## 1NC- OFF 1

#### Xi’s regime is stable now, but its success depends on strong growth and private sector development.

**Mitter and Johnson 21** [Rana Mitter and Elsbeth Johnson, [Rana Mitter](https://hbr.org/search?term=rana%20mitter&search_type=search-all) is a professor of the history and politics of modern China at Oxford. [Elsbeth Johnson](https://hbr.org/search?term=elsbeth%20johnson&search_type=search-all), formerly the strategy director for Prudential PLC’s Asian business, is a senior lecturer at MIT’s Sloan School of Management and the founder of SystemShift, a consulting firm. May-June 2021, "What the West Gets Wrong About China," Harvard Business Review, [https://hbr.org/2021/05/what-the-west-gets-wrong-about-china accessed 12/14/21](https://hbr.org/2021/05/what-the-west-gets-wrong-about-china%20accessed%2012/14/21)] Adam

In China, however, growth has come in the context of stable communist rule, suggesting that democracy and growth are not inevitably mutually dependent. In fact, many Chinese believe that the country’s recent economic achievements—large-scale poverty reduction, huge infrastructure investment, and development as a world-class tech innovator—have come about because of, not despite, China’s authoritarian form of government. Its aggressive handling of Covid-19—in sharp contrast to that of many Western countries with higher death rates and later, less-stringent lockdowns—has, if anything, reinforced that view.

China has also defied predictions that its authoritarianism would inhibit its capacity to [innovate](https://hbr.org/2011/06/what-the-west-doesnt-get-about-china). It is a global leader in AI, biotech, and space exploration. Some of its technological successes have been driven by market forces: People wanted to buy goods or communicate more easily, and the likes of Alibaba and Tencent have helped them do just that. But much of the technological progress has come from a highly innovative and well-funded military that has invested heavily in China’s burgeoning new industries. This, of course, mirrors the role of U.S. defense and intelligence spending in the development of Silicon Valley. But in China the consumer applications have come faster, making more obvious the link between government investment and products and services that benefit individuals. That’s why ordinary Chinese people see Chinese companies such as Alibaba, Huawei, and TikTok as sources of national pride—international vanguards of Chinese success—rather than simply sources of jobs or GDP, as they might be viewed in the West.

Thus July 2020 polling data from the Ash Center at Harvard’s Kennedy School of Government revealed 95% satisfaction with the Beijing government among Chinese citizens. Our own experiences on the ground in China confirm this. Most ordinary people we meet don’t feel that the authoritarian state is solely oppressive, although it can be that; for them it also provides opportunity. A cleaner in Chongqing now owns several apartments because the CCP reformed property laws. A Shanghai journalist is paid by her state-controlled magazine to fly around the world for stories on global lifestyle trends. A young student in Nanjing can study propulsion physics at Beijing’s Tsinghua University thanks to social mobility and the party’s significant investment in scientific research.

#### Crossapply 1AC Patel, Xi has committed to the commercial space industry as the linchpin of China’s rise – the plan is seen as a complete 180

#### Loss of stability causes the CCP to escalate tensions and lash out – uniquely threatens Taiwan.

Blumenthal and Urda 9/28 [09-28-20, Dan Blumenthal, Jakob Urda, The National Interest, “China’s aggressive tactics aim to bolster the Communist Party’s legitimacy”, https://www.aei.org/articles/chinas-aggressive-tactics-aim-to-bolster-the-communist-partys-legitimacy/, Jakob Urda is a Masters Student at Georgetown University and research specialist at a technology consultancy. He has previously worked at the Chicago Project on Security and Threats and studied in the Institute for the Study of War’s War Studies Program. Dan Blumenthal is the director of Asian Studies at the American Enterprise Institute and the author of the forthcoming book The China Nightmare: the Grand Ambitions of a Decaying State (AEI Press, November 17, 2020] //Lex AKu

Yet for the CCP, external aggression is a necessary tool to combat internal weakness. The CCP is obsessed with its fragilities, such as the threat of losing popular support and legitimacy and demands for more justice and freedoms. When Chinese people criticize their government, China must act more aggressively abroad. Beijing uses external aggression to fan Chinese nationalism and cast the CCP as the protector of the people and champion of a new era of Chinese glory. Coronavirus was a true moment of weakness for the CCP, as it exposed fissures in China’s overcentralized authoritarian political system to light. A now-infamous example of Chinese paranoia over potentially out-of-control domestic crises was the case of Dr. Li Wenliang. On February 7, Li, a doctor who warned of the coronavirus but was quickly censored by the Wuhan police, died from the virus himself. Li’s death quickly became the top trending topic on Chinese social media with hashtags such as “We want freedom of speech.” The CCP censored all mentions of Li or any coronavirus failings, fearing more organized protests. Simultaneously, the coronavirus battered China’s economic growth, which underpins the CCP’s claim to legitimacy, with an unprecedented 6.8 percent Q1 contraction. Far from the unified front which Beijing seeks to project, the coronavirus revealed the CCP’s dysfunction. For example, Dali, a midsize city, intercepted and distributed a shipment of surgical masks headed to the hard-hit municipality of Chongqing. Similarly, the City of Qingdao instructed customs officials to hold on to a shipment of masks and medical products headed to Shenyang. At the same time, Hong Kong dealt the CCP a major political embarrassment when it halted traffic coming in from the mainland. These reports demonstrate the government’s inability to enforce basic order among competing cities and provinces. In response to the tumult caused by the coronavirus crisis, the CCP mobilized popular support by reigniting conflicts with its neighbors. On April 2, during the peak of the coronavirus, a Chinese maritime security vessel sank a Vietnamese fishing boat near the Parcel islands. Just two weeks later on April 16, China escalated a month’s long standoff with Malaysia by deploying the coast guard to a disputed oil shelf. China also stepped up its military activities targeting Taiwan—who’s coronavirus response was strong and effective—with as many as three incursions in a single week in June. These episodes were widely condemned by the international community, but greeted with nationalist revelry at home. The need to project strength and unity domestically explains the timing of China’s border dispute with India. In May, violent brawls broke out between Chinese and Indian soldiers near Sikkim. On June 15, the Indian government reported that twenty Indian soldiers were killed by Chinese soldiers in the Galwan River Valley, a disputed border region controlled by India but claimed by China. The CCP has made full use of the crisis to rally nationalism. China’s foreign ministry issued statements blaming India for the clashes and state-propaganda popularized the slogan “China is not afraid.” The Global Times, a propaganda outlet, cast the clashes as an Indian invasion, saying “India has illegally constructed defense facilities across the border into Chinese territory in the Galwan Valley region.” Importantly, Chinese state-owned news outlets were also running news about India’s poor coronavirus response at the time, in contrast to its own “successes.” The recent border clashes mirror China’s 2017 standoff with India at Doklam, a strategic point near Bhutan. During the conflict, Foreign Minister Wang Yi made statements that cast the conflict as an Indian attack upon China, and state media circulated images from the 1962 Sino-Indian War, to remind the China populace that Beijing had defeated Delhi before. The India clashes coincided with another threat to CCP legitimacy: a fight to remove pro-democracy advocates from the Hong Kong Legislative Council. China ended up harshly cracking down on the supposedly autonomous city as well. Understanding China’s weaknesses is essential for policymakers attempting to make sense of its aggression. This dynamic is not only a Xi Jinping phenomenon: China’s modern history shows that domestic crises are often followed by belligerence. A study that pre-dated Xi’s rule, with a dataset of over three thousand interactions between the United States and China, found that the CCP was twice as likely to initiate disputes when the Shanghai Stock Exchange (SSE) experienced a substantial drop. The SSE is a barometer of elite sentiment in China because the government pledges to protect elite investments and uses SSE listings to reward party insiders. Insight into the CCP’s domestic political objectives helps determine the magnitude of the conflict and appropriate response. The editor of the Global Times wrote that a belligerent foreign policy was “necessary to satisfy the Chinese people.” Policymakers can use history to deduce what levels of aggression are “necessary” for the CCP’s goals. In India, it is unlikely that clashes will escalate into invasion because the current skirmishes satisfy the CCP’s purpose of bolstering legitimacy. However, Taiwan may be in particular danger from China’s reactionary aggression. This is because the ways in which conflict with Taiwan would bolster the CCP’s legitimacy align more closely with more violent coercion—reunification is a core element of the CCP’s platform and Taiwan’s clear success fighting the coronavirus is a major blow to Beijing’s legitimacy. Because Taiwan’s “threat” to the CCP stems from its mere existence, it is particularly vulnerable to reactionary aggression. Xi is a self-proclaimed follower of Mao. So, the 1958 Taiwan Strait Crisis is a powerful example; Mao needed to generate support for the great leap forward and deflect criticism from poor economic growth. To stir the nation, Mao seized islands controlled by Taiwan and threatened an invasion of the country until restrained by American nuclear brinksmanship. Over the last three months, China has faced another crisis in the form of historic floods. The Yangtze river basin has been inundated, affecting sixty-three million Chinese and inflicting over twenty-five billion dollars in direct damages. Many Chinese have raised concerns that the government’s massive infrastructure projects have worsened the crisis by draining wetlands and promoting development in flood-prone areas. Poor transparency has stirred more backlash as the CCP has been accused of hiding the extent of damages and censoring criticism. One political commentator in Beijing even predicted that the “Chinese public will question Beijing from this year’s continuous natural and man-made disasters, and even question China’s governance model and its effectiveness.” Instead of hoping that the crisis created by the current floods will give China’s neighbors breathing space, the United States should brace itself for the possibility of renewed aggression. The CCP must prove its worthiness to the tens of millions of displaced people across China, making it prone to lashing out. Taiwan may be an appealing target; it has been spared from flooding and has been visible in assisting neighboring countries like Japan with post-flood reconstruction. Already, China has begun live-fire sea-crossing drills near Taiwan.

#### Attempts at Taiwan cause US draw in, even during decline

Bernstein 20 Richard Bernstein,, 8-17-2020, "The Scary War Game Over Taiwan That the U.S. Loses Again and Again," No Publication, https://www.realclearinvestigations.com/articles/2020/08/17/the\_scary\_war\_game\_over\_taiwan\_that\_the\_us\_loses\_again\_and\_again\_124836.html mvp

But as the U.S. seeks a closer alliance with Taiwan – illustrated by the visit of Health and Human Services Secretary Alex Azar there last week, the highest-level official U.S. delegation to the island in 40 years – the possibility of war between the two superpowers may be more than theoretical: A bill now before both houses of Congress, the Taiwan Defense Act, would end the long-held American policy of “strategic ambiguity” – which aims to keep China guessing as to the U.S. response to any attempt to take Taiwan by force – and require the U.S. “to delay, degrade, and ultimately defeat” an attempt by China “to use military force to seize control of Taiwan.”

#### US-China war goes nuclear

Talmadge 18, Caitlin [**PoliSci PhD from MIT**, Government BA from Harvard, Prof of Security Studies at Georgetown’s Walsh School of Foreign Service.] “Beijing’s Nuclear Option.” Foreign Affairs. October 15, 2018. https://www.foreignaffairs.com/articles/china/2018-10-15/beijings-nuclear-option TG

As China’s power has grown in recent years, so, too, has the risk of war with the United States. Under President Xi Jinping, China has increased its political and economic pressure on Taiwan and built military installations on coral reefs in the South China Sea, fueling Washington’s fears that Chinese expansionism will threaten U.S. allies and influence in the region. U.S. destroyers have transited the Taiwan Strait, to loud protests from Beijing. American policymakers have wondered aloud whether they should send an aircraft carrier through the strait as well. Chinese fighter jets have intercepted U.S. aircraft in the skies above the South China Sea. Meanwhile, U.S. President Donald Trump has brought long-simmering economic disputes to a rolling boil.

A war between the two countries remains unlikely, but the prospect of a military confrontation—resulting, for example, from a Chinese campaign against Taiwan—no longer seems as implausible as it once did. And the odds of such a confrontation going nuclear are higher than most policymakers and analysts think.

Members of China’s strategic com­munity tend to dismiss such concerns. Likewise, U.S. studies of a potential war with China often exclude nuclear weapons from the analysis entirely, treating them as basically irrelevant to the course of a conflict. Asked about the issue in 2015, Dennis Blair, the former commander of U.S. forces in the Indo-Pacific, estimated the likelihood of a U.S.-Chinese nuclear crisis as “somewhere between nil and zero.”

This assurance is misguided. If deployed against China, the Pentagon’s preferred style of conventional warfare would be a potential recipe for nuclear escalation. Since the end of the Cold War, the United States’ signature approach to war has been simple: punch deep into enemy territory in order to rapidly knock out the opponent’s key military assets at minimal cost. But the Pentagon developed this formula in wars against Afghanistan, Iraq, Libya, and Serbia, none of which was a nuclear power.

China, by contrast, not only has nuclear weapons; it has also intermingled them with its conventional military forces, making it difficult to attack one without attacking the other. This means that a major U.S. military campaign targeting China’s conventional forces would likely also threaten its nuclear arsenal. Faced with such a threat, Chinese leaders could decide to use their nuclear weapons while they were still able to.

As U.S. and Chinese leaders navigate a relationship fraught with mutual suspicion, they must come to grips with the fact that a conventional war could skid into a nuclear confrontation. Although this risk is not high in absolute terms, its consequences for the region and the world would be devastating. As long as the United States and China continue to pursue their current grand strategies, the risk is likely to endure. This means that leaders on both sides should dispense with the illusion that they can easily fight a limited war. They should focus instead on managing or resolving the political, economic, and military tensions that might lead to a conflict in the first place.

## 1NC – OFF 2

#### CP: States should ban the appropriation of outer space by private entities, except for the appropriation of outer space by Origin Space using the Yangwang 1 satellite for nighttime light data collection. Origin Space ought to immediately publicly release said data.

#### It competes.

Jones 21 “Chinese commercial satellite has been spotting meteors and aurora” Andrew Jones [freelance space journalist with a focus on reporting on China's rapidly growing space sector. He began writing for Space.com in 2019 and writes for SpaceNews, IEEE Spectrum, National Geographic, Sky & Telescope, New Scientist and others.] September 28, 2021 <https://www.space.com/chinese-satellite-watching-meteors-aurora> SM

Chinese commercial satellite has been spotting meteors and aurora

Yangwang 1 is focused on near-Earth asteroids, but the bonus observations are stunning.

A small Chinese commercial satellite has been detecting meteors impacting the atmosphere and even filming the aurora.

The Yangwang 1 ("Look Up 1") satellite, belonging to Beijing-based space resources company Origin Space, launched in June along with three other satellites. With its small optical space telescope, Yangwang 1 has been using visible and ultraviolet observations to detect near-Earth asteroids.

#### Satellites are appropriation – that’s the 1AC – multiple cards both very clearly defend satellites as an internal link which means you should reject any 1AC permutation for 1AR shiftiness which makes it impossible to be negative since they can unpredictably redefine the plan text to skirt neg ground – if they don’t solve satellites vote neg on presumption because it’s an alt cause to the aff

#### Yangwang-1 is key to nighttime light data – significant advancements over alternatives.

Zhu et al 22 “Assessment of a New Fine-Resolution Nighttime Light Imagery From the Yangwang-1 (“Look up 1”) Satellite” Xiaolin Zhu, Xiaoyue Tan, Minglei Liao, Shuheng Zhao, Yi Nam Xu, and Xintao Liu are with the Department of Land Surveying and GeoInformatics, The Hong Kong Polytechnic University; Tianshu Liu is with the S.T.E.M Academy, Orange Lutheran High School, Meng Su is with the Laboratory for Space Research, The University of Hong Kong. IEEE GEOSCIENCE AND REMOTE SENSING LETTERS, VOL. 19, 2022 6505205 <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=9666911&tag=1> SM

The calibrated radiance of Yangwang-1 was used to estimate the population in 27 districts of Hong Kong and Shenzhen by a linear regression model (Fig. 3). The good performance of this model (R2 = 0.94) suggests that radiance data obtained by Yangwang-1 is capable of evaluating socioeconomic parameters.

B. Spatial Properties

Among three satellites, Yangwang-1 has the highest spatial resolution 38 m, which is higher than 130 m of Luojia-1 and dramatically higher than 750 m of VIIRS (Table II). As a result, Yangwang-1 should be more capable of capturing the spatial pattern of artificial lights, such as bright city blocks (e.g., business districts) and road networks. To investigate the spatial properties of NTL images from different satellites, a subregion covering the Hong Kong–Zhuhai–Macau Bridge (HZMB) was selected to demonstrate the NTL spatial patterns (Fig. 4). It is clear that all three satellites can capture the general spatial pattern of NTL, but Yangwang-1 and Luojia-1 NTL images show much more spatial details than VIIRS image. For example, the images from Luojia-1 and Yangwang-1 can clearly capture the HZMB [bright line in the middle of Fig. 4(c) and (d)], and the regular shape of the Hong Kong International Airport [the bright patch on the right side of Fig. 4(c) and (d)], but VIIRS cannot spot the HZMB and the image hardly show the shape of the airport [Fig. 4(b)]. The comparison between Yangwang-1 and Luojia1 in the zoomed area shows that Yangwang-1 [Fig. 4(h)] captures the road network more clearly than Luojia-1 [Fig. 4(g)]. To quantify the image quality in the spatial domain, the dubbed Blind/Referenceless Image Spatial Quality Evaluator (BRISQUE) index [17] was calculated for the three NTL images using a python package (https://pypi.org/project/imagequality/). BRISQUE quantifies losses of “naturalness” in the image due to distortions and a lower value indicates better image quality. To exclude the impact of the saturation problem of Yangwang-1 on the BRISQUE calculation, pixels in all three images with radiance higher than the saturated value were adjusted to the saturated one and max–min normalization was applied to all images. The results show that Yangwang-1 has a BRISQUE value lower than Luojia-1 and VIIRS (27.4 versus 40.3 and 69.7), indicating that Yangwang-1 has spatial quality better than Luojia-1 and VIIRS by 32% and 61%, respectively.

To further quantify the spatial properties, we estimated the spatial response of Luojia-1 and Yangwang-1 using the HZMB as ground reference samples. Spatial response refers to the satellite’s ability to position ground targets accurately and precisely. The HZMB comprises a 22.9-km long bridge and a 6.7-km long subsea tunnel connected by two artificial islands. To provide illumination, the lighting provisions on the HZMB include lights outlining the boundary of the artificial islands, street and traffic sign lights, high mast lights, etc. Since the bridge has a width of 33.1 m, which is smaller than a pixel of all three satellites, it is ideal to test whether the NTL image is sharp enough to delineate the actual location of the bridge. A transect crossing the bridge was used to investigate the spatial response (Fig. 5). It shows that both Luojia-1 and Yangwang-1 have a peak in NTL that corresponds to the bridge, but the peak of Yangwang-1 has a narrower width than Luojia-1, indicating its superiority in detecting tiny light sources. As for VIIRS, the light is nearly invisible due to the coarse spatial resolution [Fig. 4(b)], so the profile of VIIRS is not included in Fig. 5. In addition, the comparison also indicates that Yangwang-1 is more sensitive than Luojia-1 to low lights (e.g., reflected moonlight or weak emissions), since Yangwang-1 recorded more valid radiance on both sides of the bridge than Luojia-1 (Fig. 5). Further comparisons were conducted on selected sites located in the mountainous areas around cities [yellow points in Fig. 1(a)]. As summarized in Table III, Yangwang-1 and VIIRS/DNB have similar radiances with a difference of less than 1 nW·cm−2·sr−1, whereas Luojia-1 did not record these low radiance values.

C. Spectral Properties

Fig. 6(a) shows the spectral responses of the three satellites for the NTL visible band. Spectral response describes the sensitivity of the sensor to optical radiation of different wavelengths. This is important because spectral responses determine which part of the optical radiation spectrum is measured. The spectral responses of Luojia-1 and VIIRS were collected from previous studies [14], [18]. The spectral response of Yangwang-1 was estimated as the product of the quantum efficiency (QE) and lens transmittance data provided by the Yangwang-1 satellite team [19]. Fig. 6(a) suggests that the spectral response of Yangwang-1 is significantly different from Luojia-1 and VIIRS. It shifts more to the shorter wavelengths, which indicates that Yangwang-1 has some strengths in artificial light monitoring. First, the absorption of the atmosphere mainly happens in the band greater than 650 nm, and Yangwang-1 concentrates on a shorter wavelength ranging from 420 nm to approximately 700 nm, so Yangwang-1 will be less influenced by the absorption of the atmosphere. Second, the energy of three main types of artificial lights (fluorescent, high-pressure sodium, and LED) mainly distributes within the spectral response curve of Yangwang-1 except for the narrow peak of high-pressure sodium [Fig. 6(b)]. Therefore, Yangwang-1 is more suitable to be utilized for observing artificial lights, especially for LEDs of which the first peak of energy is out of the spectral responses of Luojia-1 and VIIRS.

IV. DISCUSSIONS AND CONCLUSION

From our assessment, NTL imagery from Yangwang-1 has acceptable quality compared to the state of the art in NTL remote sensing (e.g., VIIRS, Luojia-1) and some aspects are even better. For the radiometric property, Yangwang-1 has a detectable minimum radiance lower than the other two satellites, so it can better capture weak light emissions. For spatial properties, Yangwang-1 images have the highest spatial resolution among the currently available NTL satellites except for some images acquired through aerial photography and commercial satellites. Therefore, Yangwang-1 can help monitor human activities and socioeconomic disturbances at fine scales, such as neighborhood scale. For spectral property, based on the comparison of spectral response curves, Yangwang-1 is more suitable to detect artificial light and less influenced by the absorption of the atmosphere. Considering the capability and improvement of Yangwang-1 in NTL imaging, Yangwang-1 NTL data can be applied to various fields, including urban mapping, road network extraction, light pollution, illegal fishing, fires, disaster detection, and human settlements and associated energy infrastructure mapping at fine scales. The sample data used in this study can be downloaded from <https://github.com/XZhu-lab/Yangwang-1-NTLdata-assessment>.

#### High quality NTL key to sustainable development goals

Li et al 18 “Night-time light remote sensing for global Sustainability” 2018. Deren Li (Wuhan University), Qingling Zhang (Sun Yat-sen University), Xi Li (Wuhan University), <https://earthobservations.org/documents/gwp20_22/geo_night_time_light_remote_sensing_for_global_sustainability_ip.pdf> SM

The United Nations 2030 Agenda for Sustainable Development provides the world a bright path for a more sustainable future. The 2030 Agenda aims to solve a number of key issues, such as extreme poverty, income inequality, and disaster risk reduction etc. Evaluating the implementation progress of the 2030 Agenda is critically important since the international community can focus on the unsolved issues far behind the 2030 Agenda. Remote sensing has played an important and indispensable role in monitoring natural resources, environment pollution as well as social development. Night-time light remote sensing, observing visible lights at night, provides a unique perspective on the human activities and socioeconomic dynamics. It has shown powerful capabilities in analyzing a number of issues in sustainable development, such as urban growth measurement, economic growth evaluation, humanitarian crisis evaluation, natural disaster damage assessment, as well as light pollution analysis.

A number of night-time light remote sensing satellites are now available. Since the 1970s, night-time light images acquired by the U.S. Defense Meteorological Satellite Program’s Operational Linescan System (DMSP/OLS) have been applied to monitoring oil field combustion, estimating socioeconomic parameters and light pollution. In 2011 the Suomi National Polar-orbiting Partnership satellite’s Visible Infrared Imaging Radiometer Suite (Suomi NPP/VIIRS) emerged with significantly improved performances compared with DMSP/OLS, ushering in a new era to the night-time light remote sensing community. China’s Wuhan University launched Luojia-1 satellite in June 2018, providing global night-time light images at 130 m resolution. High quality night-time light remote sensing data is critical to retrieve detailed information on the geographical distribution of human population and their properties for disaster risk reduction and sustainable development.

#### SDGs solve extinction

Tom Cernev & Richard Fenner 20, Australian National University; Centre for Sustainable Development, Cambridge University Engineering Department, "The importance of achieving foundational Sustainable Development Goals in reducing global risk," Futures, Vol. 115, January 2020, Elsevier.

4.1. Cascading failures Fig. 3 demonstrates that cascade failures can be transmitted through the complex inter-relationships that link the Sustainable Development Goals. Randers, Rockstrom, Stoknes, Goluke, Collste, Cornell, Donges et al. (2018) have suggested that where meeting some SDGs impact negatively on others, this may lead to “crisis and conflict accelerators” and “threat multipliers” resulting in conflicts, instability and migrations. Ecosystem stresses are likely to disproportionately affect the security and social cohesion of fragile and poor communities, amplifying latent tensions which lead to political instabilities that spread far beyond their regions. The resulting “bad fate of the poor will end up affecting the whole global system"(Mastrojeni, 2018). Such possibilities are likely to go beyond incremental damage and lead to runaway collapse. The World Economic Forums’ Global Risks Report for 2018 shows the top five global risks in terms of likelihood and impact have changed from being economic and social in 2008 to environmental and technological in 2018, and are closely aligned with many SDGs (World Economic Forum, 2018). The report notes “that we are much less competent when it comes to dealing with complex risks in systems characterised by feedback loops, tipping points and opaque cause-and-effect relationships that can make intervention problematic”. The most likely risks expected to have the greatest impact currently include extreme weather events natural disasters, cyber attacks, data fraud or theft, failure of climate change mitigation and water crises. These are represented in Fig. 3 by the following exogenous variables. “Climate change” drives the need for Climate Action (SDG 13), “Cyber threat” may adversely impact technology implementation and advancement which will disrupt Sustainable Cities and Communities (SDG 11); Decent Work and Economic Growth (SDG 8) and the rate of introduction of Affordable and Clean Energy (SDG 7), with reductions in these goals having direct consequences in also reducing progress in the other goals which they are closely linked to. “Data Fraud or Threat” has the capacity to inhibit innovation and Industrial Performance (SDG 9), reducing competitiveness (and having the potential to erode societal confidence in governance processes). “Water Crises” (linked with climate change) have a direct impact on Human Health and Well Being (SDG 3) as well as reducing access to Clean Water and Sanitation (SDG 6) and reducing agricultural production which increases Hunger (SDG 2). The causal loop diagram also highlights “Conflict” as a variable (driven by multiple environmental-socio-economic factors) which together with regions most impacted by climate degradation will lead to an increase in migrant refugees enhancing the spread of disease and global pandemic risk, thus impacting directly on Human Health and Well Being (SDG 3) 4.2. Existential and catastrophic risk The level and consequences of these risks may be severe. Existential Risks (ER) have a wide scope, with extreme danger, and are “a risk that threatens the premature extinction of humanity or the permanent and drastic destruction of its potential for desirable future development” (Farquhar et al., 2017,) essentially being an event or scenario that is “transgenerational in scope and terminal in intensity” (Baum & Handoh, 2014). With a smaller scope, and lower level of severity, global catastrophic risk is defined as a scenario or event that results in at least 10 million fatalities, or $10 trillion in damages (Bostrom & Ćirković, 2008). Global Catastrophic Risk (GCR) events are those which are global, but they are durable in that humanity is able to recover from them (Bostrom & Ćirković, 2008; Cotton-Barratt, Farquhar, Halstead, Schubert, & Snyder-Beattie, 2016) but which still have a long-term impact (Turchin & Denkenberger, 2018b). Achieving the Sustainable Development Goals can be considered to be a means of reducing the long-term global catastrophic and existential risks for humanity. Conversely if the targets represented across the SDGs remain unachieved there is the potential for these forms of risk to develop. This association combined with the likely emergence of new challenges over the next decades (Cook, Inayatullah, Burgman, Sutherland, & Wintle, 2014) means that it is of great value to identify points within the systems representations of the Sustainable Development Goals that could both lead to global catastrophic risk and existential risk, and conversely that could act as prevention, or leverage points in order to avoid such outcomes. This identification in turn enables sensible policy responses to be constructed (Sutherland & Woodroof, 2009). Whilst existential threats are unlikely, there is extensive peril in global catastrophic risks. Despite being lesser in severity than existential risks, they increase the likelihood of human extinction (Turchin & Denkenberger, 2018a) through chain reactions (Turchin & Denkenberger, 2018a), and inhibiting humanity’s response to other risks (Farquhar et al., 2017). It is necessary to consider risks that may seem small, as when acting together, they can have extensive consequences (Tonn, 2009). Furthermore, the high adaptability potential of humans, and society, means that for humanity to become extinct, it is most likely that there would be a series of events that culminate in extinction as opposed to one large scale event (Tonn & MacGregor, 2009; Tonn, 2009). Whilst the prospect of existential risk, or global catastrophic risk can seem distant, the Stern Review on the Economics of Climate Change estimated the risk of extinction for humanity as 0.1 % annually, which accumulates to provide the risk of extinction over the next century as 9.5 % (Cotton-Barratt et al., 2016). With respect to identifying these risks, it is known that in particular, “positive feedback loops… represent the gravest existential risks” (Kareiva & Carranza, 2018), with pollution also having the potential to pose an existential risk. With respect to reinforcing feedback loops, there is particular concern about the effects of time delay, and the level of uncertainty when feedback loops interact (Kareiva & Carranza, 2018). It is difficult to identify the exact thresholds that are associated with tipping points (Moore, 2018), which leads to global catastrophic risk or existential risk, and thus it is necessary to understand the events that can lead to existential risks (Kareiva & Carranza, 2018). Table 1 identifies possible global catastrophic risks and existential risks as reported in the literature and from Fig. 3 these are aligned to the Sustainable Development Goals they impact on the most. 4.3. Linking risks with progress in the SDGs Generally it is the Outcome/Foundational and Human input SDGs that are most directly related. For example as the movement of refugees increases pandemic risk, poverty levels in low and middle income countries increase reducing the health of the population, and so restricting access to education which further enhances poverty and birth rates rise as family sizes increases generating unsustainable population growth which furthers the migration of refugees (Fig. 5). Fig. 3 shows that leverage points to reduce refugees lies in SDG 16 (Peace Justice and Strong Institutions), reducing malnutrition through alleviating SDG 2 (Zero Hunger) and taking SDG 13 (Climate Action) to avoid the mass movement of people to avoid the impacts of global warming. Global warming itself will drive disruptive changes in both terrestial and aquatic ecosystems affecting SDG 15 (Life on Land) and SDG 14 (Life Below Water) adding to their vulnerability to increases in pollution driven by a growing economy. Loop B (in Fig. 4)shows the constraints associated with SDG 13 (Climate Action) may slow the economic investment in industry and infrastructure reducing the pollution generated, encouraging adoption of SDG 7 (Affordable and Clean Energy) whilst stimulating carbon reduction and measures such as afforestation, which will also improve the foundational environmental goals. Depletion of resources and biodiversity are strongly linked to SDG 12 (Responsible Consumption and Production) through measures such as halving global waste, reducing waste generation through recycling reuse and reduction schemes, and striving for more efficient industrial processes. The more resources that are used, the less responsible is Consumption and Production which may thus reduce biodiversity (Fig. 3) and increase the amounts of wastes accumulating in the environment. The final driver of Global Catastrophic Risk is an agricultural shortfall which will increase global Hunger (SDG 2) and widen the Inequality (SDG 10) between rich and poor nations and individuals. Quality Education (SDG 4) is important as a key leverage point to stimulate the generation and adoption of new technologies to improve energy (SDG 7) and water supplies (6) which can enhance agricultural production. Such linkages are convincingly examined and demonstrated in the recent film “The Boy Who Harnessed the Wind” (2019), based on a factual story of water shortages in Malawi in the mid 2000s. These examples may appear self evident, but it is the connections between the goals and how they adjust together that is important to consider so the consequence of policy actions in one area can be fully understood. Because of the underlying system structures global threats can quickly transmit through the system. Water Crises will limit the water available for agriculture and basic needs which in turn will stimulate a decline in Gender Equality (SDG 5). Technology disruption from cyber attacks will restrict the ability to operate Sustainable Cities and Communities (SDG 11) and potentially expose populations to extreme events by disrupting transport, health services, and the ability to pay for adaptation and mitigation of climate related threats from a weakened economy. Conflict (in all forms) will increase refugees and climate change provides the backdrop against which all these interactions will play out.

#### Warming guarantees extinction and o/w all other existential threats

Krosofsky 21 [Andrew, freelance writer for over two decades] “How Global Warming May Eventually Lead to Global Extinction.” Green Matters. March 11, 2021. <https://www.greenmatters.com/p/will-global-warming-cause-extinction> TG

Will global warming cause extinction?

Eventually, yes. Global warming will invariably result in the mass extinction of millions of different species, humankind included. In fact, the Center for Biological Diversity says that global warming is currently the greatest threat to life on this planet. Global warming causes a number of detrimental effects on the environment that many species won’t be able to handle long-term.

Extreme weather patterns are shifting climates across the globe, eliminating habitats and altering the landscape. As a result, food and fresh water sources are being drastically reduced. Then, of course, there are the rising global temperatures themselves, which many species are physically unable to contend with. Formerly frozen [arctic and antarctic regions are melting](https://www.greenmatters.com/p/arctic-ice-melting), increasing [sea levels](https://www.greenmatters.com/news/2019/01/15/bPhgWvMpZ/oceans-warming-climate-change) and temperatures. Eventually, these effects will create a perfect storm of extinction conditions.

What species will go extinct if global warming continues?

The melting glaciers of the arctic and the searing, unmanageable heat indexes being seen along the Equator are just the tip of the iceberg, so to speak. The species that live in these [climate zones](https://www.greenmatters.com/p/what-is-a-climate-zone) have already been affected by the changes caused by global warming. Take polar bears for example, whose habitats and food sources have been so greatly diminished that they have been forced to range further and further south.

Increased carbon dioxide levels in the atmosphere and oceans have already led to [ocean acidification](https://www.greenmatters.com/p/what-causes-ocean-acidification#:~:text=According%20to%20the%20Natural%20History,for%20some%20species%20to%20survive.). This has caused many species of crustaceans to either adapt or perish and has led to the mass bleaching of more than 50 percent of Australia’s [Great Barrier Reef](https://www.greenmatters.com/p/coral-great-barrier-reef), according to [National Geographic](https://www.nationalgeographic.com/magazine/article/explore-atlas-great-barrier-reef-coral-bleaching-map-climate-change).

According to the Center for Biological Diversity, the current trajectory of global warming predicts that more than 30 percent of Earth’s plant and animal species will face extinction by 2050. By the end of the century, that number could be as high as 70 percent.

#### 1AR theory is skewed towards the aff – a) the 2NR must cover substance and over-cover theory, since they get the collapse and persuasive spin advantage of the 3min 2AR, b) their responses to my counter interp will be new, which means 1AR theory necessitates intervention. Implications – a) reject 1AR theory since it can’t be a legitimate check for abuse, b) drop the arg to minimize the chance the round is decided unfairly, c) use reasonability with a bar of defense or the aff always wins since the 2AR can line by line the whole 2NR without winning real abuse

## Case

### AT: Space Militarization/Arms race

#### Arms races historically don’t lead to nuke war – cold war proves

#### Deterrence in space solves even if we’re more vulnerable ---

#### Countries know we value our space assets and are willing to practice brinkmanship or escalate horizontally

Harrison, 9 – Director, Eisenhower Center for Space and Defense Studies Ambassador Roger G. Harrison, “Space Deterrence: The Delicate Balance of Risk,” Space and Defense, Volume 3, No. 1. Summer 2009. <http://www.usafa.edu/app/uploads/Space_and_Defense_3_1.pdf>

There are, however, potential mitigating factors. First, an adversary could not be certain that retaliation would be limited to space. Although the threat of escalation is often portrayed as inhibiting rather than empowering U.S. decision makers, that threat would also have to be taken seriously by an adversary. U.S. declaratory policy has always emphasized that retaliation for attacks on vital assets will be of a magnitude and by means of our choosing.38 No rational adversary could rule out a disproportionate response or so called “horizontal escalation” (for example in the cyber domain), especially if his conclusion was the same as ours: that limiting ourselves to space-for-space retaliation would leave the U.S. at a disadvantage. He would also have to take into account the possibility of a less than rational response to his action, perhaps leading to an even more rapid escalation.

The Cold War analogy is brinksmanship, the willingness to escalate unpredictably when vital strategic interests are threatened.

#### MAD checks space escalation – nuclear response and debris

Bowen 18 [Bleddyn Bowen, Lecturer in International Relations at the University of Leicester. The Art of Space Deterrence. February 20, 2018. https://www.europeanleadershipnetwork.org/commentary/the-art-of-space-deterrence/]

Fourth, the ubiquity of space infrastructure and the fragility of the space environment may create a degree of existential deterrence. As space is so useful to modern economies and military forces, a large-scale disruption of space infrastructure may be so intuitively escalatory to decision-makers that there may be a natural caution against a wholesale assault on a state’s entire space capabilities because the consequences of doing so approach the mentalities of total war, or nuclear responses if a society begins tearing itself apart because of the collapse of optimised energy grids and just-in-time supply chains. In addition, the problem of space debris and the political-legal hurdles to conducting debris clean-up operations mean that even a handful of explosive events in space can render a region of Earth orbit unusable for everyone. This could caution a country like China from excessive kinetic intercept missions because its own military and economy is increasingly reliant on outer space, but perhaps not a country like North Korea which does not rely on space. The usefulness, sensitivity, and fragility of space may have some existential deterrent effect. China’s catastrophic anti-satellite weapons test in 2007 is a valuable lesson for all on the potentially devastating effect of kinetic warfare in orbit.

#### Deterrence solves.

**Evanoff 19** [Kyle Evanoff, Kyle is a research associate in international economics and U.S. foreign policy at the Council on Foreign Relations “Big Bangs, Red Herrings, and the Dilemmas of Space Security”, Council on Foreign Relations, 6/27/2019, <https://www.cfr.org/blog/big-bangs-red-herrings-and-dilemmas-space-security> accessed 12/11/21] Adam

More important, U.S. policymakers should avoid making decisions on the basis of a possible, though highly improbable, space Pearl Harbor. They should recognize that latent counterspace capabilities—as exemplified in 2008’s Operation Burnt Frost, which saw the United States repurpose a ballistic missile interceptor to destroy a satellite—are more than sufficient to deter adversaries from launching a major surprise attack in almost all scenarios, especially in light of the aforementioned deep interdependence in the space domain. Adding to the deterrence effect are uncertain offensive cyber capabilities. The United States continues to launch incursions into geopolitical competitors’ critical systems, such as the Russian power grid, and has demonstrated a willingness to employ cyberattacks in the wake of offline incidents, as it did after Iran shot down a U.S. drone last week. Unlike in the nuclear arena, where anything short of the prospect of nuclear retaliation holds limited dissuasive power, space deterrence can stem from military capabilities in various domains. For this reason, an attack on a U.S. satellite could elicit any number of responses. The potential for cross-domain retaliation, combined with the high strategic value of space assets, means that any adversary risks extreme escalation in launching a major assault on American space architectures. Again, well-conceived diplomatic efforts are useful in averting such scenarios altogether.

**No ‘space war’ – Insurmountable barriers and everyone has an interest in keeping space peaceful**

**Dobos 19** [(Bohumil Doboš, scholar at the Institute of Political Studies, Faculty of Social Sciences, Charles University in Prague, Czech Republic, and a coordinator of the Geopolitical Studies Research Centre) “Geopolitics of the Outer Space, Chapter 3: Outer Space as a Military-Diplomatic Field,” Pgs. 48-49] TDI

Despite the theorized potential for the achievement of the terrestrial dominance throughout the utilization of the ultimate high ground and the ease of destruction of space-based assets by the potential space weaponry, the utilization of space weapons is with current technology and no effective means to protect them far from fulfilling this potential (Steinberg 2012, p. 255). In current global international political and technological setting, the utility of space weapons is very limited, even if we accept that the ultimate high ground presents the potential to get a decisive tangible military advantage (which is unclear). This stands among the reasons for the lack of their utilization so far. Last but not the least, it must be pointed out that the states also develop passive defense systems designed to protect the satellites on orbit or critical capabilities they provide. These further decrease the utility of space weapons. These systems include larger maneuvering capacities, launching of decoys, preparation of spare satellites that are ready for launch in case of ASAT attack on its twin on orbit, or attempts to decrease the visibility of satellites using paint or materials less visible from radars (Moltz 2014, p. 31). Finally, we must look at the main obstacles of connection of the outer space and warfare. The first set of barriers is comprised of physical obstructions. As has been presented in the previous chapter, the outer space is very challenging domain to operate in. Environmental factors still present the largest threat to any space military capabilities if compared to any man-made threats (Rendleman 2013, p. 79). A following issue that hinders military operations in the outer space is the predictability of orbital movement. If the reconnaissance satellite's orbit is known, the terrestrial actor might attempt to hide some critical capabilities-an option that is countered by new surveillance techniques (spectrometers, etc.) (Norris 2010, p. 196)-but the hide-and-seek game is on. This same principle is, however, in place for any other space asset-any nation with basic tracking capabilities may quickly detect whether the military asset or weapon is located above its territory or on the other side of the planet and thus mitigate the possible strategic impact of space weapons not aiming at mass destruction. Another possibility is to attempt to destroy the weapon in orbit. Given the level of development for the ASAT technology, it seems that they will prevail over any possible weapon system for the time to come. Next issue, directly connected to the first one, is the utilization of weak physical protection of space objects that need to be as light as possible to reach the orbit and to be able to withstand harsh conditions of the domain. This means that their protection against ASAT weapons is very limited, and, whereas some avoidance techniques are being discussed, they are of limited use in case of ASAT attack. We can thus add to the issue of predictability also the issue of easy destructibility of space weapons and other military hardware (Dolman 2005, p. 40; Anantatmula 2013, p. 137; Steinberg 2012, p. 255). Even if the high ground was effectively achieved and other nations could not attack the space assets directly, there is still a need for communication with those assets from Earth. There are also ground facilities that support and control such weapons located on the surface. Electromagnetic communication with satellites might be jammed or hacked and the ground facilities infiltrated or destroyed thus rendering the possible space weapons useless (Klein 2006, p. 105; Rendleman 2013, p. 81). This issue might be overcome by the establishment of a base controlling these assets outside the Earth-on Moon or lunar orbit, at lunar L-points, etc.-but this perspective remains, for now, unrealistic. Furthermore, no contemporary actor will risk full space weaponization in the face of possible competition and the possibility of rendering the outer space useless. No actor is dominant enough to prevent others to challenge any possible attempts to dominate the domain by military means. To quote 2016 Stratfor analysis, "(a) war in space would be devastating to all, and preventing it, rather than finding ways to fight it, will likely remain the goal" (Larnrani 20 16). This stands true unless some space actor finds a utility in disrupting the arena for others.

#### Alliances check miscalc – too costly

#### Space weapon deployment doesn’t cause an arms race or increase chance of war

Lopez 12 [LAURA DELGADO LO´ PEZ, Institute for Global Environmental Strategies, Arlington, Virginia. Astropolitics. "Predicting an Arms Race in Space: Problematic Assumptions for Space Arms Control." https://www.tandfonline.com/doi/full/10.1080/14777622.2012.647391]

The previous discussion demonstrates that although a globalized space arms race could follow U.S. deployment of space weapons, it is also plausible and more likely that it may not happen at all. As Mueller states: ‘‘In the end, most of the inevitability arguments are weak.’’62 The assumptions discussed here break the argument into a series of debatable maxims that other scholars have also considered. Hays, for instance, counters the inevitability argument by pointing out that previous ASAT tests did not have this purported destabilizing effect, to which we can add that even after the Chinese ASAT test, neither Russia nor the United States, who would be both capable and more politically likely to launch space weapons, moved forward in that direction.63 Although some may draw attention to the recent wake-up calls in order to underline a sense of urgency, one should also recall that when it seemed truly inevitable before, it did not happen either. In his detailed account of military space developments from 1945 to 1984, Paul Stares described how superpowers’ assessment of the value of space weapons shifted, with a ‘‘hiatus in testing’’ reflecting the attractiveness of satellites as military targets.64 In this changed landscape, Stares also assumed the inevitability argument, claiming that ‘‘the chances of space remaining a ‘sanctuary’ [absence of weapons] into the 21st century appear today to be remote.’’65 Perhaps the conditions are more conducive now, but the important point to be reiterated is that the outcome is not inevitable, and that any such prediction must be undertaken with caution. One of the most prominent theorists to propose an alternate picture and pair it with an aggressive pro-space weapons stance is Everett Dolman. In his Astropolitik theory, Dolman summarizes the steps that the United States must take to assume control of space, particularly through withdrawal from the current space regime.66 This move, he argues, would benefit not only the United States, but also the rest of the world, since having a democracy controlling space is a catalyst for peace.67 Elsewhere, he writes: ‘‘Only a liberal world hegemon would be able to practice the restraint necessary to maintain its preponderant balance of hegemonic power without resorting to an attempt at empire.’’68 Accordingly, he believes that this strategy would be ‘‘perceived correctly as an attempt at continuing U.S. hegemony,’’69 but that other countries, correctly assessing U.S. leadership in space, would not seek to deploy their own systems. Having the ability to prevent the stationing of foreign weapons systems in space, he writes, ‘‘makes the possibility of large-scale space war and a military space race less likely, not more.’’70 In fact, he says, ‘‘to suggest that the inevitable result is a space arms competition is the worst kind of mirror-imaging.’’71 Dolman argues that the weaponization of space by the United States would ‘‘decrease the likelihood of an arms race by shifting spending away from conventional weapons systems,’’ which would reduce U.S. capabilities in territorial occupation and would thus be perceived as less threatening to other countries.72

#### No uniqueness – most of Chinese militarization isn’t private

Lee-Singer, 21, “China’s Space Program Is More Military Than You Might Think”, 7/16/21, Defense One, P.W. Singer is Strategist at New America and the author of multiple books on technology and securityTaylor A. Lee is an analyst with BluePath Labs, a DC-based consulting company that focuses on research, analysis, disruptive technologies, and wargaming. URL <https://www.defenseone.com/ideas/2021/07/chinas-space-program-more-military-you-might-think/183790/>, KR

The militarized tilt of the Chinese space program complicates these plans. Space planning and directing organizations, the ground infrastructure supporting its space programs, and the taikonauts themselves are all under the purview of the People’s Liberation Army. Understanding these connections is important for any plans to cooperate with China in space, whether governmental or commercial.

On the organizational side, China’s equivalent to NASA is the civilian China National Space Administration, which has a focus on the space program’s international exchanges. It falls under the State Administration for Science, Technology and Industry for National Defense, which handles defense-related science and technology, including China’s state-owned defense conglomerates. However, unlike NASA, the CNSA doesn’t oversee China’s astronauts. The organization actually in charge of China’s manned space program is the China Manned Space Engineering Office, which is under China’s Central Military Commission Equipment Development Department.

Likewise, the infrastructure of China’s space program is also heavily militarized. The launch sites, control centers, and many of the satellites are directly run by the PLA. Taikonauts lift off from the Jiuquan Satellite Launch Center (aka Base 20 of the PLA’s Strategic Support Force, its space and cyber arm); directed by the PLASSF’s Beijing Aerospace Flight Control Center, with Telemetry, Tracking and Control support from the Xi’an Satellite Control Center (aka the PLASSF’s Base 26); and land at one of two sites in Inner Mongolia operated by the two bases.

#### No link:

#### their card literally says they’ve already militarized it so the plan doesn’t solve – no way to remove current space weapons

1AC Bowman and Thompson 3/31 [(Bradley Bowman, the senior director of the Center on Military and Political Power at the Foundation for Defense of Democracies) (Jared Thompson, a U.S. Air Force major and visiting military analyst at the Foundation for Defense of Democracies.) “Russia and China Seek to Tie America’s Hands in Space” Foreign Policy 3/31/2021. https://foreignpolicy.com/2021/03/31/russia-china-space-war-treaty-demilitarization-satellites/] BC

Consider the actions of the United States’ two great-power adversaries when it comes to anti-satellite weapons. China and Russia have sprinted to develop and deploy both ground-based and space-based weapons targeting satellites while simultaneously pushing the United States to sign a treaty banning such weapons.

To protect its vital space-based military capabilities—including communications, intelligence, and missile defense satellites—and effectively deter authoritarian aggression, Washington should avoid being drawn into suspect international treaties on space that China and Russia have no intention of honoring.

The Treaty on the Prevention of the Placement of Weapons in Outer Space and of the Threat or Use of Force Against Outer Space Objects (PPWT), which Beijing and Moscow have submitted at the United Nations, is a perfect example. PPWT signatories commit “not to place any weapons in outer space.” It also says parties to the treaty may not “resort to the threat or use of force against outer space objects” or engage in activities “inconsistent” with the purpose of the treaty.

On the surface, that sounds innocuous. Who, after all, wants an arms race in space?

The reality, however, is that China and Russia are already racing to field anti-satellite weapons and have been for quite some time. “The space domain is competitive, congested, and contested,” Gen. James Dickinson, the head of U.S. Space Command, said in January. “Our competitors, most notably China and Russia, have militarized this domain.”

#### International treaties get circumvented

**Bahney and Pearl 19** [Benjamin Bahney and Jonathan Pearl, 3-26-2019, "Why Creating a Space Force Changes Nothing," BENJAMIN BAHNEY and JONATHAN PEARL are Senior Fellows at the Lawrence Livermore National Laboratory’s Center for Global Security Research and contributing authors to [Cross Domain Deterrence: Strategy in an Era of Complexity](https://archive.md/o/Hlbi1/https:/www.amazon.com/Cross-Domain-Deterrence-Strategy-Era-Complexity/dp/0190908653). Foreign Affairs, [https://www.foreignaffairs.com/articles/space/2019-03-26/why-creating-space-force-changes-nothing accessed 12/10/21](https://www.foreignaffairs.com/articles/space/2019-03-26/why-creating-space-force-changes-nothing%20accessed%2012/10/21)] Adam

As Russia and China continue to push forward, U.S. policymakers may be tempted to use treaties and diplomacy to head off their efforts entirely. This option, although alluring on paper, is simply not feasible. Existing treaties designed to limit military competition in space have had little success in actually doing so. The 1967 Outer Space Treaty bans parties from placing nuclear weapons or other weapons of mass destruction in space, on the moon, or on other celestial bodies, but it has no formal mechanism for verifying compliance, and places no restrictions on the development or deployment in space of conventional antisatellite weapons. Even if it were possible to convince Moscow and Beijing of the benefits of comprehensive space arms control, existing technology makes it extremely difficult to verify compliance with the necessary treaty provisions—and without comprehensive and reliable verification, treaties are toothless. Moreover, regulating the development and deployment of antisatellite weapons is extremely difficult, both because they include such a broad and diverse range of technologies and because many types of antisatellite weapons can be concealed or explained away as having some other use. Unsurprisingly, Russia and China’s draft Treaty on the Prevention of Placement of Weapons in Space, which they have been pushing for several years now, has an unenforceable definition of what constitutes a “weapon” and does nothing at all to address ground-based antisatellite weapons development.

#### The plan has no effect—private space ventures are inextricably tied to the public.

Goswami '19 (Dr. Namrata Goswami; author, strategic analyst and consultant on counter-insurgency, counter-terrorism, alternate futures, and great power politics, worked at IDSA, selected as a Jennings-Randolph Senior Fellow, won MINERVA grant and contract with JSOU; 4-5-2019; "Misplaced Confidence? The US Private Space Sector vs. China"; https://thediplomat.com/2019/04/misplaced-confidence-the-us-private-space-sector-vs-china/, The Diplomat, accessed 1-14-2022; JPark)

Over the past three years, nearly 60 private space startups have entered the private launch industry, supported by the Chinese state. Spokesperson of the China National Space Administration (CNSA), Li Guoping, specified: The output value of the satellite application sector makes up over 80 percent of the whole satellite industry chain. So we encourage private companies and social capital to invest in the application of satellite communication, remote sensing and navigation…When we make a top-level plan for China’s aerospace development, we will consider the development of commercial space activity. The government will open space programs that can be carried out in a commercial way, and buy services from commercial companies… Since 2014, Xi has urged China’s private space sector to emerge as the leader in the “implementation of **civil-military integration** strategy.” Xi’s policy guidance has been followed up by the PLA, which opened its Jiuquan Satellite Launch Center (China’s primary launch facility) in the northwestern Gobi Desert for private rocket launches. This civil-military integration has been identified as a priority by Xi for China’s **overall national strategy** with regard to outer space. The planning chief of the Jiuquan Satellite Launch Center, Jia Lide, stated that “favorable policies and targeted measures have been created for the benefit of private space enterprises.” The latter point is particularly important. The U.S. private sector does very well with strong government support, through programs like Commercial Orbital Transportation System (COTS), Commercial Crew Program, and now the Commercial Lunar Payload Service (CLPS). Most U.S. space industries still rely to a significant degree on the government market either to get started or to stay solvent.

Yes they get durable fiat but that just means the plan gets passed and doesn’t get rolled back. Fiating perfect enforcement is a voter because it decks negative solvency deficits and allows them to wave the magic fiat wand instead of reading actual evidence. That creates unbeatable affs because they get to defend that China miraculously limits its own power to the benefit of the US and all their allies. we get to make args abt howt he plan is interp'd and implemtneed