## Off 1 -

#### Interpretation – The affirmative can only garner offense from the appropriation of outer space by private entities being unjust. To clarify, no garnering offense off of methods to solve private entities appropriating outer space such as treaties or actor action.

#### Violation – They have extra offense from US and OST implementation spec, multilat

#### Standards:

#### 1] Limits – Only our interp accurately sets the upper limit to the topic. The CI will let the aff garner offense from any possible way to reduce property rights/private appropriation, which can range from treaties like OST, PTD, Common Heritage or state/actor action, which there are hundreds of. 0% chance the neg can prep for all possible offense relating to space possible and forces random LARP generics, killing fairness.

#### 2] Strat-Skew – Open ended interpretations that allow public companies to appropriate literally anything in space leads to infinite 1ACs. Forces the negative to allows fall back onto generics that can never have the potential to engage with affirmative on a content level. Aff gets everything while the neg is left with breadcrumbs. Kills fairness since the neg is always on the backfoot and no edu as we read backfile generics and try to outtech.

#### Voters -

#### 1] Education – 2-month time limit on the topic means every round is valuable. Specific education about the direct question the resolution asks is the only take away we get from this event. Precision in what they aff can read forces concise topic research in a limited area that allows us to deeply explore every area of the topic.

#### 2] Fairness – Fairness controls engagement with the 1AC and what we are actually able to do in the round. If the game stops becoming fair we have no reason to play in the first place. If every round was 80/20 skewed towards the aff then no one would ever be able to play the game. Fairness is key to clash and is an internal link into any of their offense

#### Paradigms -

#### Extra T is drop the debater – We indict your ability to read and garner offense from the affirmative in the first place. DTA on this shell means drop the aff as a whole anyway. The more the aff drops offense to meet the shell the less they solve and you can vote on presumption.

#### Competing interps over reasonability – Reasonability is always arbitrary and can never set a Brightline on what is reasonable and what isn’t. Extra T is a question of models not specific affirmatives or rounds.

#### No RVIs on Extra T –

#### 1] Extra T is a gateway issue for the negative towards the affirmative. Affirmative is always proactive towards topicality while the neg is forced to always be reactive towards the affirmative. The ground is skewed because we always have to hyper tailor T args to the affirmative while the aff can infinitely prep out the 6 T shells on the Topic

#### 2] Illogical – You don’t get to win for following the rules. That’s like me getting to win because I didn’t read 8 condo positions

#### 3] Deterrence – Winning you are topical isn’t justification for an aff ballot. Deters debaters from calling out untopical affs against techier opponents because they will always lose on the flow even if they are true. Shouldn’t actively punish for trying to meet the rules of the game.

#### Extra T outweighs 1AR theory –

#### 1] Extra T is a forced reaction to untopical affs, even if we did something wrong, you drew first blood. Any abuse from the negative is predicated by abuse from the affirmative.

## Off 2 –

#### Russia and China rapidly developing space weapons

Donovan 21 It’s imperative America preserve its space power advantage By Matthew Donovan Matthew Donovan is the director of the Mitchell Institute for Aerospace Studies’ Spacepower Advantage Research Center. He previously served as the undersecretary of defense for personnel and readiness, the acting secretary of the U.S. Air Force, and the undersecretary of the Air Force. He also served on the Senate Armed Services Committee as majority policy director and a professional staff member. He served more than 30 years as an active-duty airmen before retiring in 2008. <https://www.defensenews.com/opinion/commentary/2021/04/27/its-imperative-america-preserve-its-space-power-advantage/> //avery

A few weeks ago, Director of National Intelligence Avril Haines released the 2021 edition of the Office of the Director of National Intelligence’s “Annual Threat Assessment” — a document that is considered to be one of the most authoritative assessments of the global security environment. According to the report, Russian and Chinese space capabilities stand as top dangers facing the United States and its allies. Given this reality, it is critical to set U.S. Space Command and the Space Force up for success to defend our space architecture. This will be a team effort. For decades, Russia has stood as a top space competitor — with the legendary “space race” of the 1950s and 1960s yielding one of the most technologically innovative periods in world history. Tensions still exist today as Russia continues to expand its arsenal of counter-space capabilities by testing and fielding new ground-launched, anti-satellite missiles as well as launching on-orbit satellite kill vehicles. More concerning are its increasingly provocative actions in space over the last decade, with the highly unusual maneuvering of Russian satellites in close proximity to both U.S. and other nations’ space assets — activity highly escalatory in nature. Nor is Russia the only threat. China’s enormous push in recent years to match and overtake the U.S. in space should trouble all Americans. Space permeates nearly every facet of our daily lives, and we cannot afford to unilaterally cede this domain to an adversary with opposed interests and values. Ever since China demonstrated over 14 years ago its ability to destroy a satellite in orbit from the ground, the Chinese Communist Party and the People’s Liberation Army have kicked efforts into overdrive to overtake the U.S. in space. Their intent is far from benign or peaceful. China has aggressively developed a broad roster of counter-space capabilities including ground-based, anti-satellite missiles as well as on-orbit, electronic-warfare and directed-energy weapons. Make no mistake: There is no alternate peaceful application for these systems. They are entirely military offensive capabilities. The PLA also centralized China’s strategic space, cyber, electronic, and psychological warfare missions and capabilities into a single theater-level organization, demonstrating the seriousness with which China views space and its integral relationship with war fighting. Both Russia and China outwardly express their desire for expanding the use of space for peaceful purposes such as exploration and commerce. But at the same time, both nations also published their own military strategy and doctrine emphasizing their intent to employ counter-space weapons that threaten U.S. and allied space assets. Both nations were “first movers” in this regard, and the United States is in a position of responding to ensure continued access to the space domain for peaceful and military purposes. One of the most meaningful set of responses from the U.S. government was the reestablishment of U.S. Space Command and the creation of the U.S. Space Force, the first new American military service since 1947. While the space domain was historically viewed by America as a benign and peaceful environment, Russian and Chinese actions have proved otherwise. Standing up U.S. Space Command and the U.S. Space Force were not gimmicks or political stunts; they were necessary and crucial steps to ensure America preserves her space power advantage.

#### Russia and China pulling ahead of the U.S. in space weapons

Herman, Marisa. “Russia, China Step up Orbital Attacks as Biden Fumbles Space Force Mission.” Newsmax, 3 Dec. 2021, www.newsmax.com/platinum/space-force-china-russia-biden/2021/12/03/id/1047193/. Accessed 24 Dec. 2021.

As Russia and China ramp up space attacks targeting American assets in orbit, defense experts believe that Space Force, the newest branch of the military, is uniquely positioned to defend U.S. interests on the battlefield beyond the atmosphere — but only if the service is utilized properly. Former President Donald Trump created the Space Force on Dec. 20, 2019 as a separate branch within the Department of the Air Force that was tasked with defending national security interests from above. And as U.S. adversaries make major advancements in the space weapons arena and continue to carry out various attacks — including electronic warfare jamming, temporarily blinding optics with lasers, and cyberattacks on U.S. satellites — defense analysts argue that the Pentagon should be better equipping Space Force with the tools it needs to defend the U.S. from a possible “space Pearl Harbor.” In recent months, Russia and China have openly flexed their space capabilities. Russia recently conducted a weapons test in which it blew up one of its own defunct satellites, in the process creating more than 1,500 pieces of space junk that continues to pose a danger to astronauts aboard the International Space Station — including Russian astronauts. China carried out a hypersonic missile test that was reportedly so advanced it left Pentagon scientists “baffled” because it “defied science” after the initial vehicle fired a second missile mid-flight. “We are in an age of a great power competition and space is really an undefined arena,” said Annie Aleman, director of communications for the American Security Project. “We are seeing a lot of increasing aggression and the pace of conflict is rapidly intensifying. Space Force should absolutely continue to be a priority of the [Defense Department].” Nicolas Chaillan, who served as the first chief software officer for both the Air Force and Space Force, said China and Russia are ahead of the U.S. in the “most critical war-fighting capabilities that will make it or break it in the next wars to come.” At the same time, he said the U.S. has failed to grasp the urgency of recognizing space as a “critical domain.” “Russia is clearly seeing the importance of space, and its ability of striking down satellites could be devastating and have cascading effects for the U.S. government, American people, and allies of the U.S.,” he said. What is even more alarming to Chaillan is the fact that China has conducted over 200 hypersonic tests while the U.S. has carried out a mere nine and isn’t close to testing anything approaching a fully functioning missile. “What’s lacking is urgency and realizing that this is even bigger than we thought,” he said. “The next wave of innovation is going to touch the Air Force and Space Force.” Brandon Weichert, space expert and author of “Winning Space: How America Remains a Superpower,” said these most recent space incidents should have served as a wake-up call to the threats that U.S. adversaries pose in space. He believes that Space Force is the “best way” to compete in the new “space race” playing out in the skies. But he said the branch isn’t living up to its expectations because its current leadership — and the politics of the Biden administration — are not allowing the department to act boldly enough. Weichert points out that Space Force is following the advice of consultants who are committed to the de-weaponization of space, and people who believe space “should be a sanctuary from weapons” and don’t believe that space is for anything other than “taking pretty pictures of stars.” “They don’t believe in using space as a strategic asset,” he said. “There is no strategic vision for dominating space.” Instead of going big and making the investments necessary to compete with China and Russia, Weichert said the branch has quickly become a bureaucracy that does “everything but actual space dominance.” “Space Force doesn’t want to do space,” he said. Weichert said that part of the reason Space Force has lagged behind is because it is viewed as a “Trump boondoggle, vanity project” by D.C. leadership. But as the jockeying for control of space heats up among world powers, Aleman said it was “quite frankly a mistake to not take Space Force seriously in the first place.” Earlier this year, House Democrats even went as far as to introduce a bill that aimed to abolish Space Force. Rep. Jared Huffman, D-Calif., introduced the bill and wrote that Space Force “threatened longstanding peace” and “wasted billions of taxpayer dollars” on the “militarization of space” in a statement about the proposal. Shortly after President Joe Biden took office, White House press secretary Jen Psaki mocked reporters asking questions about Space Force, after Psaki suggested she did not know who was in charge. On Wednesday, Vice President Kamala Harris held the first National Space Council meeting of the Biden administration — where she delivered a speech on the White House’s “approach to ensuring that space activities create opportunities that benefit the American people and the world.” “When you look at people promoted into leadership roles, they are people who genuinely don’t believe in space power,” Weichert said. So, instead of equipping Space Force with cutting edge technology and defense weapons, he said the Biden team is focused on crafting binding treaties that prevent the U.S. from bringing any weapons into space. And while the U.S. focus is on preserving space as some sort of haven for future explorers, Weichert said Russia is “laughing at us and going full boar” to deny Americans access to space. “It’s going to take a complete defeat of the U.S. by China or Russia for the U.S. to realize we needed it,” he said. Chaillan also fears a shocking space attack is on the horizon, and once it’s happened, it will already be too late. “This is not a game, and we keep dismissing it like it’s never going to happen,” he said of a possible space attack. “We have to be demanding more from the Pentagon and the [Biden] administration to take action.” To compete with China and Russia in space, he said the U.S. must stop being complacent, bring in leaders from the private sector who are knowledgeable about space, and create partnerships with private companies to bring more swiftly to market the type of innovative ideas that could overtake China and Russia. “The government has been so afraid of failing and making mistakes that you have seen a full stop in terms of rapid innovation,” he said. In order to convince the private sector to work with the Pentagon and Space Force, he said people need to be educated on the growing threat our adversaries pose in space. “We have to show them ‘why’ by declassifying information on the threat that China and Russia really cause on a day-to-day basis,” he said. “We need the public to freak out.”

#### Private sector is the silver bullet – Only way to maintain hegemony

Weichert 21 The Future of Space Exploration Depends on the Private SectorBy BRANDON J. WEICHERTJuly 5, 2021 6:30 AM BRANDON J. WEICHERT is the author of “WINNING SPACE: HOW AMERICA REMAINS A SUPERPOWER” (Republic Book Publishers). He runs THE WEICHERT REPORT: WORLD NEWS DONE RIGHT and is a contributor at the Asia Times. <https://www.nationalreview.com/2021/07/the-future-of-space-exploration-depends-on-the-private-sector/#slide-1> //avery

As Jeff Bezos, the wealthiest man on the planet, readies to launch himself into space aboard one of his own rockets, the world is watching the birth of a new dawn in space. Previously, America relied on its government agency, NASA, to propel it to the cosmos during the last space race with the Soviet Union. Today, America’s greatest hopes are with its private sector. Jeff Bezos is not engaging in such risky behavior simply because he’s an adrenaline junky. No, he’s launching himself into orbit because his Blue Origins is in a titanic struggle with Elon Musk’s SpaceX — and Bezos’s firm is losing. Whatever happens, the American people will benefit from the competition that is shaping up between America’s space entrepreneurs. This has always been how innovation occurs: through the dynamic, often cutthroat competition between actors in the private sector. While money is their ultimate prize, fame and fortune are also alluring temptations to make men like Musk and Bezos risk much of their wealth to change the world. The private space race among these entrepreneurs is part of a far more important marathon between Red China and the United States. Whichever nation wins the new space race will determine the future of the earth below. Consider this: Since winning its initial contracts to launch sensitive U.S. military satellites into orbit, SpaceX has lowered the cost of military satellite launches on taxpayers by “over a million dollars less” than what bigger defense contractors can do. Elon Musk is convinced that he can bring these costs down even more, thanks to his reusable Falcon 9 rocket. The competition between the private space start-ups is fierce — just as the competition between Edison and Westinghouse was — but the upshot is ultimately greater innovation and lower costs for you and me. In fact, Elon Musk insists that if NASA gives SpaceX the contract for building the Human Landing System for the Artemis mission, NASA would return astronauts to the lunar surface by 2024 — four years before NASA believes it will do so. (Incidentally, 2024 is also when China anticipates having a functional base on the moon’s southern pole.) Whereas China has an all-of-society approach to its space race with the United States, Washington has yet to fully galvanize the country in the way that John F. Kennedy rallied America to wage — and win — the space race in the Cold War. America’s private sector, therefore, is the silver bullet against China’s quest for total space dominance. If left unrestricted by meddlesome Washington bureaucrats, these companies will ensure that the United States retains its overall competitive advantage over China — and all other challengers, for that matter. Indeed, the next four years could prove decisive in who will be victorious. Enter the newly minted NASA director, Bill Nelson, whose station at the agency has effectively poured cold water on the private sector’s ambitious space plans. “Space is not going to be the Wild West for billionaires or anyone else looking to blast off,” Nelson admonished an inquiring reporter. Why not? America’s actions during its western expansion created a dynamic and advanced nation that was well-positioned to dominate the world for the next century. Should we not attempt to emulate this in order to remain dominant in the next century? More important, this is precisely how China treats space: as a new Wild West . . . but one in which Beijing’s forces will dominate. China takes a leap-without-looking approach to space development — everything that can be done to further its grand ambition of becoming the world’s most dominant power by 2049 will be done. Meanwhile, the Biden administration wants to prevent America’s greatest strength, the free market, from helping to beat its foremost geopolitical competitor. Nelson’s comments are fundamentally at odds with America’s spirit and animating principles. Whatever one’s opinion about Bezos or Musk, the fact is that their private space companies are inspiring greater innovation today in the space sector after years of its being left in the sclerotic hands of the U.S. government. Sensing that the federal government’s dominance of U.S. space policy is waning, the Biden administration would rather cede the strategic high ground of space to China than let wildcatting innovators do the hard work. Today, the Federal Aviation Authority (FAA) and NASA are contriving new ways for strangling the budding private space sector, just as it is taking flight. Risk aversion is not how one innovates. Risk is what led Americans to the moon just 66 years after the Wright brothers flew their first airplane. A willingness for risk doesn’t exist today in the federal government — which is why the feds shouldn’t be running space policy. The U.S. government should be partnering with the new space start-ups, not shunning them. The FAA should be automatically approving SpaceX launches, not stymying them. The federal government will not win space any more than it could win the West or build the locomotive. It takes strong-willed, brilliant individuals of a rare caliber to do that. All government can do is to give the resources and support to private-sector innovators and let them make history for us. The next decade will decide who wins space. Let it be America — and let America’s dynamic start-ups win that race, not China’s state capitalism.

#### Primacy solves arms races and great power war – unipolarity is sustainable, and prevents power vacuums and global escalation

Brands 18 [(Hal, Henry Kissinger Distinguished Professor at Johns Hopkins University's School of Advanced International Studies and a senior fellow at the Center for Strategic and Budgetary Assessments) "American Grand Strategy in the Age of Trump," Page 129-133]

Since World War II, the United States has had a military second to none. Since the Cold War, America has committed to having overwhelming military primacy. The idea, as George W. Bush declared in 2002, that America must possess “strengths beyond challenge” has featured in every major U.S. strategy document for a quarter century; it has also been reflected in concrete terms.6

From the early 1990s, for example, the United States consistently accounted for around 35 to 45 percent of world defense spending and maintained peerless global power-projection capabilities.7 Perhaps more important, U.S. primacy was also unrivaled in key overseas strategic regions—Europe, East Asia, the Middle East. From thrashing Saddam Hussein’s million-man Iraqi military during Operation Desert Storm, to deploying—with impunity—two carrier strike groups off Taiwan during the China-Taiwan crisis of 1995– 96, Washington has been able to project military power superior to anything a regional rival could employ even on its own geopolitical doorstep.

This military dominance has constituted the hard-power backbone of an ambitious global strategy. After the Cold War, U.S. policymakers committed to averting a return to the unstable multipolarity of earlier eras, and to perpetuating the more favorable unipolar order. They committed to building on the successes of the postwar era by further advancing liberal political values and an open international economy, and to suppressing international scourges such as rogue states, nuclear proliferation, and catastrophic terrorism. And because they recognized that military force remained the ultima ratio regum, they understood the centrality of military preponderance.

Washington would need the military power necessary to underwrite worldwide alliance commitments. It would have to preserve substantial overmatch versus any potential great-power rival. It must be able to answer the sharpest challenges to the international system, such as Saddam’s invasion of Kuwait in 1990 or jihadist extremism after 9/11. Finally, because prevailing global norms generally reflect hard-power realities, America would need the superiority to assure that its own values remained ascendant. It was impolitic to say that U.S. strategy and the international order required “strengths beyond challenge,” but it was not at all inaccurate.

American primacy, moreover, was eminently affordable. At the height of the Cold War, the United States spent over 12 percent of GDP on defense. Since the mid-1990s, the number has usually been between 3 and 4 percent.8 In a historically favorable international environment, Washington could enjoy primacy—and its geopolitical fruits—on the cheap.

Yet U.S. strategy also heeded, at least until recently, the fact that there was a limit to how cheaply that primacy could be had. The American military did shrink significantly during the 1990s, but U.S. officials understood that if Washington cut back too far, its primacy would erode to a point where it ceased to deliver its geopolitical benefits. Alliances would lose credibility; the stability of key regions would be eroded; rivals would be emboldened; international crises would go unaddressed. American primacy was thus like a reasonably priced insurance policy. It required nontrivial expenditures, but protected against far costlier outcomes.9 Washington paid its insurance premiums for two decades after the Cold War. But more recently American primacy and strategic solvency have been imperiled.

THE DARKENING HORIZON For most of the post–Cold War era, the international system was— by historical standards—remarkably benign. Dangers existed, and as the terrorist attacks of September 11, 2001, demonstrated, they could manifest with horrific effect. But for two decades after the Soviet collapse, the world was characterized by remarkably low levels of great-power competition, high levels of security in key theaters such as Europe and East Asia, and the comparative weakness of those “rogue” actors—Iran, Iraq, North Korea, al-Qaeda—who most aggressively challenged American power. During the 1990s, some observers even spoke of a “strategic pause,” the idea being that the end of the Cold War had afforded the United States a respite from normal levels of geopolitical danger and competition. Now, however, the strategic horizon is darkening, due to four factors.

First, great-power military competition is back. The world’s two leading authoritarian powers—China and Russia—are seeking regional hegemony, contesting global norms such as nonaggression and freedom of navigation, and developing the military punch to underwrite these ambitions. Notwithstanding severe economic and demographic problems, Russia has conducted a major military modernization emphasizing nuclear weapons, high-end conventional capabilities, and rapid-deployment and special operations forces— and utilized many of these capabilities in conflicts in Ukraine and Syria.10 China, meanwhile, has carried out a buildup of historic proportions, with constant-dollar defense outlays rising from US$26 billion in 1995 to US$226 billion in 2016.11 Ominously, these expenditures have funded development of power-projection and antiaccess/area denial (A2/AD) tools necessary to threaten China’s neighbors and complicate U.S. intervention on their behalf. Washington has grown accustomed to having a generational military lead; Russian and Chinese modernization efforts are now creating a far more competitive environment.

## Off 3 –

#### Counterplan Text: The United Nations Committee on the Peaceful Uses of Outer Space (UNCOPUOUS) should create and operate a space leasing system

#### The CP is goldilocks – maintains the integrity of OST while allowing national and private use of outer space

Pershing 19 Interpreting the Outer Space Treaty¶s NonAppropriation Principle: Customary International Law from 1967 to Today Abigail '. Pershing† Abigail D. Pershing, Interpreting the Outer Space Treaty's Non-Appropriation Principle: Customary International Law from 1967 to Today, 44 Yale J. Int'l L. (2019). Available at: <https://digitalcommons.law.yale.edu/yjil/vol44/iss1/5> Abigail D. Pershing, Yale Law School //avery

One promising proposal that does not appear to have received much attention in the literature is the concept of leasing space to nations, private individuals, or companies rather than allocating it as permanently-owned property. It appears that the only authors who have even tangentially considered the possibility of leasing property rights in space beyond rights to mineral extraction are Marcel Williams and G.S. Sachdeva. Williams’ writing is limited to a thought experiment in which he imagines renting out up to one percent of the moon’s surface. This property would be directly leased to national governments, which in turn would be vested with the power to sublease sections of this territory to private companies or individuals.134 This proposal is not elaborated any further and is left as a broad-strokes outline. The second mention of leasing or renting space comes from G.S. Sachdeva, who argues that a U.N. Space Superintendence Authority could grant leases to those able to pay.135 Yet this theory is limited to a discussion of renting property rights in particular orbits to allow for hovering geostationary space hotels and does not delve into questions of renting land on celestial bodies. The concept of leasing outer space deserves greater consideration by space law scholars. This Section sketches a brief outline of how such a system might operate via an internationally-run space property rental system modeled on UNCLOS. Although UNCLOS itself is deeply problematic in its potentially devastating environmental consequences and negative impacts on indigenous peoples as it regulates deep-sea mining,136 the UNCLOS model may nonetheless be the best option for preserving non-space-faring nations’ rights with regard to outer space, given its success in providing developing nations with a voice in the regulation of the high seas and the seabed beyond national jurisdiction.137 It is worth noting that although very few scholars appear to have considered the possibility of renting space, several have examined the similarities between UNCLOS and space law.138 The approach advanced here differs from the conventional approach to this comparison in that it suggests that the international community move beyond merely authorizing nations or individuals to extract a certain quantity of minerals and instead consider the possibility of leasing out actual tracts of space land. Opened for signature on December 10, 1982, UNCLOS establishes the international rules that govern the use of the world’s oceans and their resources. An examination of UNCLOS is especially apt because it deals with resources— the high seas—that, like space, are not subject to national appropriation. In language strikingly similar to Article II of the Outer Space Treaty, Article 137 of UNCLOS reads: No State shall claim or exercise sovereignty or sovereign rights over any part of the Area [resources of the seabed and ocean floor beyond the limits of national jurisdiction] or its resources, nor shall any State or natural or juridical person appropriate any part thereof.139 Although there are clear similarities between the two treaties, there are substantial differences as well, many of which would be useful in informing an update to the Outer Space Treaty. In addition to extending the prohibition on sovereignty to individuals as well as to nations, UNCLOS goes far beyond the Outer Space Treaty in detailing the limits of the non-appropriation principle. All of Part XI of UNCLOS, totaling fifty-eight Articles, gives a detailed description of how States can negotiate within the bounds of the non-appropriation principle to exploit ocean resources. Of particular relevance for purposes of crafting a parallel space law proposal is UNCLOS Part XI, Section 4, which lays out the rules governing the International Seabed Authority—the main mechanism through which States and private companies can legally exploit ocean resources, including mining of the deep seabed.140 Using UNCLOS as a model, a similar system may prove promising for the evolution of space law. However, the new space system should allow for rental of space land instead of merely allowing for the extraction of space resources. As with UNCLOS, any such space leasing system should be run through the United Nations. Situating such a system in this forum would help the international community stay true to the intentions of the Outer Space Treaty, which provides, in the words of one author, a “philosophical roadmap for the future development of the outer space legal regime.”141 Although a new committee within the United Nations could be formed for this purpose, the existing Committee on the Peaceful Uses of Outer Space (UNCOPUOS) would be an ideal environment for the creation and operation of such a system. UNCOPUOS is composed of eighty-seven geographically and economically diverse member States (including all the major space-faring States). Additionally, intergovernmental organizations and non-governmental organizations have observer status.142 Given its central mission to maintain space as a peaceful arena of international cooperation, as well as its representative composition,143 it would be an ideal body to bring a space leasing system to fruition. UNCOPUOS, in turn, should operationalize the leasing system by establishing a new International Outer Space Authority. This Outer Space Authority should parallel the International Seabed Authority described above.144 There should be similar provisions for the International Outer Space Authority relating to the makeup and functioning of the Authority (with each country getting one vote and decisions made by a two-thirds majority);145 the power of the Outer Space Authority to exercise control over space generally;146 the ability to decide how much rent to charge nations or individual corporations;147 and how to use these funds,148 among other provisions. For this proposed Outer Space Authority to be useful as well as operational, it is critical that it have jurisdiction over property rights in space beyond mining rights. Having rights to property in addition to rights to extracted minerals would add an extra layer of legal security for companies considering venturing into space for mining purposes. And, although businesses currently seem most interested in the possibilities of mining space resources, in the long term, questions of space tourism and the potential development of space colonies may arise. Having a flexible system in place that can adequately handle these concerns is therefore desirable. Instead of just focusing on mining, an Outer Space Authority with broader jurisdiction will have longer staying power and will require less reworking in the near future. Part of the appeal of this rental model is that it works so seamlessly with the current Outer Space Treaty. Turning again to the language of the Treaty and beginning with the non-appropriation principle, Article II lays out that “[o]uter space, including the moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means.”149 Because no State or individual would ever own land in space under a leasing system, this proposed leasing regime would not be in contravention to Article II. And yet, despite this, a leasing regime would establish enough legal security that exploitation of space resources would not be impeded—the main rationale for those who argue that the Treaty (or at least Article II) should be rescinded. Moreover, the principle established in Article I of the Outer Space Treaty, that “[t]he exploration and use of outer space, including the moon and other celestial bodies, shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development, and shall be the province of all mankind,” is also upheld under this leasing regime.150 Leasing not only allows nations and private companies to exploit space resources and reap the benefits of their labor, but also directly benefits developing countries not yet able to tap into the resources of space by redistributing some of the space-going nations’ profits via a leasing fee and a tax on extracted resources.

#### Independently, commercial space innovation stops extinction

Charles Beames 18, Chairman of the SmallSat Alliance, Executive Chairman of York Space Systems, former Principal Director of Space and Intelligence in the Office of the Undersecretary of Defense for Acquisition, Technology, and Logistics (OUSD(AT&L)), Col. (ret.) in the USAF where he served 23 years in space & intelligence leadership positions around the world, 8/8/18, “Op-ed | SmallSat Alliance is on a path toward a new space horizon,” <https://spacenews.com/op-ed-smallsat-alliance-is-on-a-path-toward-a-new-space-horizon/>

We find ourselves still at the dawn of a new space century, mindful of the victories and setbacks of our past, eager to pass the torch to the next generation of space visionaries, scientists, engineers, and enthusiasts. We look to the future not just to see how much bigger, faster, or higher we can reach, but also how the United States, and specifically the U.S. space community, can again inspire the nations of the world to align with us, as it did in the 20th century.

The SmallSat Alliance is an alliance of companies developing, producing, and operating in all segments of the ‘next generation’ space economy; championing renewed U.S. leadership in the burgeoning commercial space economy, and advocating for the transformation of government-led space capabilities. We are experienced space professionals who have chosen to join with others leveraging our decades of hard-won experience, to develop smarter ways to explore space in the 21st century.

A wonderful outgrowth of the legacy space program is the commercial, entrepreneurial, and job-creating commercial space business that it bequeathed. These next-generation enterprises range from multi-million-dollar startups providing rideshare opportunities or components for small satellites to multi-billion-dollar space data-analytic platforms reinventing urban car service and agricultural production. The early returns of this economic revolution are already on our doorstep: space data capabilities are exponentially growing elements of the 21st century world economy.

Beginning with the dreams and funding by successful tech entrepreneurs, enormous venture investments are already delivering wondrous benefits to the world.

Commercial Space – Profit and Non-Profit

There are really two major categories in the commercial sector, the profit driven and the non-profit. The classic for-profit companies include not only those designing, building, launching, and operating satellites but also the tech sector that is turning that raw space data into gold through machine-learning analytics. Since for-profit companies are no longer dependent upon the revenues generated by the Cold War space race culture of a bygone era, this new generation of space companies is able to more efficiently capitalize on Moore’s Law, the nonstop exponential growth in chip density, and the associated networking technology co-evolving with it. This new generation is building profitable businesses helping to clean up our oceans of garbage and debris with satellite surveillance, reconnoitering to assist in enforcing laws that protect our oceans from illegal, unregulated, unlicensed fishing, something that is rapidly depleting the world’s most valuable and essential lifeforms. It’s leading in the innovative use of low-cost satellite constellations to produce ubiquitous remote-sensing data, enabling small business owners to be more profitable and less wasteful. For example, precise timing signals from space are already optimizing transportation of people, goods, and services, with even further gains anticipated with the introduction of artificial intelligence to assist drivers, perhaps even someday replacing them entirely.

The non-profit sector is the other side of commercial space, concerned more for the general welfare of society, but every bit as integral to this new space enterprise. Much like every century before it in human history, ours is not without its unique challenges, some of which have been a consequence of the last, and all of which the space data domain can be leveraged to help solve. Examples are endless, but one challenge that this new space community is uniquely well-adapted for is to further inform worldwide resource allocation for the 21st century and beyond. These two primary resources are sustainable water and the materials needed for adequate housing for an ever-increasing human population. As cities and urbanization continue to expand, governmental planning challenges such as transportation design optimization for goods and services are only the beginning. Additionally, through using inexpensive remote sensing technologies, some members are designing space data analytics to mitigate human suffering from plagues, contain outbreaks, and combating illegal poaching. Some are connecting with other non-profits to curtail human trafficking for the sex trade or forced labor for migrant debt repayment. Still others are helping non-governmental organizations in their work to expose the use of children as soldiers. Addressing these challenges has little to do with resuscitating dreams conceived by long deceased science-fiction writers and much more to do with turning “swords back into plowshares” to solve real threats to humanity.

Other non-profit initiatives include pursuing an even more foundational understanding of who we are and how to be the best custodians of our environment. Much as exploring and monitoring the world’s oceans has advanced civilization through a better understanding of human life and the planet, so too does exploring and monitoring from space. Low Earth orbit (LEO) provides a unique vantage point to look back on the planet and understand what is happening, anticipate what might happen and prepare for the future. In addition to better understanding Earth, responsible and rapid exploitation of the low Earth orbit domain will enhance the understanding of the solar system and the rest of the universe. Small satellites already offer low-cost platforms to study and explore what lies beyond the Earth. Other members are pioneering the use of zero-carbon, hydrogen-based reusable propulsion systems to ensure we don’t worsen our atmosphere using kerosene-fueled rockets for the coming tsunami of satellite launches. Finally, a mission ensuring the general welfare and planet survival for the next thousand years is finally confronting the existential threat that asteroids and comets pose to humanity. These extra-terrestrial, deep-space threats are passing dangerously close to our planet, and today we have no solar map of them and no defense.

## Case –

#### CP Solves legal framework, hold accountable

#### Space mining non-uq, countries will do it too, too far in the future to know

#### Why we no see space dust now

#### Haynes nonuq to private

#### US needs better waeapons and sats from private companies to solve for this better

## Multilat –

#### 1] Advantage is extra T, res only asks whether or not appropriation is bad but this entire advantage is predicated on clearing up foreign relations through the plan, not that private entities appropriating is bad

#### Wemer card is terrible, only says cooperation will be k2 solving the impact but doesn’t explain how or why. So many things thump climate change, Russia and China don’t wanna work with the US,

#### 2] Russia and China already pulling ahead, US needs to keep up, plan bans so Russia and China automatically militarize space, turns space arms race since Russia and China win but US will futilely try to fight back and in the process trigger war

#### Kareiva – thumped and you have no warrants for solvency or the internal link to this, you simply state it, also people want to solve it anyway

#### Tipson 13 – No clue when this natural disaster is going to be, impossible to solve tectonic plates moving, Wemer card still doesn’t internal link to this – no explanation