## T—Outer Space

#### Interpretation- The affirmative must defend the appropriation of outer space by private entities is unjust.

#### Outer space doesn’t include celestial bodies-

**Science Daily** [Outer Space. Science Daily. URL: <https://www.sciencedaily.com/terms/outer_space.htm>] JV

Outer space, also simply called space, refers to the relatively empty regions of the universe outside the atmospheres of celestial bodies. Outer space is used to distinguish it from airspace (and terrestrial locations). Contrary to popular understanding, outer space is not completely empty (i.e. a perfect vacuum) but contains a low density of particles, predominantly hydrogen gas, as well as electromagnetic radiation.

#### Violation- they defend Lunar heritage sites which aren’t a part of outer space.

#### Standards-

#### 1] Limits- By extending the term outer space they have access to an infinite amount of aff which the neg could never make up for. Even now, the definition of the term outer space leaves vagueness for the neg, but their extension makes it impossible to negative. Limits are key to proper clash and education which are the only impacts that matter.

#### Voters-

#### Fairness and education are voters – debate’s a game that needs rules to evaluate it and education gives us portable skills for life like research and thinking.

#### Precision o/w – anything else justifies the aff arbitrarily jettisoning words in the resolution at their whim which decks negative ground and preparation because the aff is no longer bounded by the resolution.

#### Drop the debater – a) they have a 7-6 rebuttal advantage and the 2ar to make args I can’t respond to, b) it deters future abuse and sets a positive norm.

#### Use competing interps – a) reasonability invites arbitrary judge intervention since we don’t know your bs meter, b) collapses to competing interps – we justify 2 brightlines under an offense defense paradigm just like 2 interps.

#### No RVIs – a) illogical – you shouldn’t win for being fair – it’s a litmus test for engaging in substance, b) norming – I can’t concede the counterinterp if I realize I’m wrong which forces me to argue for bad norms, c) chilling effect – forces you to split your 2AR so you can’t collapse and misconstrue the 2NR, d) topic ed – prevents 1AR blipstorm scripts and allows us to get back to substance after resolving theory

## T—Private Entities

#### Interpretation – The affirmative must defend the enactment of a hypothetical government action of the resolution.

#### The text of the resolution calls for debate on hypothetical government action: “Resolved” means to enact a policy by law.

Words & Phrases ’64 (Words and Phrases; 1964; Permanent Edition)

Definition of the word “resolve,” given by Webster is “to express an opinion or determination by resolution or vote; as ‘it was resolved by the legislature;” It is of similar force to the word “enact,” which is defined by Bouvier as meaning “to establish by law”.

#### Government action is necessary to regulate private entities.

Blaustein 18 (Blaustein, Richard. “Private-Sector Space Activities Require Government Regulation, Says US Report.” Physics World, IOP Publishing, 4 July 2018, physicsworld.com/a/private-sector-space-activities-require-government-regulation-says-us-report/.)//DebateDrills AY

The US Congress must introduce legislation to regulate the activities of private companies operating in space. That is according to a new report by the US National Academies of Sciences, Engineering and Medicine, which says the need for reform has been heightened by the “burgeoning” commercial space sector in the US. One leader in the booming US private space sector is [Space X](http://www.spacex.com/), which was founded by Tesla head Elon Musk in 2002. The firm, which has had a number of recent high-profile rocket launches, is setting its sights on missions to Mars. Even Jeff Bezos, who founded the online shopping giant Amazon, is getting in on the act with plans for his firm Blue Origin to send a manned mission to the Moon.

#### Governments have responsibility over non-government (private) entity actions in outer space.

UNOOSA (UNOOSA. “United Nations Office for Outer Space Affairs.” Outer Space Treaty, UNOOSA, [www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/outerspacetreaty.html.)//DebateDrills](http://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/outerspacetreaty.html.)//DebateDrills)AY

ARTICLE VI States Parties to the Treaty shall bear international responsibility for national activities in outer space, including the moon and other celestial bodies, whether such activities are carried on by governmental agencies or by non-governmental entities, and for assuring that national activities are carried out in conformity with the provisions set forth in the present Treaty. The activities of non-governmental entities in outer space, including the moon and other celestial bodies, shall require authorization and continuing supervision by the appropriate State Party to the Treaty. When activities are carried on in outer space, including the moon and other celestial bodies, by an international organization, responsibility for compliance with this Treaty shall be borne both by the international organization and by the States Parties to the Treaty participating in such organization

#### Violation- The actor of the aff is “private entities”

#### Standards-

#### 1] Predictable limits – there are more than 10,000 private companies investing in space

Keotsier 21

John Koetsier, [Journalist, analyst, and tech executive. He is a senior contributor for Forbes, hosts the top-50 podcast TechFirst with John Koetsier(among others), and consults with Silicon Valley companies.], 22 May 2021, “Space Inc: 10,000 Companies, $4T Value ... And 52% American”, <https://www.forbes.com/sites/johnkoetsier/2021/05/22/space-inc-10000-companies-4t-value--and-52-american/?sh=42d1bb0755ac> // AK

It’s not just SpaceX. Elon Musk’s SpaceX might get all the headlines, but there are now a huge number of companies who are competing to open up an unprecedented level of human access to space. The U.S. now has 5,582 space-focused companies, almost ten times more than the next country, the UK, which has 615. And there are more than 10,000 total, globally. Competition between these companies has led the value of space-focused companies to cross the $4 trillion USD mark for the first time ever, and is a key factor in reducing launch to orbit cost by almost two orders of magnitude in the past 20 years.

#### That forces the neg to research every company and their specific investments and destroys neg prep bc we can’t predict every single possible combination or company the aff could choose.

#### 2] Policymaking – fiating companies into doing specific actions is utopian fiat, which isn’t realistic, only through a policymaking model can students learn how governments set obligations for companies, which is how the resolution would be implemented.

## DA

#### The private sector in space is growing and investors have poured hundreds of millions into the industry based on projected growth – the aff reverses that and crashes investment

Davenport 21 – covers NASA and the space industry for The Washington Post's Financial desk. He joined The Post in 2000 and has a bachelors degree from Colby College. [Christian, “Investors are placing big bets on a growing space economy. But can they reach orbit?”, Washington Post, 9/05/21, [https://www.washingtonpost.com/technology/2021/09/05/space-finance-bubble-investors/]//AV](https://www.washingtonpost.com/technology/2021/09/05/space-finance-bubble-investors/%5d//AV)

Space is hot. The billionaire “space barons” — Elon Musk, Jeff Bezos and Richard Branson — [have given the industry a cachet](https://www.washingtonpost.com/technology/2020/11/11/nasa-spacex-crew1-launch-space-station/?itid=lk_inline_manual_3) not seen since the Apollo era of the 1960s and ’70s, with Branson and Bezos flying to the edge of space on their own spacecraft and Musk’s SpaceX becoming the dominant supplier of people and cargo to the International Space Station. Investors are fearful of missing out. That’s turned out to be great news for the space companies hoping to get a piece of the satellite-launch business. But it’s also caused analysts to warn that space is still a nascent and risky business, one rocket explosion away from disaster. Hundreds of millions of dollars are now flowing to an industry long viewed as too risky for serious investment. New start-ups are blossoming in an explosion reminiscent of the early days of tech, when money poured into Silicon Valley start-ups at the beginning of the Internet age. Gen. John “Jay” Raymond, the chief of space operations for the U.S. Space Force, even predicted during a recent speech that investment in the commercial space sector would drive “a second Golden Age of space.” Over the past decade, investors pumped $200 billion into 1,500 space companies around the world, according to an analysis done by [Space Capital, a space investment firm](https://www.spacecapital.com/). Investment in start-up space companies reached $7.6 billion last year, a 16 percent increase from 2019, [according to Bryce Space and Technology](https://brycetech.com/download.php?f=Bryce_Start_Up_Space_2021.pdf), a consulting firm. “This level of investment is consistent with the 6-year trend beginning in 2015 of unprecedented levels of venture capital driven investment flowing into the space industry,” the company said. That has helped drive a $447 billion global space economy that grew 4.4 percent last year, [according to the Space Foundation](https://spacefoundation.org/), an advocacy group. Over the past 10 years, the space economy has grown 55 percent, according to the Foundation, which said the commercial space products and services market is valued at $219 billion. In addition to those investments, several space ventures have gone public over the past year through special purpose acquisition companies, or SPACs. Branson’s Virgin Galactic space tourism company [was one of the first high-profile space ventures](https://www.washingtonpost.com/business/2019/07/09/virgin-galactic-announces-plans-become-first-publicly-listed-space-company/?itid=lk_inline_manual_16) to go public through a SPAC when it merged with a New York hedge fund in 2019. Since then, SPACs have “exploded in popularity,” [according to a report by analysts at Avascent and Jefferies](https://www.avascent.com/news-insights/avascent-apogee/space-spacs-valuation-in-zero-g/), a financial advisory firm specializing in aerospace, which found that the mergers across all industries raised $83 billion in 2020 compared to $14 billion the year before. But the stocks can be volatile. In the last couple of weeks, for example, the stocks of two space companies took hits when they suffered problems. Shares of Virgin Galactic dipped after the Federal Aviation Administration said it was investigating the company after its flight, with Branson on board, went off course. The probe was first reported by the [New Yorker](https://www.newyorker.com/news/news-desk/the-red-warning-light-on-richard-bransons-space-flight). Astra, a start-up rocket company based outside of San Francisco, saw its stock drop after a launch attempt failed to reach orbit last month. Still, more than a dozen companies have gone public, or announced they would in recent months. They include Planet, which has built a constellation of satellites to take images of the Earth, and Astra. [Rocket Lab, which has launched dozens of small satellites](https://www.washingtonpost.com/news/innovations/wp/2017/11/09/ready-to-book-your-satellite-launch-online-the-rocket-industry-looks-to-run-more-like-an-airline/?itid=lk_inline_manual_21) on its Electron rocket, started trading on the Nasdaq last month. And Virgin Orbit, [which “air launches” a rocket](https://www.washingtonpost.com/technology/2021/01/17/richard-branson-virgin-orbit-launch-success/?itid=lk_inline_manual_21) designed to fly satellites by dropping it from the wing of a 747 airplane, announced that it would go public through a SPAC and that it had raised $100 million in another funding round backed by Boeing and AE Industrial Partners. International companies also are driving growth, analysts said. “Going forward, I would expect to see it becoming increasingly international,” said Nickolas Boensch, a program manager at Bryce. “China, Japan, the U.K. have been huge players here, and there is something attractive to having a domestic capability.”

#### The future of the economy is based on the private-sector driven success of space exploration

Clark 20 – President of U.S. Chamber of Commerce with an MBA from Georgetown University. [Suzanne, “Space is our new economic frontier. The US can’t afford to lose out”, CNN Business, 3/02/20, [https://www.cnn.com/2020/03/02/perspectives/space-economic-frontier/index.html]//AV](https://www.cnn.com/2020/03/02/perspectives/space-economic-frontier/index.html%5d//AV)

President Trump's budget, which was released last month, outlines several moonshots that are unlikely to pass a divided Congress. But there's one in particular that both Republicans and Democrats should support wholeheartedly: the $25.2 billion request to fund NASA, a 12% boost [over the prior year](https://www.cnn.com/2020/02/10/tech/nasa-budget-moon-landing-artemis-scn/index.html). The future of our economy depends on the vigorous pursuit of space exploration. And with NASA leading the way, the potential for growth — like space itself — has no limits. Since NASA's launch, American space exploration has always been a bipartisan venture. It was President Kennedy who announced our goal of going to the moon, but it was President Nixon who brought that goal to fruition. Reaching the next milestone in interplanetary travel requires a commitment from our leaders that spans political parties and administrations. And with a new space race getting underway — one that could prove even more consequential than the last — NASA needs bipartisan support from Congress today more than ever. Space is the most promising industry to arise since the birth of the tech sector, with growth projected to skyrocket in the coming years led by companies such as Boeing and Northrop Grumman, and new entrants, such as Virgin Galactic, SpaceX and Blue Origin. [According to US Chamber of Commerce economists](https://www.uschamber.com/series/above-the-fold/the-space-economy-industry-takes), the industry will be worth at least $1.5 trillion by 2040. While no one can fully grasp what our economy will look like 20 years from now, one thing is certain: the private sector space industry will transform how societies across the globe live, communicate and do business. In fact, it already has. Nearly every company depends on space-enabled technologies for day-to-day operations — whether they use satellite communications, remote sensing or location-based services. Businesses across multiple sectors are leveraging these and other technologies to stake their claim in this new economic frontier. Pharmaceutical companies such as Merck and Sanofi, for example, are conducting experiments in low-Earth orbit [aboard the International Space Station](https://www.issnationallab.org/research-on-the-iss/areas-of-research/life-sciences/) to evaluate the potential advantages of microgravity in developing new drug treatments that will help people live longer, healthier lives. Companies, such as Bigelow, are committed to making [off-Earth habitation](https://www.cnn.com/2016/05/05/tech/way-up-there-where-will-we-live-space/index.html) a reality. Even retailers are getting in on the action, with companies like Target [funding research](https://www.iss-casis.org/cottonsustainabilitychallenge/) on the International Space Station to produce more sustainable forms of cotton. Lunar colonies, asteroid mining and interplanetary travel — once the stuff of science fiction — could become a reality. But for any of that to happen, we need sustained and meaningful action from members of Congress. They can start by meeting the president's request for NASA funding. Included in the White House budget is [$12.4 billion](https://www.cnn.com/2020/02/10/tech/nasa-budget-moon-landing-artemis-scn/index.html) specifically for lunar exploration that would include landing systems, continued development of the Space Launch System (SLS) and the Orion crew module. These spacecraft will allow us to shuttle people and equipment to the moon and back. They will take us not only beyond Earth's orbit but also into the next phase of commercial space development. Most importantly, they will ensure that the United States continues to outpace competitors like China and Russia in the space race. Our country must be the vanguard in exploring these new economic frontiers. Planting the American flag in the private sector space industry will help create the jobs of the future and allow the United States to lead the formation of best practices that will govern the industry for decades to come. Some might ask if returning to the moon is worth the expense. The answer is undeniably yes. Providing NASA with the resources it needs to succeed is a small investment that will yield tremendous dividends over time. To start, it would help secure American commercial dominance in a fast-growing industry. It also would be a catalyst for innovation and scientific discovery, with salutary effects that would benefit the entire economy.

#### Econ decline results in nuclear war.

Tønnesson 15 [Tønnesson is a research professor at the Peace Research Institute Oslo (PRIO) in Norway and the leader of the East Asia Peace program at Uppsala University in Sweden.] “Deterrence, interdependence and Sino–US peace.” International Area Studies Review, volume 18, number 3, pgs. 297-311. 2015.

Several recent works on China and Sino–US relations have made substantial contributions to the current understanding of how and under what circumstances a combination of nuclear deterrence and economic interdependence may reduce the risk of war between major powers. At least four conclusions can be drawn from the review above: first, those who say that interdependence may both inhibit and drive conflict are right. Interdependence raises the cost of conflict for all sides but asymmetrical or unbalanced dependencies and negative trade expectations may generate tensions leading to trade wars among inter-dependent states that in turn increase the risk of military conflict (Copeland, 2015: 1, 14, 437; Roach, 2014). The risk may increase if one of the interdependent countries is governed by an inward-looking socio-economic coalition (Solingen, 2015); second, the risk of war between China and the US should not just be analysed bilaterally but include their allies and partners. Third party countries could drag China or the US into confrontation; third, in this context it is of some comfort that the three main economic powers in Northeast Asia (China, Japan and South Korea) are all deeply integrated economically through production networks within a global system of trade and finance (Ravenhill, 2014; Yoshimatsu, 2014: 576); and fourth, decisions for war and peace are taken by very few people, who act on the basis of their future expectations. International relations theory must be supplemented by foreign policy analysis in order to assess the value attributed by national decision-makers to economic development and their assessments of risks and opportunities. If leaders on either side of the Atlantic begin to seriously fear or anticipate their own nation’s decline then they may blame this on external dependence, appeal to anti-foreign sentiments, contemplate the use of force to gain respect or credibility, adopt protectionist policies, and ultimately refuse to be deterred by either nuclear arms or prospects of socioeconomic calamities. Such a dangerous shift could happen abruptly, i.e. under the instigation of actions by a third party – or against a third party. Yet as long as there is both nuclear deterrence and interdependence, the tensions in East Asia are unlikely to escalate to war. As Chan (2013) says, all states in the region are aware that they cannot count on support from either China or the US if they make provocative moves. The greatest risk is not that a territorial dispute leads to war under present circumstances but that changes in the world economy alter those circumstances in ways that render inter-state peace more precarious. If China and the US fail to rebalance their financial and trading relations (Roach, 2014) then a trade war could result, interrupting transnational production networks, provoking social distress, and exacerbating nationalist emotions. This could have unforeseen consequences in the field of security, with nuclear deterrence remaining the only factor to protect the world from Armageddon, and unreliably so. Deterrence could lose its credibility: one of the two great powers might gamble that the other yield in a cyber-war or conventional limited war, or third party countries might engage in conflict with each other, with a view to obliging Washington or Beijing to intervene.

## CP

#### CP: Private entities should fully agree with and comply with the LHS guidelines set by NASA.

#### Prevents exploitation of LHS but still allows for private appropriation- means it competes. Your author.

OSTP 18 Office of Science and Technology Policy March 2018 “PROTECTING & PRESERVING APOLLO PROGRAM LUNAR LANDING SITES & ARTIFACTS” (The Office of Science and Technology Policy is a department of the United States government, part of the Executive Office of the President, established by United States Congress on May 11, 1976, with a broad mandate to advise the President on the effects of science and technology on domestic and international affairs.)//Elmer recut amrita

NASA Recommendations **To** proactively **identify** lunar surface approach strategies and **determine a safe method of visiting historic sites, NASA leveraged the LHS team to** help **guide the flight** and surface planning of future visiting vehicles to those USG historic sites. Along with documenting a technical analysis of damage mechanisms, the NASA LHS team **identified a** small **set of** flight **operations recommendations and** surface **mobility methods which**, if followed, help **protect the sites, while allowing** robotic missions, including **commercial ventures, to achieve** their **mission objectives**. These measures are captured in the “NASA Recommendations to Space-Faring Entities: How to Protect and Preserve the Historic and Scientific Value of U.S. Government Lunar Artifacts,” (Technical Guidelines) published in 2011.2 Until more formal USG guidance is developed and perhaps a multilateral approach is established to reflect various nations’ views on lunar hardware of scientific and historic value**, the Technical Guidelines** developed by the NASA LHS team provide interim recommendations for lunar vehicle design and mission planning teams. While the Technical Guidelines do not represent mandatory USG or international requirements, **they inform** lunar spacecraft mission **planners** interested **in** helping **preserve and protect lunar** historic **artifacts** and potential science opportunities for future missions. Moon Express (U.S.), PTScientists (Germany), and Astrobotics (U.S.) have already announced their intentions to follow NASA’s LHS Technical Guidelines.

## Theory

Interp: Debaters should not read spikes

Violation: They read spikes

Standards

1. Clash: blippy args from underviews prevent an effective clash of ideas. The neg cannot engage with the aff because the aff has not provided any substance. IL to fairness
2. Accessibility: trix are abilist. They make it impossible for people that not are able minded to participate in the space. Makes the debate space exclusionary.

Voters

1. Education: the only this that matters in debate
2. Accessibility: there is not point to debate if people are excluded from the space.

Para issues

1. Drop the debater
2. Competing interps
3. No RVIs

## Case

**Overview:**

1. **The negs gets new reponses. a) other wise the aff can blow out blips from the ac b) only way to ensure that the neg can engage with all of the aff’s args c) unfair to not let the neg get responses**
2. **Reject spikes a) destroy clash because they are not substantiated or explained until the rebuttals b) create a model of debate where deabters go for blipps args instead of engagement c) make the debate unfair the neg, bc the judge is told to vote us down before the debate even begins**
3. **Negating Is harder means you should make the debate easier for the neg instead of the aff. The neg only gets 2 speechs and our ground is entirely reactive to the aff**

* Yes the neg gets analytics, only weigh we can engage with the aff. The aff can uplayer with contention not spec to the neg.
* *Prevents us from testing the aff. Also some args so bad and morally abhorrent that they need multiple responses*
* *No reciprocal*
* Presumption negates. False and the true , because you can prove something is false in multiple ways. Negating is harder so at the end of the round you vote neg bc we did the better debeating
* *Permissibility. A) negating is harder that’s a reasons to give the neg the ballot b) if the rez is neutral that’s a reason to give the neg the ballot bc the burden of the aff is to prove the desiribilty of the rez*

### Recuttings

#### They conveniently forgot the last paragraph of this evidence.

Sample 19 Ian Sample 7-19-2019 “Apollo 11 site should be granted heritage status, says space agency boss” <https://www.theguardian.com/science/2019/jul/19/apollo-11-site-heritage-status-space-agency-moon> (PhD at Queens Mary College 1-22-2022 amrita

But **Wörner believes heritage can go too far**. “I would say let’s limit it to the important ones,” he said. “**If** you define each and **everything** on Earth **as heritage**, you **cannot move** and it will be the same on the moon. We should not make heritage the brake for the future.”

#### YOUR AUTHOR CONCLUDES WE SHOULD STILL ALLOW COMMERCIALIZATION OF THE MOON AND HERITAGE SITES – GG!

#amritaisthebest

OSTP 18 Office of Science and Technology Policy March 2018 “PROTECTING & PRESERVING APOLLO PROGRAM LUNAR LANDING SITES & ARTIFACTS” (The Office of Science and Technology Policy is a department of the United States government, part of the Executive Office of the President, established by United States Congress on May 11, 1976, with a broad mandate to advise the President on the effects of science and technology on domestic and international affairs.)//Elmer recut amrita

While **commercial** robotic **missions create risks** to the protection of lunar scientific and heritage sites, **the U.S. Gov**ernment fully **supports commercialization of the space sector and** commercial robotic missions to **the Moon**. Therefore, the risks to damage lunar heritage sites must be balanced against other national and international interests. The **lunar heritage sites can be protected**, at a reasonable cost, **while** still **fostering commercial space activities** and government-sponsored missions back **to the Moon**. There are approximately a dozen U.S. and foreign companies at various stages of planning lunar robotic missions. These include the five GLXP finalists and other companies from the United States, Japan, India, Israel Germany, and other countries.

### Analytics

#### None of their ev takes into account alt causes to climate change like pollution, deforestation and so on.

#### Their ev talks about research but never specifically mentions that it resolves climate change. At best they might mitigate some effects but do not resolve immediate extinction. Can’t resolve their impacts.

#### Extinction ev is from