### 1

#### Interpretation – the affirmative must defend the resolution through governmental implementation

#### 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: they only defend private action

#### 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.

#### Vote neg – they’ve destroyed the round from the beginning and topicality’s key to set the correct model of debate which means it comes first.

#### Evaluate T through competing interps—it tells the negative what they do and do not have to prepare for. Reasonability is arbitrary and unpredictable

#### Precision o/w – anything else justifies the aff arbitrarily jettisoning words in the resolution at their whim

#### Voter:

#### Drop the debater to deter future abuse

#### Fairness is an impact and comes before substance – deciding any other argument in this debate cannot be disentangled from our inability to prepare for it – any argument you think they’re winning is a link, not a reason to vote for them, since it’s just as likely that they’re winning it because we weren’t able to effectively prepare to defeat it. This means they don’t get to weigh the aff.

#### Education is an impact – it’s the only reason schools fund debate

#### No RVIs—it’s your burden to be fair and T—same reason you don’t win for answering inherency or putting defense on a disad. 2] incentivizes baiting theory

#### Evaluate T before 1AR theory – a) norms – we only have a couple months to set T norms but can set 1AR theory norms anytime, b) magnitude – T affects a larger portion of the debate since the aff advocacy determines every speech after it

### 2

#### CP: Do the aff except for private entities registered within The Republic of India.

#### The Republic of India should limit the Indian Space Research Organization’s market share to 7.5%

#### Private appropriation for Indian private entities is key for investor confidence.

**Sen 20** [Nilanjan Sen, who is an experienced lawyer, specialising in International Law and Arbitration, 07-26-2020,Business Insider,https://www.businessinsider.in/science/space/news/the-fault-in-our-stars-indias-bid-at-privatizing-space/articleshow/77182064.cms, 12-7-2021 amrita]

With the creation of the Indian National Committee for Space Research (now ISRO) in 1962, India has been an active patron to mankind’s space efforts. From Aryabhata to Chandrayaan-2, India has launched 113 satellites, including the first privately built and funded satellite ExceedSat-1 which was launched from USA, as a part of Elon Musk’s Space X project Falcon-9. Up **until 2016, India’**s space activities **have been the exclusive domain of the State, however, the launch of the IRNSS-1H** in 2017 was the herald of a new era in India’s Space endeavours. The IRNSS-1H **marked the** beginning of **privatisation in this area** by being the first Indian satellite, to be designed in collaboration with the private parties. In the following year, the ExseedSat-1 was to become the first privately funded and built satellite launched in collaboration with the private Space X project. Interestingly, **up until now**, all **missions have been conducted for** purposes of research, reconnaissance as well as for augmenting communication systems since there wa**s a substantial State monopoly**. With the recent announcement ofthe creation of the Indian National Space Promotion and Authorization Centre or IN-SPACeby the Government of India as part of its atma nirbhar Bharat scheme, which aims at providing a “level playing field” and a supportive regulatory regime to allow Indian private enterprises to grow and carve their own niche in the so-called “fast-growing global space sector”**, India has** in fact **shown an inclination to capitalise** on the US strategy of opening up the avidly touted space “sector” to private participation. While the initiative **sounds exhilarating** and will definitely go a long way in defining India’s image as an emerging global technology powerhouse**, it is** extremely **difficult to fathom why private players, would** be willing to readily come forward and **invest billions,** by confining their activities for research purposes alone, **without any expectation of commercial gains** or simply, return on their investment. This is so because, matters concerning space and space exploration are subject of a special branch of customary international law, that are mainly centred around five treaties and eleven agreements. The most significant of these is the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies or the Outer Space Treaty (OST) which India ratified in 1967, and which specifically lays down under Article I that outer space and space exploration including that on the moon and other celestial bodies, are to be carried out solely for, and in the interest of all countries, and that they are the province of all mankind. **Article II restricts** claims of sovereignty and national **appropriation** by any means whatsoever, Article VI **places international responsibility on all activities carried on by** governmental or by **non-governmental entities**, as well as mandates authorization and continuing supervision by the appropriate State Party. While there is considerable debate surrounding the applicability of the OST especially Article VI to private parties, since the US Supreme Court ‘s ruling in Medellin v Texas (2008) which held that Article VI is not self-executing in nature, regard must be had to the fact that these are domestic Court rulings and the fact that Space law is part of Customary International law which is affirmed by decades of State practise, cannot be denied, and neither can the fact that it is settled principle of international law that a State cannot, under the excuse of changes in domestic law, including subsequent Court rulings, renege from treaty obligations once ratified. In effect, the OST places strict checks upon the objectives behind exploring this uncharted territory by State and Non-State actors, far less allowing the possibility of even claiming rights of any kind. Moreover, it is no secret that **private corporations operate predominantly with** the object of individual gains **and** unless driven by the zeal to serve mankind and share profits with all countries, **chances are** that the **investments** made by private parties **will have little** to nil **returns,** far less any substantive protection**.**

#### Investor confidence is necessary for strong Indian private space-tech—that spills over, boosts Indian military heg, and turns case.

**Prasad 16** [Narayan Prasad has a Master of Space & Telecommunications Law, May 2016, National Academy of Legal Studies and Research University of Law Hyderabad, https://www.researchgate.net/publication/305402089\_A\_POLICY\_REVIEW\_TOWARDS\_THE\_DEVELOPMENT\_OF\_A\_SPACE\_INDUSTRY\_ECOSYSTEM\_IN\_INDIA/link/578dbd2908ae5c86c9a65d05/download, 12-8-2021 amrita]

As India ramps up its space defence capabilities, **lack of a mature space industrial base will** potentially **hurt** its ambitions**.** **India** counts among the top nations in the world in terms of government space investment 4 , but **is far behind** when it comes to **creating successful private industry** that is globally reputed. India’s space budget has increased in size (Figure 2) and is one of the largest space budgets in the world; however, the lack of an active space industry at turnkey level might have an immense opportunity cost for India in manufacturing satellites and launch vehicles to service the global market.5 This in effect is also due to absence of a single Indian company among the top space companies in the world (which in itself is an alarming statistic) that needs to be addressed urgently through policy push under the several grand schemes announced by the current government, such as ‘Make in India’ and ‘Digital India’. Most of **the apprehensions** for private investment in space industry **come from** the **requirements** of high capital investment, **and** the long gestation periods of space projects to get substantial Return on Investment (RoI) for the investors. These trends have been put aside by a new breed of space companies calling themselves ‘NewSpace’, which thrive on new business models of low cost access to space by capitalising on the advancements made in recent years in small satellite technology, consumer electronics, and computing power. Tiny modular satellites called ‘CubeSats’, weighing 1-4 kgs and costing under $100,000 have revolutionised the way space products and services are delivered to end users. The movement began in Europe and US simultaneously as a by-product of university and space agency collaborated research, but it was the US which took the lead in successfully commercialising these technologies developed in laboratories. Figure 3 shows the forecast of nano satellites weighing between 1-50 kg, which are scheduled to be launched during 2014-16 globally.6The high number arises from the fact that such nano satellites have short development timelines, and provide the necessary agility for satellite operators to develop large constellations that can cater to a larger customer base with high service quality. These NewSpace companies have ushered in widespread changes in the traditional satellite manufacturing and launch services industry, with companies like RocketLabs and Firefly Systems building new launchers cheaply using innovative techniques like additive manufacturing, to reduce the cost to orbit for these satellites. The impact of these companies has been felt within the space industry, as practices from these ‘NewSpace’companies have been adopted to keep the costs low and have a factory type approach in building systems in order to cater to the increasing demand. The NewSpace revolution has now led to companies such as Google, Virgin, and Qualcomm investing in small satellite-based communication technologies. India, however, has remained shielded from the rapid changes that have happened in the global space industry over the past decade. **ISRO** has been **slow to respond on** both **commercial** and academic **fronts,** with only a handful of university-level small satellite missions being launched during the same period, none of which could transform into a full-fledged commercial opportunity for the people involved in these projects. Lack of clarity on space policy in India is to blame, and partly the lack of willingness of DoS to take up additional responsibility of creating an ecosystem that disrupts their own traditional one, without any visible incentives. In the following sections, the need and motivation to develop a strong private industry ecosystem is detailed with necessary arguments. 1.2 Motivations to Develop a Private Industry Ecosystem in India Presently, **India has inherent advantages** over other countries **due** the availability of **skilled workforce**, a stable and business friendly **government,** positive investor climate and low cost of operations**.** Because India was an early mover in space technology, it is **poised to become a major space power albeit** slight policy push towards **greater commercialisation** of the industry. Table 1 shows the PESTLE analysis of India, in lieu of the motivation to develop a strong private space industry. The PESTLE analysis shows high suitability for services-based business models to operate out of India. The government’s encouragement for private space industry within the country to develop capacity and capability in pursuing space activities should thereby be directed to both the spectrums across the industry value chain. A focused space policy mandate can have multiple direct and fringe benefits to the government, especially in the defence sector which has been the current government’s area of interest through its ‘Make in India’ initiative. Some of the direct and indirect benefits of space technology include: Civilian and Commercial **Space industry has the potential to emerge as the third** technological **success** front following the successes of the Information Technology (IT) and Biotechnology in the country. Space **has an important role in** the overall **economic development** of the country **and** in the success of the government initiatives such as Digital India and Make in India. The development of the private space industry shall **aid in rural connectivity, e-governance and** setting up of **manufacturing facilities** base for products of high technology in India, creating headways in the overall emergence of the country at the world stage. The success of the space industry will enhance capacities within the country and complement the government-driven programme, which has been historically proven in advanced space faring countries such as the US. Capacity building in the private industry at a turnkey level for both upstream and downstream shall assist theeconomic development of the country by keeping up to the pace of requirement of the marketplace (e.g. Direct-to-Home TV, Broadband Internet), while reducing the inherent dependence on foreign assets. For example, as per a recent Comptroller and Auditor General (CAG) report, only one among the seven DTH providers is leasing transponder from the INSAT system**. The** primary **reason for this disparity is** the **slow pace** at which **ISRO has added** satellite transponders **to the commercial market.** The net effect is that the DTH providers are incurring higher transponder costs on foreign satellites when INSAT could have been an equally reliable, and more cost efficient, alternative. Space has its bearings over the imagination of youth and a strong emerging local industry can revolutionise the mindset of the national talent pool and can potentially aid in reversal of brain drain from the country. Public outreach, awareness, and STEM education are some of the intangible impact that investment in space technology produces. The capacity built up within the industry shall foster Business-to-Business (B2B) collaborations within the country and with enterprises across the globe and create also a strong focus on Business-to-Customer (B2C) applications which moves from the traditional Government-to-Government (G2G) flow of development of capacity and application of technology. The B2B, B2C ecosystem in the space industry has immense potential of tapping the much successful IT infrastructure of the country and extending the IT knowledge base to core software based applications of spacebased information such as Geographical Information Systems (GIS).It shall create an environment of technological innovation which when supported and encouraged can sustain to create a secondary source of development of high-tech hardware, software and applications for the government. An ecosystem of technological innovation in space technology has the potential of creating the next generation Small and Medium Scale Enterprises (SMEs) in India which shall 17 leverage the frugal nature of engineering and can create products and services independently for local and global requirements. Military **In the development of space technology with several dual use capabilities, there exists a case for the building up a sustained indigenous industry ecosystem that shall support the safety and security apparatus of the country**. These range **from development of capabilities in upstream** such as satellite, launch vehicle development **to** creating specific downstream applicationssuch as Automatic Identification of Ships (AIS), Electronic Intelligence (ELINIT), Communication Intelligence (COMMINT) and other Command, Control, Communications, Computers, Intelligence, Information, Surveillance, and Reconnaissance (C4I2SR) applications. Space Situational Awareness (SSA) is **the ability to view, understand and predict the physical location of natural and man-made objects orbiting the Earth. SSA is a prominent concern for both military and commercial systems, mainly because of the increasing military reliance on space assets**. The debris created by the anti-satellite testing by China in 2007 and the Kosmos-Iridium collision in 2009 has raised additional concerns about the safety of space assets. India currently relies on NASA’s data, and will operationalise its own system of Multi Object Tracking Radar (MOTR) by 2017.7 Meanwhile in the US, commercial operators have established the Space Data Association (SDA) for providing satellite operators reliable and efficient data for increased safety of satellite operations; this is in addition to the Department of Defense’s (DoD) own surveillance network. **The changing space security environment and the rising international concerns over the rapid growth of military assets in space makes space security one of the most important issues to address.** The need to have a space security policy is being 7 increasingly debated in India **and** the IDSA Task force in 2009 produced a report which attempted to conceptualise such a policy. However, there is reluctance to talk about use of space for national security needs including its military applications. Though efforts are being made to synchronize the activities of ISRO which is responsible for India’s civilian space programme and the Defence Research and Development Organisation (DRDO) which works on the use of space for national security needs, **the lack of a strong private industry that can meet heightened needs for such sophisticated missions hampers the progress in this direction,** apart from the bureaucratic delay that is normally associated when two high security government agencies interact. Capacity building within the space industry shall not only drive commercial applications, but shall aid the government in situations of emergencies (e.g. natural disasters, intelligence gathering for fighting against terrorism) and can eventually develop into a foundation that could potentially contribute as a part of a strong foreign policy drive. Studying the impact of space technology on civilian life is a complicated task, especially when it comes to quantifying the tangible and intangible impact. **The spill-over of space technology is in sectors as varied as defence, agriculture and education.** There exist many ways to show the impact of investment in space technology; some of them illustrated above. **Thus, the technological and knowledge backbone for space technology creates opportunities in the marketplace to create and explore commercial applications on a global scale, which** traditionally might not be the fundamental focus a governmental space agency, as well as **create multiple intangible impacts** across various sectors such as defence, education, agriculture, energy, transportation and environment**.** India has made substantial investment in its government space programme over the years, but it is **a sustained policy push towards investments in the private space industry ecosystem that will create commercial space applications**, complementing the societal benefits motivation currently being pursued by the government.

#### Indian space military heg checks and limits Chinese heg in the Indo-Pacific.

**Bommakanti 7-15-20**[Kartik Bommakanti is a Fellow with the Strategic Studies Programme. Kartik specialises in space military issues and his research is primarily centred on the Indo-Pacific region. He also works on emerging technologies as well as nuclear, conventional and sub-conventional coercion, particularly in the context of the Indian subcontinent and the role of great powers in the subcontinent’s strategic dynamics. He has published in peer reviewed journals., The enduring significance of space weapons for India, 7-15-2020,ORF,https://www.orfonline.org/expert-speak/the-enduring-significance-of-space-weapons-for-india/, 12-8-2021 amrita]

Regardless of the Americans protestations about the Russian test**, there are important underlying implications for India particularly in the context of Chinas’ growing space and counterspace capabilities as well as the repercussions that are likely to ensue if New Delhi were to pursue a weak response to Chinese space military power.** India will need a whole set of additional KEW tests. This author made the case for sea-launched and air launched KEWs in an extensive analysis. However, it was focused mostly on earth to space KEW systems and Directed Energy Weapons (DEWs). Confining India to the acquisition of KEWS and Directed Energy Weapons (DEWs) or cyber and electronic weapons can be expanded to include co-orbital KEWs. The Russian test also illustrates why co-orbital KEWs are also critical. Investment in additional KEW capabilities assumes considerable importance especially for India because of the long-term defence related challenges presented by the People’s Republic of China (PRC). **The ongoing boundary crisis should only lend greater urgency to India’s space weapons programme, simply because space assets in India’s inventory are vital to the prosecution of a potential military campaign whether on land, sea or air against the People’s Republic China (PRC).** The PRC is known to have developed the accoutrements necessary to conduct co-orbital test. For instance, in 2008 the Chinese BX-1 microsatellite while orbiting in close proximity to its mother satellite, executed a maneuver within 45 kilometers of the International Space Station (ISS). While BX-1 did not definitively establish a PRC co-orbital ASAT capability, it did indicate the PRC’s latent capability to conduct co-orbital kinetic tests and mount attacks against a potential adversary’ space assets. India must avoid what one leading Indian space analyst prior to India’s March 2019 KEW test observed: “To date, India’s interests in space have been restricted to using space assets for reconnaissance, navigation and communication. However, China’s ASAT test could influence India’s policies in the field of counter-space capabilities. To address the concerns raised at the regional and global level about this Chinese bravado, the best option for India could be to follow the disarmament and arms control route.” The statement is a non-sequitur, **while India has conducted only but one direct ascent KEW test, it has not matched China** in developing and executing non-destructive earth to space KEW tests, let alone fully match Chinese KEW, DEW, electronic and cyber weapon capabilities to target space assets. **Pursuing the arms control and disarmament route by India will be premature** in response to the PRC’s extensive development of space **and** counterspace capabilities**.** Reinforcing this point is that the PRC’s current and evolving space weapons programme deserve a sustained response. Bringing closure to the development of space and counterspace capabilities **would imply surrender that is completely unwarranted in light of Beijing’s recent and ongoing aggressiveness,** which India is evidently bearing the brunt. Very likely Beijing will be emboldened even more in deducing that India’s skittish response to its space weapons programme should be treated as weakness **and India subjected to further aggression, not just terrestrially, but equally in space.** The External Affairs Minister S. Jaishankar stated there is an imperative for India and China to achieve some “equilibrium”, although he never fully elaborated what exactly it would look like. However, if equilibrium or more precisely a stable balance of power is to be achieved in the Indo-Pacific, military power is crucial. **Space military power has grown in importance** from reconnaissance, navigation and communications to space weapons **and will be crucial to generating an equilibrium.** Ignoring the eventual deployment of weapons in space would be foolhardy for a state such as India when pitted against the PRC**. Consequently, space military power is a key constituent element in India’s capacity to contribute to the Asian balance of power**. Thus, **investing in a direct ascent and co-orbital KEWs as well as DEWS and cyber and electronic weapons geared for destroying or disabling spacecraft is crucial**. If India were to deprive itself of offensive space weapons to take Chinese or other enemy spacecraft, New Delhi would be putting itself at a considerable disadvantage by leaving it at the mercy of a wide variety of Chinese counterspace capabilities and measures against its Imagery Intelligence (IMINT), Communications (COMMINT), Electronic Intelligence (ELINT) and Synthetic Aperture Radar (SAR) satellites. Indeed, it is perplexing to see arguments that call for India to restrain itself, strive for disarmament and arms control when China makes no significant effort to do so beyond rhetorical commitments. The Russian co-orbital test has underlined the importance of space borne weapons despite entreaties for the non-weaponisation of space. The Modi government must see the emerging space military competition as an opportunity to bolster India’s counterspace capabilities. **It will help cement India as a major space military power and prevent Chinese hegemony over the Indo-Pacific.** Chinese hegemony on the other hand will become a certainty, if New Delhi lapses into self-doubt and remains unduly restrained in the testing, integration and deployment of space weapons.

#### China heg is revisionist and offensive-- in the Indo-Pacific that causes draw-in.

**Brands 19** [Hal Brands is the Henry A. Kissinger Distinguished Professor of Global Affairs at the Johns Hopkins School of Advanced International Studies, a senior fellow at the Center for Strategic and Budgetary Assessments. Zack Cooper is a research fellow at the American Enterprise Institute, an associate at Armitage International, and an adjunct assistant professor at Georgetown University, "After the Responsible Stakeholder, What? Debating America’s China Strategy." Texas National Security Review. Volume 2, Issue 2. February 2019k <https://tnsr.org/2019/02/after-the-responsible-stakeholder-what-debating-americas-china-strategy-2/> 12-10-2021 amrita]

The responsible-stakeholder paradigm offered a coherent “theory of victory”: It identified a desired outcome and employed all elements of American power to bring about that outcome. Over time, the strategy produced greater Sino-American cooperation on a range of issues, from counter-piracy to climate change. **It is increasingly clear, however, that the responsible-stakeholder strategy failed. Two of its core assumptions now appear misplaced: the idea that China’s intentions would become more benign over time, and the belief that Washington had the power to keep Chinese ambitions in check until that shift occurred.** What happened instead was that, as China rose, the Chinese Communist Party became more willing to use its newfound power in coercive and disruptive ways.3 Confounding Western hopes that China would liberalize, **the Chinese Communist Party embraced more repressive policies**, especially after Xi Jinping became general secretary in 2012. **Meanwhile, Beijing sought to control the Indo-Pacific region by** coercing its neighbors, undermining U.S. alliances, practicing mercantilist policies, steadily **increasing its presence** and influence in the South China Sea**, and modernizing its military. In the Indo-Pacific and beyond, moreover, China has engaged in a range of behaviors that challenge American interests: supporting authoritarian regimes, engaging in widespread corruption, pursuing predatory trade practices and major geo-economic projects meant to project Chinese influence further afield,** seeking to stifle international criticism of its human rights abuses, practicing massive intellectual property theft, and striving for technological dominance in critical emerging fields such as artificial intelligence.Recently, China’s confidence has been on display, with Xi stating in 2018 that “no one is in a position to dictate to the Chinese people,” after declaring in 2017 that China is ready to “take center stage in the world.”4 Rather than becoming a responsible stakeholder in a U.S.-led system, **China appears increasingly determined to compete with Washington for primacy in the Indo-Pacific and beyond.** These more assertive policies have been made possible by China’s surprisingly rapid growth**.** Between 1990 and 2016, China’s constant-dollar gross domestic product increased roughly twelve-fold and its military spending grew tenfold.5 The People’s Liberation Army rapidly developed the tools — anti-ship missiles, quiet submarines, advanced fighter aircraft, and integrated air defenses — needed to contest American supremacy in the Western Pacific and give China greater ability to shape events in its region and beyond. Surging national wealth also led to an explosion of Chinese trade, lending, and investment abroad, which enabled far more ambitious geo-economic statecraft**.** All told, **this expansion of Chinese national power is unprecedented in modern history.** It has dramatically narrowed the gap between China and the United States and made it far more difficult for Washington to shape Beijing’s behavior. No strategy can survive the invalidation of its central premises: By the end of the Obama presidency, the responsible-stakeholder concept was living on borrowed time. The Trump administration drove the final stake through the concept in its 2017 National Security Strategy. The document slammed Beijing for attempting to “shape a world antithetical to U.S. values and interests” and declared the failure of China’s “integration into the post-war international order.”6 In particular, **China’s behavior increasingly threatens three enduring U.S. interests. First, the United States seeks to maintain a favorable balance of power in the Indo-Pacific region** and to deter a military conflict — over Taiwan, Korea, or maritime Asia — that could undermine the regional order and cost American or allied lives. Second, **U.S. leaders have an interest in ensuring an open international economy conducive to American prosperity and competitiveness.** Third, **the United States seeks to preserve an international environment in which democracy, human rights, and the rule of law can** flourish, and it seeks to **strengthen** — where possible — the prevalence of those practices abroad. As Chinese power has grown and Chinese behavior has become more assertive, U.S. policymakers have come to see all three of these interests as being imperiled.

#### That goes nuclear-- extinction :/

**Hayes 18** [Peter John Hayes is the Executive Director of the Nautilus Institute for Security and Sustainability, a non-governmental policy-oriented research and advocacy group. He graduated from the University of Melbourne with a degree in History, and from University of California, Berkeley with a Ph.D. in energy and resources. #gobears, Trump and the Interregnum of American Nuclear Hegemony, November 8, 2018. [https://www.tandfonline.com/doi/full/10.1080/25751654.2018.1532525 recut 12-10-2021](https://www.tandfonline.com/doi/full/10.1080/25751654.2018.1532525%20recut%2012-10-2021) amrita]

During a post-hegemonic era, long-standing **nuclear alliances are** likely to be **replaced by** ad hoc nuclear **coalitions**, aligning and realigning around different congeries of threat and even actual nuclear wars, **with** much **higher levels of** uncertainty and **unpredictability** than was the case in the nuclear hegemonic system. There are a number of ways that this dynamic could play out during the interregnum, and these dynamics are likely to be inconsistent and contradictory. In some instances, the sheer momentum of past policy combined with bureaucratic inertia and the potency of political, military service and corporate interests, may ensure that residual aspects of the formerly hegemonic postures are adhered to even as formal nuclear alliances rupture. Even as they reach for the old anchors, these **states may be forced to adjust** and retrench **strategically, or start** to take their own nuclear risks by **making** increasingly explicit **nuclear threats** and deployments **against nuclear-armed adversaries** – as Japan has begun to do with reference to its “technological deterrent” since about 2012.9 This period could last for many years until and **when** nuclear **war breaks out** and leads to a post-nuclear war disorder; or **a** new, post-hegemonic strategic **framework is established** to manage and/or abolish nuclear threat. Under full-blown American nuclear hegemony, fewer states had nuclear weapons, the major nuclear weapons states entered into legally binding restraints on force levels and they learned from nuclear near-misses to promulgate rules of the road and tacit understandings. The lines drawn during full-blown collisions involving nuclear weapons were stark and concentrated the minds of leaders greatly. In a nuclear duel, it was clear that only one of two sides could fire first; the only question was which one. **Now, with nine** nuclear weapons **states, and conflicts** conceivably **involving** three, four or **more of them**, no matter how much leaders concentrate, **it will not be evident** who is aiming at who, **who may fire** first, and during a volley, who fired first and even who hit whom. In a highly proliferated world, **nuclear-armed states** may **feel driven to obtain larger** nuclear **forces** able **to deter multiple adversaries** at the same time, sufficient to conduct not only a few nuclear attacks but **configured to fight more than one** protracted **nuclear war at a time, especially in** nuclear **states torn apart by civil war** and post-nuclear attack reconstruction. The first time nuclear weapons are used since 1945 will be shocking, the second time, less so, the third time, the new normal.

# Case

## Space Debris

#### Private space corporations are key to increasing safety in space technology.

**Kennedy 18** [Brian, “Many in US have confidence in what private space companies will accomplish”, Pew Research Center. 22 June 2018. https://www.pewresearch.org/fact-tank/2018/06/22/many-in-u-s-have-confidence-in-what-private-space-companies-will-accomplish/] //DebateDrills LC

Most **Americans express confidence that private space companies will make meaningful contributions in** developing **safe and reliable spacecraft or conducting research to expand knowledge of space**, according to [a recent Pew Research Center survey](https://www.pewresearch.org/internet/2018/06/06/majority-of-americans-believe-it-is-essential-that-the-u-s-remain-a-global-leader-in-space/).

**Private companies** such as SpaceX, Blue Origin and Virgin Galactic **are becoming increasingly important players in space exploration.** The National Aeronautics and Space Administration (**NASA) has**[**paid private companies $6.8 billion**](https://www.washingtonpost.com/news/business/wp/2018/06/15/feature/what-does-it-mean-to-be-a-nasa-astronaut-in-the-celebrity-space-age-of-elon-musk-and-richard-branson/?utm_term=.b1045d9e9863)**to develop launch systems that might send astronauts into space** as early as this year. These companies are also [setting their sights](https://www.popsci.com/who-wants-to-go-to-mars) on going to the moon or Mars in the future.

(81%) are confident that private space companies will make a profit from these ventures. Some 44% of **Americans have a great deal of confidence that private space companies will be profitable**, and an additional 36% have a fair amount of confidence.

But Americans are also cautiously optimistic that private companies will make contributions that benefit U.S. exploration efforts. **At least two-thirds of Americans have a great deal or a fair amount of confidence that private space companies will build safe and reliable rockets and spacecraft** (77%), **conduct** basic **research to increase knowledge and understanding** of space (70%) **or control costs for developing rockets and spacecraft** (65%).

**The probability for actual collision in space is extremely low – below 0.1% chance. It’ll stay this way as long as NASA’s actions in the squo are the same.**

**Salter 16** (Salter, Alexander William. SPACE DEBRIS: A LAW AND ECONOMICS ANALYSIS OF THE ORBITAL COMMONS. Stanford Law School, 2016, www-cdn.law.stanford.edu/wp-content/uploads/2017/11/19-2-2-salter-final\_0.pdf)//DebateDrills AY

The probability of a collision is currently low. Bradley and Wein estimate that the maximum probability in LEO of a collision over the lifetime of a spacecraft remains below one in one thousand, conditional on continued compliance with NASA’s deorbiting guidelines.3 However, the possibility of a future “snowballing” effect, whereby debris collides with other objects, further congesting orbit space, remains a significant concern.4 Levin and Carroll estimate the average immediate destruction of wealth created by a collision to be approximately $30 million, with an additional $200 million in damages to all currently existing space assets from the debris created by the initial collision.5 The expected value of destroyed wealth because of collisions, currently small because of the low probability of a collision, can quickly become significant if future collisions result in runaway debris growth. Given the possibility of high future costs, private and public actors should, for their own benefit, direct attention to the space debris problem now. Global satellite revenue in 2014 totaled $195.2 billion.6 That stream of economic activity is most threatened by significantly increased concentrations of space debris in orbit. Other activities within the “space economy” ($320 billion in revenue in 2013) that are potentially threatened include human spaceflight and nonorbital spacecraft.7 Private-sector space activities planned for the more distant future, including space tourism and asteroid mining, will also be affected if access to orbit is complicated by space debris.

#### Squo solves, NASA is taking careful measures to avoid collision.

NASA 21 (Garcia, Mark. “Space Debris and Human Spacecraft.” NASA, NASA, 14 Apr. 2015, www.nasa.gov/mission\_pages/station/news/orbital\_debris.html.)//DD AY

NASA has a set of long-standing guidelines that are used to assess whether the threat of such a close pass is sufficient to warrant evasive action or other precautions to ensure the safety of the International Space Station and its crew. These guidelines essentially draw an imaginary box, known as the “pizza box" because of its flat, rectangular shape, around the space vehicle. This box is about 2.5 miles deep by 30 miles across by 30 miles long (4 x 50 x 50 kilometers), with the International Space Station in the center. When predictions indicate that any tracked object will pass close enough for concern and the quality of the tracking data is deemed sufficiently accurate, Mission Control centers in Houston and Moscow work together to develop a prudent course of action. Sometimes these encounters are known well in advance and there is time to move the International Space Station slightly, known as a “debris avoidance maneuver” to keep the object outside of the box. Other times, the tracking data isn’t precise enough to warrant such a maneuver or the close pass isn’t identified in time to make the maneuver. In those cases, the control centers may agree that the best course of action is to move the crew into the Russian Soyuz or U.S. commercial crew spacecraft that are used to transport humans to and from the station. This allows enough time to isolate those spaceships from the station by closing hatches in the event of a damaging collision. The crew would be able to leave the station if the collision caused a loss of pressure in the life-supporting module or damaged critical components. The spacecraft act as lifeboats for crew members in the event of an emergency. Mission Control also has the option of taking additional precautions, such as having the crew close hatches between some of the station’s modules, if the likelihood of a collision is great enough. Maneuvering Spacecraft to Avoid Orbital Debris Debris avoidance maneuvers are planned when the probability of collision from a conjunction reaches limits set in the flight rules used to operate the space station and the spacecraft used to transport humans and cargo to and from the station. For the space station, if the probability of collision is greater than 1 in 100,000, a maneuver will be conducted if it will not result in significant impact to mission objectives. If it is greater than 1 in 10,000, a maneuver will be conducted unless it will result in additional risk to the crew. Debris avoidance maneuvers are usually small and occur from one to several hours before the time of the conjunction. Such maneuvers with the space station require about 5 hours to plan and execute using the station’s Russian thrusters, or the propulsion systems on one of the docked spacecraft. The International Space Station has conducted 29 debris avoidance maneuvers since 1999, including three in 2020. NASA implemented the conjunction assessment and collision avoidance process for human spaceflight beginning with shuttle mission STS-26 in 1988. Before launch of the first element of the International Space Station in 1998, NASA and DoD jointly developed and implemented a more sophisticated and higher fidelity conjunction assessment process for human spaceflight missions. In 2005, NASA implemented a similar process for selected robotic assets such as the Earth Observation System satellites in low-Earth orbit, and the Tracking and Data Relay Satellite System in geosynchronous orbit. In 2007, NASA extended the conjunction assessment process to all NASA maneuverable satellites within low-Earth orbit and within 124 miles (200 kilometers) of geosynchronous orbit. The U.S. Space Force’s 18th Space Control Squadron (18 SPCS) is responsible for performing conjunction assessments for all designated NASA space assets in accordance with an established schedule (every eight hours for human spaceflight vehicles and daily Monday through Friday for robotic vehicles). The 18 SPCS notifies NASA (Johnson Space Center for human spaceflight, and Goddard Space Flight Center for robotic missions) of conjunctions that meet established criteria. The Space Force tasks the Space Surveillance Network to collect additional tracking data on a threat object to improve conjunction assessment accuracy. NASA computes the probability of collision, based upon miss distance and uncertainty provided by the Space Force.Based upon specific flight rules and detailed risk analysis, NASA decides if a collision avoidance maneuver is necessary. If a maneuver is required, NASA provides planned post-maneuver orbital data to the Space Force for screening of near-term conjunctions. This process can be repeated if the planned new orbit puts the NASA vehicle at risk of future collision with the same or another space object.Additional information on orbital debris is available at NASA Orbital Debris Program Office’s website... <https://www.orbitaldebris.jsc.nasa.gov/>

## Worker Exploitation

#### Worker exploitation in the way it is coined is a myth

Antony Sammeroff, 10-14-2019, "Why "Worker Exploitation" Is a Myth," Mises Institute, [**https://mises.org/wire/why-worker-exploitation-myth**](https://mises.org/wire/why-worker-exploitation-myth) *Antony Sammeroff co-hosts the Scottish Liberty Podcast and has featured prominently on other libertarian themed shows including The Tom Woods Show, Lions of Liberty, School Sucks Podcast, and many more. His book*[*Universal Basic Income — For and Against*](https://www.amazon.com/Universal-Basic-Income-foreword-afterword-ebook/dp/B07H9JTC7S/?tag=misesinsti-20)*(with a foreword by Robert P. Murphy) is available in paperback and on Amazon Kindle. His previous self-help book Procrastination Annihilation is free to download from*[*BeYourselfAndLoveIt.com*](http://www.beyourselfandloveit.com/)*. Antony blogs on economic issues at*[*SeeingNotSeen.Blogspot.com*](http://seeingnotseen.blogspot/)*and his articles have also been published by the Scottish Libertarian Party, the Cobden Centre, The Backbencher, The Rational Rise, and ActualAnarchy.com.* [bracketed for gendered language]

It's still a very prevalent view that employers are somehow exploiting the people who work for them when they draw a profit from their business, despite the fact that a person's employer is clearly doing more for their finances than all of the people who are not employing them. I might add, perhaps somewhat facetiously, including those keyboard-warriors who claiming that entering someone into employment is exploiting them. It is true that workers do get paid less than the total value of what they produce, but that is because what they produce is made with other resources which have to be bought, and in a factory or work place which has a price and requires overheads to operate. The capitalist is responsible for paying for marketing and advertising to link the product to potential buyers — and at the end of the day, if the product doesn't sell, everyone else has already been paid but the capitalist walks away with the loss. The capitalist lays out a vision of what [they think] will meet people's needs better than they are being met at present. This requires a particular expertise which is in itself a labour contribution over and above that of the other employees which is unique to the entrepreneur. If [their] vision is clear, indeed [they] will make a profit. If it is faulty, [they] will make a loss. This is not a necessary risk, absent the profit motive a rich person is more likely to buy a bigger house or go on a cruise. But the capitalist takes a risk now, and foregoes consumption, in hope that [they] will reap the benefit later. That is part of what [they are] being paid for. Finally, it's worth mentioning that the capitalist is increasing the value of the worker's labor! If a [person] decides to try out the same manoeuvres which might get them somewhere in a factory out in a field it will not produce much of value to anyone else. Clearly workers can earn more working for their employer than for themselves otherwise they would simply declare themselves self-employed and get on with making a higher income. Perhaps some of them can earn more working for themselves but do not want to take on the responsibilities entailed which are currently met by the firm which employs them. This too is evidence that capitalists are providing value. Ultimately, wages are not an arbitrary figure but a reflection of how much value an employee is able to provide to a customer. If a person wants to do away with an employer they can do so by learning skills, either on the job or on the side, which will allow them to work for themselves. Likewise, profits are not arbitrary but a reflection of how much value a company is providing on the marketplace. Provided, of course, that they are drawing their profits from serving the market place rather than lobbying or appealing to the state, [but that is another article.](https://mises.org/wire/why-big-business-prefers-lobbying-government-competing-marketplace)