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### 1NC - 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 has committed to the commercial space industry as the linchpin of China’s rise – the plan is seen as a complete 180

**Patel 21** [Neel V. Patel, Neel is a space reporter for MIT Technology Review. 1-21-2021, "China’s surging private space industry is out to challenge the US," MIT Technology Review, <https://www.technologyreview.com/2021/01/21/1016513/china-private-commercial-space-industry-dominance/> accessed 12/14/21] Adam

Until recently, China’s space activity has been overwhelmingly dominated by two state-owned enterprises: the China Aerospace Science & Industry Corporation Limited (CASIC) and the China Aerospace Science and Technology Corporation (CASC). A few private space firms have been allowed to operate in the country for a while: for example, there’s the China Great Wall Industry Corporation Limited (in reality a subsidiary of CASC), which has provided commercial launches since it was established in 1980. But for the most part, China’s commercial space industry has been nonexistent. Satellites were expensive to build and launch, and they were too heavy and large for anything but the biggest rockets to actually deliver to orbit. The costs involved were too much for anything but national budgets to handle.

That all changed this past decade as the costs of making satellites and launching rockets plunged. In 2014, a year after Xi Jinping took over as the new leader of China, the Chinese government decided to treat civil space development as a key area of innovation, as it had already begun doing with AI and solar power. It issued a policy directive called [Document 60](https://archive.md/o/bc9l4/www.cpppc.org/en/zy/994006.jhtml) that year to enable large private investment in companies interested in participating in the space industry.

“Xi’s goal was that if China has to become a critical player in technology, including in civil space and aerospace, it was critical to develop a space ecosystem that includes the private sector,” says Namrata Goswami, a geopolitics expert based in Montgomery, Alabama, who’s been studying China’s space program for many years. “He was taking a cue from the American private sector to encourage innovation from a talent pool that extended beyond state-funded organizations.”

As a result, there are now 78 commercial space companies operating in China, according to a[2019 report by the Institute for Defense Analyses](https://archive.md/o/bc9l4/https:/www.ida.org/-/media/feature/publications/e/ev/evaluation-of-chinas-commercial-space-sector/d-10873.ashx). More than half have been founded since 2014, and the vast majority focus on satellite manufacturing and launch services.

For example, Galactic Energy, founded in February 2018, is building its Ceres rocket to offer rapid launch service for single payloads, while its Pallas rocket is being built to deploy entire constellations. Rival company i-Space, formed in 2016, became the first commercial Chinese company to make it to space with its Hyperbola-1 in July 2019. It wants to pursue reusable first-stage boosters that can land vertically, like those from SpaceX. So does LinkSpace (founded in 2014), although it also hopes to use rockets to deliver packages from one terrestrial location to another.

Spacety, founded in 2016, wants to turn around customer orders to build and launch its small satellites in just six months. In December it launched a miniaturized version of a satellite that uses 2D radar images to build 3D reconstructions of terrestrial landscapes. Weeks later, it [released the first images taken by the satellite](https://archive.md/o/bc9l4/https:/spacenews.com/spacety-releases-first-sar-images/), Hisea-1, featuring three-meter resolution. Spacety wants to launch a constellation of these satellites to offer high-quality imaging at low cost.

To a large extent, China is following the same blueprint drawn up by the US: using government contracts and subsidies to give these companies a foot up. US firms like SpaceX benefited greatly from NASA contracts that paid out millions to build and test rockets and space vehicles for delivering cargo to the International Space Station. With that experience under its belt, SpaceX was able to attract more customers with greater confidence.

Venture capital is another tried-and-true route. The IDA report estimates that VC funding for Chinese space companies was up to $516 million in 2018—far shy of the $2.2 billion American companies raised, but nothing to scoff at for an industry that really only began seven years ago. At least 42 companies had no known government funding.

And much of the government support these companies do receive doesn’t have a federal origin, but a provincial one. “[These companies] are drawing high-tech development to these local communities,” says Hines. “And in return, they’re given more autonomy by the local government.” While most have headquarters in Beijing, many keep facilities in Shenzhen, Chongqing, and other areas that might draw talent from local universities.

There’s also one advantage specific to China: manufacturing. “What is the best country to trust for manufacturing needs?” asks James Zheng, the CEO of Spacety’s Luxembourg headquarters. “It’s China. It’s the manufacturing center of the world.” Zheng believes the country is in a better position than any other to take advantage of the space industry’s new need for mass production of satellites and rockets alike.

Making friends

The most critical strategic reason to encourage a private space sector is to create opportunities for international collaboration—particularly to attract customers wary of being seen to mix with the Chinese government. (US agencies and government contractors, for example, are barred from working with any groups the regime funds.) Document 60 and others issued by China’s National Development and Reform Commission were aimed not just at promoting technological innovation, but also at drawing in foreign investment and maximizing a customer base beyond Chinese borders.

“China realizes there are certain things they cannot get on their own,” says Frans von der Dunk, a space policy expert at the University of Nebraska–Lincoln. Chinese companies like LandSpace and MinoSpace have worked to accrue funding through foreign investment, escaping dependence on state subsidies. And by avoiding state funding, a company can also avoid an array of restrictions on what it can and can’t do (such as constraints on talking with the media). Foreign investment also makes it easier to compete on a global scale: you’re taking on clients around the world, launching from other countries, and bringing talent from outside China.

Although China is taking inspiration from the US in building out its private industry, the nature of the Chinese state also means these new companies face obstacles that their rivals in the West don’t have to worry about. While Chinese companies may look private on paper, they must still submit to government guidance and control, and accept some level of interference. It may be difficult for them to make a case to potential overseas customers that they are independent. The distinction between companies that are truly private and those that are more or less state actors is still quite fuzzy, especially if the government is a frequent customer. “That could still lead to a lack of trust from other partners,” says Goswami. It doesn’t help that the government itself is often [very cagey about what its national program is even up to](https://archive.md/o/bc9l4/https:/www.bbc.com/news/science-environment-54076895).

And Hines adds that it’s not always clear exactly how separate these companies are from, say, the People’s Liberation Army, given the historical ties between the space and defense sectors. “Some of these things will pose significant hurdles for the commercial space sector as it tries to expand,” he says.

#### 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

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.

#### **US–China war goes nuclear – crisis mis-management ensures conventional escalation - extinction**

Kulacki 20 [Dr. Gregory Kulacki focuses on cross-cultural communication between the United States and China on nuclear and space arms control and is the China Project Manager for the Global Security Program at the Union of Concerned Scientists, 2020. Would China Use Nuclear Weapons First In A War With The United States?, Thediplomat.com, https://thediplomat.com/2020/04/would-china-use-nuclear-weapons-first-in-a-war-with-the-united-states/] srey

Admiral Charles A. Richard, the head of the U.S. Strategic Command, recently told the Senate Armed Service Committee he “could drive a truck” through the holes in China’s no first use policy. But when Senator John Hawley (R-MO) asked him why he said that, Commander Richard backtracked, described China’s policy as “very opaque” and said his assessment was based on “very little” information. That’s surprising. **China** has been exceptionally **clear** **about** its **intentions** **on** the possible **first** **use** **of** **nuclear** **weapons**. On the day of its first nuclear test on October 16, 1964, China declared it “will never at any time or under any circumstances be the first to use nuclear weapons.” That **unambiguous** **statement** **has** **been** a **cornerstone** **of** **Chinese** **nuclear** **weapons** policy for 56 years and has been repeated frequently in authoritative Chinese publications for domestic and international audiences, including a highly classified training manual for the operators of China’s nuclear forces. Richard should know about those publications, particularly the training manual. A U.S. Department of Defense translation has been circulating within the U.S. nuclear weapons policy community for more than a decade. The commander’s comments to the committee indicate a familiarity with the most controversial section of the manual, which, in the eyes of some U.S. analysts, indicates there may be some circumstances where **China** **would** **use** **nuclear** **weapons** **first** **in** a **war** **with** **the** **U**nited **S**tates. This U.S. misperception is understandable, especially given the difficulties the Defense Department encountered translating the text into English. The language, carefully considered in the context of the entire book, articulates a strong reaffirmation of China’s no first use policy. But it also reveals **Chinese** military planners are **struggling** **with** **crisis** **management** **and** **considering** **steps** **that** could **create** **ambiguity** **with** **disastrous** **consequences**. Towards the end of the 405-page text on the operations of China’s strategic rocket forces, in a chapter entitled, “Second Artillery Deterrence Operations,” the authors explain what China’s nuclear forces train to do if **“**a strong military power possessing nuclear‐armed missiles and an absolute advantage in high‐tech conventional weapons is carrying out intense and continuous attacks against our major strategic targets and we have no good military strategy to resist the enemy.**”** The military power they’re talking about is the United States. The authors indicate China’s nuclear missile forces train to take specific steps, including increasing readiness and conducting launch exercises, to “dissuade the continuation of the strong enemy’s conventional attacks.” The manual refers to these steps as an “adjustment” to China’s nuclear policy and a “lowering” of China’s threshold for brandishing its nuclear forces. Chinese leaders would only take these steps in extreme circumstances. The text highlights several triggers such as U.S. conventional bombing of China’s nuclear and hydroelectric power plants, heavy conventional bombing of large cities like Beijing and Shanghai, or other acts of **conventional** **warfare** **that** “**seriously** **threatened**” the “safety and **survival**” of the nation. U.S. Misunderstanding Richard seems to believe this planned adjustment in China’s nuclear posture means China is **preparing** **to** **use** **nuclear** **weapons** first under these circumstances. He told Hawley that there are a “number of situations where they may conclude that first use has occurred that do not meet our definition of first use.” The head of the U.S. Strategic Command appears to assume, as do other U.S. analysts, that the **Chinese** would **interpret** **these** types of U.S. conventional **attacks** **as** **equivalent** **to** a **U.S. first use** **of** **nuclear** **weapons** against China. But that’s not what the text says. “Lowering the threshold” refers to China putting its nuclear weapons on alert — it does not indicate Chinese leaders might lower their threshold for deciding to use nuclear weapons in a crisis. Nor does the text indicate Chinese nuclear forces are training to launch nuclear weapons first in a war with the United States. China, unlike the United States, keeps its nuclear forces off-alert. Its warheads are not mated to its missiles. China’s nuclear-armed submarines are not continuously at sea on armed patrols. The manual describes how China’s nuclear warheads and the missiles that deliver them are controlled by two separate chains of command. Chinese missileers train to bring them together and launch them after China has been attacked with nuclear weapons. All of these behaviors are consistent with a no first use policy. The “adjustment” Chinese nuclear forces are preparing to make if the United States is bombing China with impunity is to place China’s nuclear forces in a state of readiness similar to the state the nuclear forces of the United States are in all the time. This step is intended not only to end the bombing, but also to convince U.S. decision-makers they cannot expect to destroy China’s nuclear retaliatory capability if the crisis escalates. Chinese Miscalculation Unfortunately, alerting Chinese nuclear forces at such a moment could have terrifying consequences. Given the relatively small size of China’s nuclear force, a U.S. president might be tempted to try to limit the possible damage from a Chinese nuclear attack by destroying as many of China’s nuclear weapons as possible before they’re launched, especially if the head of the U.S. Strategic Command told the president China was preparing to strike first. One study concluded that if the United States used nuclear weapons to attempt to knock out a small fraction of the Chinese ICBMs that could reach the United States it may kill tens of millions of Chinese civilians. The authors of the text assume alerting China’s nuclear forces would “create a great shock in the enemy’s psyche.” That’s a fair assumption. But they also assume this shock could “dissuade the continuation of the strong enemy’s conventional attacks against our major strategic targets.” That’s highly questionable. There is a **substantial** **risk** **the** **U**nited **S**tates **would** **respond** **to** this implicit **Chinese** **threat** **to** **use** **nuclear** **weapons** **by** **escalating**, rather than halting, its **conventional** **attacks**. If China’s nuclear forces were targeted, it would put even greater strain on the operators of China’s nuclear forces. A **slippery** **slope** **to** **nuclear** **war** Chinese military planners are aware that attempting to coerce the United States into halting conventional bombardment by alerting their nuclear forces could fail. They also know it might trigger a nuclear war. But if it does, they are equally clear China won’t be the one to start it. Nuclear attack is often preceded by nuclear coercion. Because of this, in the midst of the process of a high, strong degree of nuclear coercion we should prepare well for a nuclear retaliatory attack. The more complete the preparation, the higher the credibility of nuclear coercion, the easier it is to accomplish the objective of nuclear coercion, and the lower the possibility that the nuclear missile forces will be used in actual fighting. They assume if China demonstrates it is well prepared to retaliate the United States would not risk a damage limitation strike using nuclear weapons. And even if the United States were to attack China’s nuclear forces with conventional weapons, China still would not strike first. In the opening section of the next chapter on “nuclear retaliatory attack operations” the manual instructs, as it does on numerous occasions throughout the entire text: According to our country’s principle, its stand of no first use of nuclear weapons, the Second Artillery will carry out a nuclear missile attack against the enemy’s important strategic targets, according to the combat orders of the Supreme Command, only after the enemy has carried out a nuclear attack against our country. Richard is wrong. There are no holes in China’s no first use policy. But the worse-case planning articulated in this highly classified military text is a significant and deeply troubling departure from China’s traditional thinking about the role of nuclear weapons. Mao Zedong famously called nuclear weapons “a paper tiger.” Many assumed he was being cavalier about the consequences of nuclear war. But what he meant is that they would not be used to fight and win wars. U.S. nuclear threats during the Korean War and the Taiwan Strait Crisis in the 1950s – threats not followed by an actual nuclear attack – validated Mao’s intuition that nuclear weapons were primarily psychological weapons. Chinese leaders decided to acquire nuclear weapons to free their minds from what Mao’s generation called “**nuclear** **blackmail**.” A former director of China’s nuclear weapons laboratories told me China developed them so its leaders could “sit up with a straight spine.” Countering nuclear blackmail – along with compelling other nuclear weapons states to negotiate their elimination – were the only two purposes Chinese nuclear weapons were meant to serve. Contemporary Chinese military planners appear to have added a new purpose: compelling the United States to halt a conventional attack. Even though it only applies in extreme circumstances, it **increases** the **risk** **that** a **war** between the United States and China **will** **end** **in** a nuclear exchange with unpredictable and **catastrophic** **consequences**. Adding this new purpose could also be the first step on a slippery slope to an incremental broadening the role of nuclear weapons in Chinese national security policy. Americans would be a lot safer if we could avoid that. The United States government should applaud China’s no first use policy instead of repeatedly calling it into question. And it would be wise to adopt the same policy for the United States. If both countries declared they would never use nuclear weapons first it may not guarantee they can avoid a nuclear exchange during a military crisis, but it would make one far less likely.

### 1NC – CP

#### Plan: States ought to

#### ban the use of systems that redirect near-earth objects

#### deploy a debris removal system removing small and large objects and the debris of other nations upon their request

#### establish a 25 year maximum lifetime limit after which space objects should be re-entered in the atmosphere

#### Solves debris and avoids miscalc

* prevents encroachment – all states remove their own things

Matteo Frigoli 19, master’s degree in Law at the University of Parma, degree thesis concerned international law and the military uses of outer space and celestial bodies, “Between Active Debris Removal and Space-Based Weapons: A Comprehensive Legal Approach”, Chapter 4, Space Security and Legal Aspects of Active Debris Removal, Studies in Space Policy Series, (No. 16)https://www.ebooks.com/en-ag/209547370/space-security-and-legal-aspects-of-active-debris-removal/annette-froehlich/

4.1.5 Selective Cleaning Operations: A Possible Temporary Solution?

A workable legal solution that would address ADR operations cannot avoid or minimize the issue of space weaponization. This must be considered as a crucial aspect of ADR technologies.

The dual-use nature of ADR technologies bears different practical and legal consequences with respect to those posed by the current dual-use capacity of space assets.

For example, the utilization of civilian space assets, such as communication or observation satellites for military purposes, remains in the area of the passive military uses of outer space, which are generally accepted by the international community as permitted by Article 2(4) of the United Nations Charter, which basically prohibits “the threat or use of force”.67

On the other hand, the deployment for military purposes of a satellite dedicated to removal operations would be an active military use of outer space, in the form of a space-based weapon, thus constituting that “threat or use of force” in outer space that the international community has been striving to avoid.

In September 2013, China carried out experiments in outer space regarding onorbit servicing and satellite capture, involving a satellite fitted with a mechanical arm. These maneuvers raised international concerns that “the tests go beyond the stated objectives and are actually cover for testing on-orbit ASAT technology.”68 There is a thin line that separates ADR technologies from space-based weapons, and it could be argued that ignoring this feature in a possible future regulatory framework could lead to some sort of “masked weaponization” of outer space.

Bearing this in mind, what can be done with the existing legal regime? How can the set of four principles enshrined in Article I and Article IX of the Outer Space Treaty regulate ADR operations and ensure outer space as a “peaceful environment in the sense of a broad non-harmful medium”?

To answer these questions, a key-role should be played by the mandatory international consultation in case of a potentially harmful interference with activities in the peaceful exploration and use of outer space, which could deny access to outer space.

In effect, the increased accessibility of space technology has led to a deep diversification of space actors and space assets. As a result, outer space is increasingly becoming fundamental part of states infrastructures. Furthermore, the fundamental role of space-based assets in the essential fields of security, global communication and navigation, weather forecasting, and data transfer, weave the globe’s highly complex $78 trillion economy together.69 In the near future, access to and use of outer space could become increasingly exploitable by individuals. This prediction is substantiated by the development of commercial space flights and sub-orbital or orbital space tourism activities.70

It could be argued that the principles laid down by Article I and Article IX have progressively assumed greater value as access to outer space has become essential to states, and even to individuals.

The mandatory international consultation clause in the event of ‘harmful contamination of outer space’ or ‘harmful interference of outer space activities’ could be the instrument to deal with space debris in the present time. This is even more important considering that collisional cascading, known as the Kessler Syndrome, could render some orbits unusable for centuries,71 denying access, use, and exploration of outer space.

A discussion at international level would also minimize the threat of space weaponization, which would emerge eventual unilateral removal operations carried out by different states.

However, this matter will show all its complexity on the occurrence of broad international consultations concerning active debris removal. Which criteria for removal could be relevant?

In this respect, large-scale and small-scale removal operations bear different consequences and conclusions.

Large-scale removal operations will meet hard legal hurdles, requiring multiple authorizations by the states owners of the space objects, or at least multiple transfers of jurisdiction and control over the same objects to the entity or state that will conduct the removal. In addition, this approach may not be effective. In fact, not all debris are trackable, for each tracked debris there are 30–50 untracked objects in the centimeter range presenting a real danger to space assets.72

In pursuing this approach, attention would be concentrated on the removal of tracked and catalogued objects instead of addressing the uncatalogued “lethal population” of debris. Thus, in the discussion of large-scale removal, security issues need to be addressed, making harder the conclusion of an agreement.

On the other hand, small-scale removal and improved compliance with the IADC Space Debris Mitigation Guidelines, especially with the rule establishing a maximum of 25 years lifetime limit after which the space object should be re-entered in the atmosphere, could be effective and may constitute a first step toward a more general approach.

As has been demonstrated, complete compliance with the debris mitigation rules plus removal of five objects per year would prevent the number of catalogued fragments from increasing.73 Broad international consultation in the event of ‘harmful contamination of outer space’ or ‘harmful interference of outer space activities’ posed by space debris could be the context in which states agree on this selective approach by removing a few objects per year.

In the terms of Article IX, international consultations should be requested when a state “has reason to believe that an activity or experiment planned by it or its nationals in outer space, including the Moon and other celestial bodies, would cause potentially harmful interference with activities of other States Parties in the peaceful exploration and use of outer space” or when a state “has reason to believe that an activity or experiment planned by another State Party in outer space, including the Moon and other celestial bodies, would cause potentially harmful interference with activities in the peaceful exploration and use of outer space, including the Moon and other celestial bodies”.

Article IX is guided by principles of “cooperation and mutual assistance” with “due regard to the corresponding interests of all other States Parties to the Treaty”. Even if Article IX has a lack of specificity and does not describe what constitutes “harmful interference” and does not designate an agency to which States should turn for this evaluation, the international consultation clause should be interpreted, ad minimum, as requiring contact with other States Parties to the Treaty whose peaceful explorations and use of outer space would experience potentially harmful interference.

This could be a ‘step by step’ method to reach agreement on the removal of a few objects per year and to construct a consensus for future agreement on comprehensive cleaning operations, targeting catalogued and uncatalogued objects, since the technology to achieve this objective could be soon available.74

### 1NC - DA

#### China’s space strategies strengthen deterrence now. PLA deterrence is key to joint operations, which ensure Chinese modernization beyond space.

* AT: Old – Doesn’t matter its about space deterrence strategies leading to joint operations, they need ev that those strategies don’t exist or are unsuccessful
* Deterrence kickstarts joint operations which encourage synergies among services and highlights strengths and weaknesses

Cheng 11 Dean Cheng is a Research Fellow in Chinese Political and Security Affairs in the Asian Studies Center at The Heritage Foundation. August 16, 2011. “China’s Space Program: A Growing Factor in U.S. Security Planning” [China’s Space Program: A Growing Factor in U.S. Security Planning (indianstrategicknowledgeonline.com)](https://indianstrategicknowledgeonline.com/web/bg2594.pdf) Accessed 12-17 // gord0

China’s space efforts are not simply the actions of the People’s Liberation Army (PLA) or efforts at political signaling to obtain a space arms control treaty, as some have posited. Rather, these actions occur within a particular strategic and military context. The first contextual element is the broadening view of the PLA’s responsibilities. One of the PLA’s foremost tasks is to preserve the rule of the Chinese Communist Party (CCP). As the PRC’s economic and national interests have expanded beyond its borders, what is deemed essential for preserving the party’s power has also expanded. To this end, Hu Jintao and his predecessor, Jiang Zemin, set forth the new “historic missions” of the PLA. Not only do these new historic missions sustain the longstanding duty of providing support to the CCP, but now the PLA is responsible for helping to safeguard China’s national development, its expanding national interests, and furthering the objective of maintaining global stability and peace. Hence, the PLA is expanding China’s space capabilities in this strategic, national light, especially given the PLA’s roles in safeguarding national development and interests. To fulfill these historic missions, the PLA must be able to exploit space at times and places of its own choosing and, equally important, be able to deny an opponent the same freedom of action. PLA writings increasingly mention the need for a deterrence capacity in space and elsewhere. To these historic missions must be added the additional task of constraining conflicts, both by preventing their outbreak and by limiting their extent if they occur nonetheless. Both of these tasks fall under the rubric of deterrence. As the PRC’s economic and national interests have expanded beyond its borders, what is deemed essential for preserving the party’s power has also expanded. What is striking, however, is that, while Western writings on deterrence generally focus on dissuading an opponent from performing actions that the deterring power would prefer it not undertake, Chinese writings also talk about compellence. That is, to deter an opponent successfully, the PLA must not only dissuade, but also be able to coerce an opponent into undertaking actions that the deterred power would prefer not to do. In this regard, Chinese discussions about deterrence not only note roles for conventional and nuclear forces, but also highlight the importance of space deterrence. Finally, by way of context, the PLA continues to improve its ability to undertake joint operations. This interest in joint operations was already evident a decade ago, when the PLA promulgated a variety of gangyao that would help to guide future military planning, training, and operations.3 The capstone of these gangyao was devoted to joint military operations. The ability to conduct joint operations is portrayed as a hallmark of Local Wars Under High-Tech tions, because such operations allow synergies among services, pit one’s strengths against its opponent’s strengths, and shield one’s weaknesses. As the 2010 edition of China’s National Defense, China’s biennial defense white paper, notes, “The PLA takes the building of joint operation systems as the focal point of its modernization and preparations for military struggle.”4 According to various PLA analyses, the key to successful joint operations is the ability to gather, transmit, and exploit information. Indeed, the very description of future wars has shifted from Local Wars Under High-Tech Conditions to Local Wars Under Informationalized Conditions—the most important high technologies are those related to information technology. Similarly, the 2010 Chinese defense white paper notes that the PLA “strives to enhance its fighting capabilities based on information systems.”5 Only the high ground of space can provide the opportunity to gather information; transmit it rapidly, securely, and reliably; and exploit it promptly. To create synergistic effects, widely dispersed units must be able to establish a common situational awareness framework and to coordinate their activities, timing their operations to maximize mutual support. If future wars will be marked by the “three nons” of non-contact, nonlinear, and nonsymmetrical operations, then information will be the keystone of success in future wars. In order to effect joint operations, according to PLA analyses, a military must be able to exploit space. Only the high ground of space can provide the opportunity to gather information; transmit it rapidly, securely, and reliably; and exploit it promptly. PLA writings describe space as essential for reconnaissance and surveillance, communications, navigation, weather forecasting, and battle damage assessment. A military that is capable of effective joint operations can also deter an opponent. Thus, space capabilities strengthen conventional deterrence as well as deterring in their own right. The PLA has an interest in achieving space dominance to fulfill its historic tasks, to deter future conflicts if possible, and to fight and win Local Wars Under Informationalized Conditions if necessary. This context suggests that China is following a particular method in developing an expanding array of space capabilities, including a growing range of satellites, a new heavy-lift space launcher, and a fourth launch site on Hainan Island, which is much nearer the equator. This underlying interest is reflected in certain space missions, which PLA writings suggest are particularly important. Most obviously, the PLA expects improved space information support. With each passing year, China’s satellite constellations will provide better information to military users. Today, Chinese systems provide not only basic earth observation capabilities, but also: • An autonomous navigation system, which is already operational, unlike the European Galileo system; • Data relay capacity; • Weather forecasting; and • Earth observation, including growing maritime surveillance capability. In addition, China’s improving space capabilities, coupled with its steadily advancing conventional capabilities, will provide the increased ability to seek space superiority or space dominance (zhitian quan) through a combination of space offensive and defensive operations.

#### Chinese military modernization functions as a deterrent for nuclear war with the US

* AT: Not About Space – the internal link argument is in Cheng. “space capabilities strengthen conventional deterrence”. It also says space is the only way to “establish a common situational awareness framework”
* First, JL-2 Subs enable SSBN’s to attack the US, and A2/AD strategy further deters US interventions.
* Second, joint operation modernization allows for China to join Russia-US nuclear arms control talks. That changes distribution power and deterrence but only with hard military power strengthened by modernization.

Cimbala 15 Stephen J Cimbala, Professor of Political Science at PSU Brandywine. Summer 2015. “Chinese Military Modernization” [Chinese Military modernization: Implications for Strategic Nuclear Arms Control (af.edu)](https://www.airuniversity.af.edu/Portals/10/SSQ/documents/Volume-09_Issue-2/cimbala.pdf#:~:text=China%E2%80%99s%20political%20and%20military%20objectives%20in%20Asia%20and,two%20follow-on%20challenges%3A%20escala-tion%20control%20and%20nuclear%20signaling.) Accessed 12-18 // gord0

China’s political and military objectives in Asia and worldwide differ from those of the United States and Russia, reflecting a perception of that nation’s own interests and of its anticipated role in the emerging world order.1 Its growing portfolio of smart capabilities and modernized platforms includes stealth aircraft, antisatellite warfare systems, quiet submarines, “brilliant” torpedo mines, improved cruise missiles, and the potential for disrupting financial markets. Among other indicators, China’s already deployed and future Type 094 Jin-class nuclear ballistic missile submarines (SSBN), once they are equipped as planned with JL-2 submarine launched ballistic missiles, will for the first time enable Chinese SSBNs to target parts of the United States from locations near the Chinese coast. Along with this, China’s fleet of nuclear-powered attack submarines supports an ambitious anti-access/area denial (A2/AD) strategy to deter US military intervention to support allied interests in Asia against Chinese wishes.2 China’s diplomacy creates additional space for maneuver between Russian and American perceptions. While China may lack the commitment to arms control transparency, the nation’s current and future military modernization entitles Beijing to participate in future Russian-American strategic nuclear arms control talks. Entering China into the US-Russian nuclear-deterrence equation creates considerable analytical challenges, for a number of reasons. To understand these challenges one must consider the impact of China’s military modernization, which creates two follow-on challenges: escalation control and nuclear signaling. Military Modernization China’s military modernization is going to change the distribution of power in Asia, including the distribution of nuclear and missile forces. This modernization draws not only on indigenous military culture but also on careful analysis of Western and other experiences. As David Lai has noted, “The Chinese way of war places a strong emphasis on the use of strategy, stratagems, and deception. However, the Chinese understand that their approach will not be effective without the backing of hard military power. China’s grand strategy is to take the next 30 years to complete China’s modernization mission, which is expected to turn China into a true great power by that time.”3 Chinese military modernization and defense guidance for the use of nuclear and other missile forces hold some important implications for US policy. First, Chinese thinking is apparently quite nuanced about the deterrent and defense uses for nuclear weapons. Despite the accomplishments of modernization thus far, Chinese leaders are aware that their forces are far from nuclear-strategic parity with the United States or Russia. Conversely, China may not aspire to this model of nuclear strategic parity, such as between major nuclear powers, as the key to war avoidance by deterrence or other means. China may prefer to see nuclear weapons as one option among a spectrum of choices available in deterring or fighting wars under exigent conditions and as a means of supporting assertive diplomacy and conventional operations when necessary. Nuclear-strategic parity, as measured by quantitative indicators of relative strength, may be less important to China than the qualitative use of nuclear and other means as part of broader diplomatic-military strategies.4 Second, China is expanding its portfolio of military preparedness not only in platforms and weapons but also in the realms of command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) and information technology. Having observed the US success in Operation Desert Storm against Iraq in 1991, Chinese military strategists concluded that the informatization of warfare under all conditions would be a predicate to future deterrence and defense operations.5 As Paul Bracken has noted, the composite effect of China’s developments is to make its military more agile—meaning, more rapidly adaptive and flexible.6 The emphasis on agility instead of brute force reinforces traditional Chinese military thinking. Since Sun Tzu, the acme of skill has been winning without fighting, but if war is unavoidable, delivering the first and decisive blows is essential. This thinking also stipulates that one should attack the enemy’s strategy and his alliances, making maximum use of deception and basing such attacks on superior intelligence and estimation. The combination of improved platforms and command-control and information warfare should provide options for the selective use of precision fire strikes and cyberattacks against priority targets while avoiding mass killing and fruitless attacks on enemy strongholds.7

#### **US–China war goes nuclear – crisis mismanagement ensures conventional escalation - extinction**

Kulacki 20 [Dr. Gregory Kulacki focuses on cross-cultural communication between the United States and China on nuclear and space arms control and is the China Project Manager for the Global Security Program at the Union of Concerned Scientists, 2020. Would China Use Nuclear Weapons First In A War With The United States?, Thediplomat.com, https://thediplomat.com/2020/04/would-china-use-nuclear-weapons-first-in-a-war-with-the-united-states/] srey

Admiral Charles A. Richard, the head of the U.S. Strategic Command, recently told the Senate Armed Service Committee he “could drive a truck” through the holes in China’s no first use policy. But when Senator John Hawley (R-MO) asked him why he said that, Commander Richard backtracked, described China’s policy as “very opaque” and said his assessment was based on “very little” information. That’s surprising. **China** has been exceptionally **clear** **about** its **intentions** **on** the possible **first** **use** **of** **nuclear** **weapons**. On the day of its first nuclear test on October 16, 1964, China declared it “will never at any time or under any circumstances be the first to use nuclear weapons.” That **unambiguous** **statement** **has** **been** a **cornerstone** **of** **Chinese** **nuclear** **weapons** policy for 56 years and has been repeated frequently in authoritative Chinese publications for domestic and international audiences, including a highly classified training manual for the operators of China’s nuclear forces. Richard should know about those publications, particularly the training manual. A U.S. Department of Defense translation has been circulating within the U.S. nuclear weapons policy community for more than a decade. The commander’s comments to the committee indicate a familiarity with the most controversial section of the manual, which, in the eyes of some U.S. analysts, indicates there may be some circumstances where **China** **would** **use** **nuclear** **weapons** **first** **in** a **war** **with** **the** **U**nited **S**tates. This U.S. misperception is understandable, especially given the difficulties the Defense Department encountered translating the text into English. The language, carefully considered in the context of the entire book, articulates a strong reaffirmation of China’s no first use policy. But it also reveals **Chinese** military planners are **struggling** **with** **crisis** **management** **and** **considering** **steps** **that** could **create** **ambiguity** **with** **disastrous** **consequences**. Towards the end of the 405-page text on the operations of China’s strategic rocket forces, in a chapter entitled, “Second Artillery Deterrence Operations,” the authors explain what China’s nuclear forces train to do if **“**a strong military power possessing nuclear‐armed missiles and an absolute advantage in high‐tech conventional weapons is carrying out intense and continuous attacks against our major strategic targets and we have no good military strategy to resist the enemy.**”** The military power they’re talking about is the United States. The authors indicate China’s nuclear missile forces train to take specific steps, including increasing readiness and conducting launch exercises, to “dissuade the continuation of the strong enemy’s conventional attacks.” The manual refers to these steps as an “adjustment” to China’s nuclear policy and a “lowering” of China’s threshold for brandishing its nuclear forces. Chinese leaders would only take these steps in extreme circumstances. The text highlights several triggers such as U.S. conventional bombing of China’s nuclear and hydroelectric power plants, heavy conventional bombing of large cities like Beijing and Shanghai, or other acts of **conventional** **warfare** **that** “**seriously** **threatened**” the “safety and **survival**” of the nation. U.S. Misunderstanding Richard seems to believe this planned adjustment in China’s nuclear posture means China is **preparing** **to** **use** **nuclear** **weapons** first under these circumstances. He told Hawley that there are a “number of situations where they may conclude that first use has occurred that do not meet our definition of first use.” The head of the U.S. Strategic Command appears to assume, as do other U.S. analysts, that the **Chinese** would **interpret** **these** types of U.S. conventional **attacks** **as** **equivalent** **to** a **U.S. first use** **of** **nuclear** **weapons** against China. But that’s not what the text says. “Lowering the threshold” refers to China putting its nuclear weapons on alert — it does not indicate Chinese leaders might lower their threshold for deciding to use nuclear weapons in a crisis. Nor does the text indicate Chinese nuclear forces are training to launch nuclear weapons first in a war with the United States. China, unlike the United States, keeps its nuclear forces off-alert. Its warheads are not mated to its missiles. China’s nuclear-armed submarines are not continuously at sea on armed patrols. The manual describes how China’s nuclear warheads and the missiles that deliver them are controlled by two separate chains of command. Chinese missileers train to bring them together and launch them after China has been attacked with nuclear weapons. All of these behaviors are consistent with a no first use policy. The “adjustment” Chinese nuclear forces are preparing to make if the United States is bombing China with impunity is to place China’s nuclear forces in a state of readiness similar to the state the nuclear forces of the United States are in all the time. This step is intended not only to end the bombing, but also to convince U.S. decision-makers they cannot expect to destroy China’s nuclear retaliatory capability if the crisis escalates. Chinese Miscalculation Unfortunately, alerting Chinese nuclear forces at such a moment could have terrifying consequences. Given the relatively small size of China’s nuclear force, a U.S. president might be tempted to try to limit the possible damage from a Chinese nuclear attack by destroying as many of China’s nuclear weapons as possible before they’re launched, especially if the head of the U.S. Strategic Command told the president China was preparing to strike first. One study concluded that if the United States used nuclear weapons to attempt to knock out a small fraction of the Chinese ICBMs that could reach the United States it may kill tens of millions of Chinese civilians. The authors of the text assume alerting China’s nuclear forces would “create a great shock in the enemy’s psyche.” That’s a fair assumption. But they also assume this shock could “dissuade the continuation of the strong enemy’s conventional attacks against our major strategic targets.” That’s highly questionable. There is a **substantial** **risk** **the** **U**nited **S**tates **would** **respond** **to** this implicit **Chinese** **threat** **to** **use** **nuclear** **weapons** **by** **escalating**, rather than halting, its **conventional** **attacks**. If China’s nuclear forces were targeted, it would put even greater strain on the operators of China’s nuclear forces. A **slippery** **slope** **to** **nuclear** **war** Chinese military planners are aware that attempting to coerce the United States into halting conventional bombardment by alerting their nuclear forces could fail. They also know it might trigger a nuclear war. But if it does, they are equally clear China won’t be the one to start it. Nuclear attack is often preceded by nuclear coercion. Because of this, in the midst of the process of a high, strong degree of nuclear coercion we should prepare well for a nuclear retaliatory attack. The more complete the preparation, the higher the credibility of nuclear coercion, the easier it is to accomplish the objective of nuclear coercion, and the lower the possibility that the nuclear missile forces will be used in actual fighting. They assume if China demonstrates it is well prepared to retaliate the United States would not risk a damage limitation strike using nuclear weapons. And even if the United States were to attack China’s nuclear forces with conventional weapons, China still would not strike first. In the opening section of the next chapter on “nuclear retaliatory attack operations” the manual instructs, as it does on numerous occasions throughout the entire text: According to our country’s principle, its stand of no first use of nuclear weapons, the Second Artillery will carry out a nuclear missile attack against the enemy’s important strategic targets, according to the combat orders of the Supreme Command, only after the enemy has carried out a nuclear attack against our country. Richard is wrong. There are no holes in China’s no first use policy. But the worse-case planning articulated in this highly classified military text is a significant and deeply troubling departure from China’s traditional thinking about the role of nuclear weapons. Mao Zedong famously called nuclear weapons “a paper tiger.” Many assumed he was being cavalier about the consequences of nuclear war. But what he meant is that they would not be used to fight and win wars. U.S. nuclear threats during the Korean War and the Taiwan Strait Crisis in the 1950s – threats not followed by an actual nuclear attack – validated Mao’s intuition that nuclear weapons were primarily psychological weapons. Chinese leaders decided to acquire nuclear weapons to free their minds from what Mao’s generation called “**nuclear** **blackmail**.” A former director of China’s nuclear weapons laboratories told me China developed them so its leaders could “sit up with a straight spine.” Countering nuclear blackmail – along with compelling other nuclear weapons states to negotiate their elimination – were the only two purposes Chinese nuclear weapons were meant to serve. Contemporary Chinese military planners appear to have added a new purpose: compelling the United States to halt a conventional attack. Even though it only applies in extreme circumstances, it **increases** the **risk** **that** a **war** between the United States and China **will** **end** **in** a nuclear exchange with unpredictable and **catastrophic** **consequences**. Adding this new purpose could also be the first step on a slippery slope to an incremental broadening the role of nuclear weapons in Chinese national security policy. Americans would be a lot safer if we could avoid that. The United States government should applaud China’s no first use policy instead of repeatedly calling it into question. And it would be wise to adopt the same policy for the United States. If both countries declared they would never use nuclear weapons first it may not guarantee they can avoid a nuclear exchange during a military crisis, but it would make one far less likely.

### 1NC – Innovation

#### Space Commercialization drives Tech Innovation in the Status Quo – it provides a unique impetus.

Hampson 17 Joshua Hampson 1-25-2017 “The Future of Space Commercialization” <https://republicans-science.house.gov/sites/republicans.science.house.gov/files/documents/TheFutureofSpaceCommercializationFinal.pdf> (Security Studies Fellow at the Niskanen Center)//Elmer

The size of the space economy is far larger than many may think. In 2015 alone, the global market amounted to $323 billion. Commercial infrastructure and systems accounted for 76 percent of that 9 total, with satellite television the largest subsection at $95 billion. The global space launch market’s 10 11 share of that total came in at $6 billion dollars. It can be hard to disaggregate how space benefits 12 particular national economies, but in 2009 (the last available report), the Federal Aviation Administration (FAA) estimated that commercial space transportation and enabled industries generated $208.3 billion in economic activity in the United States alone. Space is not just about 13 satellite television and global transportation; while not commercial, GPS satellites also underpin personal navigation, such as smartphone GPS use, and timing data used for Internet coordination.14 Without that data, there could be problems for a range of Internet and cloud-based services.15 There is also room for growth. The FAA has noted that while the commercial launch sector has not grown dramatically in the last decade, there are indications that there is latent demand. This 16 demand may catalyze an increase in launches and growth of the wider space economy in the next decade. The Satellite Industry Association’s 2015 report highlighted that their section of the space economy outgrew both the American and global economies. The FAA anticipates that growth to 17 continue, with expectations that small payload launch will be a particular industry driver.18 In the future, emerging space industries may contribute even more the American economy. Space tourism and resource recovery—e.g., mining on planets, moons , and asteroids—in particular may become large parts of that industry. Of course, their viability rests on a range of factors, including costs, future regulation, international problems, and assumptions about technological development. However, there is increasing optimism in these areas of economic production. But the space economy is not just about what happens in orbit, or how that alters life on the ground. The growth of this economy can also contribute to new innovations across all walks of life. Technological Innovation Innovation is generally hard to predict; some new technologies seem to come out of nowhere and others only take off when paired with a new application. It is difficult to predict the future, but it is reasonable to expect that a growing space economy would open opportunities for technological and organizational innovation. In terms of technology, the difficult environment of outer space helps incentivize progress along the margins. Because each object launched into orbit costs a significant amount of money—at the moment between $27,000 and $43,000 per pound, though that will likely drop in the future —each 19 reduction in payload size saves money or means more can be launched. At the same time, the ability to fit more capability into a smaller satellite opens outer space to actors that previously were priced out of the market. This is one of the reasons why small, affordable satellites are increasingly pursued by companies or organizations that cannot afford to launch larger traditional satellites. These small 20 satellites also provide non-traditional launchers, such as engineering students or prototypers, the opportunity to learn about satellite production and test new technologies before working on a full-sized satellite. That expansion of developers, experimenters, and testers cannot but help increase innovation opportunities. Technological developments from outer space have been applied to terrestrial life since the earliest days of space exploration. The National Aeronautics and Space Administration (NASA) maintains a website that lists technologies that have spun off from such research projects. Lightweight 21 nanotubes, useful in protecting astronauts during space exploration, are now being tested for applications in emergency response gear and electrical insulation. The need for certainty about the resiliency of materials used in space led to the development of an analytics tool useful across a range of industries. Temper foam, the material used in memory-foam pillows, was developed for NASA for seat covers. As more companies pursue their own space goals, more innovations will likely come from the commercial sector. Outer space is not just a catalyst for technological development. Satellite constellations and their unique line-of-sight vantage point can provide new perspectives to old industries. Deploying satellites into low-Earth orbit, as Facebook wants to do, can connect large, previously-unreached swathes of 22 humanity to the Internet. Remote sensing technology could change how whole industries operate, such as crop monitoring, herd management, crisis response, and land evaluation, among others. 23 While satellites cannot provide all essential information for some of these industries, they can fill in some useful gaps and work as part of a wider system of tools. Space infrastructure, in helping to change how people connect and perceive Earth, could help spark innovations on the ground as well. These innovations, changes to global networks, and new opportunities could lead to wider economic growth.

#### Strong Innovation solves Extinction.

Matthews 18 Dylan Matthews 10-26-2018 “How to help people millions of years from now” <https://www.vox.com/future-perfect/2018/10/26/18023366/far-future-effective-altruism-existential-risk-doing-good> (Co-founder of Vox, citing Nick Beckstead @ Rutgers University)//Re-cut by Elmer

If you care about improving human lives, you should overwhelmingly care about those quadrillions of lives rather than the comparatively small number of people alive today. The 7.6 billion people now living, after all, amount to less than 0.003 percent of the population that will live in the future. It’s reasonable to suggest that those quadrillions of future people have, accordingly, hundreds of thousands of times more moral weight than those of us living here today do. That’s the basic argument behind Nick Beckstead’s 2013 Rutgers philosophy dissertation, “On the overwhelming importance of shaping the far future.” It’s a glorious mindfuck of a thesis, not least because Beckstead shows very convincingly that this is a conclusion any plausible moral view would reach. It’s not just something that weird utilitarians have to deal with. And Beckstead, to his considerable credit, walks the walk on this. He works at the Open Philanthropy Project on grants relating to the far future and runs a charitable fund for donors who want to prioritize the far future. And arguments from him and others have turned “long-termism” into a very vibrant, important strand of the effective altruism community. But what does prioritizing the far future even mean? The most literal thing it could mean is preventing human extinction, to ensure that the species persists as long as possible. For the long-term-focused effective altruists I know, that typically means identifying concrete threats to humanity’s continued existence — like unfriendly artificial intelligence, or a pandemic, or global warming/out of control geoengineering — and engaging in activities to prevent that specific eventuality. But in a set of slides he made in 2013, Beckstead makes a compelling case that while that’s certainly part of what caring about the far future entails, approaches that address specific threats to humanity (which he calls “targeted” approaches to the far future) have to complement “broad” approaches, where instead of trying to predict what’s going to kill us all, you just generally try to keep civilization running as best it can, so that it is, as a whole, well-equipped to deal with potential extinction events in the future, not just in 2030 or 2040 but in 3500 or 95000 or even 37 million. In other words, caring about the far future doesn’t mean just paying attention to low-probability risks of total annihilation; it also means acting on pressing needs now. For example: We’re going to be better prepared to prevent extinction from AI or a supervirus or global warming if society as a whole makes a lot of scientific progress. And a significant bottleneck there is that the vast majority of humanity doesn’t get high-enough-quality education to engage in scientific research, if they want to, which reduces the **odds that we have enough trained scientists to come up with the breakthroughs** we need as a civilization to survive and thrive. So maybe one of the best things we can do for the far future is to improve school systems — here and now — to harness the group economist Raj Chetty calls “lost Einsteins” (potential innovators who are thwarted by poverty and inequality in rich countries) and, more importantly, the hundreds of millions of kids in developing countries dealing with even worse education systems than those in depressed communities in the rich world. What if living ethically for the far future means living ethically now? Beckstead mentions some other broad, or very broad, ideas (these are all his descriptions): Help make computers faster so that people everywhere can work more efficiently Change intellectual property law so that technological innovation can happen more quickly Advocate for open borders so that people from poorly governed countries can move to better-governed countries and be more productive Meta-research: improve incentives and norms in academic work to better advance human knowledge Improve education Advocate for political party X to make future people have values more like political party X ”If you look at these areas (economic growth and technological progress, access to information, individual capability, social coordination, motives) a lot of everyday good works contribute,” Beckstead writes. “An implication of this is that a lot of everyday good works are good from a broad perspective, even though hardly anyone thinks explicitly in terms of far future standards.” Look at those examples again: It’s just a list of what normal altruistically motivated people, not effective altruism folks, generally do. Charities in the US love talking about the lost opportunities for innovation that poverty creates. Lots of smart people who want to make a difference become scientists, or try to work as teachers or on improving education policy, and lord knows there are plenty of people who become political party operatives out of a conviction that the moral consequences of the party’s platform are good. All of which is to say: Maybe effective altruists aren’t that special, or at least maybe we don’t have access to that many specific and weird conclusions about how best to help the world. If the far future is what matters, and generally trying to make the world work better is among the best ways to help the far future, then effective altruism just becomes plain ol’ do-goodery.

### CP – Consult Nato

#### [States] should enter into a prior and binding consultation with the North Atlantic Treaty Organization over a proposal to declare the appropriation of outer space by private actors unjust. [States] will support the proposal and adopt the results of consultation.

#### NATO says yes – appropriation is bad, and NATO is uniquely defensive and cooperative with I-Law.

Peace In Space 21 Peace In Space. March 25, 2021. “NATO Secretary General Stoltenberg: no weapons In space” [NATO Secretary General Stoltenberg: no weapons In space – Peace In Space](https://peaceinspace.com/2019/12/nato-secretary-general-stoltenberg-no-weapons-in-space/) Accessed 12-9 // gord0

In a November 20 speech to [NATO ministers in Brussels](https://peaceinspace.com/2019/12/10/nato-foreign-ministers-officially-recognise-space-as-an-operational-domain/), NATO Secretary General Jens Stoltenberg stated that while the organization’s security presence in space is vital, “NATO has no intention to put weapons in space — we are a defensive alliance.”

NATO members will continue to use space for observation and surveillance purposes, but will remain fully in line with international law, he said. “This approach can allow NATO planners to make requests for allies to provide capabilities and services, such as hours of satellite communications.”

“We are proud of NATO’s historic decision to recognise space as an operational domain, alongside air, land, sea and cyber. Space is part of our daily lives. It is also essential to the Alliance’s deterrence and defence, from navigation to intelligence to missile detection.” — [NATO Secretary General Jens Stoltenberg](https://www.nato.int/cps/en/natohq/who_is_who_49999.htm)

Observation and surveillance purposes

Stoltenberg further explained that NATO’s coordinated approach involves three strategic issues: relations with Russia, the rise of China, and arms control. “Making space an operational domain will help us ensure that all aspects are taken into account to ensure the success of our missions.”

NATO members will continue to use space for observation and surveillance purposes, but will remain “fully in line with international law,” he added. This approach “can allow NATO planners to make requests for allies to provide capabilities and services, such as hours of satellite communications.”

Stoltenberg noted that NATO keeps at the leading edge of technology with a “one billion dollar investment in eyes in the sky, AWACS surveillance aircraft. This modernization will ensure the fleet’s service to 2035 and provide the best possible intelligence, surveillance and reconnaissance.”

#### Consultation over space strengthens NATO legitimacy and operations – communication, positioning, missile warning and counter space ops

Louisa Remuss 10 Nina-Louisa Remuss holds a M. Litt, in International Security Studies from the University of St. Andrews and a B.A. in European Studies from the University of Maastricht. October, 2010. “NATO and Space: Why is Space Relevant for NATO?” [NATO and Space: Why is Space Relevant for NATO? (ethz.ch)](https://www.files.ethz.ch/isn/124749/ESPI_Perspectives_40.pdf) Page 2-3 Accessed 12-9 // gord0

The increasing reliance on space applications and the emerging global challenges and threats, place new demands on space capabilities.5 Given today’s multi-polar world, security providers face a very different security and threat environment than during the Cold War. At the same time, during the Cold War, the U.S. and the Soviet Union had agreed not to attack each other’s space assets, which provided for a certain degree of transparency given that both were the sole actors in space. Characterizing conflicts as fundamentally unpredictable, NATO’s Allied Joint Doctrine stresses the added value of using technology. Accordingly, NATO’s operations are already dependent on space applications as NATO comes to rely on it for global situational awareness, decision superiority and precision engagement. In spite of NATO’s dependence on space operations, the Alliance is still missing a holistic approach to the subject. Space applications can be understood as force multipliers or enablers. The following section will rely on the EU’s experiences and will give four examples of areas where this is the case: in external security missions, in damage and impact assessment during post-crisis management, in the fight against piracy and in providing internal security, i.e. against nontraditional threats such as terrorism, natural disasters etc. In External Security Missions European Union external security missions, such as the EU Military Crisis Management Operations EUFOR Chad / RCA (from French: Central African Republic) rely on satellites for secure communications between the Operations Headquarters (OHQ) and units deployed on the field, as well as on satellite imagery for mapping in support of their mission, especially considering the local absence of terrestrial communications infrastructure and the large dimensions of the theatre of operations. NATO is relying on space applications to support its ISAF operations in Afghanistan. These range from communications, position, navigation and timing, environmental sensing, missile warning, personnel recover and infrared remote sensing, to counter space operations. Space capabilities are however not fully integrated and utilised as a result of, first the lack of NATO strategy to space applications, second the resulting limited exposure of space capabilities prior to the deployment and third the limited number of personnel among the ISAF staff with space expertise.

#### NATO is a force multiplier – solves a slew of existential threats

Burns 18 Nicholas Burns 7-11-2018 “What America Gets Out of NATO” <https://www.nytimes.com/2018/07/11/opinion/what-america-gets-out-of-nato.html> (former under-secretary of state and ambassador to NATO and teaches diplomacy and international relations at Harvard)//Elmer

None of this, of course, is likely to disturb Mr. Trump, who remains steadfast in his belief that whatever benefits the United States gained from the trans-Atlantic alliance in the past, the country no longer profits. But he’s wrong — there are compelling reasons that NATO in particular will be a distinct advantage for America’s security far into the future. First, NATO’s formidable conventional and nuclear forces are the most effective way to **protect North America and Europe** — the **heart of the democratic world** — from attack. Threats to our collective security have not vanished in the 21st century. Mr. Putin remains a determined adversary preying on Eastern Europe and American elections. **NATO is a force multiplier**: The United States has allies who will stand by us, while Russia has none. And while it’s true that most of America’s NATO allies need to increase their defense spending under the treaty, they’re not freeloaders: The United States has **relied on NATO allies to strike back against Al Qaeda in Afghanistan and the Islamic State in the Middle East**. European troops have replaced American soldiers in peacekeeping missions in Bosnia and contribute the large majority in Kosovo. Our NATO allies are also getting better about contributing their fair share. They have increased their defense spending by a total of more than $87 billion since Mr. Putin annexed Crimea in 2014. Fourteen more allies will reach NATO’s military spending target — 2 percent of gross domestic product — by 2024. Mr. Trump would be smart to claim credit for this at this week’s summit. A second reason for maintaining the trans-Atlantic alliance is America’s economic future. The European Union is our country’s largest trade partner, and its largest investor. The United States and the European Union are the world’s two largest economies, and can steer global trade to their advantage if they stick together. More than four million Americans work for European companies in the United States. Forty-five of the 50 states export more to Europe than to China. Mr. Trump is right that the two sides are also economic competitors, and trade disputes are inevitable. His predecessors kept this tension in balance lest there be damaging consequences for American businesses, workers and farmers — a good reminder for Mr. Trump, whose ill-conceived trade war with Canada and Europe risks harming the American economy. Third, future American leaders will find Europe is our most capable and willing partner in tackling the biggest threats to global security: **climate change; drug and cybercrime cartels; terrorism; pandemics and mass migration from Africa and the Middle East**. And America’s **NATO allies will continue to be indispensable in safeguarding democracy** and freedom, under assault by Russia and China.

### Debris

#### Can’t remove current constellations – triggers Kessler

#### EO sats don’t solve – at best they only allow adaptation not spur it – their solvency relies on massive climate momentum and policies that are non-existent

#### Non UQ – squo debris thumps

Orwig 16 [(Jessica, MS in science and tech journalism from Texas A&M, BS in astronomy and physics from Ohio State) “Russia says a growing problem in space could be enough to spark a war,” Insider,’ January 26, 2016, <https://www.businessinsider.com/russia-says-space-junk-could-spark-war-2016-1>] TDI

NASA has already [warned that](https://www.businessinsider.com/space-junk-at-critical-density-2015-9) the large amount of space junk around our planet is growing beyond our control, but now a team of Russian scientists has cited another potentially unforeseen consequence of that debris: War.

Scientists estimate that anywhere from 500,000 to 600,000 pieces of human-made space debris between 0.4 and 4 inches in size are currently orbiting the Earth and traveling at speeds over [17,000 miles per hour](https://www.nasa.gov/mission_pages/station/news/orbital_debris.html).

If one of those pieces smashed into a military satellite it "may provoke political or even armed conflict between space-faring nations," Vitaly Adushkin, a researcher for the Institute of Geosphere Dynamics at the Russian Academy of Sciences, reported in a paper set to be published in the peer-reviewed journal [Acta Astronautica](https://www.sciencedirect.com/science/article/pii/S0094576515303416), which is sponsored by the International Academy of Astronautics.

#### Public sector mining thumps.

NASA 19 [“NASA Invests in Tech Concepts Aimed at Exploring Lunar Craters, Mining Asteroids,” NASA, June 11, 2019, <https://www.nasa.gov/press-release/nasa-invests-in-tech-concepts-aimed-at-exploring-lunar-craters-mining-asteroids>] TDI

NASA Invests in Tech Concepts Aimed at Exploring Lunar Craters, Mining Asteroids

Robotically surveying lunar craters in record time and mining resources in space could help NASA establish a sustained human presence at the Moon – part of the agency’s broader [Moon to Mars exploration](https://www.nasa.gov/specials/moon2mars/) approach. Two mission concepts to explore these capabilities have been selected as the first-ever Phase III studies within the [NASA Innovative Advanced Concepts](https://www.nasa.gov/niac) (NIAC) program.

“We are pursuing new technologies across our development portfolio that could help make deep space exploration more Earth-independent by utilizing resources on the Moon and beyond,” said Jim Reuter, associate administrator of NASA’s Space Technology Mission Directorate. “These NIAC Phase III selections are a component of that forward-looking research and we hope new insights will help us achieve more firsts in space.”

The Phase III proposals outline an aerospace architecture, including a mission concept, that is innovative and could change what’s possible in space. Each selection will receive as much as $2 million. Over the course of two years, researchers will refine the concept design and explore aspects of implementing the new technology. The inaugural Phase III selections are:

Robotic Technologies Enabling the Exploration of Lunar Pits

William Whittaker, Carnegie Mellon University, Pittsburgh

This mission concept, called Skylight, proposes technologies to rapidly survey and model lunar craters. This mission would use high-resolution images to create 3D model of craters. The data would be used to determine whether a crater can be explored by human or robotic missions. The information could also be used to characterize ice on the Moon, a crucial capability for the sustained surface operations of NASA’s Artemis program. On Earth, the technology could be used to autonomously monitor mines and quarries.

[Mini Bee Prototype to Demonstrate the Apis Mission Architecture and Optical Mining Technology](https://www.nasa.gov/directorates/spacetech/niac/2019_Phase_I_Phase_II/Mini_Bee_Prototype)

Joel Sercel, TransAstra Corporation, Lake View Terrace, California

This flight demonstration mission concept proposes a method of asteroid resource harvesting called optical mining. Optical mining is an approach for excavating an asteroid and extracting water and other volatiles into an inflatable bag. Called Mini Bee, the mission concept aims to prove optical mining, in conjunction with other innovative spacecraft systems, can be used to obtain propellant in space. The proposed architecture includes resource prospecting, extraction and delivery.

#### Alliances check miscalc – too costly.

MacDonald 13 [(Bruce, teaches at the United States Institute of Peace on strategic posture and space/cyber security issues, leads a study on China and Crisis Stability in Space, and is adjunct professor at the Johns Hopkins School of Advanced International Studies) “Deterrence and Crisis Stability in Space and Cyberspace,” in Anti-satellite Weapons, Deterrence and Sino-American Space Relations, September 2013, <https://apps.dtic.mil/dtic/tr/fulltext/u2/a587431.pdf>] TDI

The US alliance structure can promote deterrence and crisis stability in space, as with nuclear deterrence. China has no such alliance system. If China were to engage in large-scale offensive counter-space operations, it would face not only the United States, but also NATO, Japan, South Korea and other highly aggrieved parties. Given Beijing’s major export dependence on these markets, and its dependence upon them for key raw material and high technology imports, China would be as devastated economically if it initiated strategic attacks in space. In contrast to America’s nuclear umbrella and extended deterrence, US allies make a tangible and concrete contribution to extended space deterrence through their multilateral participation in and dependence upon space assets. Attacks on these space assets would directly damage allied interests as well as those of the United States, further strengthening deterrent effects.