

1NC

I

Interpretation:

Appropriation means

the act of taking something for your own use, usually without permission: (Cambridge)

<https://dictionary.cambridge.org/us/dictionary/english/appropriation>

And contextually, Appropriation involves staking exclusive claims on parts of outer space

Reinstein 99 Ezra J. Reinstein, Owning Outer Space, Northwestern Journal of International Law of Business, 1999.

<https://scholarlycommons.law.northwestern.edu/cgi/viewcontent.cgi?article=1500&context=njilb>

The OST thus attempts to **draw a line between appropriation of outer space** territory, which article II forbids, **and** the **exploitation of** that same **territory**, which article I permits. Glenn Reynolds and Robert Merges believe that the "the **restrictions** of Article 2's no-sovereignty provision...do not **bar** the exploitation of space resources, but merely **the staking of exclusive claims to tracts of celestial bodies or space.**" 6

Violation: the aff garners offense from banning activity that does not involve taking or making exclusive claims on any part of outer space

Standards:

(1) Limits: sets a functional limit on a huge topic --- allowing them to ban all private use creates a literally infinite number of topical affs which explodes neg prep burden – remember they're not limited to earth

(2) Ground: if they're allowed to ban all private use and not just taking or ownership claims they eliminate CPs that ban nontopical activities by private entities and tie us to defending bad actions (3)

Bright line: topical versions of the affirmative garner offense from banning taking of material or exclusive claims on outer space. There's no bright line on the aff outside "ban everything"

Vote neg:

(1) fairness is constitutive of debate is tied to both sides being on equal footing and controls the internal link to education and portable advocacy skills

(2) Ballot constraints – The 1AC set the role of the ballot when the aff advocated affirming the resolution, that binds the judge to affirming only if they're topical

Competing interps: (1)you can't be reasonably topical you either meet or you don't and reasonability is just a test of how much the aff can blow up the topic and get away with it. They asked you to affirm the resolution; don't endorse something else. (2)We set an airtight standard by providing both textual and contextual definitions – the existence of a counterinterpretation doesn't mean you affirm, it has to be better

No RVIs: chills legitimate theory and rewards them for being fair. Don't buy time skew claims they can collapse to T in the 2AR 100% of the time

Drop the debater to set a clear limit on the topic and set the norm that topical affs have to stick to the wording, and to deter future abuse

DA

Space innovation is at an unprecedented level in the squo

Raghavan 21 Seetha Raghavan, August 4, 2021, UCF Today. The impact of innovation in the new era of space exploration. Seetha Raghavan is a professor in UCF's Department of Mechanical and Aerospace Engineering.
<https://www.ucf.edu/news/the-impact-of-innovation-in-the-new-era-of-space-exploration/> //AHS

Every once in a while, a confluence of discoveries, events and initiatives results in a breakthrough so significant that it propels the entire world to a higher level, redefining what is possible in so many different fields. This breakthrough is taking centerstage now, as the new era of space exploration — catalyzed by increasing launch access — dawns upon us. The surge of innovation that comes with this will create new opportunities and inspire the next generation of doers. When this happens, boundaries between scientific and social impact are blurred. Innovation leading to scientific discovery can benefit society in the same way that social innovation can diversify and support scientific innovators, who can contribute to global progress. To ride this wave of progress, we must all participate and innovate in the new era of space exploration. The intersection of space exploration, innovation and impact isn't a new phenomenon. In the past, technology developments and spin-offs from space research have consistently found their way into communities worldwide sometimes with lifesaving benefits. The International Space Station supports experiments that have led to discoveries and inventions in communication, water purification, and remote guidance for health procedures and robotic surgeries. Satellite-enabled Earth observation capabilities that monitor natural disasters, climate and crops often support early warnings for threats and mitigation strategies. Space exploration has always been relevant to everyone no matter the discipline or interest.

Commercialization of space has been key in many ways to the current boost in "firsts" over the last few years. It has spurred innovation in launch vehicles and related technologies that led to firsts in vertical-takeoff-vertical landing rocket technology, reusability of rocket boosters and privately developed crewed missions to orbit. Concurrently, NASA has continued to captivate our imagination with the first flight of a helicopter in another world, a mission to return an asteroid sample to Earth and sending a probe to make the closest ever approach to the sun. While we celebrate the scientific progress, there is a vastly important question that we all need to focus on: How can we drive the surge in innovation offered by increased access to space, to benefit humankind?

And privatization has been the key

Sarang 21 Mehak Sarang, February 12, 2021, Harvard Business Review. The Commercial Space Age is Here.

<https://hbr.org/2021/02/the-commercial-space-age-is-here> //AHS

There's no shortage of hype surrounding the commercial space industry. But while tech leaders promise us moon bases and settlements on Mars, the space economy has thus far remained distinctly local — at least in a cosmic sense. Last year, however, we crossed an important threshold: For the first time in human history, humans accessed space via a vehicle built and owned not by any government, but by a private corporation with its sights set on affordable space settlement. It was the first significant step towards building an economy both in space and for space. The implications — for business, policy, and society at large — are hard to overstate. In 2019, 95% of the estimated \$366 billion in revenue earned in the space sector was from the space-for-earth economy: that is, goods or services produced in space for use on earth. The space-for-earth economy includes telecommunications and internet infrastructure, earth observation capabilities, national security satellites, and more. This economy is booming, and though research shows that it faces the challenges of overcrowding and monopolization that tend to arise whenever companies compete for a scarce natural resource, projections for its future are optimistic. Decreasing costs for launch and space hardware in general have enticed new entrants into this market, and companies in a variety of industries have already begun

leveraging satellite technology and access to space to drive innovation and efficiency in their earthbound products and services.

The aff decks space innovation---bureaucratic delay, budgeting, and stifling of new tech kill breakthroughs and reverse years of success the timeframe is now **Van**

Burken 20 Rebecca Van Burken, December 14, 2020, Reason Foundation. Biden Can Utilize Space Companies and Public-Private Partnerships <https://reason.org/commentary/biden-can-utilize-space-companies-and-public-private-partnerships/> //AHS

These successes, and others, reflect positively on the U.S. space sector. However, they would not have happened without the entrepreneurial nature of commercial space. Unlike government engineers and scientists, commercial space operations are not constrained by government bureaucracy nor reliant on taxpayer funding. This allows commercial space companies to explore some seemingly far-fetched ideas, like 3D printing of small rockets, a concept being pioneered by the small start-up Relativity. Commercial space companies must also develop and maintain a competitive edge to survive in the market.

Significant competition ultimately creates less-costly services that give NASA more bang for its buck when developing new technology. Competitive market pressures have created inspiring innovation exemplified by SpaceX's reusable rocket technology and proposals for recycling and turning discarded orbiting tanks into space stations. Without the federal government's continued openness to commercial space, innovation, and invention in the U.S. space industry could be stifled.

Commercial space continues to show up when the government needs new services. Over the last few years, we have seen amazing new technologies developed to track environmental and climate concerns. This is, in part, because NASA has entered into deals with private companies like Planet that are able to analyze data collected by satellite imagery. Planet has stakes in defense satellite imagery but has expanded its portfolio to collect data for climate scientists and researchers to use. Its constellation of 120 satellites is at work photographing every portion of the world at least once a day, which provides constant and up-to-date environmental information. By maintaining deals like that with commercial satellite companies, NASA can avoid the costs of creating its own satellite constellation and other remote sensing technology. Additionally, NASA does not need to focus its energies on updating technologies to keep up with new software and technological capabilities. Companies that worry about competition in the market naturally reassess their services and the burden of doing this should be put on private industry, not on the government. Biden's team should seek out the most effective private partners, hiring new talent in civil programs to use these systems. This would also free up funding for crewed space exploration. In addition to looking to develop new partnerships for space-related efforts, a Biden administration should reassess the government's old partnerships. Prior to the election, Reuters reported that some Biden associates believe he may try to continue funding the International Space Station (ISS) beyond its planned termination in 2025. Reuters reported: "...Biden, on the other hand, would likely call for a delayed moonshot and propose a funding extension for the International Space Station if he wins the White House, according to people familiar with the fledgling Biden space agenda. Pushing back the moon mission could cast more doubt on the long-term fate of Boeing Co's Space Launch System (SLS) rocket, just as Elon Musk's SpaceX and Jeff Bezos' Blue Origin scramble to bring rival rockets to market as soon as next year. Extending support for the space station for a decade would also be a major boost for Boeing, whose \$225 million annual ISS operations contract is set to expire in 2024 and is at the depths of a financial crisis caused by the COVID-19 pandemic and the 737 MAX grounding after fatal crashes. This directly contradicts the Trump administration's efforts to cease funding for the archaic space station by 2025. If Biden were to continue funding this aging facility via NASA it would drain funds that could be used for more important space activities, including manned missions. Commercial companies are primed and ready to take over the space station's functions, and NASA should allow them to do so. If Biden has taxpayers and NASA continue to fund the ISS, it would most likely continue to contract with a company that famous for draining government money—Boeing. The partnerships with Boeing are the types of space policies the incoming Biden administration should be reviewing. It should ask Congress for a Government Accountability Office audit of Boeing's work on the Space Launch System (SLS). The contract is for the development of a rocket with heavy-lift capacities that is designed to bring humans and cargo to the moon and back. Unfortunately, it has had numerous delays and cost overruns and is still not ready for a test flight, as Bloomberg reported in August: Boeing Co's Space Launch System, the largest rocket in NASA's history, will carry a price tag of at least \$9.1 billion — or 30% more than the previous estimate for a key element in the agency's plan to return to the moon. Additionally, the costs for new ground infrastructure at Florida's Kennedy Space Center to support the deep-space exploration program has jumped to \$2.4 billion, Kathy Lueders, NASA's associate administrator for human spaceflight, said in a blog post Wednesday. That's also a 30% increase, the National Aeronautics and Space Administration said in an email Thursday. While we wait for Boeing to reuse obsolete space shuttle hardware on SLS, companies like Blue Origin and SpaceX are continually reusing entire launch boosters. Biden's administration needs a real review of whether it would be more cost and time effective to work with companies like SpaceX or Blue Origin. SLS is estimated to cost NASA \$1 billion or more for each launch, after having already consumed \$18.3 billion since 2010. By contrast, SpaceX has had its self-funded heavy-lift rocket Starship in development since 2012 and has been doing successful prototype tests since 2019. Another space entity that will be a key issue for the Biden administration is the military agency, U.S. Space Force, created by President Trump. Reason magazine had detailed the numerous reasons a Space Force should not have been created. Now that it does exist, the Space Force should be viewed as an agency that does not need to spend taxpayers' money to create its own technology for its missions. Instead, it should use the readily available market of commercial partners ready to contract services. Space News recently reported that Space Force is just now learning of the private sector's capabilities: [Gen. John "Jay"] Raymond said in years past the only commercially viable services have been space launch and communications provided by geosynchronous satellites. But the Space Force is now becoming aware of other capabilities that are being offered commercially such as space tracking data, weather data and on-orbit satellite servicing. Raymond, chief of operations for Space Force, has previously committed to working closely with commercial satellite companies for space-related missions. Col. Michael "Hopper" Hopkins, commander of NASA's SpaceX Crew-1 mission, was commissioned into the Space Force and began a new line of Space Force officers expected to launch to the ISS. To facilitate continued partnerships between Space Force and private enterprise, the Biden administration could back an initiative currently proposed to Congress that Space Force acquisitions be "speedy and agile." Flexibility for Space Force

would include pushing acquisition power to the lowest level of management and removing bureaucracy to make its programs more efficient. We are at a pivotal moment in the space industry's history. The federal government has the opportunity to partner with space industry innovators like Elon Musk, Jeff Bezos, and Richard Branson, and ensure there's the opportunity for new space startups to emerge and add value to the market. The other path, a government and NASA-centric approach to space, would likely stifle technological developments and breakthroughs by private companies, cost taxpayers a lot more money, and cause the United States to fall behind other nations in a number of key areas.

Private space innovation solves a litany of existential threats---climate, food shortages, mass migration. Outweighs and turns case

Taylor 20 Dylan Taylor, May 11, 2020, Space technologies can help solve Earth's challenges (op-ed), Space.com Expert Voices. Dylan Taylor is chairman and CEO of Voyager Space Holdings and is the founder of Space for Humanity.
<https://www.space.com/space-technologies-help-solve-earth-challenges.html> //AHS

Many people may not recognize that the development of space exploration technologies has already helped benefit Earth in many ways, especially when it comes to communications, Earth observation and even fostering economic growth. Space technologies are surprisingly critical in impacting government, industry and personal daily decision-making. However, with more planetary-wide troubles such as climate change, humanitarian crises, mass migration and others on the horizon, how effectively can we rely on space technologies to sustain our own Earth and life on it? Climate change is altering environments across the globe, causing harsh superstorms and weather patterns that are an ever-increasing threat to the sustainability of life on Earth. However, space satellites can do much more than simply predict daily weather forecasts. Space systems can save thousands of lives from extreme weather each year. Before satellite technology, major disaster incidents like the 1900 Galveston, Texas, hurricane killed from 6,000 to 12,000 people because there were no early-warning systems allowing people to get out of harm's way. NASA's satellite data was the first to reveal a massive hole in the ozone layer over the South Pole. Just over a decade ago, we weren't yet using weather apps or online mapping applications to get to where we're going in efficient ways. Earth-observation satellites monitor greenhouse gases and other climate indicators, while also allowing us to analyze Earth's ecosystem health more effectively. For example, technologies adapted from space use, like GPS and semiconductor solar cells, have dramatically reduced greenhouse gas emissions. GPS navigation reduces fuel use on sea, land and in the air by up to 15 to 21 percent, which is more than what more efficient engines or fuel changes have offered. Solar photovoltaic power, which was first used by NASA on projects like the International Space Station, has led to massive improvements in solar energy performance. In the future, orbital space power stations could continuously send down clean power day or night through targeted radiation, whatever weather conditions on Earth may be. Free from atmospheric events, solar power would be more efficient than current solar technology. Additionally, sending solar power generation to space would free up land and cultural resources from huge panel arrays, and it would also save landfills from discarded solar panel waste. Climate change's impact is also harming agriculture production, fisheries management, freshwater sources and forestry. Earth-observation satellites, however, allow us to track, monitor and identify environmentally harmful activities like illegal logging, animal poaching, fires and mining. The closer we monitor these incidents, the better we can offer early and immediate action to help stop these events. Without these systems in place, we would have no way to assess and deal with climate change in a scientific capacity. Not only can using space observations help protect society from climate change, but it can also improve society in the commercial, public health and national safety sectors. World hunger, for instance, is one of the leading humanitarian crises in the world. But satellite imagery can identify crop yield through a magnified view of each pixel, allowing farmers to understand when to water, fertilize and harvest crops. Imaging the land using special spectral bands like near infrared, we can create a vegetation index that represents crop yield productivity. And satellites are uniquely able to capture and collect data on agricultural areas, which make up 37 percent of Earth's landmass. What's more, big data applications of space technology are instrumental to developing nations, which are especially susceptible to natural disasters due to their limited resources. The United Nations Office for Outer Space Affairs (UNOOSA) even has a platform for space-based information for disaster management and emergency response (UN-SPIDER), which uses big data and satellite technology to respond to natural disasters in African countries. With an increasing amount of data from Earth-observation tech, social media, crowdsourced geolocation, virtual tools and internet access, big data can help generate insights that allow us to make better decisions in emergencies while sticking to sustainability goals. In the next 5 to 20 years, we will see a huge transformation in more advanced space technologies. It's expected that satellite megaconstellations, fast point-to-point suborbital transport (which will save on fuel emissions) and asteroid impact prevention (although the technology is still in its infancy) will all make their mark. Megaconstellations are emerging with great promise. These satellite groups can enhance efficiency, capacity and safety to a variety of Earth-based services and business users in the maritime, energy, banking, government and telecommunications sectors. By using big data, megaconstellations will create more latent, higher-speed internet with increased throughput and global coverage that will benefit billions of everyday internet users. Currently, SpaceX, Amazon, Telesat and Samsung all aim to loft huge satellite networks. Space technologies are an integral part of our evolution as a society. As we further explore the cosmos, the level of innovation and exploration needed to do so will help inform how we may purposefully integrate and adapt these tools to benefit our lives down on the surface. While we still have a long journey to evolve these technologies, the track record is there that we can use them to enhance our society and ultimately safeguard our planet, too.

Case

Every piece of their evidence just says the Indian private space industry exists not that it is independent of government and not that they do any appropriation of space this means before you evaluate any other issue you negate on presumption because the 1AC doesn't garner any independent offense or meet its self-assigned burden of endorsing policy change. They are going to do everything they can to spread us out on the line by line but HOLD THE LINE at the point the aff doesn't change anything the round is over and don't let them read new inherency in the 1AR it decks fairness. Their evidence specifically is about Indian companies acting in concert with the government read the nanda evidence especially what they dehighlighted

1. On space militarization causing extinction

On proliferation on ground: non-unique, there are already power imbalances in squo between space-faring countries and non space faring countries

On nuclear war: card is talking about specific impacts of a US Russia nuclear war (who have the most nuclear weapons, way more than China and India), not in context of China and India so impact not comparable, and MAD prevents use of nuclear weapons because nuclear war ensures attacker's death as well as their enemies

2. On Indo-US space alliance antagonizing China, escalating nuclear:

Their uniqueness evidence is 5 years old, coop already happened which makes every case impact nonunique

Choudhury

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<https://economictimes.indiatimes.com/news/science/india-us-to-conclude-mou-to-safeguard-satellites-from-natural-man-made-threats/articleshow/86632984.cms>

India and the US have decided to conclude by year end an MoU on Space Situational Awareness (SSA), creating a framework for sharing data and services to ensure long-term sustainability of outer space activities in what can protect each other's satellites from man-made or natural threats. The issue of expanding bilateral space cooperation figured during PM Narendra Modi's meeting with the American leadership in Washington last week. The bilateral space cooperation was discussed when .. Modi met US

vice president Kamala Harris, who heads the National Space Council of America. **The Network for Space Object Tracking and Analysis** (NETRA), a dedicated control centre for SSA activities set up by Isro in Bengaluru last year, **is expected to launch collaboration with the Combined Space Operation Center** (CSpOC) at the Vandenberg Air Force Base in California to protect each other's satellites from natural and man-made threats, ET has learnt. The agreement will help NET .. receive from the CSpOC data about space debris and other objects in space and potential threat they could pose to the safety and security of the new launches as well as the existing satellites and other space assets, sources informed.

They want to argue that the mere existence of an industry is why Indian space ambition exists but 1 there's no internal link to solvency for the public program even if you think they do something different their evidence doesn't warrant that eliminating private actors will eliminate the program altogether or more importantly eliminate India's underlying motivations for acting on space

And their escalation argument is nonunique India and China tension is 100% about the Himalayan border and it already escalated but the impact wasn't their predicted one china and india have been in a standoff for almost 2 years -- the impact was just 20 people dead.

Choudhury 21 Saheli Choudhury, November 2, 2021, CNBC

<https://www.cnbc.com/2021/11/03/india-china-border-dispute-unlikely-to-end-anytime-soon-nirupama-rao.html> //AHS

The latest round of **border tensions began 17 months ago following a fatal standoff in the Himalayas.** The June 2020 clash in the Galwan Valley in Ladakh **killed 20 Indian soldiers and 4 Chinese soldiers.** **India and China have since held** multiple rounds of military **talks to** try and fully **resolve the dispute.**

What's the latest border dispute about? Local media reports said that the latest round of talks last month between Indian and Chinese military commanders broke down and each side blamed the other. It has taken India and China 12 rounds of talks since the clash last June to disengage from several important and contested areas.

Also on India China war escalates nuclear, the end of their Mitzokami card literally says that the balance of power and geographic constraints means a war would fail to prove decisive, and that both sides have almost concluded this, which is why there hasn't been a war for more than fifty years -> their evidence is proof that escalated tensions between China and India will NEVER cause war

On Indo-Pak:

Their link evidence is terrible it's about reform in general has nothing to do with space privatization and their PTI evidence specifically says there will NEVER be any resolution until the Kashmir dispute is over that means the aff can't solve

NFU even less likely to shred since India is militarizing in space for defensive reasons, and if Pakistan has 0 chance of initiating any space wars, it makes impossible for Pakistan to pose a threat