in 2007.

Warrant: There are many satellites that could be hit by a space weapon

Billings, Lee. "War in Space May Be Closer Than Ever." *Scientific American*, 10 Aug. 2015,
<https://www.scientificamerican.com/article/war-in-space-may-be-closer-than-ever/>.

The emptiness of outer space might be the last place you'd expect militaries to vie over contested territory, except that outer space isn't so empty anymore. About 1,300 active satellites wreath the globe in a crowded nest of orbits, providing worldwide communications, GPS navigation, weather forecasting and planetary surveillance. For militaries that rely on some of those satellites for modern warfare, space has become the ultimate high ground, with the U.S. as the undisputed king of the hill. Now, as China and Russia aggressively seek to challenge U.S. superiority in space with ambitious military space programs of their own, the power struggle risks sparking a conflict that could cripple the entire planet's space-based infrastructure. And though it might begin in space, such a conflict could easily ignite full-blown war on Earth.

Warrant: Satellites could be hurt in a space strike

Undark, Ramin Skibba. "The Ripple Effects of a Space Skirmish." The Atlantic, 12 July 2020, <https://www.theatlantic.com/technology/archive/2020/07/space-warfare-unregulated/614059/>.

For example, the thousands of everyday satellites that already circle low-Earth orbit, below an altitude of 1,200 miles, could potentially suffer collateral damage. More than half of those satellites are from the U.S.; many of the rest are from China and Russia. They provide key services like internet access, GPS signals, long-distance communications, and weather information. Any missile that smashes into a satellite—either as an attack or during a test—would disperse thousands of bits of debris. Any one of those pieces, still hurtling at orbital speeds, could take out another spacecraft and create yet more debris. "It's very easy to pollute space," Burbach said. "The debris doesn't discriminate. If you create debris, it might just as well come back and hit one of your own satellites. So I think we're pretty unlikely to see countries actually use those capabilities." Still, he said, "it would be worrying to see countries showing off that [they] can do it and start testing."

Impact: Destroying satellites could be devastating for the world since we depend on them

Blatt, Talia. "Anti-Satellite Weapons and the Emerging Space Arms Race." Harvard International Review, 26 May 2020, <https://hir.harvard.edu/anti-satellite-weapons-and-the-emerging-space-arms-race/>.

If debris knocks out a satellite, an increasingly likely possibility in a world with ASAT tests, then the aforementioned conflict scenarios become more likely. Conflict aside, ASAT-based debris clouds are terrifying in their own right. **Public health, transportation, climate science, and a litany of other crucial infrastructures are dependent on satellites that are now at risk. Satellite GPS is a cornerstone of the modern economy; some pundits believe that the slightest glitch in GPS satellites could shock the stock market and further destabilize an unstable global economy.** During the pandemic, satellites are playing a crucial role in geospatial data collection for infectious disease modeling. Essentially, **it is hard to imagine a world without satellites, but that is a possible outcome given that there are no reliable methods of withdrawing debris from space.**

Analysis: The creation of a Space Force will inevitably lead to space weaponization, and an increased amount of space debris. Without regulations in place, the U.S. military will be largely unchecked when it comes to weapons testing and satellite destruction.

CON: Creating a space force is a violation of the Outer Space Treaty

Argument: The creation of a space force will violate the terms of the Outer Space Treaty

Warrant: The Outer Space Treaty forbids deployment of weapons in space

Hennigan, JW. "America Really Does Have a Space Force. We Went Inside to See What It Does." Time, 23 July 2020, <https://time.com/5869987/spaceforce/>.

Regardless of the seemingly contradictory Russian positions, some U.S. critics and arms-control analysts say the creation of Space Force makes conflict more likely. A new orbital arms race has turned space into a “war-fighting domain,” like air, land and sea, and will funnel billions of dollars to newfangled technology that increases the possibility of war, both up there and down here. A separate branch of the armed forces for space, these critics fear, risks militarizing U.S. space policy and promoting weapons in space. On June 17, the Pentagon unveiled a Defense Space Strategy that made clear the U.S. will counter Russian and Chinese space weapons, coordinate with allies and prepare for war in space. Those looking for a less martial alternative point to Cold War treaties that reduced the chances of conflict with the USSR. Despite the advancements of space weapons, there are no enforceable rules for military action in space. **The 1967 Outer Space Treaty forbids countries from deploying “nuclear weapons or any other kinds of weapons of mass destruction” in space. But that language is broad, arms-control analysts say, and could not foresee the rapid pace of technology now in development.** “In the absence of any international agreements about protecting satellites and the outer-space environment, more countries are developing weapons that can destroy satellites in orbit,” says Laura Grego of the Union of Concerned Scientists.

Warrant: Tensions are rising over space weapons

Billings, Lee. "War in Space May Be Closer Than Ever." *Scientific American*, 10 Aug. 2015, <https://www.scientificamerican.com/article/war-in-space-may-be-closer-than-ever/>.

The long-simmering tensions are now approaching a boiling point due to several events, including recent and ongoing tests of possible anti-satellite weapons by China and Russia, as well as last month's failure of tension-easing talks at the United Nations. Testifying before Congress earlier this year, Director of National Intelligence James Clapper echoed the concerns held by many senior government officials about the growing threat to U.S. satellites, saying that **China and Russia are both “developing capabilities to deny access in a conflict,” such as those that might erupt over China’s military activities in the South China Sea or Russia’s in Ukraine.** China in particular, Clapper said, has demonstrated “the need to interfere with, damage and destroy” U.S. satellites, referring to a series of Chinese anti-satellite missile tests that began in 2007.

Warrant: Russia could encourage the US to join an arms race

Bateman, Aaron. "As Russia Stalks US Satellites, a Space Arms Race May Be Heating Up." *Bulletin of the Atomic Scientists*, 22 May 2020, <https://thebulletin.org/2020/05/as-russian-satellites-stalk-us-ones-is-a-space-arms-race-heating-up/>.

Moscow’s aggressive behavior in space could prompt the United States to pursue more assertive policies, like the reinvigoration of Cold War-era anti-satellite weapons programs. In 2019, former Secretary of the Air Force Heather Wilson said that at some point, the United States needs the ability to “hit back.” Russia’s destabilizing actions in space could, therefore, fuel a dangerous arms race in space. The coronavirus pandemic is further eroding the strength of international institutions like the World Health Organization and countries seem to be retreating into nationalist positions. At this

critical moment, security challenges that have important implications for the future of humanity must not be dismissed. **The post-Cold War-era treaty New START has provisions that protect national security satellites from interference. The treaty is set to expire in 2021, and it is not clear if the United States and Russia will successfully negotiate an extension.** Even though countries of the world are facing an unprecedented crisis, now is the time to bolster international cooperation beyond Earth's atmosphere.

Impact: Arms races increase the risk of conflict

Gangopadhyay, Partha. "Is an Arms Race Just a Race to the Bottom? | SIPRI."

STOCKHOLM INTERNATIONAL PEACE RESEARCH INSTITUTE, 26 Sept. 2013,
<https://www.sipri.org/commentary/blog/2013/arms-race-just-race-bottom>.

This action–reaction framework is consistent with several prominent international relations models such as the security dilemma, the spiral model, and structural neorealist theory. **It is well-documented in the existing literature that military spending can pose a security dilemma, when a state chooses to retaliate to the military build-up of another state because it is unaware of the rival's true intentions. The reciprocated increases in arming potentially engender a spiral of hostilities, increasing the chances for the outbreak of armed conflict.** In the latest works on arms races it is usually assumed that a sequence of states, or leaders of these states, each chooses in turn one of two options, A (to arm) or B (not to arm), with each state observing all of its predecessors' choices. They have common preferences among the two choices but do not know which is better. Each state knows the costs and benefits of its own military build-up, but it is unsure of the costs and benefits of its rivals in the arms race.

Analysis: The United States will ultimately use this chance to weaponize space. By beginning an arms race in space, the U.S. will run afoul of the most crucial regulation that exists to prevent anarchy in space.

CON: Creation of the Space Force undermines the Air Force

Argument: Creating a Space Force will constrain the Air Force

Sandra Erwin, 9-18-2018, "Air Force Association opposes establishment of a Space Force, says air and space are 'indivisible,'" SpaceNews,
<https://spacenews.com/air-force-association-opposes-establishment-of-a-space-force-says-air-and-space-are-indivisible/>

The association supports some elements of the Trump administration's and the Defense Department's proposed actions such as the standup of a combatant command, U.S. Space Command. "Rapidly reducing U.S. space capability gaps, while re-establishing U.S. Space Command, is the best way to address advancing threats to space." **But creating a separate service would be damaging, the association contends. "From an employment perspective, effects from air and space have been integrated and are indivisible.** The U.S. Air Force may want to reflect this reality so it is better understood by Americans by considering renaming the U.S. Air Force to the U.S. Aerospace Force." AFA agrees with other Space Force critics that the cost of a separate service is an unnecessary burden at a time when military budgets are strained. "**The Space Force proposal is a resource question writ large,**" the position paper says. "**Too much mission, too few dollars. Standing up a separate space bureaucracy amplifies the problem by driving more money to a headquarters function, not space operations. Congress has constrained space capabilities, not the Air Force, by underfunding the service.**" Before Congress debates this issue, more questions need to be answered about U.S. military space policy and posture, AFA says. "Currently there are no space arms which are fundamental to setting up an armed service. Constraints to fully-weaponized space capability must be debated and changed by Congress to allow the Air Force to mature space warfare theory and concepts of operation for war in, from, and through space." Before establishing a new armed service, "realistic concepts of operation to hold an enemy at

risk from space must be considered and debated before establishing a separate space armed force." AFA points out that **the U.S. Air Force is the "steward" of key space capabilities that support the U.S. military, its allies and the nation's economy.** "As Air Force Chief of Staff Thomas D. White said in 1958, **'Air and space are not two separate media to be divided by a line and to be readily separated into two distinct categories; they are in truth a single indivisible field of operations.'**"

Warrant: Space Force does not serve an offensive role

Fred Kaplan, 6-21-2018, "Trump's "Space Force" Idea Is a Terrible Solution to a Real Problem," Slate Magazine, <https://slate.com/news-and-politics/2018/06/trumps-space-force-idea-is-a-terrible-solution-to-a-real-problem.html>

One might think that the directors of these organizations would have an interest in defending their extremely expensive satellites, but they appear not to. This neglect is what has led some, well before Trump, to propose an autonomous Space Force. **The idea is that, rather than being stacked with—and reporting to—traditional Air Force officers, most of them fighter pilots with a drive for offensive combat operations, the specialists of the Space Force would be attuned to the needs, properties, and vulnerabilities of satellites and the systems connected to them.** If Trump thinks that U.S.–South Korean military exercises are too expensive, those costs are trivial compared to the infrastructure of a sixth service. But in fact, this is not likely what would happen—and it's certainly not what should happen. **The special thing about satellites and the organizations that control or operate them** (Air Force Space Command, the NRO, and other smaller outfits) **is that they are, by nature, subordinate to other branches of the armed forces—to wars that are fought not in outer space but on Earth or in the atmosphere.** Space assets service air, naval, and ground forces by providing them with intelligence, communications, and guidance for missiles and smart bombs. Placing

these vital assets under the command of a four-star general in a separate service—and imbuing its officers and enlisted personnel with the élan of an elite force that doesn't answer to the other services of the armed forces and that, in fact, competes with them for resources—**would run counter to the nation's needs.**

Argument: Space Force takes funds and people from Air Force

Col. Keith Zuegel (Ret.), 8-3-2020, "Washington isn't listening to the Air Force and Space Force," Defense News,

<https://www.defensenews.com/opinion/commentary/2020/08/03/washington-isnt-listening-to-the-air-force-and-space-force/>

The nascent Space Force needs investment to increase capability and the authorities to organize for efficacy to meet the capabilities that were promised when it was founded in December 2019. It needs to become joint — not just have personnel change name tags from U.S. Air Force to U.S. Space Force. And the National Reconnaissance Office should be part of the Space Force. **The Department of the Air Force needs stable and predictable funding — at adequate funding levels.** Continuing resolutions degrade readiness. Currently, two services — both the Air Force and the Space Force — must train and equip their forces within the Air Force's original budget level. What is a continuing resolution? What is a continuing resolution? A CR usually means the regular process of passing 12 appropriations bills by the start of the fiscal year has failed. By: Joe Gould **To ensure our military is ready, it must take care of its people — active, Guard, reserve and civilians.** That means commensurate pay, preserving medical billets, maintaining access to medical services and facilities, eliminating restrictive licensure requirements that limit the ability of military spouses to transition to new professional jobs after moving, sufficient child care centers, and adequate military housing. Planned reforms of the DoD's Military Health System would eliminate up to 18,000 military medical personnel — 4,000 from the Air Force, 7,000 from the Army

and 5,000 from the Navy. Dozens of military treatment facilities would be downsized, with access limited to active-duty personnel. The services need legislative relief to overcome a six-month restriction before hiring military retirees possessing a security clearance. **The U.S. Air Force remains the world's predominant air force; however, its dominance is endangered. Air superiority is not a birthright. The fledgling U.S. Space Force remains the world's leader in military space; however, without resources and congressional focus, it will be challenged by other world powers.** This is the fourth quarter of the budget season, so Congress should recognize and support both services now — before it's too late.

Warrant: There are too few officers and personal in STEM for both

Spirtas, Michael, Yool Kim, Frank Camm, Shirley M. Ross, Debra Knopman, Forrest E. Morgan, Sebastian Joon Bae, M. Scott Bond, John S. Crown, and Elaine Simmons, 2020 "Creating a Separate Space Force: Challenges and Opportunities for an Effective, Efficient, Independent Space Service." Santa Monica, CA: RAND Corporation. https://www.rand.org/pubs/research_briefs/RB10103.html.

The Space Force will need people skilled in space operations, space intelligence, space acquisition, and other STEM disciplines. The new service will face two challenges to building and maintaining such a workforce: Difficulty sustaining small career fields: **Given the relatively small numbers in the Space Force, it will be challenging to have uniformed personnel spend their full careers there.** Analysis suggests that, although some career fields will be organic to the Space Force, **many will be manned by Air Force officers on assignment.** For the subset of Air Force career fields that requires substantive space knowledge to serve effectively in the Space Force, **the Air Force will need to develop a "space track" to ensure the additional training and development necessary for officers who will serve in the Space Force.** This will require close coordination between the two services to ensure that there are healthy career fields

that support the needs of both. Shortfalls in general officer throughput: **For the same reasons as above, the Space Force will likely need to draw about one-half of its general officers from the Air Force or other services for the foreseeable future.**

Analysis: In order to create Space Force, resources and personnel will be diverted from the Air Force, who previously administered these affairs. The result would mean less money and talented workers for the Air Force, which could potentially hamper their ability to respond to a conflict.

CON: Creating a Space Force will lead to monopolization of space

Argument: The US should not attempt to pursue hegemony in space because it will lead to greed and conflict.

Warrant: Space is a resource, much like any other. It's finite, but valuable.

Liu Weidong, 12-20-2019, "Will US Space Force take hegemony to cosmos?", Global Times. 20 Dec. 2019. Web. 8 Feb. 2021.
<https://www.globaltimes.cn/content/1175302.shtml>

But this could only be wishful thinking. On the other hand, space is a public domain, and it is thus highly unlikely to be privatized. In warfare on Earth, countries generally fight for land. But in space competition, an area can't be occupied, a country can launch space force and satellites as long as it is capable. **Space, just like the Antarctic and the Arctic, is a natural resource for all human beings, which should not be overly militarized. Space militarization will increase the risk of conflicts and is a waste of resources.** There are precedents for peaceful utilization of space. For example, the Soviet Union and the US used to cooperate in space exploration. Every country should promote peaceful use of space and try not to utilize it as a platform to attack or threaten other countries. Thus, the world will be able to make better use of space to benefit humanity. **Only countries longing for hegemony will overemphasize dominance, which will face resistance from most other countries. The international community can try to create pressure on the US to discourage it from setting up a space force.** However, it may not be an ideal step. Even though the world sets up relevant international laws or mechanisms, the US can choose to turn a blind eye to them. Hence, external restrictions on the US could be weak. All in all, the only power that can actually influence the US government is its own people. **American people need to awaken their government and make it realize the power of the ballot.**

Warrant: China is the nation close to hegemony in America

Greg Autry, Steve Kwast, 12-8-2018, "America Is Losing the Second Space Race to China," Foreign Policy. 8 Dec. 2018. Web. 8 Feb. 2021.

<https://foreignpolicy.com/2019/08/22/america-is-losing-the-second-space-race-to-china/>

The current U.S. space defense strategy is inadequate and on a path to failure.

President Donald Trump's vision for a Space Force is big enough. As he said on June 18, "It is not enough to merely have an American presence in space. We must have American dominance in space." But the Air Force is not matching this vision. Instead, the leadership is currently focused on incremental improvements to existing equipment and organizational structures. Dominating the vast and dynamic environment of space will require revolutionary capabilities and resources far deeper than traditional Department of Defense thinking can fund, manage, or even conceive of. Success depends on a much more active partnership with the commercial space industry—and its disruptive capabilities. U.S. military space planners are preparing to repeat a conflict they imagined back in the 1980s, which never actually occurred, against a vanished Soviet empire.

Meanwhile, China is executing a winning strategy in the world of today. It is burning hard toward domination of the future space markets that will define the next century.

They are planning infrastructure in space that will control 21st-century telecommunications, energy, transportation, and manufacturing. In doing so, they will acquire trillion-dollar revenues as well as the deep capabilities that come from continuous operational experience in space. **This will deliver space dominance and global hegemony to China's authoritarian rulers.**

Warrant: US pursuing hegemony in space lets the government

Wang Yiwei, 05-12-2020, "US shows ambition for space hegemony amid grim COVID-19 situation," Global Times. 12 May, 2020. Web. 8 Feb. 2021.
<https://www.globaltimes.cn/content/1188170.shtml>

Yet the US fantasizes to make the moon and space its own by getting there first. Planting a US flag on the moon during the first moon landing by the Apollo program in 1969 can be argued as a proof. Such a monopolistic approach is frequently practiced today. For instance, reports show that the Trump administration allegedly offered a German medical company "large sums of money" in March for exclusive rights to a possible COVID-19 vaccine. **In response to the egoistic US, China stresses the power of international justice and the safeguarding of regional peace through the development of high technology. If the US is allowed unfettered expansion of its hegemony and monopoly in space, the future of the entire human race will become absolutely dark.** Space has become a new military frontier for a growing number of countries. The US-proposed initiative now marks NASA's growing role as a diplomatic platform to deliver Trump's foreign policy. NASA, like the Federal Reserve System, bills itself as an independent agency, but it is increasingly tied to the US government as a blunt political tool for the country to lead the world. **Trump showed his naked ambitions for moon explorations amid the ugliest moments of the COVID-19 crisis in the US. This signals that the US will never prioritize people's lives and health during major crises. Living in such a liberal country, Americans have to take care of their own existence, because their government is too busy seeking space hegemony in outer space.**

Warrant: The Space Force is not the way to create hegemony in Space

Charles Beames. 01-28-2021. "The Innovation that Will Secure US Security in Space." Aviation Week Network. 28 Jan. 2021. Web. 8 Feb. 2021.
<https://aviationweek.com/aerospace/commercial-space/opinion-innovation-will-ensure-us-security-space>

The West is once again threatened by a hegemonic national security rival. This time, America's archnemesis is characterized by planning for a long contest that will feature fast-forward economics, global diplomacy, military muscle and information manipulation: **China, it appears, is preparing to use its economic power to win.** While maintaining its deep belief in Marx's communist vision, the Chinese one-party government has fashioned a national economy that learned from the Soviet Union's mistakes. Through friendly engagement with Western economies, **China strengthens its own economy and weakens the West's**, nudging the world toward the worldview of the Chinese Communist Party. **What then, are the best avenues for the U.S. to win this new near-peer space competition? They are the same ones that delivered victory in the last century: free markets, real economic growth and the productivity that often follows. This time, however, we must keep in mind that our rival is a keen student that has learned from our earlier successes—and Soviet failures.** The American response must not repeat the Cold War strategy of outspending our rival in government programs. **Instead, the U.S. long game must put the commercial industry first: deliberately buy goods and services from our commercial domestic market, only providing government solutions when the commercial market cannot meet requirements.** Unlike other military services, there are no real "weapons" in space. Much of what the government is developing for civil and national security space needs also exists as products or services in the commercial market. **By encouraging the commercial industry to grow and not competing against it, the U.S. will secure a long-term strategy leading to unrivaled space leadership.** The U.S. economy has generated growth and prosperity unmatched in human history, with billions of dollars being invested every year into profitable commercial space companies. To outpace China militarily and economically, the new administration must double down on space privatization projects like NASA's Commercial Crew and Commercial Resupply Programs started under the Obama administration. The Trump administration correctly reprioritized the importance of space for national security, but it directed too much

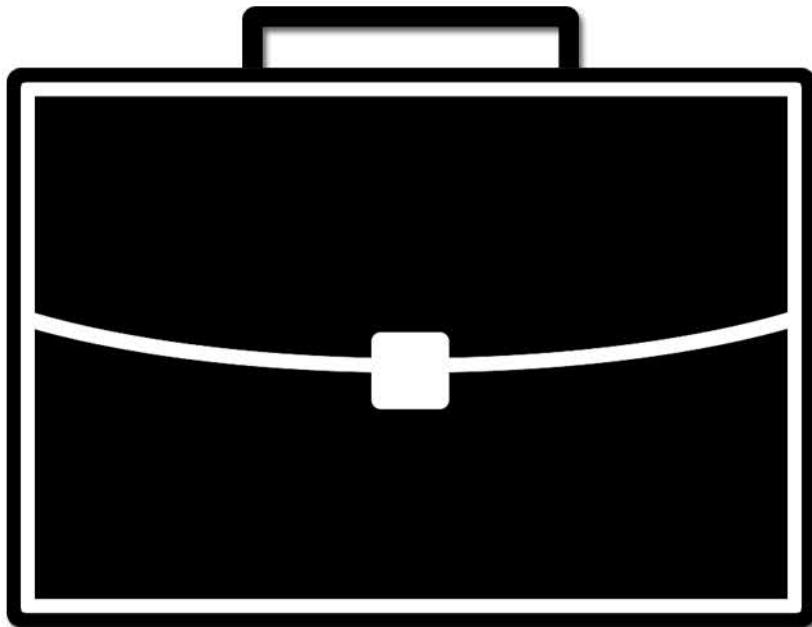
government spending to legacy space projects and fell short in encouraging the next generation of commercial space companies.

Analysis: Space is truly the final frontier, but one must ask whether the United States can be trusted to militarize such a frontier in this regard. The U.S. military has played a questionable role in the past, often using its might to justify expansionism and abuse. Con teams should argue that this is a prime situation for that to occur once again.

Champion Briefs

March 2021

Public Forum Brief



Con Responses to Pro Arguments

A/2: Space Force establishes diversity norms

Answer: Space Force does little to impact diversity norms. If anything, further militarization will only serve to exacerbate diversity norms.

Warrant: Militarism disproportionately harms minorities

Guerlain, Pierre, 11-22-2013, "The Social and Economic Consequences of US Militarism," Open Edition Journals. 22 Nov. 2013. Web. 5 Feb. 2021.
<https://journals.openedition.org/lisa/5371?lang=en>

Minorities, especially African-Americans, are over-represented among soldiers (but not in the officer corps) for their job opportunities are poorer than for other groups. Elites, that is the ruling class, send lower or working-class men and women to fight the wars they decide to run from the safety of their offices. **Militarism is thus a class and race issue too. More African-Americans and more poor people are killed or wounded or suffer from severe Stress Related Disorders (SRD) than other groups.** Michael Moore pointed out in one of his movies, Fahrenheit 9/11 (2004), that only one Representative had a family member fighting in Iraq. The rich decide on wars that the poor fight and die for. When they return home they face unemployment again and if they need medical treatment they may not get it.²⁶ Chalmers Johnson uses the expression Hannah Arendt coined to describe Eichmann, "desk murderer", to refer to political leaders like Bush and Cheney who send soldiers in harm's way from the safety of their offices and homes. Disrespect for US and international law and outright lies about weapons of mass destruction in Iraq certainly make the expression appropriate.

Warrant: Military spending takes up discretionary spending

Charles Koch Institute Staff. 2021. "The Military Spending Debate," Charles Koch

Foundation. 2021. Web. 5 Feb. 2021

<https://www.charleskochinstitute.org/issue-areas/foreign-policy/the-military-spending-debate/>

Every year, the federal budget is formed of two categories: mandatory and discretionary spending. Congress has already committed to so-called mandatory spending, which covers most major entitlement programs and is a little over half of total federal spending (estimated at 53 percent of the budget in 2019). **The discretionary budget is the money that Congress debates every year, funding the military, education, and other domestic programs. At about \$1 trillion, military-related spending is by far the largest part of the discretionary budget. It takes up around 21 percent of total federal spending, or a little under half of the money that Congress can directly choose how to spend.** In recent years, both the Republican and Democratic parties have enthusiastically accommodated high military spending. The budget process has been characterized by bipartisan deals that allow Republicans to raise military spending in exchange for allowing Democrats to raise the amount assigned to domestic programs. In 2018, Congress approved a budget that increased discretionary spending caps over the next two years by roughly \$160 billion for Pentagon spending and \$128 billion for domestic programs. Decades ago, this might not have been a problem, but the fiscal realities are different today: The United States is in over \$20 trillion of debt and runs budget deficits in the many hundreds of billions of dollars. Unfortunately, the military spending debate often fails to take this into account. **Whether you think that Congress should spend more on domestic programs, pay down the debt, or return money to taxpayers, \$1 trillion is a hefty price tag.**

Warrant: Space Force adds onto an already high military budget

Mike Gruss, Aaron Mehta, 3-6-2019, "Space Force to cost \$2 billion, include 15,000

personnel in first five years," Defense News. 6 Mar. 2020. Web. 5 Feb. 2021.

<https://www.defensenews.com/space/2019/03/01/space-force-to-cost-2-billion-include-15000-personnel-in-first-five-years/>

The Trump administration plans to spend \$2 billion in new funding over a five-year period to create its Space Force, during which roughly 15,000 space-related personnel will transfer from existing roles. Officials unveiled those details and the Pentagon's legislative proposal for the new military service March 1. Defense leaders sent the formal proposal to Congress Feb. 27 after President Donald Trump ordered its creation in June. While many of the details have yet to be determined — will the service have a bootcamp (unclear), its own service academy (no), their own uniforms (possible) or recruitment centers (probably) — a Space Force would share resources such as an acquisition chief, general counsel and chaplains with the broader Department of the Air Force.

Warrant: Underfunding of discretionary programs harm vulnerable populations

Elliott Negin, 9-14-2020, "It's Time to Rein in Inflated Military Budgets," Scientific American. 14 Sep. 2020. Web. 5 Feb. 2021.

<https://www.scientificamerican.com/article/its-time-to-rein-in-inflated-military-budgets/>

While the Pentagon budget routinely eats up more than half of annual U.S. discretionary spending, a host of other interrelated threats that undermine national security writ large go chronically underfunded, including the current public health, environmental and climate crises, all of which disproportionately harm low-income communities and communities of color. Certainly, these crises predate the Trump administration. But in its zeal to dismantle government regulations and slash critical programs, it has greatly exacerbated them. At the same time, its fiscal year (FY) 2021

budget calls for spending \$740.5 billion on the Pentagon, \$100 billion more than when President Trump took office and the most since World War II. In late July, both houses of Congress approved that request

Analysis: Many of the best responses to this argument are to look into the resources the Space Force takes up. The creation of it carries a massive price tag that would exacerbate the problems that already exist with military spending, namely the crowd out effect. If teams can show that the increase in military spending would decrease funds going towards social programs, they can link in to harms to vulnerable populations within the US. The weighing there becomes easy on scope because even if aff links into improving diversity within the space force, neg can impact to all vulnerable populations in America.

A/2: Space Force would let the US serve as a police force

Answer: Space policing is unnecessary, serves as a justification for militarism.

Warrant: We are not at a point, or close to a point, where space would need to be policed

Lauren Tousignant, 2-10-2017, "Do we need to establish a police force in space?", New York Post. 10 Feb. 2017. Web. 8 Feb 2021. <https://nypost.com/2017/02/10/do-we-need-to-establish-a-police-force-in-space/>

But Johnson explained that we would really only need some type of police force if countries decided to sovereign in space — which is currently prohibited under Article II of the treaty. The boundaries of international law have a limit and “we haven’t developed there as a civilization,” Johnson told The Post. Space has no governor, so it can’t be governed. Furthermore, space exploration remains so risky that countries still have to rely on one other if they want a rewarding mission. Research and data needs to be shared with absolute transparency in order for any country’s space program to have success. On December 7, 2016, in anticipation of the treaty’s 50th anniversary, the State Department issued its first statement on OST in 30 years, pledging the United States’ dedication to the treaty’s framework for the next 50 years and beyond. “As a place that has no police force,” said Johnson. “[Space is] a place we’ve seen, by and large, 50 years of really great cooperation.” So if the idea of space police sounds like a futuristic, science fiction trope, or an out-of-this-world buddy cop comedy, it pretty much is — at least for now.

Warrant: There is already legal parameters for actions in outer space

Loren Grush, 1-27-2017, "How an international treaty signed 50 years ago

became the backbone for space law," Verge. 27 Jan. 2017. Web. 8 Feb. 2021.
<https://www.theverge.com/2017/1/27/14398492/outer-space-treaty-50-anniversary-exploration-guidelines>

Fifty years ago today, the United States, the Soviet Union, and the United Kingdom opened a treaty for signature that would become the backbone for international space law. It was a United Nations-approved agreement called the Outer Space Treaty, and 104 nations have become parties to the document since it was signed and enacted in 1967. **Since then, the treaty has helped ensure the peaceful exploration of space, as well as provide a lasting framework for how nations are supposed to behave in Earth orbit and beyond.** In reality, the "Outer Space Treaty" is just a nickname. The document's full title is the "Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies." It's a lengthy name, but it sums up the essence of the treaty well: it's a **list of principles for what nations can and cannot do in space and on other worlds.** For example, nations can't claim an asteroid as theirs, and they also should prevent contaminating foreign planets.

Non Unique: Countries are already self policing their space actions

Frank A. Rose, 3-14-2019, "America in space: Future visions, current issues," Brookings. 14 Mar. 2019. Web. 8 Feb. 2021.
<https://www.brookings.edu/testimonies/america-in-space-future-visions-current-issues/>

One of the most successful diplomatic efforts to date to address the orbital debris challenge has been the U.N. Debris Mitigation Guidelines, approved by the U.N. General Assembly in 2007. The guidelines are based on recommendations initially developed by the Inter-Agency Debris Coordination Committee (IADC), which consists of

representatives from the world's major space agencies such as the National Aeronautics and Space Administration (NASA), European Space Agency (ESA), and Russian State Corporation for Space Activities (ROSCOSMOS). **The objective of these guidelines is to minimize the creation of man-made debris in Earth's orbit and reduce the threat to human and robotic space flight.** The guidelines focus on limiting the amount of debris released during normal operations, reducing the probability of accidental collision in orbit, and avoiding intentional destruction and other harmful activities. **While the guidelines themselves are not legally binding in international law, several countries have incorporated the guidelines into their domestic laws and regulations.** The guidelines have also established a precedent as to what a responsible space actor does in orbit, and helped develop a strong international norm against conducting debris-generating events in outer space, such as China's 2007 anti-satellite test.

Turn: Space Force creates far more space junk

Rick Noack, 8-10-2018, "Analysis," The Washington Post. 10 Aug. 2018. Web. 8 Feb. 2021. <https://www.washingtonpost.com/world/2018/08/10/trumps-proposed-space-force-could-worsen-earths-orbital-debris-problem/>

When Vice President Pence announced plans to create a “Space Force” military command by 2020 on Thursday, social media was flooded with Star Trek theme music, astronaut GIFs and suggestions for the Space Force’s future logo. But to some space experts, **Pence’s de facto call to arms was less of a laughing matter. Long before Pence referred to space as a potential future “battlefield,” China attempted to extend its military might there, culminating in a 2007 military antisatellite test in the low Earth orbit — within 1,240 miles of our planet — that has the highest density of satellites.** Analysts estimate that 25 percent of today’s space debris originated in this single 2007

test when the Chinese military blasted apart one of its own weather satellites with a missile at an altitude of 537 miles.

Analysis: There are quite a few routes to take to address the space police argument. The most effective may be to look at the current international space agreements and use those as ways to diminish the urgency of a country jumping in and taking the lead in space. Another thing to consider is that America is already one of the countries at the front of the space race, so asking questions and making analytic responses questioning whether America would a) be able to be a police force with other countries also possessing power in space b) become the police force if they aren't policing already and c) have a greater benefit in policing other countries than harm by being more active in space, all could work to mitigate the offense coming off of this argument.

A/2: US hegemony in space

Answer: Pursuing space hegemony will lead to militarization by the U.S and China.

Turn: The US should not attempt to pursue hegemony in space because over militarization is bad

Liu Weidong, 12-20-2019, "Will US Space Force take hegemony to cosmos?,"Global Times. 20 Dec. 2019. Web. 8 Feb. 2021.

<https://www.globaltimes.cn/content/1175302.shtml>

But this could only be wishful thinking. On the other hand, space is a public domain, and it is thus highly unlikely to be privatized. In warfare on Earth, countries generally fight for land. But in space competition, an area can't be occupied, a country can launch space force and satellites as long as it is capable. **Space, just like the Antarctic and the Arctic, is a natural resource for all human beings, which should not be overly militarized. Space militarization will increase the risk of conflicts and is a waste of resources.** There are precedents for peaceful utilization of space. For example, the Soviet Union and the US used to cooperate in space exploration. Every country should promote peaceful use of space and try not to utilize it as a platform to attack or threaten other countries. Thus, the world will be able to make better use of space to benefit humanity. **Only countries longing for hegemony will overemphasize dominance, which will face resistance from most other countries. The international community can try to create pressure on the US to discourage it from setting up a space force.** However, it may not be an ideal step. Even though the world sets up relevant international laws or mechanisms, the US can choose to turn a blind eye to them. Hence, external restrictions on the US could be weak. All in all, the only power that can actually influence the US government is its own people. **American people need to awaken their government and make it realize the power of the ballot.**

Warrant: China is the nation close to hegemony in America

Greg Autry, Steve Kwast, 12-8-2018, "America Is Losing the Second Space Race to China," Foreign Policy. 8 Dec. 2018. Web. 8 Feb. 2021.

<https://foreignpolicy.com/2019/08/22/america-is-losing-the-second-space-race-to-china/>

The current U.S. space defense strategy is inadequate and on a path to failure.

President Donald Trump's vision for a Space Force is big enough. As he said on June 18, "It is not enough to merely have an American presence in space. We must have American dominance in space." But the Air Force is not matching this vision. Instead, the leadership is currently focused on incremental improvements to existing equipment and organizational structures. Dominating the vast and dynamic environment of space will require revolutionary capabilities and resources far deeper than traditional Department of Defense thinking can fund, manage, or even conceive of. Success depends on a much more active partnership with the commercial space industry—and its disruptive capabilities. U.S. military space planners are preparing to repeat a conflict they imagined back in the 1980s, which never actually occurred, against a vanished Soviet empire.

Meanwhile, China is executing a winning strategy in the world of today. It is burning hard toward domination of the future space markets that will define the next century.

They are planning infrastructure in space that will control 21st-century telecommunications, energy, transportation, and manufacturing. In doing so, they will acquire trillion-dollar revenues as well as the deep capabilities that come from continuous operational experience in space. **This will deliver space dominance and global hegemony to China's authoritarian rulers.**

Warrant: US pursuing hegemony in space lets the government act dangerously

Wang Yiwei, 05-12-2020, "US shows ambition for space hegemony amid grim COVID-19 situation," Global Times. 12 May, 2020. Web. 8 Feb. 2021.
<https://www.globaltimes.cn/content/1188170.shtml>

Yet the US fantasizes to make the moon and space its own by getting there first. Planting a US flag on the moon during the first moon landing by the Apollo program in 1969 can be argued as a proof. Such a monopolistic approach is frequently practiced today. For instance, reports show that the Trump administration allegedly offered a German medical company "large sums of money" in March for exclusive rights to a possible COVID-19 vaccine. **In response to the egoistic US, China stresses the power of international justice and the safeguarding of regional peace through the development of high technology. If the US is allowed unfettered expansion of its hegemony and monopoly in space, the future of the entire human race will become absolutely dark.** Space has become a new military frontier for a growing number of countries. The US-proposed initiative now marks NASA's growing role as a diplomatic platform to deliver Trump's foreign policy. NASA, like the Federal Reserve System, bills itself as an independent agency, but it is increasingly tied to the US government as a blunt political tool for the country to lead the world. **Trump showed his naked ambitions for moon explorations amid the ugliest moments of the COVID-19 crisis in the US. This signals that the US will never prioritize people's lives and health during major crises. Living in such a liberal country, Americans have to take care of their own existence, because their government is too busy seeking space hegemony in outer space.**

Warrant: The Space Force is not the way to create hegemony in Space

Charles Beames. 01-28-2021. "The Innovation that Will Secure US Security in Space." Aviation Week Network. 28 Jan. 2021. Web. 8 Feb. 2021.
<https://aviationweek.com/aerospace/commercial-space/opinion-innovation-will-ensure-us-security-space>

The West is once again threatened by a hegemonic national security rival. This time, America's archnemesis is characterized by planning for a long contest that will feature fast-forward economics, global diplomacy, military muscle and information manipulation: **China, it appears, is preparing to use its economic power to win.** While maintaining its deep belief in Marx's communist vision, the Chinese one-party government has fashioned a national economy that learned from the Soviet Union's mistakes. Through friendly engagement with Western economies, **China strengthens its own economy and weakens the West's**, nudging the world toward the worldview of the Chinese Communist Party. **What then, are the best avenues for the U.S. to win this new near-peer space competition? They are the same ones that delivered victory in the last century: free markets, real economic growth and the productivity that often follows. This time, however, we must keep in mind that our rival is a keen student that has learned from our earlier successes—and Soviet failures.** The American response must not repeat the Cold War strategy of outspending our rival in government programs. Instead, the U.S. long game must put the commercial industry first: **deliberately buy goods and services from our commercial domestic market, only providing government solutions when the commercial market cannot meet requirements.** Unlike other military services, there are no real "weapons" in space. Much of what the government is developing for civil and national security space needs also exists as products or services in the commercial market. **By encouraging the commercial industry to grow and not competing against it, the U.S. will secure a long-term strategy leading to unrivaled space leadership.** The U.S. economy has generated growth and prosperity unmatched in human history, with billions of dollars being invested every year into profitable commercial space companies. To outpace China militarily and economically, the new administration must double down on space privatization projects like NASA's Commercial Crew and Commercial Resupply Programs started under the Obama administration. The Trump administration correctly reprioritized the importance of space for national security, but it directed too much

government spending to legacy space projects and fell short in encouraging the next generation of commercial space companies.

Analysis: In response to this argument teams should question both the importance of hegemony in space and whether the space force is the best way to access it. If teams can prove that there are other ways to ensure hegemony without the space force, the aff team loses much of their uniqueness to their case and it will be hard for them to fully access the offense on their contention. Teams can also combine that approach with a disad about the unique harms of the space force (arms race, etc) in order to create offense for themselves off of the argument.

A/2: Space Force is crucial for further space research

Answer: Space weapons would cost billions of dollars, which is far too expensive to justify the benefits of space research.

Warrant: Space Force aims to invest in the most cutting edge technology

Garamone, Jim. "Esper: Air Force, Space Force Leading Charge to New Technologies."

U.S. DEPARTMENT OF DEFENSE, 16 Sept. 2020,

<https://www.defense.gov/Explore/News/Article/Article/2349408/esper-air-force-space-force-leading-charge-to-new-technologies/>.

The military guidebook for the future is the National Defense Strategy. The strategy calls on the military to divest legacy systems, reinvest savings in higher priority systems and make the tough choices required to break from the status quo and continue outpacing the competition, Esper said. The fiscal 2020 Defense Department research and development budget is the largest in history, he said, and it concentrates on critical technologies such as hypersonic weapons, directed energy and autonomous systems. "In the Air Force, specifically, we are modernizing our force for the 21st century with aircraft such as the B-21, the X-37 and the Next Generation Air Dominance platform," Esper said. "Equally important, we are transforming the way we fight through the implementation of novel concepts such as Dynamic Force Employment, which provides scalable options to employ the joint force while preserving our capabilities for major combat."

Warrant: Space weapons could cost hundreds of billions

Staff Writer. "Report Says Many Space Weapons Systems Would Carry Huge Cost - Via Satellite -." Via Satellite, 12 Nov. 2007,

[https://www.satellitetoday.com/uncategorized/2007/11/12/report-says-many-space-weapons-systems-would-carry-huge-cost/.](https://www.satellitetoday.com/uncategorized/2007/11/12/report-says-many-space-weapons-systems-would-carry-huge-cost/)

Placing weapons in space or installing systems in orbit to defend space assets such as satellites from attack could be inordinately expensive, according to a report from the Center for Strategic and Budgetary Assessments (CSBA). **Price tags for various types of systems could range from the tens of billions of dollars to hundreds of billions**, according to CSBA figures based on its own calculations and estimates of other experts, in the report by Steven M. Kosiak, vice president – budget studies with CSBA, a defense-oriented Washington think tank. Many castigate any move to place weapons in space, wishing it to remain a peaceful realm with a right of free passage for all, and Kosiak states that it appears no nation has yet placed weapons in orbit. At the same time, he notes that some observers say it is only a matter of time before weapons of war arrive at the final frontier. He examines four categories of possible weaponization of space:

Systems to defend the United States and its interests against ballistic missile strikes.

Space-based weapon systems that could, while in orbit, attack ground-based targets, both those actually on the surface of the planet and enemy airborne threats.

Systems to destroy or disable enemy satellites, effectively meaning a U.S. satellite that would assail enemy spacecraft in orbit.

A system to defend U.S. satellites against enemy anti-satellite weapons.

Warrant: Even small investments would cost hundreds of billions

Grego, Laura. "No, Space-Based Missile Defense Will Not Cost Only \$20 Billion. (Spoiler: That's Only the Launch Costs.)." Union of Concerned Scientists, 24 Sept. 2018, <https://allthingsnuclear.org/lgrego/space-based-missile-defense-will-not-cost-only-20-billion>.

This also sets aside the fact that the total mass of interceptors needed on orbit is quite sensitive to assumptions such as how many missiles the system is expected to counter, whether those missiles are solid- or liquid-fueled, and the amount of decision time required—conditions that are explored in studies such as those coordinated by the American Physical Society in 2003 and the National Academies of Sciences, Engineering & Medicine in 2012. **The National Academies study concluded that the life cycle costs for even an “austere and limited-capability” set of 650 satellites would be at least \$300 billion in 2010 dollars, or 10 times more expensive than other missile defense options they examined. This estimate included the costs that Griffin did not, which are clearly substantial.**

Impact: Military spending harms economic growth

Hiller, Patrick. “The Effects of Military Spending on Economic Growth · Peace Science Digest.” Peace Science Digest, 2 Jan. 2018,
<https://peacesciencedigest.org/effects-military-spending-economic-growth/>.

Increased military spending leads to slower economic growth. Military spending tends to have a negative impact on economic growth. Over a 20-year period, a 1% increase in military spending will decrease a country’s economic growth by 9%. Increased military spending is especially detrimental to the economic growth of wealthier countries. The debate over how military spending impacts a country’s economy has been fiercely argued, and the results of studies trying to understand this relationship have been mixed. Early researchers ran into trouble due to inadequate time frame or country data. Others have studied only certain types of countries or periods in time, leading to results that could arguably be caused by other social, political, or economic factors. Past research, for example, was highly influenced by military spending data in the Cold War era. After the Cold War, the reduced military spending was matched with an era of strong economic growth, which provided for a very different economic

environment than what was seen during periods of high military spending during the Cold War era. **To overcome past limitations, this study analyzes military spending by a large and diverse group of countries over the span of 45 years, with special attention to global events that may otherwise influence major economies.**

Impact: The benefits obtained by investing in space research are simply outweighed by the cost of conducting said research. While water filters, Tang, and velcro are nice examples of how space research can lead to breakthroughs, there are other means of conducting research that are far more cost effective.

A/2: Space Force improves the economy

Answer: the industry that would grow is the military industrial complex

Linda Billings, 10-26-2018, "A US Space Force? A Very Bad Idea!" TaylorFrancis,
<https://www.tandfonline.com/doi/full/10.1080/14746700.2018.1522732>

The current U.S. administration's bent toward war-mongering is good for business and bad for national security. Preparing for war in space will be expensive, and the aerospace industry will profit greatly from it if the initiative goes forward. According to Defense News, the top five U.S. Department of Defense contractors in 2018 are (in order from #1) Lockheed Martin, Raytheon, BAE Systems, Northrop Grumman, and Boeing. These corporations may not be the leading DOD contractors for space-related assets, but their financials provide some indication of their positions in the military-industrial complex. For example, Lockheed Martin took in \$48 billion in defense revenues in 2017; revenue from defense = 94 percent of total revenues. In its 2017 annual report, the company reported a \$6 billion profit on sales of \$51 billion. Raytheon took in \$23.6 billion in defense revenue in 2017; revenue from defense = 93 percent of total revenues. In its 2017 annual report, the company reported a \$2 billion profit on \$25.3 billion in net sales. **Citizens of my country—to which I am devoted—can, and should, press their elected officials to abide by the central tenet of the Outer Space Treaty and preserve space for peaceful purposes. Instead of preparing for “warfighting” in space, the United States could—and should—take a global leadership role in pursuing diplomatic and other avenues for preempting any possibility of warfighting in space. It’s the right thing to do.**

Impact: Growth of the military industrial complex encourages conflict

Samson Nzeribe and Mukhtar Imam, 5-1-2018, "Military Industrial Complex: A Catalyst For Conflicts And Wars," ResearchGate,
https://www.researchgate.net/publication/325813242_Military_Industrial_Complex_A_catalyst_for_conflicts_and_wars/stats

This essay has sought to argue that **the U.S. military-industrial complex is indeed a catalyst for contemporary wars and will in no small measure spark major future conflicts and strife.** It would also do us good to bear in mind that the paper is rational in its acceptance that **the military complex as it was, was the unintentional result of both a desire to stabilize the global capitalist system and to protect national security interests, but that military spending is now closely linked to the personal interests of a small, influential group of elites.** In the first section, it was illustrated that the context of the Second World War made increased military expenditures a necessary means to other ends, although the powerful elite that would eventually come to benefit from these expenditures was already in place. Once in place, these **power elite have constantly needed to justify the disproportionate allocation of national resources to the military establishment.** Emphasizing the economic benefits of military investment by drawing on Keynesian theory is a way of doing so, **but military Keynesianists seem to give a one-sided account of the theory, one that suits their interests**

Analysis: This answer gives you independent offense against the pro to claim that the growth in industry is military in nature. As those industries profit from conflict, the pro incites conflict. This can be set up in cross by asking “what industries specifically benefit from Space Force?”

Answer: Military based economic growth is at best short term due to overkill

Pierre Guerlain, 11-22-2013, "The Social And Economic Consequences Of Us Militarism," Culture And Society, <https://journals.openedition.org/lisa/5371?lang=en#ftn19>

Melman focused on all the industrial and educational goods which could not be produced in a “perpetual war economy” which had gone into “overkill”, that is organized its economic system around so-called defense. He pointed out that Japan and Germany were doing much better than the US economically because they were not spending as much on arms. This has become the only position on the left and is shared by libertarians and conservatives like Andrew Bacevich, a retired colonel and international relations scholar who has published a lot on the cost of US imperialism.¹⁸

19 And also: “In fact, most economic models show that military spending diverts resources (...) 13The concept of “overkill” enables us to somewhat reconcile the two positions about the effects of military Keynesianism. Indeed, **after an initial phase of Keynesian stimulus lasting about 6 years, military spending destroys jobs and prosperity.** So even from a purely economic point of view totally divorced from ethics, **excessive military spending is bad for any society.** This is the main conclusion of a 2007 report by economist Dean Baker: **“After an initial demand stimulus, the effect of increased military spending turns negative around the sixth year. After 10 years of higher defense spending, there would be 464,000 fewer jobs than in the baseline scenario with lower defense spending.”**¹⁹

Analysis: this statistic will likely help teams as it is greater than jobs created. However, the evidence is not specific to the space force. It is critical that teams get smart by pointing out that jobs are likely taken from the Air Force resulting in no net gain.

Answer: Space War is bad for business

Kenneth Hicks, 9-23-2018, "Astronomy: Space Force would encourage weaponizing, not exploring, space," Columbus Dispatch,
<https://www.dispatch.com/news/20180923/astronomy-space-force-would-encourage-weaponizing-not-exploring-space>

Except for the occasional James Bond movie, in which some evil scientist wants to take over the world, it appears that in real life, sanity has prevailed. If the United States had a weapon in orbit, the Chinese or the Russians (or both) probably would know about it and try to destroy it. Of course, I'm guessing here because I don't have a security clearance for such matters. But it just makes sense that no nation could keep a nuclear space weapon secret for very long. So, why am I bringing this up? Some **politicians have suggested lately that the United States should expand defensive efforts into space.** In my opinion, this is a bad idea. **The U.S. has so much more to lose than to gain by establishing a defensive Space Force. For starters, it would deter the commercial development of space. Companies such as Space-X or Blue Origin, which dream of ferrying customers to space, must see how such policies would hurt business. Imagine that your sightseeing expedition is in danger of being mistakenly targeted by another nation's armed satellite. Not good for ticket sales.**

Analysis: this argument should go along with weighing of your con impact scenario. If you can prove that creation of a Space Force increases perception of a hostile Space you can win that people probably don't want to do business up there. Furthermore, if you win the probability of a conflict you can outweigh on magnitude.

A/2: Space Force stops satellite warfare

Answer: Space Force could make the problem worse by creating debris

Charles Powell, 7-14-2020, "Saving Space from 'Star Wars'-Style Misperceptions," War on the Rocks, <https://warontherocks.com/2020/07/saving-space-from-star-wars-style-misperceptions/>

In some senses, this shift is inevitable. **In 2005, NASA conducted a study and found that even if no new launches were conducted, the population of tracked debris would increase faster than atmospheric drag would remove objects based on future collisions alone.** The timescale for these impacts to be realized is unclear. Weaponizing Space At a National Space Council meeting last year, Vice President Mike Pence asserted that the United States was already in a space race, implying that Russia and China have actively weaponized space and the United States must respond in kind. The U.S. intelligence community assesses that Russian and Chinese development of direct-ascent anti-satellite weapons is largely to counter the perceived advantage the United States enjoys in space. These systems have been tested in some form by China, India, and the United States, and most recently by Russia just a few months ago. Amid this discussion of competition, however, it is still unclear how such a weapon system could be used effectively, and whether there is wisdom in any nation fielding these capabilities. **Almost all scenarios in which a kinetic anti-satellite weapon can be deployed are inherently self-harming, no matter the operator. Kinetic weapons, whether space- or ground-based, create huge plumes of orbital debris and serve limited strategic value.**

Answer: Other factors can damage satellites

Warrant: Space weather take out satellites

Herbert O. Funsten August 27, 2020, 8-27-2020, "Three big threats to satellites — and what to do about them (op-ed)," Space, <https://www.space.com/satellite-threats-solutions-los-alamos-op-ed.html>

Space might seem like an empty, vacuous void, but in reality, the space environment is extraordinarily dynamic. Our solar system is bathed in a continuous shower of cosmic rays and salvos of energetic particles from solar storms — all of which can penetrate a satellite, microscopically fry its electronics, and, in extreme cases, render it useless.

Warrant: nuclear explosions can hurt Satellites

Herbert O. Funsten August 27, 2020, 8-27-2020, "Three big threats to satellites — and what to do about them (op-ed)," Space, <https://www.space.com/satellite-threats-solutions-los-alamos-op-ed.html>

If an adversary wanted to disable hundreds of satellites and severely hobble a country, launching a nuclear weapon into low-Earth orbit (LEO) and detonating it could do the trick. Although nuclear explosions in space have been banned since 1963 by international treaty, we need to be able to protect our space assets from a rogue nuclear event by knowing where we can move our satellites and for how long. We would also like to know if there are ways to reduce or eliminate any artificial radiation belt created by the blast.

Warrant: other satellites may collide

Herbert O. Funsten August 27, 2020, 8-27-2020, "Three big threats to satellites — and what to do about them (op-ed)," Space, <https://www.space.com/satellite-threats-solutions-los-alamos-op-ed.html>

Currently, almost 3,000 operational satellites orbit Earth, and that number is rising due to the proliferation of launch opportunities for small satellites, primarily into LEO. Soon, we Earthlings will likely be launching more than 1,100 satellites per year, rapidly increasing the risk of collisions. Just one small crash could result in debris of thousands of BB-sized pellets hurtling through space in different directions at thousands of miles per hour. If just a few of those BBs hit another satellite, the shredded satellite would create more orbital debris, starting a runaway chain reaction.

Analysis: this argument attacks the prime pro claim that the space force is needed to stop satellites from being destroyed by proving that satellites will be destroyed regardless. Teams should use this then show how space force makes the problem worse with kinetic weapon tests.

Answer: Other organizations can solve the problem

Linda Billings, 10-26-2018, "A US Space Force? A Very Bad Idea!," Taylor & Francis,
<https://www.tandfonline.com/doi/full/10.1080/14746700.2018.1522732>

While Trump administration officials have been insistent that this is the case, the claim that space is a warfighting domain is a construct, not a fact. **It also should be noted that the United States already has an Air Force Space Command (AFSC) in place, activated in 1982 and currently employing 30,000 people worldwide. AFSC says it “provides military focused space capabilities with a global perspective to the joint warfighting team.”** Most citizens currently know little to nothing about what AFSC does or about classified U.S. space activities and capabilities such as spy satellite systems and the X-37, a reusable, uncrewed, military spaceplane first launched into Earth orbit in 2010 (as of 2017 the U.S. Air Force had launched five X-37 missions).

Analysis: This will be a common argument on the topic and force the pro to prove why Space Force is uniquely key. This can be done in cross by getting them to concede that other organizations can solve. Teams need to remember that defense alone does not win a round.

Answer: Actors can make satellite destruction look like an accident

Barrow, Gregory D. "The Vacuum of Reason: A Case Against Trump's Space Force

Proposal." (2019).

<https://jsscholarship.library.jhu.edu/bitstream/handle/1774.2/61800/Barrow%2C%20Gregory%20D..pdf?sequence=1&isAllowed=y>

There are far fewer treaties governing the use of force in space, and attacks on satellites can be made to appear much more accidental (i.e. two satellites colliding) than a nuclear strike. 32 This means that countries that act provocatively in space have less to fear in the way of international sanctions and retaliation than those who would threaten nuclear belligerence. As such, **MAD is not guaranteed to prevent America's adversaries from aggression, especially those whose governments espouse more extremist views.**³³ For these reasons, the U.S. must rethink how it defends American assets in space.

Analysis: lots of teams will try to use a deterrence link into satellites. However, if actors can make attacks look like an accident there is no reason to expect credible deterrence. Therefore, aggressors will continue even if space force happens.

A/2: Space Force improves military readiness

Answer: Space Force is not needed

Barrow, Gregory D. "The Vacuum of Reason: A Case Against Trump's Space Force Proposal." (2019). <https://jscholarship.library.jhu.edu/handle/1774.2/61800>

Nonetheless, given the executive actions that the President has already carried out to support his emphasis on space innovation, namely the resurrection of USSPACECOM, there is no logical need to create a sixth branch of the armed forces to help bolster American space readiness. The concept that the Space Force would need to exist to provide manpower for USSPACECOM is nonsensical, as none of the other 10 combatant commands that exist today require their own service to supply personnel.¹⁹⁰ Rather, when troops deploy to U.S. Southern Command (USSOUTHCOM) or U.S. Special Operations Command (USSOCOM), for example, they remain in their service and simply work together with members of other branches in a joint environment. A soldier deploying to USSOUTHCOM does not leave the Army to join the 'South Force,' nor does a sailor deploying to USSOCOM leave the Navy to join the 'Special Force.' As such, there is no reason that troops supporting the revived USSPACECOM need to abandon their service to join the Space Force.

Analysis: This takes out the majority of uniqueness on the issue and forces the pro to prove why Space Force is uniquely key. Furthermore, the empirics in the evidence will assist teams in convincing lay judges and can be flushed out during cross.

Answer: Space Force readiness risks provoking other nations

John A. Tirpak, 10-18-2020, "Space Force Grappling With How to Define Readiness," Air Force Magazine, <https://www.airforcemag.com/space-force-grappling-how-to-define-readiness/>

The new service is trying to determine what will decide if its organizations are ready, in the form of the advanced training, exercises, and “experiences they need to be ready ... on-orbit, against a near-peer competitor.” The “day-to-day” won’t change, Saltzman said, “but I want to make sure we’re capturing the broader advanced training, operational test, [tactics, techniques, and procedures] developments, and enhancements ... All the things we’ve learned it takes to be truly ready for the high-end fight.” “We have to understand the space mission differently,” he added. **Space Force must do the balancing act of being unpredictable while at the same time not spooking adversaries into thinking an attack is underway**, Saltzman said. **“You want to be provocative, unpredictable, so that you can kind of keep your competitors ... off balance, and at the same time demonstrate norms of behavior that we would call ‘safe,’”** he said. The terrestrial analogies would be “safe intercepts ... in the air world, and the laws of the sea that keep people safe over the waters. In an ideal world, that’s what we would want to pursue.” Once everyone agrees to safe practices and norms in space, it will be easier to identify nefarious activity, Saltzman said. For now, he added, it’s **“hard to tell if something is provocative, an act of war, or just sloppy behavior, or maybe operator error.”**

Answer: Other military branches' lack of readiness kills solvency

Stephen Losey, 11-20-2020, "Here's how bad the military's aircraft readiness has gotten," Air Force Times, <https://www.airforcetimes.com/news/your-air-force/2020/11/19/heres-how-bad-the-militarys-aircraft-readiness-has-gotten/>

A new report from the Government Accountability Office released Thursday shows just how bad the problem has gotten — not just in the Air Force, but also in the Navy, Marine Corps and Army. In the report, which was requested by Congress, **GAO said that it studied readiness rates for 46 aircraft across those four services between fiscal 2011 and fiscal 2019. Of those, only three met their annual mission-capable goals for a majority of those years:** The Navy's EP-3E Aries II and E-6B Mercury and the Air Force's UH-1N Huey helicopter. The EP-3 hit seven of its annual goals, the E-6B hit it during five years, and the UH-1N met its goal during all nine years. Even more concerning, **24 of the aircraft GAO reviewed never met their annual goals once in that nine-year span. The average annual mission-capable rates for selected Air Force, Navy and Marine Corps aircraft decreased overall since 2011, according to the GAO.** The average mission-capable rate for the selected Army aircraft slightly increased.

Warrant: COVID has decreased military readiness

Mark Cancian, 3-11-2020, "How Coronavirus Could Hurt U.S. Military Readiness,"
Forbes, <https://www.forbes.com/sites/markcancian/2020/03/11/will-covid-19-devastate-military-readiness/?sh=35ec2fad1e10>

Exercises around the world will likely be scaled back, often a euphemism for canceled. Few countries want a large number of potentially infected foreigners dropped on their doorstep. The lack of exercises will not just dull the skills of military personnel and units but will sacrifice the engagement with allies and partners that makes the network of U.S. global partnerships so effective. But the effects will go beyond that. How will the military services conduct basic training (a.k.a. "boot camp")? Recruits are crammed together, exercised, put under stress, and told to stop whining. It's another perfect incubator for disease. **Military schools that teach primarily in classrooms, like the war colleges, can operate remotely. But the military services can't do that for basic training nor can they teach military skills remotely.** Flight school trainee pilots

need to get into the cockpit. Artillery school students need to shoot on the ranges. Paratroopers need to jump out of airplanes. If that kind of training stops, units will quickly lose their edge. Military turnover is about 25% a year as servicemembers on four-year contracts leave, and raw recruits take their place. It doesn't take long before skills thin out. The military services will likely try to continue training until some trainee dies of COVID-19, and angry parents demand changes to the system to protect their offspring. Then the military services will face a crisis.

Warrant: Only the army has seen an increase in readiness

Sydney J. Freedberg Jr., 11-20-2020, "Aircraft Readiness Is Bad & Getting Worse: GAO," Breaking Defense, <https://breakingdefense.com/2020/11/aircraft-readiness-is-bad-getting-worse-gao/>

What were those goals? In most cases, we don't know, because specific readiness numbers were redacted from the unclassified version of the report released to the public Thursday. We do know that **in September 2018, then-Defense Secretary Jim Mattis set a target of 80 percent “mission capable” rates for fighter aircraft, a goal he wanted met by the end of 2019. That has not been met. “We found that none of these aircraft had achieved the 80 percent mission capable goal,” GAO said – not the fighters, not anything else.** What's worse, the report continues, “Average mission capable rates for the selected Air Force, Navy, and Marine Corps aircraft have fallen since fiscal year 2011, while average mission capable rates for the selected Army aircraft have slightly risen.” (Emphasis ours).

Analysis: If the pro goes for a whole readiness argument it is easy for the con to say there are specific areas that still have readiness gaps. Furthermore, the COVID crisis has uniquely impacted the military making this a topical argument. This is another area to flush out in cross.

A/2: Creation of the Space Force improves other branches of the military

Answer: Space is indivisible from air in terms of operations, making the space force unnecessary.

Sandra Erwin, 9-18-2018, "Air Force Association opposes establishment of a Space Force, says air and space are 'indivisible,'" SpaceNews,
<https://spacenews.com/air-force-association-opposes-establishment-of-a-space-force-says-air-and-space-are-indivisible/>

The association supports some elements of the Trump administration's and the Defense Department's proposed actions such as the standup of a combatant command, U.S. Space Command. "Rapidly reducing U.S. space capability gaps, while re-establishing U.S. Space Command, is the best way to address advancing threats to space." **But creating a separate service would be damaging, the association contends. "From an employment perspective, effects from air and space have been integrated and are indivisible.** The U.S. Air Force may want to reflect this reality so it is better understood by Americans by considering renaming the U.S. Air Force to the U.S. Aerospace Force." AFA agrees with other Space Force critics that the cost of a separate service is an unnecessary burden at a time when military budgets are strained. "**The Space Force proposal is a resource question writ large,**" the position paper says. "**Too much mission, too few dollars. Standing up a separate space bureaucracy amplifies the problem by driving more money to a headquarters function, not space operations. Congress has constrained space capabilities, not the Air Force, by underfunding the service.**" Before Congress debates this issue, more questions need to be answered about U.S. military space policy and posture, AFA says. "Currently there are no space arms which are fundamental to setting up an armed service. Constraints to fully-weaponized space capability must be debated and changed by Congress to allow the Air Force to mature space warfare

theory and concepts of operation for war in, from, and through space.” Before establishing a new armed service, “realistic concepts of operation to hold an enemy at risk from space must be considered and debated before establishing a separate space armed force.” AFA points out that **the U.S. Air Force is the “steward” of key space capabilities that support the U.S. military, its allies and the nation’s economy.** “As Air Force Chief of Staff Thomas D. White said in 1958, ‘**Air and space are not two separate media to be divided by a line and to be readily separated into two distinct categories; they are in truth a single indivisible field of operations.**’”

Warrant: Space Force does not serve an offensive role

Fred Kaplan, 6-21-2018, "Trump's “Space Force” Idea Is a Terrible Solution to a Real Problem," Slate Magazine, <https://slate.com/news-and-politics/2018/06/trumps-space-force-idea-is-a-terrible-solution-to-a-real-problem.html>

One might think that the directors of these organizations would have an interest in defending their extremely expensive satellites, but they appear not to. This neglect is what has led some, well before Trump, to propose an autonomous Space Force. **The idea is that, rather than being stacked with—and reporting to—traditional Air Force officers, most of them fighter pilots with a drive for offensive combat operations, the specialists of the Space Force would be attuned to the needs, properties, and vulnerabilities of satellites and the systems connected to them.** If Trump thinks that U.S.–South Korean military exercises are too expensive, those costs are trivial compared to the infrastructure of a sixth service. But in fact, this is not likely what would happen—and it’s certainly not what should happen. **The special thing about satellites and the organizations that control or operate them** (Air Force Space Command, the NRO, and other smaller outfits) **is that they are, by nature, subordinate to other branches of the armed forces—to wars that are fought not in outer space but on Earth or in the**

atmosphere. Space assets service air, naval, and ground forces by providing them with intelligence, communications, and guidance for missiles and smart bombs. Placing these vital assets under the command of a four-star general in a separate service—and imbuing its officers and enlisted personnel with the élan of an elite force that doesn't answer to the other services of the armed forces and that, in fact, competes with them for resources—**would run counter to the nation's needs.**

Answer: Space Force takes funds and people from Air Force

Col. Keith Zuegel (Ret.), 8-3-2020, "Washington isn't listening to the Air Force and Space Force," Defense News,

<https://www.defensenews.com/opinion/commentary/2020/08/03/washington-isnt-listening-to-the-air-force-and-space-force/>

The nascent Space Force needs investment to increase capability and the authorities to organize for efficacy to meet the capabilities that were promised when it was founded in December 2019. It needs to become joint — not just have personnel change name tags from U.S. Air Force to U.S. Space Force. And the National Reconnaissance Office should be part of the Space Force. **The Department of the Air Force needs stable and predictable funding — at adequate funding levels.** Continuing resolutions degrade readiness. Currently, **two services — both the Air Force and the Space Force — must train and equip their forces within the Air Force's original budget level.** What is a continuing resolution? What is a continuing resolution? A CR usually means the regular process of passing 12 appropriations bills by the start of the fiscal year has failed. By: Joe Gould **To ensure our military is ready, it must take care of its people — active, Guard, reserve and civilians.** That means commensurate pay, preserving medical billets, maintaining access to medical services and facilities, eliminating restrictive licensure requirements that limit the ability of military spouses to transition to new professional jobs after moving, sufficient child care centers, and adequate military

housing. Planned reforms of the DoD's Military Health System would eliminate up to 18,000 military medical personnel — 4,000 from the Air Force, 7,000 from the Army and 5,000 from the Navy. Dozens of military treatment facilities would be downsized, with access limited to active-duty personnel. The services need legislative relief to overcome a six-month restriction before hiring military retirees possessing a security clearance. **The U.S. Air Force remains the world's predominant air force; however, its dominance is endangered.** Air superiority is not a birthright. The fledgling U.S. Space Force remains the world's leader in military space; however, without resources and congressional focus, it will be challenged by other world powers. This is the fourth quarter of the budget season, so Congress should recognize and support both services now — before it's too late.

Warrant: There are too few officers and personal in STEM for both

Spirtas, Michael, Yool Kim, Frank Camm, Shirley M. Ross, Debra Knopman, Forrest E. Morgan, Sebastian Joon Bae, M. Scott Bond, John S. Crown, and Elaine Simmons, 2020 "Creating a Separate Space Force: Challenges and Opportunities for an Effective, Efficient, Independent Space Service." Santa Monica, CA: RAND Corporation. https://www.rand.org/pubs/research_briefs/RB10103.html.

The Space Force will need people skilled in space operations, space intelligence, space acquisition, and other STEM disciplines. The new service will face two challenges to building and maintaining such a workforce: Difficulty sustaining small career fields: **Given the relatively small numbers in the Space Force, it will be challenging to have uniformed personnel spend their full careers there.** Analysis suggests that, although some career fields will be organic to the Space Force, **many will be manned by Air Force officers on assignment.** For the subset of Air Force career fields that requires substantive space knowledge to serve effectively in the Space Force, **the Air Force will need to develop a "space track" to ensure the additional training and development**

necessary for officers who will serve in the Space Force. This will require close coordination between the two services to ensure that there are healthy career fields that support the needs of both. Shortfalls in general officer throughput: **For the same reasons as above, the Space Force will likely need to draw about one-half of its general officers from the Air Force or other services for the foreseeable future.**

Analysis: the idea that the Space Force harms the Air Force is easily graspable to a lay audience. Good teams will focus on the limited personal and that satellite do not alone serve an offensive purpose, making the Space Force redundant at best and aggressive at worse. This also serves as a way to short circuit pro offense about an increase in force as the evidence suggests it is more of a reorganization than a new branch.

A/2: Space Force decrease potential conflict

Answer: Space Force makes conflict more likely

Laura Grego, 8-22-2020, "The New U.S. Space Force Will Make Space More Dangerous, Not Less," World Politics Review

<https://www.worldpoliticsreview.com/articles/28452/why-the-trump-space-force-will-make-space-more-dangerous>

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, 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 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. 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.

Warrant: Creation of a space force is provocative

Kelsey D. Atherton, 1-20-2021, "What Biden Should Do With the Space Force," Slate Magazine, <https://slate.com/technology/2021/01/biden-administration-space-force-plans.html>

The Space Force is unique among military branches in that it has just one (publicly acknowledged) weapon, and that weapon, a reversible jammer, can disrupt a satellite's communications but does not cause any permanent harm. Nevertheless, **creating a new branch of the military for the explicit purpose of war in space suggests to other countries that the United States is planning for more in orbit than it is disclosing. Treating satellites like forts and orbits like territory risks war and, ultimately, the destruction of orbit as a useful space.** While the Pentagon has not adopted Trump's exact language on the Space Force, in May 2020 Secretary of Defense Mark Esper said Space Force was necessary because "our adversaries in the last several years have weaponized space. They've made it a warfighting domain." **But space is primarily a place of business, science, and communication. The global space economy is worth more than \$400 billion, and that is growing, especially with the emergence of constellations of smaller satellites.** Satellites do everything from provide internet connections to take pictures of Earth that help with agricultural land management

Warrant: Space Force creation encourages exaggeration of threats

Sam Knight, 5-15-2020, "With Biden's Backing, Space Force Threatens to Accelerate the Arms Race," Truthout, <https://truthout.org/articles/with-bidens-backing-space-force-threatens-to-accelerate-the-arms-race/>

But with Democrats and Republicans now both firmly behind Space Force, it seems there is no going back. In December 2019, days before Congress first advanced legislation to create the branch, **Russian President Vladimir Putin said the U.S. military's new focus on outer space would force the Russian government "to pay increased attention to strengthening the orbital group, as well as the rocket and space industry as a whole."** The call from Putin reinforced warnings from critics of the Space Force worried about the proliferation of weapons in the thermosphere and beyond. Laura Grego, a physicist with the Union of Concerned Scientists, said the establishment of the U.S. military branch "would prompt a space arms race that would threaten U.S. military and civilian satellites, not protect them." "Creating a new

military service focused on space will create bureaucratic incentives to hype the space weapons threat and build new weapons,” Grego added.

Analysis: this argument is effective at reversing the direction of the link. This will likely be part of most con teams’ cases and should be cross applied to the deterrence flow. Stay away from getting into an evidence battle of arms races when it comes to vague statistics.

Answer: Airforce solves and provides for deterrence

Charlie Dunlap, J.D., 5-3-2018, "A separate “Space Force” is a bad idea...for now anyway," Lawfire, <https://sites.duke.edu/lawfire/2018/05/03/a-separate-space-force-is-a-bad-idea-for-now-anyway/>

The Air Force is keenly aware of the importance of space. Just recently Air Force Secretary Heather Wilson pointed out that **the service is “responsible for 90 percent of America’s military space assets”** and explained that **the Air Force is “dramatically increasing [its] space budget this year and [it is] developing concepts and capabilities to deter and defeat any adversary who threatens our ability to freely operate in space.”** Does Wilson fully recognize the threat? She insists that ensuring “space continues to be open and accessible to the world and that our systems are secure from attack...is an urgent national priority.” **The Air Force budget request reflects what Wilson says.** Space News reported in February that: **The 2019 request is 7.1 percent more than the Air Force sought in last year’s budget [for space]. Over the next five years, the Air Force projects to invest \$44.3 billion in space systems — \$31.5 billion in research and development, and \$12.8 billion in procurement.** That would mark an 18 percent increase over the \$37.5 billion five-year plan submitted last year.

Impact: Space Force takes resources away from air force

Loren Thompson, 8-27-2018, "Ten Ways A Space Force Will Make America Weaker,"
Forbes, <https://www.forbes.com/sites/lorenthompson/2018/08/27/ten-ways-a-space-force-will-make-america-weaker/?sh=5ef0613f34b0>

It will make the world's best air force less effective. **The U.S. Air Force has pioneered the integration of air power and space capabilities with great success. In fact, other countries are combining their military air and space organizations in imitation of the US. model.** If the U.S. proceeds to dis-integrate its military aerospace community, **it will likely undermine its current dominance both in the air and in orbit. Its air force will be diminished by the loss of skills and capabilities directly related to winning wars.** You might say that the U.S. Air Force has helped bring on this danger by exaggerating the notion that space is becoming a warfighting domain. All that has really happened is that Russia and China have figured out how vital orbital assets are to our terrestrial warfighting capabilities. But that's an argument for keeping space expertise spread across the joint force, not creating a new federal bureaucracy that drains missions and money away from other military services. **Creating a Space Force today is premature at best, and will likely make America weaker.**

Analysis: This argument may also play on narratives most teams read in case and boost their ability to do cross applications. Furthermore, it provides an alternative way to achieve offense without getting into an arms race debate which most teams will have prepared for.

A/2: Space Force protects military logistics

Answer: The space force will hinder our Military's ability to respond

Warrant: Space Force hinders joint operations

Loren Thompson. "Ten Ways A Space Force Will Make America Weaker" October 2020.

Forbes. <https://www.forbes.com/sites/lorenthompson/2018/08/27/ten-ways-a-space-force-will-make-america-weaker/?sh=4377431a34b0>

"It will create new barriers to joint force integration. Organizations have boundaries that get in the way of cooperating with other organizations -- particularly when they are competing for missions and resources. One reason the 9-11 attacks succeeded was that intelligence and law enforcement agencies did not share information because they were protecting their bureaucratic turf. A great deal of effort has been invested in tearing down those walls. But standing up a Space Force would create new barriers to cooperation."

Warrant: Space Force will be hampered by a small budget

Loren Thompson. "Ten Ways A Space Force Will Make America Weaker" October 2020.

Forbes. <https://www.forbes.com/sites/lorenthompson/2018/08/27/ten-ways-a-space-force-will-make-america-weaker/?sh=4377431a34b0>

"It will lack the resources to be a co-equal service. President Trump says he wants the Space Force to be "separate but equal" with the Air Force. But the entire space workforce in the defense department and intelligence community -- 27,500 people according to Sandra Erwin of Space News -- represents less than 1% of the personnel employed by the Pentagon. The budget for all national security space activities totals

less than two days' worth of federal spending per year. So a Space Force will not be "separate but equal" with other services."

Analysis: This block is a disadvantage. Sure, space is important. But the space force is ill equipped to handle the defense of it and will trade off with other important resources.

Answer: The Space Force will not be effective at protecting logistics

Warrant: Historical attempts at space command have failed

Bryan Nakayama. "3 Reasons Trump's New Space Force Would Be a Disaster" Fortune Magazine. November 2017. <https://fortune.com/2018/06/21/trump-space-force-bad-idea/>

"The United States Space Command, which existed from 1985 to 2002, only consolidated its control over military space programs in the mid-1990s due to bureaucratic infighting. This meant, for example, that the Command was unable to quickly update its doctrine or operational plans until the late 1990s. The creation of a Space Force would reproduce the same tensions and more because of the scale of organizational change. It would undermine the effectiveness of military space operations and lead to a loss of the flexibility necessary for a rapidly changing world."

Warrant: The US should spend money on other things

Bryan Nakayama. "3 Reasons Trump's New Space Force Would Be a Disaster" Fortune Magazine. November 2017. <https://fortune.com/2018/06/21/trump-space-force-bad-idea/>

“What’s more, President Trump’s proposed Space Force could undermine the status of space as a place of exploration and cooperation. Powerful states develop military systems in a tit-for-tat fashion, and a Space Force would trigger a response from other space-faring nations, potentially leading to the weaponization of space. Space cooperation between the United States and the Soviet Union during the Cold War served as a crucial pressure release valve in times of high tensions.”

Analysis: This block clearly shows that there are significant disadvantages to creating a space force. There is no reason to do it if it will not achieve its objectives and has negative spillovers.

A/2: Space Force defends against ASATs

Answer: China, one country with a major ASAT reserve, will not attack the United States

Warrant: China is not equipped to fight

David Goldman. "Why there won't be a US-China war" October 2020. Asia Times.

<https://asiatimes.com/2020/08/why-there-wont-be-a-us-china-war/>

"The People's Liberation Army (PLA) is the worst-trained and worst-equipped land army fielded by a major power today, and perhaps ever. The PLA spends just \$1,500 to equip an infantryman – not much more than the price of a rifle and a uniform – compared with \$18,000 for an American soldier. Chinese tanks are mediocre and unlikely to stand up to newer American and Russian vehicles. The PLA's air force has no dedicated ground-attack aircraft comparable to the American A-10 Warthog or the Russian SU-25. At least 30,000 Chinese marines and 60,000 seaborne mechanized infantry stand ready to invade Taiwan, or what would be left of Taiwan after an initial bombardment in the event of war."

Warrant: China's weapons are essentially defensive

David Goldman. "Why there won't be a US-China war" October 2020. Asia Times.

<https://asiatimes.com/2020/08/why-there-wont-be-a-us-china-war/>

"That's why there won't be a shooting war between the US and China. China has spent massively on anti-access/area denial weapons – A2/AD for short – that make war impractical. As I explain in my book You Will Be Assimilated: China's Plan to Sino-Form the World, China's defense posture is founded on the same idea as Inoki's defense against Ali: Beijing wants to make it impossible for the US to get close enough to use its

superior forces. The popular “Thucydides Trap” argument that the US will go to war to stop the rise of China is, on close inspection, Thucydides claptrap.”

Analysis: This block is a delink. It does not matter if other countries have ASATs if no one uses them against the US.

Answer: ASAT defense is a bad use of money

Warrant: The US spends tons on its military

Elliott Negin. “It’s Time to Rein in Inflated Military Budgets” Scientific American. November 2017. <https://www.scientificamerican.com/article/its-time-to-rein-in-inflated-military-budgets/>

“Such a reassessment is long overdue. **Despite the trillions of dollars Congress and successive administrations have lavished on the Pentagon since the turn of the century, the massive U.S. arsenal and fighting force deployed worldwide are powerless against grave, nonmilitary threats to national security**—from a raging pandemic to the fact that tens of millions of Americans breathe foul air, drink tainted water, and struggle to pay for food, housing and health care. When it comes to U.S. spending priorities, the numbers seem especially misguided in an era of tight budgets to come. **By the Department of Defense’s own accounting, taxpayers spent \$13.34 trillion on the U.S. military from 2000 through fiscal year 2019 in inflation-adjusted 2020 dollars.** Add to that another \$3.18 trillion for the Veterans Administration, and the yearly average comes to a whopping \$826 billion.”

Warrant: The US should spend money on other things

Elliott Negin. "It's Time to Rein in Inflated Military Budgets" Scientific American.

November 2017. <https://www.scientificamerican.com/article/its-time-to-rein-in-inflated-military-budgets/>

"Somehow, the U.S. manages to spend more on its military than the next 10 countries combined, but it is the only member of the 36-nation Organization for Economic Cooperation and Development (OECD) that does not provide universal health care coverage. The result represents an undeniable threat to public health. In the United States, more than 27 million people lacked health insurance before the pandemic, and nearly the same number lost their job-based health insurance between February and mid-May because of layoffs. **Prepandemic U.S. health care statistics are sobering enough. The United States has been spending an estimated \$3.6 trillion annually on health care—nearly twice as much as the average OECD country as a share of its economy—but less than 3 percent of that spending goes to public health and prevention.."**

Analysis: Use this block to show the judge that nothing in life is free. The space force comes with a cost and that probably means trading off with expenditures like public health.

A/2: Space Force balances against Russia

Answer: Russia is not a military threat

Warrant: Russia's threat is less than China's

James Dobbins. "Russia Is a Rogue, Not a Peer; China Is a Peer, Not a Rogue" October 2020. RAND. <https://www.rand.org/pubs/perspectives/PE310.html>

"Russia and China represent distinct challenges to U.S. national security. Russia is not a peer or near-peer competitor but rather a well-armed rogue state that seeks to subvert an international order it can never hope to dominate. In contrast, China is a peer competitor that wants to shape an international order that it can aspire to dominate. Both countries seek to alter the status quo, but only Russia has attacked neighboring states, annexed conquered territory, and supported insurgent forces seeking to detach yet more territory. Russia assassinates its opponents at home and abroad, interferes in foreign elections, subverts foreign democracies, and works to undermine European and Atlantic institutions. In contrast, China's growing influence is based largely on more-positive measures: trade, investment, and development assistance. These attributes make China a less immediate threat but a much greater long-term challenge. **In the military realm, Russia can be contained, but China cannot."**

Warrant: Russia is structurally poorly positioned for competition

James Dobbins. "Russia Is a Rogue, Not a Peer; China Is a Peer, Not a Rogue" October 2020. RAND. <https://www.rand.org/pubs/perspectives/PE310.html>

"China presents a greater geoeconomic challenge to the United States than Russia does. China's per capita GDP approaches Russia's; its population is eight times Russia's,

and its growth rate three times. As of 2017, China's economy was the second largest in the world, behind only that of the United States. Russia's was 11th. **Russia's military expenditure is lower than China's, and that gap is likely to grow. Russia is far smaller, has poorer economic prospects, and is less likely to dramatically increase its military power in the long term."**

Analysis: This block shows that the threat of the Russian military is overblown and that they are unlikely to pose a serious threat in the future

Answer: Russia does not want war

Warrant: Russia is scaling down its military

Ronald Suny. "Is Putin's Russia the critical threat Americans believe it to be?" The Conversation. November 2017. <https://theconversation.com/is-putins-russia-the-critical-threat-americans-believe-it-to-be-77531>

"Putin slashed military spending a few months ago by 25.5 percent, just as Trump plans to increase American defense spending by more than \$54 billion. Russia's economy pales in comparison to America, Europe, Japan and China. It has an economy roughly the size of Italy's, but must provide for a larger population, territory and defense budget. It's true that a somewhat weaker power can annoy, pressure or even harm a stronger power. **And while Russia has a huge nuclear arsenal and impressive cyber capabilities, it is seriously outmatched by the United States in terms of influence and power."**

Warrant: US and Russia have common ground for cooperation

Ronald Suny. "Is Putin's Russia the critical threat Americans believe it to be?" The Conversation. November 2017. <https://theconversation.com/is-putins-russia-the-critical-threat-americans-believe-it-to-be-77531>

"And while the United States and Russia might disagree about the Syrian regime, they do have some common ground. Both powers have decided that the first priority is to combat the Islamic State. Both countries have found reliable allies against IS in the Syrian Kurds, which my research suggests is a distinct nation prepared to fight for their autonomy or independence. Despite Russia's first priority to defend Assad's government, both the United States and Russia appear at the moment to be working together with the Syrian Kurds to contain IS, the most immediate danger to the Middle East and by extension much of the world."

Analysis: This block is a de-link it makes the point that the pro falsely assumes that Russia wants to go to war. In reality, Russia wants peace. Therefore, there is no need for a space force.

A/2: Space Force balances against China

Answer: China is not a military threat

Warrant: China's threat is overblown

Michael Klare. "We Must Resist the 'China Threat' Syndrome" The Nation. October 2020. BBC News. <https://www.thenation.com/article/world/we-must-resist-the-china-threat-syndrome/>

"The main point, however, is that China's armed forces are far inferior to those of the United States and its allies, and we should not be hesitant in proclaiming this reality. Just to provide a few critical examples: According to the Stockholm International Peace Research Institute (SIPRI), a leading authority on the subject, **China is believed to possess approximately 290 nuclear warheads, as compared to 6,185 for the United States.** Similarly, China is thought to deploy approximately 130 ICBMs and 48 submarine-launched ballistic missiles (SLBMs) for a total of about 180 nuclear launch vehicles, whereas, in accordance with the New Strategic Arms Reduction Treaty (New START), the United States now deploys 400 ICBMs and slightly over 200 SLBMs, for a total exceeding 600."

Warrant: The US is closing capability gaps

Michael Klare. "We Must Resist the 'China Threat' Syndrome" The Nation. October 2020. BBC News. <https://www.thenation.com/article/world/we-must-resist-the-china-threat-syndrome/>

Those who seek to magnify the China Threat are likely to pick out a few areas where China appears, on paper, to hold an advantage of some sorts. This is true, for example,

of medium-range ballistic missiles (MRBMs) and intermediate-range ballistic missiles (IRBMs)—types with a range of between 1,000 and 3,000, and 3,000 and 5,500 kilometers, respectively—of which China owns an estimated 200 or so, some said to be equipped with hypersonic warheads. **Under the Intermediate-Range Nuclear Forces (INF) Treaty of 1987, the United States agreed not to deploy any land-based missiles with these ranges; however, since Trump abandoned the INF treaty last year, the Defense Department has begun development of several missiles of this type, most designed to carry hypersonic warheads.**

Analysis: This block shows that the threat of the Chinese military is overblown and that even in areas where China is ahead we are quickly closing capability gaps.

Answer: China does not want war with the US

Warrant: China has stated it wants to avoid conflict

Charlotte Gao. "U Again, China Doesn't Want War With the US." SagePub Journals.

November 2017. <https://thediplomat.com/2017/11/again-china-doesnt-want-war-with-the-us/>

"Despite the small sample, the stunning result still hinted at a disturbing reality: a group of Americans, including some policy pundits, firmly believe that China and the United States are going to go to war, because of the so-called "Thucydides's Trap" — a theory, created and popularized by Allison, that claims war is the most likely result when a rising power confronts an established power. However, **China has made it clear numerous times that it really doesn't want to go to war or have any serious friction with the United States. Beijing's recent behavior during Trump's trip in Beijing as well as during the APEC and the ASEAN summits once again demonstrated China's strong intention to avoid conflict with the sole superpower in today's world.."**

Warrant: China has incentives against war

Charlotte Gao. "U Again, China Doesn't Want War With the US." SagePub Journals.

November 2017. <https://thediplomat.com/2017/11/again-china-doesnt-want-war-with-the-us/>

"Economically, China also signed record-breaking multi-billion-dollar deals with the United States. Even if some analysts doubt the future actual delivery of these signed contracts, **China's intention to please Trump and fulfill his political agenda was unquestionable.** By exhausting the whole city's resources to charm Trump and his wife, Xi has sent a clear message to the United States: China doesn't want to have a trade war or any other war with America. **As Xi said during Trump's latest visit, as well as on many other occasions, "cooperation is the only correct choice" between the two nations."**

Analysis: This block is a de-link it makes the point that the pro falsely assumes that China wants to go to war. In reality, China wants peace. Therefore there is no need for a space force.

A/2: Space Force allows US to enforce the OST

Answer: Creating a space force will lead to violations of the OST, eventual arms race.

Warrant: Space weapons will make space into a war-fighting domain

Hennigan, JW. "America Really Does Have a Space Force. We Went Inside to See What It Does." Time, 23 July 2020, <https://time.com/5869987/spaceforce/>.

Regardless of the seemingly contradictory Russian positions, some U.S. critics and arms-control analysts say the creation of Space Force makes conflict more likely. A new orbital arms race has turned space into a “war-fighting domain,” like air, land and sea, and will funnel billions of dollars to newfangled technology that increases the possibility of war, both up there and down here. A separate branch of the armed forces for space, these critics fear, risks militarizing U.S. space policy and promoting weapons in space. On June 17, the Pentagon unveiled a Defense Space Strategy that made clear the U.S. will counter Russian and Chinese space weapons, coordinate with allies and prepare for war in space. Those looking for a less martial alternative point to Cold War treaties that reduced the chances of conflict with the USSR. Despite the advancements of space weapons, there are no enforceable rules for military action in space. **The 1967 Outer Space Treaty forbids countries from deploying “nuclear weapons or any other kinds of weapons of mass destruction” in space. But that language is broad, arms-control analysts say, and could not foresee the rapid pace of technology now in development.** “In the absence of any international agreements about protecting satellites and the outer-space environment, more countries are developing weapons that can destroy satellites in orbit,” says Laura Grego of the Union of Concerned Scientists.

Warrant: Tensions are rising over space weapons

Billings, Lee. "War in Space May Be Closer Than Ever." *Scientific American*, 10 Aug. 2015, <https://www.scientificamerican.com/article/war-in-space-may-be-closer-than-ever/>.

The long-simmering tensions are now approaching a boiling point due to several events, including recent and ongoing tests of possible anti-satellite weapons by China and Russia, as well as last month's failure of tension-easing talks at the United Nations. Testifying before Congress earlier this year, Director of National Intelligence James Clapper echoed the concerns held by many senior government officials about the growing threat to U.S. satellites, saying that **China and Russia are both “developing capabilities to deny access in a conflict,” such as those that might erupt over China’s military activities in the South China Sea or Russia’s in Ukraine.** China in particular, Clapper said, has demonstrated “the need to interfere with, damage and destroy” U.S. satellites, referring to a series of Chinese anti-satellite missile tests that began in 2007.

Warrant: Russia could encourage the US to join an arms race

Bateman, Aaron. "As Russia Stalks US Satellites, a Space Arms Race May Be Heating Up." *Bulletin of the Atomic Scientists*, 22 May 2020, <https://thebulletin.org/2020/05/as-russian-satellites-stalk-us-ones-is-a-space-arms-race-heating-up/>.

Moscow’s aggressive behavior in space could prompt the United States to pursue more assertive policies, like the reinvigoration of Cold War-era anti-satellite weapons programs. In 2019, former Secretary of the Air Force Heather Wilson said that at some point, the United States needs the ability to “hit back.” Russia’s destabilizing actions in space could, therefore, fuel a dangerous arms race in space. The coronavirus pandemic is further eroding the strength of international institutions like the World Health Organization and countries seem to be retreating into nationalist positions. At this

critical moment, security challenges that have important implications for the future of humanity must not be dismissed. **The post-Cold War-era treaty New START has provisions that protect national security satellites from interference. The treaty is set to expire in 2021, and it is not clear if the United States and Russia will successfully negotiate an extension.** Even though countries of the world are facing an unprecedented crisis, now is the time to bolster international cooperation beyond Earth's atmosphere.

Impact: Arms races increase the risk of conflict

Gangopadhyay, Partha. "Is an Arms Race Just a Race to the Bottom? | SIPRI."

STOCKHOLM INTERNATIONAL PEACE RESEARCH INSTITUTE, 26 Sept. 2013,

<https://www.sipri.org/commentary/blog/2013/arms-race-just-race-bottom>.

This action–reaction framework is consistent with several prominent international relations models such as the security dilemma, the spiral model, and structural neorealist theory. **It is well-documented in the existing literature that military spending can pose a security dilemma, when a state chooses to retaliate to the military build-up of another state because it is unaware of the rival's true intentions. The reciprocated increases in arming potentially engender a spiral of hostilities, increasing the chances for the outbreak of armed conflict.** In the latest works on arms races it is usually assumed that a sequence of states, or leaders of these states, each chooses in turn one of two options, A (to arm) or B (not to arm), with each state observing all of its predecessors' choices. They have common preferences among the two choices but do not know which is better. Each state knows the costs and benefits of its own military build-up, but it is unsure of the costs and benefits of its rivals in the arms race.

Analysis: The United States can justify its decision to create a space force by claiming that it intends to enforce regulations designed to stop weapons proliferation, but ultimately the U.S. has proven that it prefers to resort to military adventurism and escalation.

A/2: Space weapon development can help solve space debris

Answer: Increased tensions due to militarization of space will only create conflict and therefore more space debris.

Warrant: Tensions are rising over space weapons

Billings, Lee. "War in Space May Be Closer Than Ever." *Scientific American*, 10 Aug. 2015,
<https://www.scientificamerican.com/article/war-in-space-may-be-closer-than-ever/>.

The long-simmering tensions are now approaching a boiling point due to several events, including recent and ongoing tests of possible anti-satellite weapons by China and Russia, as well as last month's failure of tension-easing talks at the United Nations. Testifying before Congress earlier this year, Director of National Intelligence James Clapper echoed the concerns held by many senior government officials about the growing threat to U.S. satellites, saying that **China and Russia are both "developing capabilities to deny access in a conflict," such as those that might erupt over China's military activities in the South China Sea or Russia's in Ukraine.** China in particular, Clapper said, has demonstrated "the need to interfere with, damage and destroy" U.S. satellites, referring to a series of Chinese anti-satellite missile tests that began in 2007.

Warrant: There are many satellites that could be hit by a space weapon

Billings, Lee. "War in Space May Be Closer Than Ever." *Scientific American*, 10 Aug. 2015,
<https://www.scientificamerican.com/article/war-in-space-may-be-closer-than-ever/>.

The emptiness of outer space might be the last place you'd expect militaries to vie over contested territory, except that outer space isn't so empty anymore. About 1,300 active satellites wreath the globe in a crowded nest of orbits, providing worldwide communications, GPS navigation, weather forecasting and planetary surveillance. For militaries that rely on some of those satellites for modern warfare, space has become the ultimate high ground, with the U.S. as the undisputed king of the hill. Now, as China and Russia aggressively seek to challenge U.S. superiority in space with ambitious military space programs of their own, the power struggle risks sparking a conflict that could cripple the entire planet's space-based infrastructure. And though it might begin in space, such a conflict could easily ignite full-blown war on Earth.

Warrant: Satellites could be hurt in a space strike

Undark, Ramin Skibba. "The Ripple Effects of a Space Skirmish." The Atlantic, 12 July 2020, <https://www.theatlantic.com/technology/archive/2020/07/space-warfare-unregulated/614059/>.

For example, the thousands of everyday satellites that already circle low-Earth orbit, below an altitude of 1,200 miles, could potentially suffer collateral damage. More than half of those satellites are from the U.S.; many of the rest are from China and Russia. They provide key services like internet access, GPS signals, long-distance communications, and weather information. Any missile that smashes into a satellite—either as an attack or during a test—would disperse thousands of bits of debris. Any one of those pieces, still hurtling at orbital speeds, could take out another spacecraft and create yet more debris. "It's very easy to pollute space," Burbach said. "The debris doesn't discriminate. If you create debris, it might just as well come back and hit one of your own satellites. So I think we're pretty unlikely to see countries actually use those capabilities." Still, he said, "it would be worrying to see countries showing off that [they] can do it and start testing."

Impact: Destroying satellites could be devastating for the world since we depend on them

Blatt, Talia. "Anti-Satellite Weapons and the Emerging Space Arms Race." Harvard International Review, 26 May 2020, <https://hir.harvard.edu/anti-satellite-weapons-and-the-emerging-space-arms-race/>.

If debris knocks out a satellite, an increasingly likely possibility in a world with ASAT tests, then the aforementioned conflict scenarios become more likely. Conflict aside, ASAT-based debris clouds are terrifying in their own right. **Public health, transportation, climate science, and a litany of other crucial infrastructures are dependent on satellites that are now at risk. Satellite GPS is a cornerstone of the modern economy; some pundits believe that the slightest glitch in GPS satellites could shock the stock market and further destabilize an unstable global economy.** During the pandemic, satellites are playing a crucial role in geospatial data collection for infectious disease modeling. Essentially, **it is hard to imagine a world without satellites, but that is a possible outcome given that there are no reliable methods of withdrawing debris from space.**

Analysis: The United States would be bound to address space debris by the Outer Space Treaty, but the question one must ask is: are they more likely to focus on clearing space debris, or escalation. The Space Force would likely only increase tensions, and therefore increase the likelihood of a conflict that exponentially worsens the space debris issue.