## T

#### Interpretation: The aff may not specify unjust types of private space appropriation.

#### Violation – They specified Chinese private space appropriation.

#### Standards:

1] **Limits and ground – their model allows affs to defend any combination of appropriation in any geopolitical context which explodes negative burden and causes random affs every tournament**

#### Drop the debater:– we can’t restart the round from the 1AC and I’m skewed for the rest of the debate.

## CP

#### Text: The United States federal government should implement and publicly articulate a cross-domain deterrence doctrine that threatens, in response to attacks on U.S. space assets:

#### -- retaliation against land- air- and sea-based C3ISR and RSTA\* assets

#### -- retaliation designed to undermine the protected national information spaces of adversaries.

#### The United States federal government should publicly support an international norm against any use of force in space.

\*C3ISR = command, control, communication, intelligence, surveillance and reconnaissance; RSTA = reconnaissance, surveillance, targeting, and attack

#### The CP’s doctrine eliminates adversary incentives to strike U.S. space assets---framing retaliation as automatic means it’s not perceived as escalatory. Solves the case.

King Mallory 18, Senior Researcher at the RAND Corporation, 2018, “New Challenges in Cross-Domain Deterrence,” <https://www.rand.org/content/dam/rand/pubs/perspectives/PE200/PE259/RAND_PE259.pdf>

Enablers: Of all the domains of military operations examined in this paper, the contributors toward successful deterrence identified in the classic texts appear to be least present in space. China demonstrated an ability to attack U.S. satellites in low Earth orbit (LEO) and in geosynchronous Earth orbit (GEO) in 2007 and 2013, respectively. Beijing demonstrated its ability to conduct rendezvous and proximity operations with U.S. satellites, in 2016. Russia demonstrated similar capabilities in 2015 and 2016.40 Both China and Russia have thus made it clear that they have the capability to carry out and may be contemplating crippling blows on U.S. space-based assets at the outset of a conflict. Because of their potentially devastating impact, the United States might be forced to take strong countermeasures in reaction to such attacks. Given this fact, a strike on U.S. space-based assets at the outset of a crisis may betray a high appetite for risk on the part of U.S. opponents. An opponent with a high appetite for risk is more difficult to deter.41

Types of deterrence: Because the balance of power in space is being challenged by Russia and China with the implicit threat of a first strike, general deterrence in space can be said to be low, even if the threat of opponent attack is not imminent. As it has demonstrated its own ability to shoot down satellites in LEO, the United States has a medium-level capability for immediate deterrence in space. This capability is not high because the United States does not appear to be able to shoot down GEO satellites or satellites in highly elliptical orbit (HEO). Because potential aggressors depend less on space for warfighting than the United States does, opportunities for direct deterrence appear to be low.42 As the United States is currently hard pressed to defend its own satellites, let alone those of others, opportunities for extended deterrence in space seem limited as well.43

Surprise: Given the lift required to get to GEO (where such U.S. crown jewels as the Space-Based Infrared System and the Advanced Extremely High Frequency Nuclear Command and Control [NC2] satellites are located), it is unlikely that strategic surprise can be achieved by launching a sneak attack on these assets. The infrared signature accompanying the launch of a missile fired for this purpose would probably be detected, and the missile’s trajectory could then be mapped. The same is not true of air-launched antisatellite (ASAT) attacks on objects in LEO or of attacks by maneuverable exo-atmospheric kill vehicles launched before the outbreak of a conflict. Because it can retaliate against LEO satellites, the United States’ ability to avoid tactical surprise is not low, even if opponent GEO and HEO satellites may remain out of reach.

Technology: In space, the attacker-to-target ratio refers to the number of ASAT weapons required to kill an opponent satellite. Strategic slack refers to the availability of a reserve satellite stockpile and of a capacity to surge launch such replacement satellites. In space, both the attacker-to-target ratio and strategic slack appear to be low: A single ASAT shot can take out a high-degree vertex in the network of U.S. military satellites. Stocks of replacement satellites, substitute capabilities, and surge launch capacity do not appear to be high.

Doctrine: Although the United States has of late made it clear that it will retaliate against attacks in space, the type and severity of attack that would elicit a response have not been specified, nor has the kind of response that would ensue. There is thus no fully articulated and widely disseminated strategy for deterring attacks in space. The United States has not formally laid out strong “red lines” for deterrence in space that might shape future norms for acceptable behavior by spacefaring nations. U.S. deterrent strategy in space therefore lacks both salience and clarity.44 Due to the fact that U.S. statements concerning intervention thresholds remain fuzzy, the credibility and reputation of U.S. declaratory deterrence policy in space must be judged to be low.

It might be argued that, on its own, the objective fact that core U.S. interests are at stake in space will deter opponents from a first strike, regardless of U.S. doctrine. However, the United States (1) depends on space-based assets for modern warfighting capabilities, (2) has failed to demonstrate its ability to continue to function with degraded support from space, and (3) has failed to identify ensuing retaliatory punishment significant enough to eliminate opponents’ considerable incentive to carry out a first strike. Arguably, in the absence of clarity and an indication of political will about the kinds of retaliation that an aggressor may expect to encounter from the United States, a sober-minded aggressor may therefore objectively conclude that the short-term advantages and benefits expected from attacking U.S. space-based assets outweigh the expected costs.

One way of looking at the threat to U.S. and allied military satellites is to disaggregate those platforms’ functions and to examine which ones are most susceptible to attack and which forms of attack are most effective. Figure 3 compares functions of satellites (communication, reconnaissance, targeting, assistance in navigation, surveillance, and NC2) against various methods or targets of attack (dazzling of satellites with lasers, attempts to jam transmissions, creating fields of debris in space that might damage satellites, permanently blinding satellites with lasers, destroying satellites with various types of kill vehicles, and disabling or destroying one or more of the space-based components of the U.S. nuclear kill chain).45 The check marks indicate that the method of attack would apply to the function. The black lines are notional escalation thresholds below or to the right of which the forms of attack or the military satellite function put at risk by such an attack might be important enough to warrant a military response.46 The matrix gives a rough indication of the activities and actors of potentially greatest concern in the bottom-right quadrant and suggests that satellite surveillance and targeting functions and the kinetic destruction and jamming of satellites may be the greatest threats faced in space.

In-domain deterrence: In-domain deterrence of attacks in space might be achieved by denying the opponent the benefits sought. The wartime pooling of allied commercial and military satellite services is a form of denial that could be used to expand extended deterrence to space. Over a period of 15 to 20 years, the future topology of the United States’ network of military satellites might be shaped more proactively than it has been to date. The goal would be to create a connected network in which information flows efficiently. A connected network will decay gracefully under attack, thereby remediating the significant current risk that the network of U.S. military satellites will fail catastrophically when subjected to directed attack.47 Combining this reshaping of the network with a more even distribution of capabilities across satellites and a surge launch capacity (reducing the probability of tactical surprise) might make the space domain a contributor to crisis stability, rather than a detractor from it.48 In space, in-domain deterrence by the threat of punishment might include a counterattack on the aggressor’s military satellites. A capability to attack opponent satellites in HEO and GEO would boost the credibility of such a threat. An alternative approach might be an international collective security agreement that considers an attack on one ally’s military satellite systems an attack on all. The aggressor would face the prospect of collective retaliation.

Cross-domain deterrence: As in the Cold War, U.S. and allied armed forces can also deter attacks in space through patterns of annual exercise and training behavior that demonstrate to potential aggressors that they are increasingly able to function with degraded support from space. Disaggregation of the functions carried out by satellites of the kind shown in Figure 3 allows nonstrategic functions for which there are air-, land- or seaborne substitutes to be identified with a view to off-loading some share of those functions from U.S. military satellites in the future. Exercises and the off-loading of noncritical communications functions from satellites onto a connected Pacific Ocean seabed fiber optic network are both examples of cross-domain deterrence by the threat of denial.49

Cross-domain deterrence by threat of punishment consists of retaliation designed to achieve a countervailing impact or effect in other domains equivalent to the one that the aggressor intended to achieve by attacking the deterrer in space. Kinetic or nonkinetic attacks on adversary command, control, communication, intelligence, surveillance, and reconnaissance (C3ISR) and reconnaissance, surveillance, targeting, and attack (RSTA) assets in the land, air, and sea domains are ways of blinding the aggressor and disorganizing its command and control. Such attacks would have an effect on the aggressor similar to that intended by an attack on U.S. space-based assets. Kinetic attacks of this kind would cause loss of life and would likely be considered escalatory by opponents. It is, however, in the U.S. national interest to increase the likelihood that adversaries conclude that retaliation of this kind is inevitable and therefore not intended to be escalatory. Doctrine and exercises could impress this point upon adversaries. In a turnaround play, cross-domain punishment might also be achieved by threatening to attack adversary infrastructure in the land and cyber domains that is designed to ensure regime survival in the face of key long-term political vulnerabilities.

Arguably, one of the greatest weaknesses of certain U.S. adversaries is that they lack true democratic political legitimacy and accountability. Because of this vulnerability, these opponents seek to create protected national “information spaces”50 in which their government administration alone creates and controls the dominant political narrative disseminated by domestic mass media. The creation of such protected spaces prevents the widespread dissemination of facts at variance with or contradictory of incumbent regime narratives. A protected information space prevents the dissemination of information about regime violations of the rule of law, corruption, nepotism, and incompetence that are potentially threatening to long-term regime survival. The United States and its allies can exploit this weakness by mapping the network of instruments by which opponents create a protected information space51 and threatening, in the event of conflict, to attack these assets either by cyberattack or with ordnance. The United States and its allies can deter an opponent preemptive first strike on U.S. space-based assets at the outset of a conflict by threatening a response that would put the adversary regime’s long-term survival at risk by destroying its control over its protected domestic information space.

The United States might further deter attacks in space by proactively penetrating the defenses of the adversaries’ protected information space. Modernizing a successful Cold War strategy, resources can be focused and pooled to provide objective, factual round-the-clock television news programming directly from satellites into television set-top boxes in opponent countries. This action might enable objective facts at variance with opponent government narratives to be widely disseminated to adversary mass audiences. In addition to potentially threatening long-term regime survival, providing such dissonant pieces of factual information to adversary mass domestic television audiences can make it more difficult for opponents to sustain, let alone dominate, the political narrative either domestically or internationally—that is, to win the information war—during times of crisis.52

## DA

#### 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.

#### Xi pursuit of unilateral space domination key to CCP legitimacy

Loftus 19 (1st Lt Peter Loftus, USAF, “Counter and Cooperate: How Space Can Be Used to Advance US–China Cooperation While Curbing Beijing’s Terrestrial Excesses,” AIR & SPACE POWER JOURNAL, Vol. 33, No. 1, Spring 2019, <https://www.airuniversity.af.edu/Portals/10/ASPJ/journals/Volume-33_Issue-1/SEA-Loftus.pdf>)

Since People’s Republic of China (PRC) President Jinping XI came to power in 2012, China’s diplomatic disposition has experienced a profound evolution. Jinping XI is promoting his vision of the “Chinese Dream” and national rejuvenation, the goal of which is to reverse the “Century of Humiliation” that China suffered, from the start of the First Opium War in 1839 and lasting until the Chinese Communist Party (CCP) came to power in 1949. In testimony before the US–China Economic and Security Review Commission, Dr. Alison A. Kaufman, a senior Asia policy researcher with the Center for Naval Analyses, explained that this period provides a key foundational story for the CCP. “Today, this narrative has become a key legitimizer for CCP rule, because the CCP is portrayed as the only modern Chinese political party that was able to successfully stand up to foreign aggression.

The dilemma for Beijing is how to ascend without ensnaring itself and the US in Thucydides’s Trap. Previously the PRC abided by former paramount leader Deng Xiaoping’s dictum of Tao Guang Yang Hui, which translates to “lay low and bide one’s time.” The purpose of this strategy was to fight the perception that China is an ascendant threat, incurring preemptive hostilities from outside powers. Today, however, China is much more confident on the world stage. Beijing seeks to promote its vision for the future on the diplomatic front, and space policy plays an important role in this objective. According to James Andrew Lewis, the Center for Strategic & International Studies technology and public policy program director, China’s space endeavors are “. . . especially important to show that it has reclaimed its place among the leading nations of the world. China’s successes in space reinforce its claims to regional dominance by demonstrating that it is the most advanced among Asian nations, with technology and resources that others cannot match.”3 China’s space initiatives play an instrumental role in showing that it has returned to its place as a preeminent regional power. While China’s neighbors question US commitment to the Indo-Asia-Pacific, Beijing’s promulgation of a multidecade plan for developing space capabilities demonstrates its staying power and ambition.

China’s Informational Power

While China’s focus on diplomatic messaging travels outward, the informational element of Chinese space policy is mainly directed inward. To this day, the CCP’s legitimacy is premised upon a Faustian bargain with its citizens. In exchange for economic results, social improvement, and the respect of the world, the political elite expects loyalty and acquiescence from the public. The CCP’s space aspirations play a fundamental role in demonstrating the government’s ambitions for China’s future. They include landing a rover on the far side of the moon by 2018, landing a Mars rover by 2020, probing asteroids by 2022, sending humans to the moon by 2025, bringing Mars samples back by 2028, sending an exploratory mission to Jupiter by 2029, and establishing a lunar research station manned by robots with occasional astronaut visits by 2050.4 Shooting for the stars keeps the Chinese people’s eyes skyward and away from CCP malfeasance. To borrow Karl Marx’s reference to religion, Beijing’s space policy is an opiate for the Chinese masses.

#### Chinese pursuit of unilateral space dominance is key to nationalism

Hines 19 (Lincoln Hines, PhD candidate in the Government Department at Cornell University, “US-China Engagement in Space,” Carnegie Endowment for International Peace, March 29, 2019, <https://swfound.org/media/206424/us-china-engagement-in-space-transcript.pdf>)

Lincoln Hines: [02:25] Hello. Today, I will be discussing recent developments in China space program and opportunities for cooperation with the United States. My research, broadly speaking, focuses on Chinese status for prestige ambitions and examines how these ambitions shape Chinese space policy.

[02:42] It's from this perspective that I will speak about potential opportunities for the United States to engage China and cooperation in our space. China's space program, like that of other spacefaring powers, is driven by security, commercial, and status concerns. In the domain of security, China is pursuing a full array of counter-space weapons.

[03:04] It's integrating space-based assets into it's military in an effort to achieve information dominance. China's space program is notoriously opaque and has close ties to People's Liberation Army with launches occurring on military bases, and even Chinese human spaceflight program falling under the People's Liberation Army's General Armaments Department.

[03:23] To many US policymakers, China's pursuit of space power represents a clear and present threat to US satellites and sensors, as evidenced by China's 2007 ASAT test. While security interests are an obvious and important motive, undergirding Chinese space policy, they do not explain some of Chinese most costly and ambitious initiatives in space.

[03:42] China now has the second-largest space program in the planet. China has achieved several milestones in space program, placing a human in outer space in 2003, most recently landing the Chang'e-4 on the dark side of the moon. China moreover has unveiled the core module of its plan to place this planned space station, with plans to launch in 2022.

[04:09] From the outside, China has changed space policies, sometimes viewed as part of a large grand strategic plan. It's important to recognize the role of domestic politics in nationalism in China. While lamenting our own domestic politics, we often have the tendency to view other states as unitary, intentional, and strategic.

[04:30] Like all countries, Chinese domestic politics are complicated. While it's often easy to dismiss the importance of public opinion in closed states, the Chinese Communist Party cares deeply about maintaining its hold on power. It maintains extensive apparatus for collecting and censoring public opinion.

[04:48] Chinese new social credit system and even the innovation of an app for users to study Xi Jinping's thought are just a few examples illustrating CCP's concerns over legitimacy. Chinese Communist Party, in part, legitimizes its rule by claiming to regain respect for China, lost in what nationalist narratives describes China's century of humiliation.

[05:09] This is what Xi Jinping refers to when discussing the so-called Great National Rejuvenation of the Chinese Nation. China advertises extensively to domestic audiences that it has the dressings of a great power. China has hosted the Olympic Games, built its own infrastructure bank, launched the One Belt One Road initiative, and now has an aircraft carrier, despite the limited strategic rationale of possessing one.

[05:35] Likewise, in space, China's most expensive projects are designed to attain the dressings of a great power. Placing humans in space, building its own space station, and landing on the moon. Chinese leaders, like in other states, recognize the political utility of outer space for promoting national indemnity.

[05:52] As such, Chinese leaders have a keen interest in attaining recognition from the international community that China is an equal and a space power. These facts are important to keep in mind when attempting to comprehend Chinese policy making, and in understanding potential opportunities for cooperative engagement in space.

[06:06] Chinese interest in attaining recognition of its status as a great power, providing a means by which the United States can engage China and shape its behavior. To Chinese leaders, the attainment of status of prestige is invaluable political resource. Recognition of China's status as an equal in world politics is an important priority for Chinese foreign policy.

#### Shifts in regime perception threatens CCP’s legitimacy from nationalist hardliners

Weiss 19 Jessica Weiss 1-29-2019 “Authoritarian Audiences, Rhetoric, and Propaganda in International Crises: Evidence from China” <http://www.jessicachenweiss.com/uploads/3/0/6/3/30636001/19-01-24-elite-statements-isq-ca.pdf> (Associate Professor of Government at Cornell University)//Elmer

Public support—or the appearance of it—matters to many autocracies. As Ithiel de Sola Pool writes, modern dictatorships are “highly conscious of public opinion and make major efforts to affect it.”6 Mao Zedong told his comrades: “When you make revolution, you must first manage public opinion.”7 Because autocracies often rely on **nationalist mythmaking**,8 success or failure in defending the national honor in international crises could burnish the leadership’s patriotic credentials or spark opposition. **Shared outrage at the regime’s foreign policy failures could galvanize street protests or elite fissures, creating intraparty upheaval** or inviting military officers to step in to restore order. Fearing a domestic backlash, authoritarian leaders may feel compelled to take a tough international stance. Although authoritarian leaders are rarely held accountable to public opinion through free and fair elections, fears of popular unrest and irregular ouster often weigh heavily on autocrats seeking to maximize their tenure in office. Considering the harsh consequences that authoritarian elites face if pushed out of office, even a small increase in the probability of ouster could alter authoritarian incentives in international crises.9 A history of nationalist uprisings make Chinese citizens and leaders especially aware of the linkage between international disputes and domestic unrest. The weakness of the PRC’s predecessor in defending Chinese sovereignty at the Paris Peace Conference in 1919 galvanized protests and a general strike, forcing the government to sack three officials and reject the Treaty of Versailles, which awarded territories in China to Japan. These precedents have made Chinese officials particularly sensitive to the appearance of hewing to public opinion. As the People’s Daily chief editor wrote: “History and reality have shown us that public opinion and regime safety are inseparable.”10 One Chinese scholar even claimed: “the Chinese government probably knows the public’s opinion better and reacts to it more directly than even the U.S. government.”11

#### Xi will launch diversionary war to domestic backlash – escalates in multiple hotspots and causes nuclear war

Norris 17, William J. Geostrategic Implications of China’s Twin Economic Challenges. CFR Discussion Paper, 2017. (Associate professor of Chinese foreign and security policy at Texas A&M University’s Bush School of Government and Public Service)//Elmer

Populist pressures might tempt the **party leadership** to encourage **diversionary nationalism**. The logic of this concern is straightforward: the Communist Party might seek to **distract a restless domestic population** with **adventurism abroad**.19 The **Xi** administration wants to **appear tough** in its **defense of foreign encroachments** against China’s interests. This need stems from a long-running narrative about how a weak Qing dynasty was unable to defend China in the face of European imperial expansion, epitomized by the Opium Wars and the subsequent treaties imposed on China in the nineteenth century. The party is **particularly sensitive** to **perceptions of weakness** because much of its **claim to legitimacy**—manifested in **Xi’s Chinese Dream** campaign today—stems from the party’s claims of leading the **restoration of Chinese greatness**. For example, the May Fourth Movement, a popular protest in 1919 that helped catalyze the CPC, called into question the legitimacy of the Republic of China government running the country at that time because the regime was seen as not having effectively defended China’s territorial and sovereignty interests at the Versailles Peace Conference. **Diversionary nationalist frictions** would likely occur if the Chinese leadership portrayed a foreign adversary as having made the first move, thus forcing Xi to stand up for China’s interests. An example is the 2012 attempt by the nationalist governor of Tokyo, Shintaro Ishihara, to buy the Senkaku/Diaoyu Islands from a private owner.20 Although the Japanese central government sought to avert a crisis by stepping in to purchase the islands—having them bought and administered by Ishihara’s Tokyo metropolitan government would have dragged Japan into a confrontation with China—China saw this move as part of a deliberate orchestration by Japan to nationalize the islands. Xi seemingly had no choice but to defend China’s claims against an attempt by Japan to consolidate its position on the dispute.21 This issue touched off a period of heated tensions between China and Japan, lasting more than two years.22 Such dynamics are not limited to Japan. Other possible areas of conflict include, but are not necessarily limited to, **Taiwan**, **India**, and the **South China Sea** (especially with the **Philippines** and **Vietnam**). The Chinese government will use such tactics if it believes that the costs are relatively low. Ideally, China would like to appear tough while avoiding material repercussions or a serious diplomatic breakdown. Standing up against foreign encroachment—without facing much blowback—could provide Xi’s administration with a tempting source of noneconomic legitimacy. However, over the next few years, Xi will probably not be actively looking to get embroiled abroad. Cushioning the fallout from slower growth while managing a structural economic transition will be difficult enough. Courting potential international crises that distract the central leadership would make this task even more daunting. Even if the top leadership did not wish to provoke conflict, a smaller budgetary allotment for security could cause **military interests** in China to **deliberately instigate trouble** to **justify** their **claims over increasingly scarce resources**. For example, an air force interested in ensuring its funding for a midair tanker program might find the existence of far-flung territorial disputes to be useful in making its case. Such a case would be made even stronger by a pattern of recent frictions that highlights the necessity of greater air power projection. Budgetary pressures may be partly behind a recent People’s Liberation Army reorganization and headcount reduction. A slowing economy might cause a further deceleration in China’s military spending, thus increasing such pressures as budgetary belts tighten. Challenges to Xi’s Leadership Xi Jinping’s efforts to address economic challenges could fail, unleashing consequences that extend well beyond China’s economic health. For example, an **economic collapse** could give rise to a Vladimir **Putin–like redemption figure** in China. Xi’s approach of centralizing authority over a diverse, complex, and massive social, political, and economic system is a **recipe for brittleness**. Rather than designing a resilient, decentralized governance structure that can gracefully cope with localized failures at particular nodes in a network, a highly centralized architecture **risks catastrophic**, **system-level failure**. Although centralized authority offers the tantalizing chimera of stronger control from the center, it also puts all the responsibility squarely on Xi’s shoulders. With China’s ascension to great power status, the consequences of internecine domestic political battles are increasingly playing out on the world stage. The international significance of China’s domestic politics is a new paradigm for the Chinese leadership, and one can expect an adjustment period during which the outcome of what had previously been relatively insulated domestic political frictions will likely generate **unintended international repercussions**. Such dynamics will influence Chinese foreign policy and security behavior. Domestic arguments over ideology, bureaucratic power struggles, and strategic direction could all have **ripple effects abroad**. Many of China’s party heavyweights still employ a narrow and exclusively domestic political calculus. Such behavior increases the possibility of international implications that are not fully anticipated, **raising the risks** of **strategic miscalculation** on the world stage. For example, the factional power struggles that animated the Cultural Revolution were largely driven by domestic concerns, yet manifested themselves in Chinese foreign policy for more than a decade. During this period, China was not the world’s second largest economy and, for much of this time, did not even have formal representation at the United Nations. If today’s globally interconnected China became engulfed in similar domestic chaos, the effects would be felt worldwide.23 Weakened Fetters of Economic Interdependence If China successfully transitioned away from its export-driven growth model toward a consumption-driven economic engine over the next four or five years, it could no longer feel as constrained by economic interdependence. To the extent that such constraints are loosened, the U.S.-China relationship will be more prone to conflict and friction.24 While China has never been the archetypal liberal economic power bent on benign integration with the global economy, its export-driven growth model produced a strong strategic preference for stability. Although past behavior is not necessarily indicative of future strategic calculus, China’s “economic circuit breaker” logic seems to have held its most aggressive nationalism below the threshold of war since 1979. A China that is both comparatively strong and less dependent on the global economy would be a novel development in modern geopolitics. As China changes the composition of its international economic linkages, global integration could place fewer constraints on it. Whereas China has been highly reliant on the import of raw materials and semifinished goods for reexport, a consumption-driven China could have a different international trade profile. China could still rely on imported goods, but their centrality to the country’s overall economic growth would be altered. Imports of luxury goods, consumer products, international brands, and services may not exert a significant constraining influence, since loss of access to such items may not be seen as strategically vital. If these flows were interrupted or jeopardized, the result would be more akin to an inconvenience than a strategic setback for China’s rise. That said, China is likely to continue to highly depend on imported oil even if the economic end to which that energy resource is directed shifts away from industrial and export production toward domestic consumption.

## Case

#### The plan creates an international SSA architecture that excludes China---that’s perceived as a significant denial of their global status ambitions and an aggressive move to shore up deterrence against them

Anthony J. Mastalir 9, Lt. Col., U.S. Air Force, MA in Organizational Management from George Washington University, MA in National Security and Strategic Studies from the Naval War College, MA in Airpower Art and Science from Air University’s School of Advanced Air and Space Studies, August 2009, “The US Response to China’s ASAT Test: An International Security Space Alliance for the Future,” https://www.hsdl.org/?view&did=708811

Space leaders must also acknowledge the inherent deterrent value in sharing space surveillance with a global audience. General Shelton explains that “if our adversaries know that we know what’s going on in orbit, then they’re going to be constrained.” 35 To this end, the United States ought to consider including China as a space surveillance partner. China’s ambitious plans in space will continue to drive requirements for an increasingly sophisticated space surveillance network. Furthermore, China’s overall economic growth continues to climb at an unprecedented rate, surpassed only by the rate at which China has increased defense spending.36 If major space-faring nations express interest in an international space alliance designed to ensure collectively the protection of global space assets through shared awareness, there is little doubt China will want to join. China’s desire for international prestige and relevance takes precedence over its desire to become a major space power, and from China’s perspective, the latter enables the former. As General Kehler notes, “When you get better situational awareness; when you have the capability to attribute; our view is that you are enhancing deterrence. It is becoming clearer to all that there’s not a way to make an on-orbit activity look like an anomaly or a technical problem. It informs what a whole range of response options might be.”37 Consequently, the United States’ best option in response to China’s space weapons program may be to join together to lift the veil of obscurity shadowing orbital operations.

#### Rising powers only act aggressively when they’ve just had their status ambitions denied—turns the heg scenario.

Hal Brands 18, the Henry Kissinger Distinguished Professor at Johns Hopkins-SAIS, senior fellow at the Center for Strategic and Budgetary Assessments, 10/24/18, “Danger: Falling Powers,” <https://www.the-american-interest.com/2018/10/24/danger-falling-powers/>

There is, then, no disputing that rising powers can have profoundly disruptive effects. Yet such powers might not actually be the most aggressive or risk-prone type of revisionist state. After all, if a country’s position is steadily improving over time, why risk messing it all up through reckless policies that precipitate a premature showdown? Why not lay low until the geopolitical balance has become still more favorable? Why not wait until one has surpassed the reigning hegemon altogether and other countries defer to one’s wishes without a shot being fired? So while a rising revisionist power may be tempted to assert itself, it should also have good reason to avoid going for broke.

Now imagine an alternative scenario. A revisionist power—perhaps an authoritarian power—has been gaining influence and ratcheting its ambitions upward. Its leaders have cultivated intense nationalism as a pillar of their domestic legitimacy; they have promised the populace that past insults will be avenged and sacrifices will be rewarded with geopolitical greatness and global prestige. Yet then the country’s potential peaks, either because it has reached its natural limit or because of some unforeseen development, and the balance of power starts to shift in unfavorable ways. It becomes clear to the country’s leadership that it may not be able to accomplish the goals it has set and fulfill the promises it has made, and that the situation will only further worsen with time. A roll of the iron dice now seems more attractive: It may be the only chance the nation has to claim geopolitical spoils before it is too late.

In this scenario, it is not rising power that makes the revisionist state so dangerous, but the temptation to act before decline sets in. In this sense, the dynamic bears a resemblance to the famous Davies J-Curve theory of revolution, wherein a populace is held to be more inclined to revolt not when it is maximally oppressed but rather when raised expectations are shown to be in vain.

Obviously, rational analysis does not always prevail in world politics. Rising states can become intoxicated with their own strength; they may simply get tired of waiting to attain the status they desire; or some domestic pressure may impel leaders to act dangerously. But revisionists whose power has begun to decline, or who have hit a rogue bump in the road, may not feel that they even have the option of waiting.

#### No space war, and no impact if it does happen

Roger Handberg 17, Professor in the School of Politics, Security, and International Affairs at the University of Central Florida, 2017, “Is space war imminent? Exploring the possibility,” Comparative Strategy, Vol. 36, No. 5, p. 413-425

The assumption made is that space war will be successfully waged in both the heavens and on the Earth itself. This assumption, however, is grounded on several hypotheticals occurring. First, that total devastating strategic surprise can be achieved—the side attacked becomes so damaged and devastated that further resistance is impossible to sustain regardless of national will, since nuclear weapons overhang the entire enterprise. The analogy usually invoked for American audiences is a “Pearl Harbor” type attack. This scenario is premised on equivalent American incompetence and lack of readiness as exhibited in December 1941. One must note that Pearl Harbor ended as a strategic failure for Japan—it led to defeat because the attack mobilized U.S. power without hesitation, given the intense political divisions over whether to enter the worldwide conflicts already raging. The attack was a military failure because Navy carriers were not destroyed along with battleship row along with critical fuel facilities. Similar analogies invoke September 11, 2001 as the prototype for such attacks more recently, but the same caveats apply. Total surprise assumes that all relevant opponent systems and civilian assets are disabled and left vulnerable to follow on attacks. In fact, collapse of U.S. defenses leaves U.S. cities as hostages to the rulers of the heavens, or vice versa if the U.S. moves first. Space war is extremely destabilizing, as will be discussed, since survivability of one's strategic assets becomes problematic.

Second, surprise requires that sufficient offensive space assets be placed in orbit without triggering a response by other states—the scale of such technology deployment is in itself possibly self-defeating given high costs and a likely lack of launch capacity. In addition, much launch capacity is now international rather than national, so maintaining secrecy becomes even more difficult. Space as an operational environment suffers from excessive transparency, meaning any launches can be monitored and tracked by others with strong evidence as to what is being deployed. One must remember that the original satellite launches in the 1950s were accurately tracked by a British grade-school class as a science project. In addition, at least since the early 1960s, remote sensing has increased exponentially the global capability to detect buildup of military assets of differing types, whether in space or on the ground. Commercial remote-sensing capabilities further enhance the capacity to detect militarily relevant actions. For example, commercial imagery is accessed by private parties to monitor the North Korean missile and nuclear weapons programs, in effect expanding the capacity of the world to look in on various states' interior regions, scanning for relevant information, including weapons buildup and launch capabilities. Even construction of physical facilities for production of space assets or for other weaponry can be monitored, making surprise more difficult but not impossible, as demonstrated in earlier monitoring of North Korea and, in 1998, the nuclear tests by both Pakistan and India. That means if the ASAT weapons come from ground locations, there is a high probability that they can be detected but no guarantee exists that detection will in fact occur. The uncertainty will impact calculations of attack success.

Third, the most obvious initial attack of space-based assets will most likely come from cyber attacks, given that such actions do not necessarily require the scale of resources necessary for other modalities such as kinetic weapons, or even lasers or other energy-type weapons. One will have to position the weapons plus the infrastructure to permit rapid recycling of the weapons for the next attack. Firing off interceptors will likely be a one-off, meaning extremely precise targeting will be required if the attack is to be successful. Note that none of these systems require that individuals be placed in Earth orbit, despite the imagery describing such operations in fictional universes.

Deployment requires a large lift capacity for initial deployment plus replenishment of destroyed or inoperative space assets, since a space conflict assumes that assets will be lost either kinetically or be compromised by cyber or energy beams. In any case, the combatants must be able to recover their capabilities lost during the conflict; failure to do would mean defeat or at least stalemate, negating the reason for the attack. That raises a major question when one considers the problem or expectation that space war can be successfully conducted or defended. Operationally Responsive Space (ORS) remains a critical weak point for all potential space-war participants. Loss of space assets occurs routinely during operations, but actual combat losses can be exponential depending on the weaponry used, and replacing those losses becomes the race to the next level after the initial exchange or combat. Unfortunately, ORS remains a major weakness of the United States and likely other states; deploying replacement satellites remains a multiyear process, while launch capabilities are scheduled long in advance. The rise of multiple private-launch competitors may partially alleviate some of the delay but that remains problematic given that the military payloads may be competing with commercial vendors also trying to replace losses. The tradeoff is that. in principle, private-launch vendors may be able to do so more cheaply, but their capacity may be saturated by demand from the civil and commercial sectors, leaving few “uncommitted” launch options for military purposes. Normally this is not an issue, but the available launch options may be third party rather than national-flag carriers, which raises severe security concerns.

Fourth, several other assumptions become essential to make the strategy work, including that such an attack does not render Earth orbit so debris-saturated that further military space operations become impossible to sustain. Also, damage to civilian space assets remains, such that their continuation is possible if undamaged replacements can be quickly reintroduced to restart economically critical operations. Globalization has been fostered through satellite technologies. Their disruption can be devastating for all parties, regardless of who is the winner or the loser. What may occur is the graveyard of the modern economic system. No potential space participants would be immune to the damage, regardless of whether or not they were participants in the actual conflict.

Fifth, there must be no difficulty in separating potential targets from the enemy, allied states, and nonbelligerent states. This creates a situation in which the spread of space technologies globally complicates actions, expanding the range of participants beyond the combatants, much like earlier wars at sea, where there were the combatants' ships, along with those of nonbelligerents, including neutrals whom the combatants struggled to draw into the conflict on their side, or at least to render their services unavailable to the other side. The earliest discussion of space conflict was premised on Cold War analogies, meaning two major combatants, either U.S.–Russia, or U.S–-China, or even a three-way war. Presently, analyses focus on a bilateral conflict with the U.S. opposed to China and Russia. Whether that would occur is obviously unknown, despite political rhetoric about a Eurasia coalition of likeminded states. What it does is multiply the number of potential targets and complicates reactions to neutrals' actions to protect their interests or assets. The distinction between combatants and neutrals or third parties will be possibly blurred beyond separation. The byproduct of a kinetic space conflict is massive amounts of space debris, destroying or damaging most space assets regardless of their state sponsor or nationality. Initial attacks may be focused and precise, but the result is still the same. The debris generated by armed conflict will endure beyond the immediate clash. The obvious alternative is a strictly electronic attack on space assets' operating systems, leaving the satellites in orbit, although without the ability to move them or control possible erratic changes in orbit due to collisions with other space debris.

Other forms space war will take

Reality is more complicated—kinetic action produces debris, the ultimate deterrent to actual space war. Therefore, space war could likely track several distinct phases. The first is cyber attacks, which disable or destroy the working systems of the spacecraft or the ground-support network—in effect, a series of stealth attacks. Civilian satellites are extremely soft targets—defense requires a capacity to detect and analyze any attack on the spacecraft, not available presently for most commercial spacecraft due to cost considerations. Otherwise, one could use nuclear weapons to create electromagnetic pulses (EMP) which can fry unprotected electronics both in space and on the ground, depending on where the weapons are detonated. Interestingly, space war scenarios have some territorial war aspects in that any attacks on space assets will devastate both military and civilian targets without distinction between the war participants and civilians. Similar to unrestricted submarine warfare, all targets in the relevant area will become casualties or otherwise impacted in their operations.

Second, attacks that are conducted against the ground down links and/or communications systems, leaving the spacecraft without guidance or instructions, and also no information is returned to the commanders even if the satellites survive the initial onslaught. These can involve kinetic attacks against specific locations or insertion of special operations forces to render the facility inoperative. For example, antennas can be disabled or destroyed, disrupting operations until new facilities are brought online. Other alternatives could include kinetic weapons launched from space, “rods from God.”20 Air strike packages could include electronic warfare elements capable of scrambling or disrupting operations of such facilities even prior to physical strikes against the targets. Spacecraft not destroyed or disabled in the initial two stages of the attack can be directly attacked by “dazzling” their receivers, with laser impulses destroying the receivers for which there are few replacements without replacing the spacecraft physically.

Third, rapid replacement of inoperative satellites, regardless of the reasons, does not occur, which translates into a race for the third, possibly end, phase of the war, replenishment. Inability to replace losses may mean that none of the combatants are able to dominate in the end, meaning conventional conflict may be the outcome, although issues of global reach may confine conflicts to relatively small areas. In previous conventional conflicts, large-scale forces were moved, albeit slowly, across the globe to the conflict, i.e., Desert Shield morphing into Desert Storm after a nearly six-month buildup.

#### U.S. satellites aren’t vulnerable and China won’t choose to attack them

Jaganath Sankaran 14, postdoctoral fellow at the Belfer Center for Science and International Affairs at Harvard’s Kennedy School of Government and was previously a Stanton Nuclear Security Fellow at the RAND Corporation, Winter 2014, “Limits of the Chinese Antisatellite Threat to the United States,” Strategic Studies Quarterly, Vol. 8, No. 4, <https://www.airuniversity.af.edu/Portals/10/SSQ/documents/Volume-08_Issue-4/SSQ_2014-4.pdf>

The argument that because the US armed forces are more dependent on satellites than potential adversaries, those satellites would be an obvious and valuable target, fails to hold up to critical examination. They are vital assets; yet, because of their resilience and redundancies, none of the individual components are critical. Adversaries like China will choose to attack those US assets that would result in tangible gains while controlling the consequent escalation. However, as argued above, attacking US ISR, GPS, or communication satellites seems to generate fleeting and limited benefits for China. The military functions performed by US military satellites are diffused among large constellations. These constellations possess redundancies that enable them to serve their utility even after some satellites are lost. Many of the functions performed by these satellite systems can also be performed by other terrestrial and airborne systems. Although the redundancies and alternatives will not completely compensate for many destroyed satellites, there is no indisputable evidence that the US armed forces would be crippled if some of its satellites are attacked.

An ASAT attack would also be very escalatory; more so, if neutral states’ satellites are attacked directly or damaged as a secondary effect from the debris generated from a primary attack. The international reaction to China’s 2007 ASAT test has already exposed it to the consequences of an ASAT mission that creates large debris fields in space.64 Would the Chinese knowingly perform such an action again without an overwhelming tactical military benefit? The logical answer would be no.

#### No regional rebalancing or security dilemmas—the only empirical data goes our way.

Fettweis 11—Professor of Poli Sci @ Tulane University [Christopher J. Fettweis, “The Superpower as Superhero: Hubris in U.S. Foreign Policy,” Paper prepared for presentation at the 2011 meeting of the American Political Science Association, September 1-4, Seattle, WA, September 2011, pg. http://ssrn.com/abstract=1902154]

The final and in some ways most important pathological belief generated by hubris places the United States at the center of the current era of relative peace. “All that stands between civility and genocide, order and mayhem,” explain Kaplan and Kristol, “is American power.”68 This belief is a variant of what is known as the “hegemonic stability theory,” which proposes that international peace is only possible when there is one country strong enough to make and enforce a set of rules.69 Although it was first developed to describe economic behavior, the theory has been applied more broadly, to explain the current proliferation of peace. At the height of Pax Romana between roughly 27 BC and 180 AD, for example, Rome was able to bring an unprecedented level of peace and security to the Mediterranean. The Pax Britannica of the nineteenth century brought a level of stability to the high seas. Perhaps the current era is peaceful because the United States has established a de facto Pax Americana in which no power is strong enough to challenge its dominance, and because it has established a set of rules that are generally in the interests of all countries to follow. Without a benevolent hegemon, some strategists fear, instability may break out around the globe.70 Unchecked conflicts could bring humanitarian disaster and, in today’s interconnected world, economic turmoil that could ripple throughout global financial markets. There are good theoretical and empirical reasons, however, to doubt that U.S hegemony is the primary cause of the current stability.

First, the hegemonic-stability argument shows the classic symptom of hubris: It overestimates the capability of the United States, in this case to maintain global stability. No state, no matter how strong, can impose peace on determined belligerents. The U.S. military may be the most imposing in the history of the world, but it can only police the system if the other members generally cooperate. Self-policing must occur, in other words; if other states had not decided on their own that their interests are best served by peace, then no amount of international constabulary work by the United States could keep them from fighting. The five percent of the world’s population that lives in the United States simply cannot force peace upon an unwilling ninety-five percent. Stability and unipolarity may be simply coincidental.

In order for U.S. hegemony to be the explanation for global stability, the rest of the world would have to expect reward for good behavior and fear punishment for bad. Since the end of the Cold War, the United States has not been especially eager to enforce any particular rules. Even rather incontrovertible evidence of genocide has not been enough to inspire action. Hegemonic stability can only take credit for influencing those decisions that would have ended in war without the presence, whether physical or psychological, of the United States. Since most of the world today is free to fight without U.S. involvement, something else must be preventing them from doing so.71 Stability exists in many places where no hegemony is present. Ethiopia and Eritrea are hardly the only states that could go to war without the slightest threat of U.S. intervention, yet few choose to do so.

Second, it is worthwhile to repeat one of the most basic observations about misperception in international politics, one that is magnified by hubris: Rarely are our actions as consequential upon their behavior as we believe them to be. The ego-centric bias suggests that while it may be natural for U.S. policymakers to interpret their role as crucial in the maintenance of world peace, they are almost certainly overestimating their own importance. At the very least, the United States is probably not as central to the myriad decisions in foreign capitals that help maintain international stability as it thinks it is.

Third, if U.S. security guarantees were the primary cause of the restraint shown by the other great and potentially great powers, then those countries would be demonstrating an amount of trust in the intentions, judgment and wisdom of another that would be without precedent in international history. If the states of Europe and the Pacific Rim detected a good deal of danger in the system, relying entirely on the generosity and sagacity (or, perhaps the naiveté and gullibility) of Washington would be the height of strategic irresponsibility. Indeed it is hard to think of a similar choice: When have any capable members of an alliance virtually disarmed and allowed another member to protect their interests? It seems more logical to suggest that the other members of NATO and Japan just do not share the same perception of threat that the United States does. If there was danger out there, as so many in the U.S. national security community insist, then the grand strategies of the allies would be quite different. Even during the Cold War, U.S. allies were not always convinced that they could rely on U.S. security commitments. Extended deterrence was never entirely comforting; few Europeans could be sure that United States would indeed sacrifice New York for Hamburg. In the absence of the unifying Soviet threat, their trust in U.S. commitments for their defense would presumably be lower—if in fact that commitment was at all necessary outside of the most pessimistic works of fiction.

Furthermore, in order for hegemonic stability logic to be an adequate explanation for restrained behavior, allied states must not only be fully convinced of the intentions and capability of the hegemon to protect their interests; they must also trust that the hegemon can interpret those interests correctly and consistently. As discussed above, the allies do not feel that the United States consistently demonstrates the highest level of strategic wisdom. In fact, they often seem to look with confused eyes upon our behavior, and are unable to explain why we so often find it necessary to go abroad in search of monsters to destroy. They will participate at times in our adventures, but minimally and reluctantly.

Finally, while believers in hegemonic stability as the primary explanation for the long peace have articulated a logic that some find compelling, they are rarely able to cite much evidence to support their claims. In fact, the limited empirical data we have suggests that there is little connection between the relative level of U.S. activism and international stability. During the 1990s, the United States cut back on defense fairly substantially, spending $100 billion less in real terms in 1998 that it did in 1990, which was a twenty-five percent reduction.72 To defense hawks and other believers in hegemonic stability, this irresponsible “peace dividend” endangered both national and global security. “No serious analyst of American military capabilities doubts that the defense budget has been cut much too far to meet America’s responsibilities to itself and to world peace,” argued Kristol and Kagan.”73 If global stability were unrelated to U.S. hegemony, however, one would not have expected an increase in conflict and violence.

The verdict from the last two decades is fairly plain: The world grew more peaceful while the United States cut its forces.74 No state believed that its security was endangered by a less-capable U.S. military, or at least none took any action that would suggest such a belief. No defense establishments were enhanced to address power vacuums; no security dilemmas drove insecurity or arms races; no regional balancing occurred after the stabilizing presence of the U.S. military was diminished. The rest of the world acted as if the threat of international war was not a pressing concern, despite the reduction in U.S. capabilities. The incidence and magnitude of global conflict declined while the United States cut its military spending under President Clinton, and kept declining as the Bush Administration ramped that spending back up. The two phenomena are unrelated.

These figures will not be enough to convince skeptics. Military spending figures by themselves are insufficient to disprove a connection between overall U.S. actions and international stability, and one could also presumably argue that spending is not the only or even the best indication of hegemony, that it is instead U.S. foreign political and security commitments that maintain stability. Since neither was significantly altered during this period, instability should not be expected. Alternately, advocates of hegemonic stability could believe that relative rather than absolute spending is decisive in bringing peace. Although the United States cut back on its spending during the 1990s, its relative advantage never wavered.

However, two points deserve to be made. First, even if it were true that either U.S. commitments or relative spending account for global pacific trends, it would remain the case that stability can be maintained at drastically lower levels. In other words, even if one can be allowed to argue in the alternative for a moment and suppose that there is in fact a level of engagement below which the United States cannot drop without increasing international disorder, a rational grand strategist would still cut back on engagement and spending until that level is determined. Basic logic suggests that the United States ought to spend the minimum amount of its blood and treasure while seeking the maximum return on its investment. And if, as many suspect, this era of global peace proves to be inherently stable because normative evolution is typically unidirectional, then no increase in conflict would ever occur, irrespective of U.S. spending.75 Abandoning the mission to stabilize the world would save untold trillions for an increasingly debt-ridden nation.

Second, it is also worth noting that if opposite trends had unfolded, if other states had reacted to news of cuts in U.S. defense spending with more aggressive or insecure behavior, then surely hegemonists would note that their expectations had been justified. If increases in conflict would have been interpreted as evidence for the wisdom of internationalist strategies, then logical consistency demands that the lack thereof should at least pose a problem. As it stands, the only evidence we have regarding the relationship between U.S. power and international stability suggests that the two are unrelated. Evidently the rest of the world can operate quite effectively without the presence of a global policeman. Those who think otherwise base their view on faith alone.It requires a good deal of hubris for any actor to consider itself indispensable to world peace. Far from collapsing into a whirlwind of chaos, the chances are high that the world would look much like it does now if the United States were to cease regarding itself as God’s gladiator on earth. The people of the United States would be a lot better off as well.

#### No miscalc or escalation

James Pavur 19, Professor of Computer Science Department of Computer Science at Oxford University and Ivan Martinovic, DPhil Researcher Cybersecurity Centre for Doctoral Training at Oxford University, “The Cyber-ASAT: On the Impact of Cyber Weapons in Outer Space”, 2019 11th International Conference on Cyber Conflict: Silent Battle T. Minárik, S. Alatalu, S. Biondi, M. Signoretti, I. Tolga, G. Visky (Eds.), <https://ccdcoe.org/uploads/2019/06/Art_12_The-Cyber-ASAT.pdf>

A. Limited Accessibility Space is difficult. Over 60 years have passed since the first Sputnik launch and only nine countries (ten including the EU) have orbital launch capabilities. Moreover, a launch programme alone does not guarantee the resources and precision required to operate a meaningful ASAT capability. Given this, one possible reason why space wars have not broken out is simply because only the US has ever had the ability to fight one [21, p. 402], [22, pp. 419–420]. Although launch technology may become cheaper and easier, it is unclear to what extent these advances will be distributed among presently non-spacefaring nations. Limited access to orbit necessarily reduces the scenarios which could plausibly escalate to ASAT usage. Only major conflicts between the handful of states with ‘space club’ membership could be considered possible flashpoints. Even then, the fragility of an attacker’s own space assets creates de-escalatory pressures due to the deterrent effect of retaliation. Since the earliest days of the space race, dominant powers have recognized this dynamic and demonstrated an inclination towards de-escalatory space strategies

[23]. B. Attributable Norms There also exists a long-standing normative framework favouring the peaceful use of space. The effectiveness of this regime, centred around the Outer Space Treaty (OST), is highly contentious and many have pointed out its serious legal and political shortcomings [24]–[26]. Nevertheless, this status quo framework has somehow supported over six decades of relative peace in orbit. Over these six decades, norms have become deeply ingrained into the way states describe and perceive space weaponization. This de facto codification was dramatically demonstrated in 2005 when the US found itself on the short end of a 160-1 UN vote after opposing a non-binding resolution on space weaponization. Although states have occasionally pushed the boundaries of these norms, this has typically occurred through incremental legal re-interpretation rather than outright opposition [27]. Even the most notable incidents, such as the 2007-2008 US and Chinese ASAT demonstrations, were couched in rhetoric from both the norm violators and defenders, depicting space as a peaceful global commons [27, p. 56]. Altogether, this suggests that states perceive real costs to breaking this normative tradition and may even moderate their behaviours accordingly. One further factor supporting this norms regime is the high degree of attributability surrounding ASAT weapons. For kinetic ASAT technology, plausible deniability and stealth are essentially impossible. The literally explosive act of launching a rocket cannot evade detection and, if used offensively, retaliation. This imposes high diplomatic costs on ASAT usage and testing, particularly during peacetime. C. Environmental Interdependence A third stabilizing force relates to the orbital debris consequences of ASATs. China’s 2007 ASAT demonstration was the largest debris-generating event in history, as the targeted satellite dissipated into thousands of dangerous debris particles [28, p. 4]. Since debris particles are indiscriminate and unpredictable, they often threaten the attacker’s own space assets [22, p. 420]. This is compounded by Kessler syndrome, a phenomenon whereby orbital debris ‘breeds’ as large pieces of debris collide and disintegrate. As space debris remains in orbit for hundreds of years, the cascade effect of an ASAT attack can constrain the attacker’s long-term use of space [29, pp. 295– 296]. Any state with kinetic ASAT capabilities will likely also operate satellites of its own, and they are necessarily exposed to this collateral damage threat. Space debris thus acts as a strong strategic deterrent to ASAT usage.