Reed Graff & Connor Liu
State Championship 2021
2/15/2021

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

Links/Understanding

- http://infobrics.org/post/30722/
- https://en.wikipedia.org/wiki/United_States_Space_Force#Mission
- https://theconversation.com/ive-always-wondered-could-someone-take-ownership-of-a-planet-or-a-moon-101464#:~:text=Space%20law%20treaties,-Let's%20look%20at&text=This%20fundamental%20principle%20of%20%E2%80%9Cnon,or%20any%20other%20celestial%20body.
- https://www.forbes.com/sites/lorenthompson/2018/08/27/ten-ways-a-space-force-will-make-america-weaker/?sh=5bb59ed834b0
- https://www.youtube.com/watch?v=xerdC6hN7x8

Videos

- Heritage Foundation on Space Force and industry… Glory of Free Market
  - https://www.youtube.com/watch?v=MQ6lQFp-yhA
- Heritage Foundation on Space Force "do we need it?"... Yes, it is essential
  - https://www.youtube.com/watch?v=OA5qWMVONTA
    - Dean Cheng explains why Trump's Space Force is an essential aspect to national security, and why the abilities of our adversaries in space affect us in both wartime and peace
- Heritage foundation on Space force and defense policies in space
  - https://www.youtube.com/watch?v=ANO3DeMieTo
- Heritage foundation on space force… a new battlefield…
  - https://www.youtube.com/watch?v=I9KVm85sbw8
- Heritage foundation on Space Force… Trump… Maintaining military prowess
  - https://www.youtube.com/watch?v=BB9L9j3cv6k
- US Space Force, the untold truth… an informational video...
  - https://www.youtube.com/watch?v=GB4aYzzDEjc
- US Space force… Neil DeGrass Tyson
  - https://www.youtube.com/watch?v=iGyDYUPKJbU
- Hillsdale College oon "The Urgent Need for a US Space Force"
  - https://www.youtube.com/watch?v=KsPLmb6gAdw
- Neil Degrass Tyson on settlements in space

- https://youtu.be/X_m1mPtYzTk

Perspectives

- https://www.heritage.org/space-policy/heritage-explains/does-the-united-states-need-space-force
- https://www.npr.org/2020/12/23/949586964/trump-vetoes-defense-bill-setting-up-congressional-vote-to-override-him
- https://www.nytimes.com/2021/01/24/us/politics/trump-biden-pentagon-space-missiles-satellite.html
- https://www.businessinsider.com/space-race-anti-satellite-china-russia-war-us-2017-07
- Stossel: https://www.youtube.com/watch?v=GOeFKiTP9A0
- Friedman: https://www.youtube.com/watch?v=iXMJHCXXD-c
- Cato Institute: https://www.youtube.com/watch?v=LKeikPMb3vg
- Why we should have the space force: 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.
    - The primary mission of the U.S. Space Force as directed by Congress is to maintain, protect, and expand the U.S. fleet of advanced military satellites that form the backbone of U.S. global military operations. The importance of satellites to the modern U.S. military can hardly be overstated. They allow instantaneous communication across battle-zones, identify enemy positions and movements, track weather patterns, guide navigational systems, and allow for precision strikes.
    - Protect future settlements on other planets?
- https://www.reddit.com/r/Debate/comments/lfsyf6/on_balance_the_benefits_of_creating_the_united/
- Constitutionality: https://constitutioncenter.org/blog/the-space-force-and-the-constitution
- NATO involvement in Afghanistan, there is no case where American international interests did not coincide with NATO interests https://www.state.gov/u-s-relations-with-afghanistan/#:~:text=The%20United%20States%20military%20has,51%20NATO%20and%20partner%20nations.
    - Thus there would be no need for a separate US Space Force, but perhaps a combined UN Space Force is much more desirable.
-
    -

Just war theory…
The best way to avoid war is to have weapons that are overpowered…

- Creation of the atomic bomb...

On War - Volume 1

Book by Carl von Clausewitz

- Superiority of numbers is the most common element in victory. . . . Superiority . . . can obviously reach the point where it is overwhelming. . . . It thus follows that as many troops as possible should be brought into the engagement at the decisive point.
- https://www.clausewitz.com/readings/Cquotations.htm

There are only a limited number of constitutionally authorized purposes for the federal government. One of those number, arguably the most important one, is the calling out and maintenance of a ‘standing army.

ref: The Power to Raise and Maintain Armed Forces

Speaking for my own understanding of libertarianism (more accurately described as constitutional libertarianism), I see the Space Force as an extension of that power to a technological reality that was not envisioned at the time of the constitution’s ratification, but specifically allowed for under the plain meaning of the First Article.

So if you understand the meaning of the phrase ‘expanding the government’ to include applying the constitutionally granted powers of the federal government to new realities created by civilization's advances, then you would see this as conflicting with your libertarian tendencies. If you understand that phrase more narrowly (as I do) to only apply when the federal government assumes (creates) a new authority to regulate a constitutionally unauthorized area of social interaction (the EPA, or the DoE for instance), then you would not see the creation of a Space Force as going against your libertarian values.

NOTE: I do not necessarily think that there is no purpose for the EPA or the DoE. I do, however, believe that they are constitutional powers that are limited to the States or the People, and absent a constitutional amendment authorizing the Federal Government to exercise such authority, should be handled ***and funded*** by the individual states.

To me, the constitutionally unauthorized administrative state is another form of tyranny.

I'm not sure it's technically legal (I believe the UN prohibits the weaponization of space), but it's most certainly necessary.

There's no such thing as an "unarmed spaceship." Satellites could easily be used to kamikaze into other satellites and seriously disrupt communications and more. The main point is that it's not hard to weaponize space.
Right now, all the nations are simply holding their breath, watching to make sure no one else seriously weaponizes space. However, if one nation gets the jump on everyone else, how do you stop them? It would be *much* harder to regain control of space after someone else takes command of it than it would be to regain control of, say, a strait of water.

I'm not optimistic enough to expect the current balance in space to remain indefinitely. If you believe that space will eventually be weaponized, as I expect it will be, then it's perfectly logical to want to get the jump and develop a space force. For the US, especially, now is the time to act. The US is currently at the forefront of space development, but that's unlikely to continue forever.

ABSTRACT
Every possible relation between the distribution of power and the likelihood of war has been defended somewhere in the literature on international politics: war is least likely if power is distributed equally, war is least likely if power is distributed unequally, and the distribution of power has no effect on the likelihood of war. I try to settle this dispute by examining the effect of expectations about the outcome of war on the choice between war and negotiation. I argue that each of these mutually contradictory propositions can be derived from some plausible set of premises and thus that which one is correct depends on which set of premises best describes a situation. The most important factors affecting the relation between the distribution of power and the likelihood of war are (1) whether the terms of a compromise agreement that might be accepted in lieu of war affect the distribution of power between the antagonists and therefore the probability that the agreement will be enforced and (2) how many states' interests will be affected by the outcome.

- https://www.jstor.org/stable/2944797?seq=1#metadata_info_tab_contents

- Hannibal

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.

- https://www.worldpoliticsreview.com/articles/28452/why-the-trump-space-force-will-make-space-more-dangerous

-

It does not violate the UN
https://www.ucsusa.org/resources/legal-agreements-space-weapons#:~:text=Article%20IV%20of%20the%20Outer,moon%20or%20other%20celestial%20bodies.

Deterrence theory

- is the idea that an inferior force, by virtue of the destructive power of the force's weapons, could deter a more powerful adversary if the force could be protected against destruction by a surprise attack. The doctrine gained increased prominence as a military

strategy during the Cold War with regard to the use of nuclear weapons and is related to but distinct from the concept of mutual assured destruction, which models the preventative nature of full-scale nuclear attack that would devastate both parties in a nuclear war. Deterrence is a strategy intended to dissuade an adversary from taking an action that has not yet started by me8ans of threat of reprisal,[1] or to prevent it from doing something that another state desires. The strategy is based on the psychological concept of the same name. A credible nuclear deterrent, Bernard Brodie wrote in 1959, must be always ready but never used.[2][a]

- https://en.wikipedia.org/wiki/Deterrence_theory

Crossfire

- If the Space Force was a problem (or if it was obsolete), it would have been axed long ago
    - Or is the US government just stupid
        - Debateable
- How are your arguments unique to

- What actively shows a need for a space police force?
    -
- Why do wars occur
- Why has there been less war?
- Is war inherently bad?
- When is war justified?
    - Should we not have fought WW2

Rebuttals

- Pro, we have already invested so much money into the space force. We can't back out now
    - Ever heard of cutting losses?
- Con, what is to say other countries won't be provoked? And lead to an arms race

Pro

What is to say other countries won't be provoked?

Provocation

- **What is inherently bad about?**
    - **Leads to more deterrence theory**
    - **Arms races aren't necessarily bad**
        - **Space race**
        - **Makers of atomic bomb**
        - **People are less inclined to enter war…**
            - **It is far more destructive**
        - **Less conflict reason…**
            - **Political oversight/scrutiny**
                - **Reason**
                - **Reasons there are alliances and diplomacies**
                    - **Because war has become more dangerous...**

Why do countries go to war?

- **It is NOT for ideology disparities…**
    - **If it is then explain… Ideologies that closely resemble each other often times go to war...**
        - **Nazi-ism vs stalinism**
        - **Catholics and the protestants**
        - **Shia and the Suni**
            - **99% of theological beliefs resemble eachother**
- **Why?**
    - **National benefits**
    - **Territory**
    - **Power**
    - **National interest**

NASA even uses russian cost

Response to cost in saying the we are paying for NATO

the pro can say it would make it less susceptible to inefficiency and corrupt politicians
[4:35 PM]
the con side can say that the US military already takes orders from NATO and pays for it, and that it already has a space force so no need for a second one
[4:35 PM]
also, the con case might argue that the current US Space Force is NOT ENOUGH, so you have to define a specific range for the Pro side, otherwise you might get fucked heavily by that argument. This argument can be somewhat negated by using the NATO Space Force argument.(edited)
[4:37 PM]

the con case can also bring up the US Space Force being created by the Trump Administration, which has a rather bad precedent for decisions. The Pro would have to argue that regardless of its original intentions, it must evolve to do what it must.
Roles of the Space Force

Response to Con "America is already a leader in Space"

- Look at trend lines
    - Imagine both America and China are cars in a race… America has a car going 70 miles per hour, meanwhile China has a car going 120 mph… for the time being we are winning…
        - However we have to look at the trend lines

Why it is important to have military power Just as these other power factors influence a country's ability to develop military power, a country's military power also plays a key role in its development of these other factors of power.

- Economic: A state that can protect its territory, resources and trade routes has a major economic advantage over others that are unable to do so. Furthermore, military power can be a catalyst for economic growth, if applied properly.
- Demographic: A state with a relatively high degree of military power has the capability to protect its population and to allow for its population to grow at a healthy pace.
- Environmental and Natural Resources: A strong military allows a country to protect its environmental and resource wealth, while giving it the option to seize the environmental and resource wealth of its weaker rivals.
- Political: For better or worse, armed forces have played a major role in determining the level of political stability in states throughout history. When political-military relations are strong and stable, a country is able to achieve a higher degree of political power.
- Technology: The armed forces have been the catalyst and the source for many of the major technological achievements reached throughout human history and are likely to remain so for the foreseeable future.

https://www.spaceforce.mil/Portals/1/Space%20Capstone%20Publication_10%20Aug%202020.pdf

- **Scientific development**
    - What developments have come out of an arms race that are good

        - Millions of lives that were saved
        - Bettered
            - Care for those yet born
- Structure of scientific revolution by thomas kuhn
    - The next level of scientific advancement requires a rethinking of the status quo…
        - In order to support the next military revolution we must rethink the organization of paradigms
            - Philosophically
                - We need fundamental structural change
- Compare this to a bank loan.. It is unknown if we will get a return, however history has a very strong past when it comes to their correlation
- **We need the space force to defend the economy of space as a "Coast guard"...**
- We are going to advance, someone is going to go to space
- We need to keep our stance on the world stage
    - That is important because
- False equivalency to compare Space force against
    - Reallocation of funds is a good thing…
        -
    - Tax revenue increases as there is more development…
        - The product of our work is higher
- Compliment China…. We NEED to look into the future
- Originally the government had ginormous size satellites…
    - Now companies are innovating satellites the size of an iphone, and has extending solar panels
        - Space force will provide safety, and organization when it comes to placement of satellites..
            - Fact about number of times people had to warn eachother about satellites running into eachother..
                - Space Force offers a solution to that problem...
- Apparently they also contributed 1.4 trillion to the American economy through making something public? You could probably run something regarding the economy although I haven't read much on it.
    - https://www.reddit.com/r/Debate/comments/lfsyf6/on_balance_the_benefits_of_creating_the_united/
- In the current plan for Space force, they will work in close proximity with space force, NASA, and Lockheed Martin…
    - Blue Origin, Boeing, and Northrop Grumman also plan on attempting to acquire contracts later on...

- Demand for engineering in military satellites and provides a safety net for other companies
- Often times the largest growths of Scientific advancement occurs through the military
    - For example the manhattan project…
- Demand for SatCom has increased exponentially… as we have seen in Iraq and .Iran… intelligence surveillance…
- innovation
- Past innovations that were driven by the military
    - Radar
    - GPS
    - Nuclear capabilities
        - Atomic bombs… leads to deterrence theories…
            - Less tumultuous wars
    - Silicon valley's history was rooted in military contracts
        - And it is of course now the cradle of new businesses and ideas
    - Submarines
    - Even duct tape
    - Barbed wire***
    - The internet
    - Velcro ?***
- Innovation and practice is what keeps america at the technological forefront in military combat
    - Lower cost PROOF
    - Effectiveness
    - Reliant
    - Routine
- Force of good against non Democratic countries…
    - Response to value premise… is it only the US?
        - Benefits reach all across the world…
            - All ships rise with the tide
    - Allow access to google earth, Youtube?
        - Nvm
- If the US is at the forefront of innovation then we can benefit all of humanity
- Rapid access to space, trillions of dollars in revenue
    - It benefits the fellow man (Atlas Shrugged Trial of Hank Rearden)
        - Millions of jobs
        - Trillions in revenue
        - Fueling our economy
        - Countless Contributions to society

        - Leads to space infrastructure, and assisting and supporting future companies that plan on entering space
        - Clean energy in abundance at almost zero cost for all?
        - Industrial capabilities without polluting…
        - Equal opportunity
        - Cleaning up space…
        - Space is a global business
        - The reason space is so powerful is not just because it has the military application like a machine gun, it will transform the 4 major engines of economic growth
            - Transportation, information, manufacturing, ability to deliver with energy (seedcorn of all development)
- Talk about the value of commerce enabled by developments…
    - GPS value…
    - Uber…
- Fundamental to our society functions…
- The cold war inventions:
    - The Internet, GPS, reliable transistors and chips: Cold War tech made possible by runaway defence spending. The space and arms race spawned a number of technologies that in turn created countless business opportunities. Even primitive computers had a profound impact on industry
    - Hubble space telescope, tupperware, credit card, transistor, defibrillator, supersonic airplanes, acrylic paint, cable television, video games, wetsuit, airbag, barcode, ziplock bags, active noise control, cordless telephone, email, mobile phone
    - https://www.toptal.com/it/cold-war-tech-cyberwarfare-cybercrime#:~:text=The%20Internet%2C%20GPS%2C%20reliable%20transistors,a%20profound%20impact%20on%20industry.
- **Destruction (Deterrence) theory in current space force operations**
        - **WHEN HAS DETERRENCE THEORY WORKED?**
    - **https://www.jstor.org/stable/173714?seq=1#metadata_info_tab_contents**
    - **Some economists even believe that the cold war ended because of the arms race. During the Cold War the United States and the Soviet Union became engaged in a nuclear arms race. They both spent billions and billions of dollars trying to build up huge stockpiles of nuclear weapons. This was crippling to their economy and helped to bring an end to the Cold War. …**
    - **Abstract**
    - **We study escalation and aggression in an experimental first-strike game in which two participants play multiple rounds of a**

money-earning task. In each round, both players can spend money to accumulate weapons. The player with more weapons can spend money to strike against the other player, which almost totally eliminates the victim's earnings potential and removes their capacity to strike. Weapons can serve as a means of deterrence. In four treatments, we find that deterrence is strengthened if weapon stocking cannot be observed, that a balance of power is effective in maintaining peace, and that mutually beneficial trade decreases the risk of confrontation, but not necessarily the likelihood of costly arms race.

- **https://academic.oup.com/ej/advance-article-abstract/doi/10.1093/ej/ueaa096/5885334?redirectedFrom=fulltext**

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- **In Defense of the Arms Races… that End Arms Races**
- **by Gentzel2 min read15th Jan 20209 comments**
- **37**
- **WarAI Takeoff**
- **Frontpage**
- **All else being equal, arms races are a waste of resources and often an example of the defection equilibrium in the prisoner's dilemma. However, in some cases, such capacity races may actually be the globally optimal strategy. Below I try to explain this with some examples.**
-
- **1: If the U.S. kept racing in its military capacity after WW2, the U.S. may have been able to use its negotiating leverage to stop the Soviet Union from becoming a nuclear power: halting proliferation and preventing the build up of world threatening numbers of high yield weapons. Basically, the earlier you win an arms race, the less nasty it may be later. If the U.S. had won the cold war earlier, global development may have taken a very different course, with decades of cooperative growth instead of immense amounts of Soviet GDP being spent on defense, and ultimately causing its collapse. The principle: it may make sense to start an arms race if you think you are going to win if you start now, provided that a nastier arms race is inevitable later.**
- **Mutually assured destruction is no happy way of going about life, however it gives us a bulwark against a devastating outcome**

- Average death rate has gone down over time…
  - John stossel video...
- Acquisition of space assets…

- Environmental and Natural Resources: A strong **military** allows a **country** to protect its environmental and resource wealth, while giving it the option to seize the environmental and resource wealth of its weaker rivals.
    - Who has shown sign of aggression?
        - Logical perspective, We must maintain a high level of military prowess in order to sustain peace, or if war breaks out, we must be ready…
            - It is ubiquitous… We have seen aggression from China for the past 100 years…
                - Space is recent...
            - "War is hell, war is risky, and war is dangerous, but if we are going to entrust our people to put them into harm's way, we have to have the confidence to back them up and to support them in doing so."
- Why it is important to have a strong military
    - https://thehill.com/opinion/national-security/421970-10-reasons-us-military-strength-remains-essential
- Space force is key in deterring asa
- **Deterrence is essential. Space war leads to total societal collapse.**
- Bender and Klimas 18
- Bryan Bender and Jacqueline Klimas. 4/6/19. Politico. Space war is coming – and the US is not ready. https://www.politico.com/story/2018/04/06/outer-space-war-defense-russia-china-463067. TNJ 2/19/21
- When the Pentagon talks about a space war, it doesn't mean troops in celestial camouflage, maneuvering with jet packs and targeting the enemy with laser guns. The conflict could take many different — and largely silent — forms, ranging from jamming a GPS satellite to temporarily blinding a sensor with a laser or relying on a cyberattack to disrupt services. Then *there is the potential for an actual physical attack* — with a missile or laser — to destroy space assets. Some experts worry the most about that scenario, which was exemplified by a 2008 test in which China tested an anti-satellite laser to blow up one of its own satellites. That kind of space war would impose especially heavy costs on the U.S., because each such explosion creates debris that will linger forever — including the millions of pieces left over from that Chinese test. Even small pieces of matter traveling at 17,000 mph can do serious harm to the satellites that the United States so relies on. For example, a fleck of paint the size of a thumbnail once hit the 6-inch-thick windshield of one of NASA's space shuttles and went about 3 inches into the glass, an Air Force official said. No way exists to clear away the lethal clouds of space junk that a shooting war would create. "*If deterrence fails, we lose*," the Air Force official said. That means that if shots are fired in space, the United States may not respond in kind and instead might fight back through other means — like a cyberattack or political retaliation — to avoid creating more space debris, Brig. Gen. John Shaw, the director of strategic plans, programs, requirements and analysis at Air Force Space Command, told reporters. "*We have to be prepared ... for war to extend into space*, but we'd like not to do it." But all the talk of an inevitable conflict raises concerns that the world may be facing the worst kind of space race — one that only heightens the chances of a conflict back on Earth. Some of the efforts underway could also violate the 1967 Outer Space Treaty, signed by the United States and most other nations. "The Outer Space Treaty very clearly says that space is only for peaceful purposes," said James Vedda, senior policy analyst at the Center for Space Policy and Strategy at The Aerospace Corp. and a noted expert on the 1967 pact. Cassandra Steer, acting executive director of the Center for Ethics and the Rule of Law at the University of Pennsylvania, said she has noticed "a discernible shift in international rhetoric" on the topic, as well as a lack of transparency by all the nations involved about their preparations for space conflict. The result is "a cyclical escalation which has led some commentators to describe this as a conceivable return to a Cold War-type arms race," said Steer, whose center is hosting a closed-door meeting this week of leading

government and industry experts about the "weaponization of outer space." "*An armed conflict in space would be catastrophic for all players*," she added, "*including neutral states, commercial actors and international civil society*."

- **Space war would be catastrophic – deterrence is key**
- Zarybnisky 18
- USAF Lt Col. Eric J. Zarybnisky. 3/28/18. USAF report. Celestial deterrence: Deterring aggression in the global commons of space. https://apps.dtic.mil/dtic/tr/fulltext/u2/1062004.pdf. TNJ 2/19/21
- General John Hyten, the commander of United States Strategic Command, stated that the United States needs to deter aggression in space due to the impacts such actions would have on the use of space for global communication, navigation and timing, and intelligence collection.1F 1 A collision between two low Earth orbit satellites in 2009 resulted in more than 2,000 pieces of orbital debris2F 2 all moving 9 times faster than a bullet3F 3 that will remain in orbit for decades.4F 4 This collision, and the resulting debris, demonstrate the magnitude of harm that could come from war in space. Prevention is of the utmost importance because of the lasting effects of a space war. While the immediate loss of life from a space war would pale in comparison to nuclear war, longer-term impacts would be catastrophic across a range of capabilities. In the case of geosynchronous orbit, some of the most valuable real estate in space, orbital debris could forever endanger everything including space-based satellite television, weather reporting, and missile warning.5F 5 Unlike nuclear deterrence during the Cold War, deterring aggression in space does not have a fundamental philosophy such as Mutually Assured Destruction, which dictated a specific response to a nuclear attack. Reliance on satellites is neither equal among countries nor static over time. *As more countries rely on space assets, policymakers need to understand the impact on deterrence*, from both kinetic and non-kinetic engagements, to maintain the utility of the space environment. This paper argues that traditional deterrence theory is effective for kinetic space attacks but not for other types of attacks, namely non-kinetic physical, electromagnetic, and cyber. Underlying this argument is the fact that kinetic attacks can be readily attributed and a small number of countries have kinetic attack capability allowing for credible deterrence, which includes communication of the deterrent threat, without significant risk for miscalculation between countries. Traditional deterrence theory is not effective for other types of attacks including non-kinetic physical attacks (e.g., lasers or high-power microwaves), electromagnetic attacks (e.g., jamming) and cyber attacks, due to the challenges of attribution. *Deterring kinetic aggression in space requires policymakers to develop a credible deterrent through exercises, budgetary authority, new international norms, and mechanisms to prevent inadvertent escalation*.

- **Protection of US interest in outer space**
  - China has poor intentions in space, and intends to dominate space…
    - China has admitted to achieving world power
      - WE MUST MAINTAIN HEGEMONY
      - Keep China from achieving the biggest monopoly of all time dominating the four engines of growth and dominance that change world powers
        - Transportation
        - Information

        - Energy
        - Manufacturing
- Protection of information and technology… that is why businesses can not be enforce
- China capabilities
    - **WHY THE LIBERTARIAN SOLUTION WILL NOT WORK**
        - **China's dominance in space can be used against us… it can paralyze our power grid and cripple any military might america builds on the spot**
        - **There is so much red tape that comes with launching a rocket or missile…**
            - **We are extremely vulnerable**
        - **China has openly stated that they are weaponizing every factor that western society was built on**
            - **5G is a perfect example**
                - **Vietnam in 2006**
                    - **Vietnam was offering bids to companies to come build their infrastructure**
                        - **Many world class companies did, yet Huawei offered 0 dollars…**
                            - **How can any other company compete with that**
                            - **The same is happening in space right now…**
                            - **Far below what the market can bare**
                            - **They can compile their political resources**
        - **Elon musk pays money to the air force whenever they launch for no reason…. They are being heavily taxed, and the likelihood of those taxes being diminished are extremely unlikely, especially with the current administration… good or bad he generally leans towards heavy regulation and higher taxes**
            - **Bogged down by a culture of risk aversion enforced by the bureaucracies of the current administrative state**
    - **We need the space force to defend the economy of space as a "Coast guard"...**
    - **THE ISSUE WITH THE AIRFORCE**

- **2 competing paradigms The old way with the airforce and the new way witn the Space Force**
- **Thomas Kuhn, a renowned scientific philosopher pointed out that these paradigms are incommensurable to each other AKA if you are in one paradigm you can't understand the other paradigm… The few people that can jump out of an old paradigm are often commemorated as the greatest inventors…**
    - **The Wright brothers**
    - **Elon Musk**
    - **Jeff Bezoz**
    - **History proves this with FDR… We saw that Germany was pursuing the Atomic bomb… He did not turn to the army and say "build me a bomb" because he understood human nature and the inability to look into a new paradigm especially with the types of bureaucratic organizations never can jump out of its paradigm… "THE PIG DOES NOT SLAUGHTER ITSELF"**
        - **That is why he always got outsiders**
            - **The same can be said today… That is why we need a space force that isn't run by the airforce**

- **WHY WE NEED THE SPACE FORCE, AS WELL AS NASA… WITHOUT THE SPACE FORCE IT WOULD BE EQUIVALENT TO SENDING THE WAGON TRAINS OUT WEST WITH NO CAVALRY**
- **Space is more deadly than nuclear warfare**
    - **Satellites can have the ability to shoot down missiles the second they lift off… earth based military can be rendered useless by space weapons…**
        - **Reagan's "brilliant pebbles"**
            - **Originally seemed to be a pipe dream now it is extremely feasible**

- https://www.newsmax.com/peterpry/brilliant-pebbles-star-wars-ronald-reagan-russia/2018/04/09/id/853492/

- Space can render ICBMs antiques of the past wars

- Space force is key to deterring anti-satellite attacks
- **It is better to be a warrior in a garden than a gardner in a war**
- Broad 1/24/21
- William J. Broad. 1/21/21 Science journalist and senior writer at The New York Times. How space became the next 'great power' contest between the US and China. https://www-nytimes-com.ezproxy.lib.utah.edu/2021/01/24/us/politics/trump-biden-pentagon-space-missiles-satellite.html TNJ 2/18/21
- Beijing's rush for antisatellite arms began 15 years ago. Now, it can threaten the orbital fleets that give the United States military its technological edge. Advanced weapons at China's military bases can fire warheads that smash satellites and can shoot laser beams that have a potential to blind arrays of delicate sensors. And China's cyberattacks can, at least in theory, cut off the Pentagon from contact with fleets of satellites that track enemy movements, relay communications among troops and provide information for the precise targeting of smart weapons. Among the most important national security issues now facing President Biden is how to contend with the threat that China poses to the American military in space and, by extension, terrestrial forces that rely on the overhead platforms. The Biden administration has yet to indicate what it plans to do with President Donald J. Trump's legacy in this area: the Space Force, a new branch of the military that has been criticized as an expensive and ill-advised escalation that could lead to a dangerous new arms race. Mr. Trump presented the initiative as his own, and it now suffers from an association with him and remains the brunt of jokes on television. But its creation was also the culmination of strategic choices by his predecessors, Presidents George W. Bush and Barack Obama, to counter an emboldened China that raised bipartisan alarm. "There's been a dawning realization that our space systems are quite vulnerable," said Greg Grant, a Pentagon official in the Obama administration who helped devise its response to China. "The Biden administration will see more funding — not less — going into space defense and dealing with these threats." The protective goal is to create an American presence in orbit so resilient that, no matter how deadly the attacks, it

will function well enough for the military to project power halfway around the globe in terrestrial reprisals and counterattacks. That could deter Beijing's strikes in the first place. The hard question is how to achieve that kind of strong deterrence. Lloyd J. Austin III, a retired four-star Army general who was confirmed last week as Mr. Biden's secretary of defense, told the Senate that he would keep a "laserlike focus" on sharpening the country's "competitive edge" against China's increasingly powerful military. Among other things, he called for new American strides in building "space-based platforms" and repeatedly referred to space as a war-fighting domain. "Space is already an arena of great power competition," Mr. Austin said, with China "the most significant threat going forward."

- **Space force is key to protecting US interests in space**
- Perry 19
- Dr. William Perry, Former US Secretary of Defense. May 2019. Open letter in support of establishing the US Space Force. https://www.politico.com/f/?id=0000016a-8f91-d79f-adfb-af9179b90001. TNJ 2/19/21
- The United States is the world's leader in the exploration and uses of outer space. America's preeminent position in space activities has contributed to the nation's political prestige, international influence, scientific knowledge, technological advancement, homeland security, and national defense. In addition, space contributes powerfully to America's economic prosperity; indeed, practically every aspect of our daily lives is dependent on space capabilities. Consequently, U.S. National Security Strategy has for decades stated that freedom of access to and use of outer space is a vital national interest. Foreign powers are seeking to undermine the United States' leadership position in space. *China and Russia are developing, testing, and fielding space and counterspace weapon systems that threaten our ability to use space for national security and economic purposes, jeopardize U.S. and allied military forces, and put the U.S. homeland at risk.* America's long-standing strategic advantage in space is eroding. National security space organization and management has been a recurring issue for decades. The establishment of the U.S. Space Force as an independent armed service within the Department of the Air Force is a fiscally responsible approach to address the issue. The U.S. Space Force will organize, train, and equip forces to enable U.S. Space Command's plans and operations, to include activities in support of other Combatant Commands and military services. The U.S. Space Force will develop military space culture and ethos; recruit, train, educate, promote, and retain scientists, engineers, and warriors with world-class space skills and talent; advocate for space requirements and resources; develop space doctrine and operational art; develop, field, and deliver advanced space capabilities; and steward resources to sustain America's strategic advantage and preeminence in national security space activities. The establishment of *a new military service for space is necessary for putting America on a path to effectively deter conflict* from beginning in or extending into space, and, if deterrence fails, to defeat hostile actions and protect our economic and national security interests in space. We endorse the position of General John Hyten, USAF, Commander of U.S. Strategic Command, who recently testified, "We're going to have a Space Force someday. I think what the Committee has to decide is when is that going to happen, and I think now is the time...you want to get ahead of the problem, not trail it, not come in response to a catastrophe. Get ahead of the problem." And we applaud the statement of General Joseph Dunford, USMC, Chairman of the Joint Chiefs of Staff, who recently testified, "My best military advice, given the importance of space and the consequences of not doing all we can to optimize the Department to move forward in space, would be to move out now with what might be the 80% solution, refine as we go, and the Committee will have an opportunity to provide oversight to address some of the issues that have been raised."

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- **Russia and China are developing space tech that poses a direct threat to US interests.**
- Hitchens 19
- Theresa Hitchens. 4/4/19. Breaking defense. Russia builds new co-orbital satellite: SWF, CSIS say. https://breakingdefense.com/2019/04/russia-builds-new-co-orbital-satellite-swf-csis-say/. TNJ 2/19/21
- Chinese and Russian on-orbit experiments over the past five or so years have freaked out many in the U.S. Congress and the national security space community, and have in many instances been hyped by media reports. Indeed, on April 3, Ken Rapuano, assistant secretary of defense for homeland defense and global security, told the HASC Subcommittee on Strategic Forces that Russia and China are conducting "sophisticated on-orbit activities to counter space capabilities" as they continue "developing, testing and fielding a full suite of antisatellite (ASAT) weapons." The specific on-orbit experiments have involved the Chinese SJ-12, SJ-15, SJ-17 satellites, and the Russian Cosmos 2499, Luch, and Cosmos 2521 satellites. But SWF takes a less alarmist view, arguing that the satellites appear to be used for intelligence purposes and satellite inspections. All of these programs show, SWF says, an "operational pattern" consistent with "slow, methodical, and careful approaches to rendezvous with other space objects in similar orbits. The satellites they are known to have approached were in similar orbits and based on the publicly available data they did not make huge changes to rendezvous with satellites in significantly different orbits." The SWF study cautions against jumping to conclusions about the Russian and Chinese experiments. Rather than being weapons-related, the "most likely military utility of the capabilities demonstrated" by the remote proximity operations (RPO) is for "on-orbit SSA and close-up inspections." The SWF study also reveals new information that shows tests by both countries essentially mimic operations undertaken by the four operational U.S. Geosynchronous Space Situational Awareness Program (GSSAP, also known as Hornet) satellites and the secretive Mycroft experimental inspection satellite (named for Sherlock Holmes' older and smarter brother) launched in April 2018. The CSIS study says that: "none of China's rendezvous and proximity operations (RPO) activities in LEO or GEO appear to have damaged other satellites." This is not to say the Chinese and Russian on-orbit experiments are not aimed at ASAT weapons development, given what is known about both countries space doctrines and force posturing. Both countries are known to be developing, or have developed, terrestrially-based kinetic energy ASAT missiles. Both also are (like the United States) working on directed-energy programs for a variety of weapons applications. For example, both SWF and CSIS in their 2018/2019 studies have documented Russian use of electronic jamming of GPS in Syria, the Baltic region and Ukraine. CSIS, echoing publicly released U.S. Intelligence Community assessments, finds that *the Russian and Chinese counterspace developments present significant threats to U.S. space systems*. SWF is more demure about judgements but their study does conclude the evidence shows "significant research and development of a broad range of kinetic (i.e. destructive) and non-kinetic counterspace capabilities in multiple countries." It cautions, however, that "only non-kinetic capabilities are actively being used in current military operations" by any country.
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- Every military branch and every segment of our society is reliant on satellites…
    - Makes them a target for froeign powers
- Orbital satellites are vital… fro our daily lives
    - GPS
    - internet
- Military satellites anticipate threats…
    - Past anticipations… rocket attacks…

    - Deter
    - Defend
    - Protect
-
- Satellites are considered as basic infrastructure
- Keep America competitive against foreign adversaries.
    - Go on a rant about war, and how it is terrible, and yet necessary… and then branch to deterrence theory
        - What is to say that they won't just be provoked?
- Focus on Planet side operations
    - Alleviate pressure from the AirForce
- Define an issue… And show aggression and opponents…
    - IN THE EARLY Space Age, the people who sent up satellites could operate under what's known as "big sky" theory. Space is so vast, so *spacious*, that we could never possibly use it all up. History, however, has repeatedly shown that whenever we think something is too abundant for humans to deplete, we're wrong. And so it is in space, where more and more satellites and space junk threaten to crash into each other and crowd out the future. In 2016, the Air Force's 18th Space Control Squadron had to tell satellite operators to watch out for each other 3,995,874 times.
- Essential aspect to national security
- Powerful adversaries
- GPS, Even in peacetime
- Credit Card usage at gas pumps also require gps
- If you have the ability to interfere with satellite systems, you have the ability to cripple an entire country
    - This is purely defensive….
        - China and russia has already secured Space technologies within their realms of influence
- Innovation in doctrine, public messaging and aquisition
- Substantially improve overall US security
    - Technological and intellectual lead over all potential space adversaries
- Satellites are targets for the Chinese…
    - Chinese have tested direct ascent anti satellite missiles that shot down one of their own sattelites…2007
        - Now they are testing direct… all the way up to geo orbit… 33,000 km…
            - So what is the quickest way to mitigate that threat?
                - Distribute architecture
                - Compete with china

- Chinese aggression:
    - In 2014 they hacked into the national weather service of the united states, and compelled us to shut down ground stations, and we lost weather forecasting for 3 days…
        - Thank God we didn't have severe weather during those 3 days…
        - Our constituents would have been the recipients of a lot of pain during those days if not
        - https://www.businessinsider.com/china-based-hacking-campaign-breached-satellite-defense-companies-us-asia-2018-6#:~:text=Hackers%20in%20China%20infected%20computers%20that%20control%20satellites%20in%20the%20US%20and%20Asia&text=Security%20software%20company%20Symantec%20revealed,the%20US%20and%20southeast%20Asia.
            - https://www.c4isrnet.com/opinion/2020/12/01/cross-agency-plans-for-space-cybersecurity-will-strengthen-the-us-in-all-domains/
        - https://www.defensenews.com/opinion/commentary/2020/06/23/china-wants-to-dominate-space-and-the-us-must-take-countermeasures/
            - Failure to deliver on key capabilities in space opens the door for China to undermine U.S. strategic advantages, which will be far more costly in the long run.
        - Russia has anti satellite power...
        - The way you win wars is through information dominance…
            - That's The way we have always fought and won wars… WW2 planes… WW1 scouts…
                - Modern day satellites
                    - In the 1930's airplanes proved their value and worth that supported new innovations..
                    - Military drove that innovation

        - The enemies of the US knows that information dominance is how you win wars…
            - If they can deny us information, and acquire their own information then they are going to have the advantage.
                - That is why they have called space our achilles heel
                - https://ndsmcobserver.com/2019/09/the-u-s-militarys-achilles-heel/
- American Dependency on space
    - Weather…
        - Imagine… hurricane...
    - Navigate, communicate, food, energy, banking
        - How many days can the US survive if the GPS constellation goes down?
            - Our very way of life is reliant on space
        - IT SHOULD NOT BE DEMONIZED TO WEAPONIZE SPACE
            - It is not weaponizing space, we want to protect our US assets in space
    - Every banking system in the US requires a timing signal from GPS
        - That is reliant on satellites
    - regulatio n of flow on a power grid is reliant on flow on a timing grid is reliant on GPS
        - Satellites
    - Flows of data through wireless connection is reliant on a timing signal from GPS
    - Existential threat
- American dependency on Russia
    - RD180 engine
        - Atlas 5 rocket
    - We are dependent on russia for engines and rockets

                - We NEED to get off of russian dependency
            - Proton Rocket
            - Soyuz rocket
            - We are funding Russian national security
                - Funding russian military
            - Neeper rocket
            - RD181
        - Trade deficit
        - Space pearl harbor
    - **<u>The solution is to spread infrastructure and scientific development that will lead to more satellites…</u>**
        - **<u>Make the possibility of a Space Pearl harbor ineffective,</u>**
        - **<u>And make our ability to recoup our losses and fire back more effective</u>**
            - **<u>No reason for China to send a 1B dollar missile into orbit just to have a possibility of taking out one satellite</u>**
                - **<u>Not to mention it won't have much of an effect</u>**
            - **<u>Put in place the Space Renaissance Act</u>**
    - China believes that Space is a key asset in acquiring information dominance
        - Chinese official documents and doctrine
        - Space dominance = information dominance recent Chinese military activity further heightens our concerns
            - Tectonic changes/effects
        - Information warfare
        - Chinese interest in
    - Foreign threats are real…
- Throughout the history of mankind, technology has always changed world power…
    - Competitive advantage
    - Optimisation
    - Darwinism
- Space is going to change world power
- World paradigms crash
    - Rejections of new technologies and values is why no civilization has lasted eternity

- England in WW1…
    - England wanted to go to war… they were certain that their napoleonic style of warfare that has dominated in the past would dominate once again...
        - Strategists pointed out machine gun and the development of poison gas…
            - They failed to accept this new technology and suffered…
- Germany in WW2…
    - Didn't accept the atomic bomb…
        - Could have taken over the world…
- What is be said about small countries… will they not seek the benefits of space?
    - All ships rise with the tide… if they optimise like japan, France, UK, Germany did… they can have just as much of an opportunity as the Global powers
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    - Violation of space law
    - Future of space needs regulation.
- If they bring up Outer space
    - Say we are focusing on close earth operations because that is currently the operation of the US Space Force
        - 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.
        - It is for this reason — for the hundreds of trillions of dollars of opportunity in this new gold rush, to enable a new frontier of liberty, and ensure the benefits that frontier can provide to ourselves and our posterity — that we embark now upon creating a U.S. Space Force. It is not so that we can make war. It is rather to assure that the vast economic potential and all it can do for our children and our environment is not, and will never be closed to America.
            - https://thehill.com/opinion/technology/450519-the-purpose-of-a-space-force-is-a-spacefaring-economy
- Response to legality argument
    - It does not violate the UN https://www.ucsusa.org/resources/legal-agreements-space-weapons#:~:text=Article%20IV%20of%20the%20Outer,moon%20or%20other%20celestial%20bodies.

- Response to it is the smallest branch?
    - Just because it is small does not mean it lacks importance… The airforce was small during ww1, although provided extremely valuable information through reconnaissance missions… Fun fact, the manhattan project cost 1/20th of what the B-29 project cost…

- Response to cost
    -
- Response to why is the space force not

- Integration of US Space Force into United Space Force (United Nations?)
- Organization
- Reconnaissance perfect?
    - Sequestration…
        - Lumpy budgeting system
            - 6 years to develop a satellite through the government
                - On year 3 we slash the budget and extend the budget
        - Not long term thinking… one thing that we compliment China for strength
            - They have budget stability
    - 1000 page money acquisition process
        - Constant heatings…innovation can't survive
            - Stifles free market
            - Labor
            - Environment
        - We are our own worst enemy
            - Government intervention
        - Instability in our budgeting system
- Space force is inefficient response
    - Inefficient and beneficial are not mutually exclusive
    - We shouldn't dream of idealism… there is always something we can improve
- The fact that the US has implemented the Space Force is almost reason enough for benefits outweighing the harms
- Morality - subjecting fewer individuals to death?
- Response to power being taken away from the airforce…
- Response to War…. What is it good for?
    - War is a terrible thing, and I think we can all admit that… however war is necessary… do you suppose we shouldn't have fought in WW2?
        - Defense against WW2 as a strongman fallacy
        - Any noble geopolitical purpose…
            - Are you uncaring for those in Iran and Iraq...

- Ideally the US defensive armaments render opponents offensive armaments ineffective…
    - Intercepting ICBMs
- Outcome of war is egregious
- It can't handle it's roles
    - You agree with me… that is why it should be bigger
- Response to cost contentions:
    - **An independent space force is key to solve budget deficits**
    - Harrison 18
    - Todd Harrison. 10/3/18 Director, Defense Budget Analysis, Director, Aerospace Security Project and Senior Fellow, International Security Program. Center for Strategic and International Studies. Why We Need a Space force. https://www.csis.org/analysis/why-we-need-space-force TNJ 2/18/21
    - The third core problem is that the Services have inherent conflicts of interest when it comes to space. Because the Services are organized around their primary domain of responsibility, space is viewed as a secondary or supporting function. The Air Force has long bemoaned the fact that it funds the vast majority of unclassified space systems and that the other Services place requirements on space systems that the Air Force is expected to fund. Former Air Force Chief of Staff General Michael Ryan summed up the Air Force's institutional view of space aptly, noting in an interview that the Air Force "can't afford to be the bank for all space systems," and that "space is not a welfare system." The Air Force would never say the same thing about its aviation programs. When the Services must choose between space and their native domain, one should expect that they will choose what they are organized to do. For example, in the most recent defense budget downturn, Air Force funding for aircraft procurement and space procurement declined by roughly one-third each (adjusting for inflation) from FY 2010 to FY 2014. But once the overall budget started growing again, Air Force aircraft procurement funding rebounded by more than 50 percent while space procurement funding declined by another 17 percent. The Air Force should not be faulted when it chooses air over space—that's what our domain-centric Services are designed to do. As Carl Builder noted in the Masks of War, "the most powerful institutions in the American national security arena are the military services," and the problem is there is no military Service that consistently advocates for space.
    - **Their cost estimates are overblown. The actual price of a space force is miniscule compared to the overall military budget.**
    - Harrison 18
    - Todd Harrison. 10/3/18 Director, Defense Budget Analysis, Director, Aerospace Security Project and Senior Fellow, International Security Program. Center for Strategic and International Studies. Why We Need a Space force. https://www.csis.org/analysis/why-we-need-space-force TNJ 2/18/21
    - The cost of creating the Space Force is also a legitimate concern. In a leaked memo, the Air Force estimates it would cost nearly $13 billion over five years to stand up both the Space Force and Space Command. To arrive at such a lofty figure, the Air Force assumed the broadest possible scope for the Space Force, even encompassing parts of NASA and the Department of Commerce. It also threw in a billion-dollar new headquarters building and assumed 13,000 new personnel would be needed. A Space Force that encompasses all of the space-related organizations in DoD and the intel community at the size they are today would likely be similar in headcount to the Coast Guard (roughly 50,000 active duty and civilian personnel). It therefore stands to reason that the new personnel needed to staff the Space Force's headquarters would be

similar in size to the Coast Guard's headquarters staff (roughly 2,600 personnel, or about 5 percent of the total workforce), and all other Space Force personnel would be drawn from the existing space workforce spread across the Services and intel community. Using the same cost assumptions as the Air Force's estimate, *the additional cost of standing up the Space Force would be less than $3 billion over five years*. This is a small price to pay for the many problems a Space Force would help address.

- Response to: Deterrence is impossible and miscalculation escalates to nuclear war within minutes
- Schütz 19
- Torben Schütz. 7/25/19. German Council on Foreign Relations. The changing security environment in space demands new diplomatic and military answers. https://dgap.org/en/research/publications/technology-and-strategy-0. TNJ 2/19/21
- Deterrence is difficult to achieve for space assets, as they are so fragile that none would survive a well-coordinated first strike against them. They are classic "use-it-or-lose-it" assets, and this aspect further decreases crisis stability. Only a massive deployment of ground-based ASAT capabilities, that would enable a retaliatory strike so that both actors would lose their space assets, might counter-balance this to a certain degree, as it allows for a so-called deterrence by punishment. However, even a (misinterpreted) threat to space assets could start a chain reaction and quickly escalate an incident in space to a wider war. Successful deterrence, therefore, requires situational awareness, attribution capabilities and resilient assets. Especially the latter two are notoriously difficult to achieve in space. While it might be easy to attribute a kinetic attack executed with a missile, the same is not true for ASAT attacks by other satellites, and, especially, not for cyberattacks and electronic warfare measures. Without clear attribution, however, it is difficult to deter any adversary, since he could speculate that an attack cannot be traced back to him – making deterrence and retaliation more difficult. Although cross-domain deterrence, i.e. threatening an actor through potential retaliation attacks on or by other-than-space assets, is always possible, it also amplifies the problems involved in traditional deterrence: A response has to be timely and proportionate, and it should not further expand of the conflict. Furthermore, most timeframes for a potential escalation in space are measured in minutes, or even less for directed-energy and certain space-based ASAT weapons. As a result, both, decision-making processes and the humans deciding on military activities in space (e.g. a counterattack), are subject to very significant time compression. This also decreases crisis stability since it might further encourage an aggressive first-strike behavior prompted by the desire not to lose valuable assets.

- There are risks Associated with the space force
  - https://youtu.be/cQBbtSNw-nc

- Make a joke about Edwin Starr's "War, what is it good for"
- Response to cyber warfare

  https://www.infosecurity-magazine.com/news/us-to-grow-space-force/

  Why it is necessary for the space force, and not to expand the existing cyber security

- Why it is important to have a strong military / remain a superpower
  - U.S. military capabilities not only protect the United States and its citizens from direct threats, they also help maintain peace and stability in regions critical to U.S. interests and underwrite U.S. defense commitments around the world. Maintaining a strong defense capability means that the U.S. Armed Forces, and the Department of Defense more broadly, must be prepared to conduct the following kinds of missions, as described in the President's national security strategy:
    - *Deterring and defeating aggression in major regional conflicts*. U.S. forces must be capable of offsetting the military power of regional states with interests opposed to those of the United States and its allies. To do this, the United States must be able to deter and, if necessary, defeat aggression, in concert with regional allies, by projecting and sustaining U.S. power in two major regional conflicts that occur nearly simultaneously.
    - *Providing credible overseas presence*. Some U.S. forces must be forward deployed or stationed in key overseas regions in peacetime. These deployments contribute to a more stable and secure international environment by demonstrating U.S. commitment, deterring aggression, and underwriting important bilateral and multilateral security relationships. Forward stationing and periodic deployments also permit U.S. forces to gain familiarity with overseas operating environments, promote joint and combined training among friendly forces, improve interoperability with friendly forces throughout the world, and respond in a timely manner to crises.
    - *Conducting contingency operations*. The United States must be prepared to undertake a wide range of contingency operations in support of U.S. interests. These operations include smaller-scale combat operations, multilateral peace operations, noncombatant evacuations, counterterrorism activities, and humanitarian and disaster relief operations.
    - *Countering weapons of mass destruction*. While the United States is redoubling its efforts to prevent the proliferation of weapons of mass destruction and associated missile delivery systems, we must at the same time improve our military capabilities to deter and prevent the effective

use of these weapons. We are pursuing this objective by sustaining adequate retaliatory capabilities and by increasing our capabilities to defend against weapons of mass destruction, to locate and neutralize or destroy them before they are used during a conflict, and to fight in an environment in which such weapons have been used.

- Preserves the open lanes of global commerce and finance for the American economy. In this sense, the Seventh Fleet has done as much for the economic renaissance of the Asia-Pacific region as the World Trade Organization (WTO) and Asia Pacific Economic Cooperation (APEC). Maintaining an open maritime system and trading lanes also helps prevent conflict ruinous to economic growth. In President Theodore Roosevelt's memorable observation, the U.S. Navy is "an infinitely more potent factor for peace than all the peace societies of every kind and sort."

- Induces fence-sitters to lean our way. To take just one example, Egyptian President Anwar Sadat's decision to expel all Soviet military advisers in 1972 came in part from his desire to forge closer ties with the United States, which, after years in the Soviet orbit, he saw as the stronger, more reliable partner.
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- Helps secure and preserve peace treaties. America's burgeoning ties to Israel and Egypt eventually led to President Jimmy Carter's negotiation of the Camp David accords and the landmark Egypt-Israel peace treaty. Part of the cement that solidified Camp David came from the U.S. guarantee of large arms packages to both countries, which continue to this day, and were possible only because of the appeal to Egypt and Israel of the superior quality of American weapons systems.
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- Spurs our allies to spend more on their own defense. A robust American military budget can induce our allies to deepen their own commitments. For example, upon taking office in 1981 and launching his massive defense build-up, President Reagan prioritized persuading U.S. allies to increase their military spending. These efforts succeeded with our NATO allies and, most especially, with Japan, which followed the U.S. example by dramatically upping its defense budget.
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- Strengthens our economic negotiating posture with allies. In the 1985 "Plaza Accord," the Reagan administration, led by Treasury Secretary James Baker, successfully negotiated favorable changes in international

monetary policy with Japan and America's other G-7 allies that devalued the dollar and relieved U.S. trade deficits. The strong U.S. military and defense commitments to these allies contributed to their willingness to make otherwise difficult concessions on currency policy.

- Strengthens our negotiating posture with adversaries. Perhaps the most notable arms control agreement of the past half-century is the Intermediate Range Nuclear Forces (INF) Treaty signed by the United States and Soviet Union in 1987. This came about only because of Reagan's controversial deployment of Pershing II and ground-launched cruise missiles in Western Europe four years earlier, which brought tremendous pressure on the Soviet system and induced Soviet leader Mikhail Gorbachev to make significant concessions that he previously resisted.
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- Makes us more attractive to potential allies and partners. The peaceful end of the Cold War prompted several Warsaw Pact nations in Central and Eastern Europe to want to join their erstwhile adversaries in NATO. The Clinton administration astutely decided to expand NATO and welcome these countries. Their desire for NATO membership stemmed in part from a calculated assessment that the U.S. military had proven stronger and more resilient than the Soviet military and Warsaw Pact, and these nations wanted to align with the winning side.
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- Provides new channels for diplomatic leverage and intelligence collection. An advanced military encourages nations to desire training from U.S. forces and the acquisition of U.S. materiel. These security assistance programs, in turn, provide the United States further channels of influence through American technical experts embedded within foreign militaries for training, equipping and maintaining weapons systems; the diplomatic leverage that comes from foreign governments relying on American weapons systems; and the information and intelligence-gathering that such relationships facilitate.
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- Helps promote and strengthen democracy and human rights. U.S. security assistance programs have helped support the democratic transitions, and improved respect for human rights in numerous other nations. Our alliance with the Republic of Korea in the 1980s gave the Reagan administration leverage and multiple channels of influence to help encourage South Korea's transition in 1987 from a military dictatorship to a democracy. Security assistance can function as a stick as well as a carrot, such as the

Clinton administration's termination of aid to the Indonesian military in 1999 for human rights violations in East Timor.

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- Improves humanitarian relief operations and enhances U.S. public diplomacy. The Navy's leadership in the immediate aftermath of the December 2004 tsunami that devastated Southeast Asia saved thousands of lives in Indonesia and provided a demonstrable boost in public attitudes towards the United States in this majority-Muslim country. This, in turn, improved America's diplomatic posture and standing in a crucial region for the fight against militant jihadism.

- Economic: Simply put, a country needs the economic means to afford the high costs and technological developments associated with the development and maintenance of a high degree of military power.
- Demographic: For now, a country needs a large and healthy population of young adult males (and increasingly females) to provide the manpower needed to sustain a large military, although automation may one day make this a moot point.
- Environmental and Natural Resources: A country's geographic situation plays a major role in determining its ability to defend itself and to project military power, while its resource wealth plays a large role in helping to develop its military power.
- Political: A country's level of political strength and stability is reflected in the strength and stability of its armed forces, while a unified political leadership can provide a clear focus for a country's military efforts.
- Technology: Throughout history, states that have been able to develop technologies that add to their military capabilities have emerged victorious in conflicts against their less-technologically-developed rivals.
- Cultural: Some states have used a cultural focus on martial factors to enhance their military power, while other states have struggled to develop their military power due to cultural factors.

Just as these other power factors influence a country's ability to develop military power, a country's military power also plays a key role in its development of these other factors of power.

- Economic: A state that can protect its territory, resources and trade routes has a major economic advantage over others that are unable to do so. Furthermore, military power can be a catalyst for economic growth, if applied properly.
- Demographic: A state with a relatively high degree of military power has the capability to protect its population and to allow for its population to grow at a healthy pace.
- Environmental and Natural Resources: A strong military allows a country to protect its environmental and resource wealth, while giving it the option to seize the environmental and resource wealth of its weaker rivals.
- Political: For better or worse, armed forces have played a major role in determining the level of political stability in states throughout history. When political-military relations are strong and stable, a country is able to achieve a higher degree of political power.
- Technology: The armed forces have been the catalyst and the source for many of the major technological achievements reached throughout human history and are likely to remain so for the foreseeable future.
- Cultural: Military power plays a lesser role in determining a country's level of cultural power, although states with dominant military positions are often able to force their cultural norms on weaker states.
    -

- Trump put it in place… therefore it is stupid…
    - According to biden he is in full support of the Space Force
    - https://www.defensenews.com/space/2021/02/03/with-the-full-support-of-the-biden-adminisration-the-space-force-is-officially-here-to-stay/

ECONOMIC BENEFITS:
https://djilp.org/does-the-u-s-space-force-violate-the-outer-space-treaty/
The National Institute of Standards and Technology estimates the economic benefit of the space-based Global Positioning System (GPS) for private sector use between 1984-2017 at $1.4T.[1] By some estimates, Newspace, the private spaceflight industry, will be worth another trillion dollars by the 2040s.[2] Despite or perhaps because of its enormous space interests, America has stated that space war is inevitable.[3] To protect those interests, the United States created the U.S. Space Command in 1985.[4] In

2002, U.S. Space Command integrated with U.S. Strategic Command.[5] And on December 20, 2019, U.S. President Donald Trump's 2020 National Defense Authorization Act, converting U.S. Space Command into the U.S. Space Force, a discrete geographic combatant command and the sixth branch of the United States military.[6]

Chinese ambitions

SECTION 3: CHINA'S AMBITIONS IN SPACE: CONTESTING THE FINAL FRONTIER Key Findings • China's goal to establish a leading position in the economic and military use of outer space, or what Beijing calls its "space dream," is a core component of its aim to realize the "great rejuvenation of the Chinese nation." In pursuit of this goal, China has dedicated high-level attention and ample funding to catch up to and eventually surpass other spacefaring countries in terms of space-related industry, technology, diplomacy, and military power. If plans hold to launch its first long-term space station module in 2020, it will have matched the United States' nearly 40-year progression from first human spaceflight to first space station module in less than 20 years. • China views space as critical to its future security and economic interests due to its vast strategic and economic potential. Moreover, Beijing has specific plans not merely to explore space, but to industrially dominate the space within the moon's orbit of Earth. China has invested significant resources in exploring the national security and economic value of this area, including its potential for space-based manufacturing, resource extraction, and power generation, although experts differ on the feasibility of some of these activities. • Beijing uses its space program to advance its terrestrial geopolitical objectives, including cultivating customers for the Belt and Road Initiative (BRI), while also using diplomatic ties to advance its goals in space, such as by establishing an expanding network of overseas space ground stations. China's promotion of launch services, satellites, and the Beidou global navigation system under its "Space Silk Road" is deepening participants' reliance on China for space-based services. • China is taking steps to establish a commanding position in the commercial launch and satellite sectors relying in part on aggressive state-backed financing that foreign market-driven companies cannot match. China has already succeeded in undercutting some U.S. and other foreign launch and satellite providers in the international market, threatening to hollow out these countries' space industrial bases. • The emergence of China's indigenous space sector has been an early and notable success of Beijing's military-civil fusion strategy. The aggressive pursuit of foreign technology and talent gained through joint research and other means, especially from the United States and its allies and partners, continues to be central to this strategy and to China's space development goals in

general. 360 • The Chinese government and military use Hong Kong-based companies to exploit legal loopholes and uneven enforcement in U.S. export controls to gain access to space capabilities which U.S. law prohibits Beijing from purchasing outright. Collaboration with foreign universities, including in the United States, is another important avenue in China's drive to acquire space technology. Chinese students enrolled in foreign science, technology, engineering, and mathematics programs are treated like employees of China's defense industrial base, with defense enterprises regularly funding their studies in return for service commitments following graduation. • China views space as a critical U.S. military and economic vulnerability, and has fielded an array of direct-ascent, cyber, electromagnetic, and co-orbital counterspace weapons capable of targeting nearly every class of U.S. space asset. The People's Liberation Army (PLA) has also developed doctrinal concepts for the use of these weapons encouraging escalatory attacks against an adversary's space systems early in a conflict, threatening to destabilize the space domain. It may be difficult for the United States to deter Beijing from using these weapons due to China's belief the United States has a greater vulnerability in space

Incessant use of war in a negative connotation
Fear mongering…
The actual solution to that is deterrence theory and mutual destruction

- https://youtu.be/98k2DlQ9PMY
    - Carnage
    - Sleepless nights
    - Families
    - Destruction

Con

Have an argument against innovation and scientific development
- It is stifled by government regulation
- Fundamental problem with budgeting process / sequestration
    - Time stamp: 1:01:15 - 1:04:20
        - In https://www.youtube.com/watch?v=MQ6lQFp-yhA

Have an argument against regulation needed in outer space
What concession must be made by industry in order to further stem competition…
- Understanding in regulation…
- Security…

- Hiding designs…
- Safety from cyber attacks

How much of our military should we outsource to private business…

Dis-Advantage vs Counterplanning

https://www.ucsusa.org/about/news/space-force-would-trigger-arms-race

- Cost
  - The proposed Fiscal Year 2021 budget for the Space Force would transfer over $15 billion. This is compared to 23 billion for NASA's operating budget, which is arguably more important than the Space Force.
  - It would take 81 million to send a human to space on a Russian Soyuz, and over 450 million to send a person on a NASA Space Shuttle.
    - Private space companies such as SpaceX can send a man to space for less, but that's not the US Space Force.
  - Makes no sense to send military policemen to space if everyone in space are law-abiding and established astronauts and scientists.
  - It is important for countries to have a powerful army to safeguard its interests.
    - At some point standing armies begin consuming more taxpayer money than it secures freedom. Militarization of space, especially from one specific nation, is excessive.
    - If there is international dispute between nations, the US Space Force will have very little say, making it empty weight in the negotiation.
- Inefficiency
  - Government organizations are always a step behind the market in terms of efficiency and cost
    - John Stossel, Blackwater & Erik Prince
      - Private contractors usually hire veterans, who are experts and have experience not found in new recruits
      - They have to become as efficient as possible, or else they would not make as much money as they would have.
      - Not only do they have to make money, they have to not let their business fail, which will lead to creativity and efficiency, compared to the ever growing bureaucracy of government organizations.
  - Government would have a consolidation of power
    - The responsibilities of the US Space Force would be much better fulfilled by an establishment by a coalition of countries, such as NATO or the UN.
      - Point on how there was little to no conflict between the international interest of the US and NATO's interests, and how the

US often employs resources and expertise of other nations when going about resolving its own international interests.

- Obsolete
    - Originally conceived after the end of WWII, first space branch created in 1954
    - Mission is to "protect the interests of the United States in space, deter aggression in, from, and to space, and conduct space operations"
        - However, space is not American territory. Building a base on the moon won't happen until the 2030s, and colonization of space on behalf of sovereign nations is not allowed. Even if that law were to be rescinded, it would be decades and perhaps centuries before colonization reaches the point of creating territorial disputes and the need for a significant military presence.
        - Outer Space Treaty of 1967, states that "The exploration and use of outer space shall be carried out for the benefit and in the interests of all nations and shall be the province of all humankind" as well as "Outer space is not subject to national appropriation or ownership." The treaty also does not permit placement of weapons of mass destruction, establishment of military bases, and conducting of military maneuvers upon celestial bodies. As of 2021, 111 nations are bound by the treaty, with 23 having signed but not yet recognized. Major countries such as the US, China, and Russia have all signed the treaty.
        - (counter-planning) Since most nations has agreed not to weaponize celestial bodies, it would be much better if instead of all the countries had their own Space Force, that they would instead have a consolidated Space Force managing and regulating space.
    - Already the smallest US armed service
        - Exists nowadays to organize, train, and equip space forces, which are then presented to the unified combatant commands, predominantly to United States Space Command, for operational employment.
        - The equipment it operates, such as GPS, can and is being managed by private enterprise not under the jurisdiction of government bureaucracy.
    - NASA is the Space Force's non-military counterpart, providing much of the benefits Pro is like to cite (scientific advancement, space exploration, etc). Private companies such as SpaceX are also providing services for the space industry.
    - The US Space Force would not serve as a regulation enforcement agency.
        - If a company violates space regulations, the government would sanction the company or take them to court, both of which happen on Earth.
            - If the settlement on celestial bodies reaches a stage where companies based in those celestial bodies were to be challenged, then the establishment of a sovereign government/legislative or

judicial body on that celestial body would be expected, and would thus not require the Space Force.

- If a company were to be suspected of fraud, the US Space Force can do nothing.
    - Lets say that an asteroid mining corporation were suspected of committing tax fraud. There would be no way a physical presence on the barren asteroids where the company has automated mining equipment can confirm the fraud. Detection would rely on balance sheet discrepancies and internal/external auditor reports, or through an anonymous tip line.
    - https://kaufmanrossin.com/blog/5-methods-of-detecting-fraud-in-organizations/

- Either insufficient or redundant for the future
    - If policing and regulation of space and its industries become a significant issue, then the US Space Force will have little say over other countries and their dealings in space. A joint Space Force would have much more leverage and influence.
    - Space is an unforgiving environment. Nobody without qualification will be sent there, considering the costs and dangers related with space-faring. It is likely that policing in space will not need military involvement.

Base

_____We strongly (Negate / Affirm) the resolution. On balance, the benefits of creating the United States Space Force (Do / Do Not) outweigh the harms. As the space industry expands with the ris

Space industry will become an integral part of the world economy. Not just moon/asteroid mining, but also exploration (Moon/Mars), power (solar/nuclear), and solutions to modern problems.

- Possibility of an idealistic society
    - Future settlements
- New domain
- Cease initiative

Definition of Space Force… Any plans or future plans to attempt to regulate or militarize space…

- Including possible partnerships with NATO

As we stand on the precipice of a new golden era of commercial space and development…

It is unequivocal that Space is the future of society at large

The use of satellites are ubiquitous/omnipresent…

- The need for them is also exacerbated by the growing market…

Explore the critical elements of this debate, and my case study will prove (why or why not) the benefits of the Space Force (do or do not) outweigh the harms

American Military Hegemony

Current state of space war:
Space war is coming – other countries are already developing space capabilities.

Villarino 19

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

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

American vulnerability, we believed that space was a benign domain, however, the systems are vulnerable to malign actors

Space war likely

Bender and Klimas 18

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

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

2,666 total US satellites… Anti satellite weaponry is not an issue?

Streamline efficiency

In the long term what is the US's best route wn streamlining efficiency

What will lead us to the greater good

Long term investment… technological revolution

All of that is great, although you have not told us how this prepares us for a scientific revolution.

- It does because

How does only the space force do this?

Doing nothing does not prepare us for a scientific revolution

In order for revolution to be nurtured we must break out of the old paradigms…

Air Force vs the army… how it leads to a better outcome

Response to revolution is not relevant to the space force:

- Why do we have to prepare for a scientific revolution
- Human created social structures

Revolution is not relevant

- It is relevant because it shifts world powers

If history tells us anything, the current paradigms are not wrong

Thomas Kuhn’s classic The Structure of Scientific Revolutions explains how fields of study are firmly based upon past scientific achievements through a continuous progression of ideas. This establishes a “paradigm” as Kuhn calls it, or a set of foundational beliefs upon which science is built. The problem with paradigms is that there comes a point when accepted beliefs and structures no longer match the observed reality. You can refine a paradigm with modifications and new terms, but as the world around us changes, an alternate paradigm must be created and accepted