#### Plan: The appropriation of outer space by private entities in the People’s Republic of China is unjust.

#### The Chinese government is enabling private sector involvement in the space industry, putting China in a position to win the space race between the US and China.

Patel ’21 – Space reporter for the MIT Technology Review

Neel Patel, “China’s Surging Private Space Industry is Out to Challenge the US,” MIT Technology Review, January 21, 2021, https://www.technologyreview.com/2021/01/21/1016513/china-private-commercial-space-industry-dominance/

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](http://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://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://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.

#### Commercial space sector expansion will encourage China-Russia cooperation and increase Chinese technological and military capabilities.

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Blaine Curcio, “Developments in China’s Commercial Space Sector,” NBR, August 24, 2021, https://www.nbr.org/publication/developments-in-chinas-commercial-space-sector/

The Russian and U.S. space industries are the two oldest. They have a lot of space programs, experts, and related intellectual property and have been integrated into the space ecosystem. The Chinese space sector has developed primarily independently from the U.S.-Russia system. There has been some collaboration between China and Europe since the Wolf Amendment, but the absence of any kind of commercial space companies until recently, combined with the sensitivity around the International Traffic in Arms Regulations (a U.S. export-control regime), has forced the Chinese space ecosystem to develop pretty much independently. Russia, though a nation in decline, still likes projects involving space to bolster national pride. As a result, there has been a broader trend over the last five to ten years of a gradual realignment of the Russian space sector toward China in terms of both the government and the industrial base.

More Russian companies are looking to China to buy products. Historically these companies have bought material from Europe, but they have recently turned more to China because of how weak the Russian ruble is, making imports more expensive. At the same time, Chinese companies are looking to Russia as an export market as well as to Russia and former Soviet states as investment opportunities. There is synergy, for example, between a Chinese rocket company that sees a relatively cheap Ukrainian rocket company with specific technology that it wants and a Ukrainian company that has all the technology, intellectual property, and “know-how,” but does not have that much money.

The international lunar research station is beneficial to the commercial space sector to the extent that the national team would be occupied with the space station. As the national team gets bigger and takes on more sophisticated projects, this may help free up the kind of lower-end work companies were doing before and create more room for commercial competition.

Moving forward, if there are massive lunar projects and a large Chinese space station, these developments are all things that will occupy a lot of top engineers and SOEs. There will be a need for a bigger commercial sector to contribute to emerging projects and complete the technological development of the more commercial, as opposed to institutional or national-level, projects in the space sector.

What is the relationship between China’s space industry development and its Military-Civil Fusion strategy, and how is this affecting the commercial space sector?

There are two main types of impact: the technological impact and the broader policy impact. As part of the Military-Civil Fusion strategy, the Chinese government wants to develop specific capabilities and emphasize specific technologies, which produce the technological impact. From that perspective, this strategy dictates what the commercial space sector does in terms of R&D, and the technological direction it takes. Zhuhai satellite is an example of this strategy. Since Zhuhai satellite was a spinoff from the Harbin Institute of Technology, which has a military link, there is a possibility that it is pursuing more space technologies that are related to Military-Civil Fusion.

The second type is the broader policy impact. Because the central government makes Military-Civil Fusion a significant policy objective, there will be industrial bases that are built to support related technologies. More money and resources will be available for a startup that will support China’s strategic and tech ambitions. Because of the money and resources that are available, the development of the space industry will change as companies adapt their activities to what the government is emphasizing and to what kind of support they can get from different stakeholders in order to survive.

#### Scenario one is space militarization:

#### Sino-Russian space alliance undermines existing treaties and greenlights space militarization

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

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

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

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

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

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

Beijing already has an operational ground-based anti-satellite missile capability. People’s Liberation Army units are training with the missiles, and the U.S. Defense Department believes Beijing “probably intends to pursue additional [anti-satellite] weapons capable of destroying satellites up to geosynchronous Earth orbit.” That is where America’s most sensitive nuclear communication and missile defense satellites orbit and keep watch.

Similarly, Moscow tested a ground-based anti-satellite weapon in December that could destroy U.S. or allied satellites in orbit. That attack capability augments a ground-based laser weapon that Russian President Vladimir Putin heralded in 2018. In a moment of candor, Russia’s defense ministry admitted the system was designed to “fight satellites.”

To make matters worse, both countries are also working to deploy space-based—or so-called “on-orbit”—capabilities to attack satellites.

Meanwhile, at the United Nations and other international forums, China and Russia are pushing the PPWT and advocating for a “no first placement” resolution—saying all governments should commit not to be the first to put weapons in space.

Yet more than two years ago, the U.S. Defense Intelligence Agency noted that both China and Russia were already putting in space capabilities that could be used as weapons. The PPWT would thus protect their weapons while tying Washington’s hands.

In a thinly veiled attempt to mask their intentions, the two countries claim that their on-orbit capabilities are simply for peaceful purposes—for assessing the condition of broken satellites and conducting repairs as needed. This “dual-use” disguise permits Beijing and Moscow to put into orbit ostensibly peaceful or commercial capabilities that those countries can actually use to disable or destroy U.S. military and intelligence satellites.

China, for example, has tested several so-called scavenger satellites, which use grappling arms to capture other satellites. China has also demonstrated the capability to maneuver a satellite around the geosynchronous belt, allowing its satellites to sidle up to other satellites in space.

Not to be outdone, Russia deployed a pair of “nesting doll” satellites that shadowed a U.S. satellite in space. One Russian satellite birthed another, with Russia’s defense ministry claiming its purpose was to assess the “technical condition of domestic satellites.”

But later, the second satellite conducted a weapons test, firing what appeared to be a space torpedo. The Kremlin never explained how a fast-moving one-time projectile provided superior inspection benefits compared with the other Russian satellite flying persistently nearby.

Instead of falling prey to China and Russia’s treaty trap, Washington must urgently work with allies to improve spaced-based military and intelligence capabilities.

A well-crafted treaty that clearly defines acceptable and unacceptable actions in space and includes tough and realistic inspection and verification mechanisms could promote security and stability. But the PPWT is decidedly not that kind of treaty.

For starters, the proposed treaty does not explicitly prohibit the ground-based anti-satellite weapons that China and Russia have already fielded. Nor does the proposed treaty prevent the deployment of space-based weapons under the cloak of civilian or commercial capabilities. The PPWT also does not prohibit the development, testing, or stockpiling of weapons on Earth that could be quickly put into orbit.

Even if these deficiencies were addressed, the PPWT lacks any verification plan to ensure compliance. Instead, the treaty calls for “transparency and confidence-building measures” implemented on a “voluntary basis.” In other words, Beijing and Moscow want the United States to trust but never verify.

But then again, Americans should not be surprised by the PPWT. Moscow habitually seeks to use international arms control treaties to constrain the United States while viewing treaty strictures as optional when they become inconvenient or when the Kremlin sees an opportunity to seize a military advantage.

For more than a decade before its demise in 2019, Moscow used the Intermediate-Range Nuclear Forces Treaty to constrain the United States while the Kremlin produced, flight-tested, and fielded a ground-launched intermediate-range cruise missile in direct contravention of the treaty. Beijing, for its part, often exhibits an allergy to serious international arms control treaties. The willingness of the Chinese Communist Party to support the PPWT is, therefore, cause for some additional reflection in Washington.

So instead of falling prey to China and Russia’s PPWT trap, the United States must urgently work with allies to improve the resilience and redundancy of spaced-based military and intelligence capabilities.

Washington should also advance nascent efforts to establish rules of the road in space. “There are really no norms of behavior in space,” Gen. John Raymond, the chief of space operations at U.S. Space Force, said this month. “It’s the wild, wild West.”

In a notable and positive step, the U.N. General Assembly passed a British-introduced resolution in December that seeks to establish “norms, rules and principles of responsible behaviours” in space, which could reduce the chances for dangerous miscalculation.

The vote was 164 in favor, including the United States—and a mere 12 opposed.

Any guesses regarding who voted no? You guessed it: China and Russia. They were joined by their friends Iran, North Korea, Syria, Venezuela, and Cuba.

So much for a Chinese and Russian desire to pursue constructive and peaceful policies in space. Their duplicity continues.

#### Extinction—space militarization causes destruction of satellites, creates a power imbalance, and leads to global war.

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Alexandra Gilliard, “What Are The Consequences of Militarizing Outer Space,” Global Security Review, June 10, 2019, https://globalsecurityreview.com/consequences-militarization-space/

Consequences of Armament and Aggression in Space

The consequences of weapons testing and aggression in space could span generations, and current technological advances only increase the urgency for policymakers to pursue a limitations treaty. As it stands, there are three major ramifications of a potential arms race in space:

The destruction of satellites

As both financial and technological barriers to the space services industry have decreased, the number of governmental and private investors with assets in space has inevitably increased. There is now an abundance of satellites in space owned by multiple states and corporations. These satellites are used to not only coordinate military actions, but to perform more mundane tasks, like obtaining weather reports, or managing on-ground communications, and navigation.

Should states begin weapons testing in space, debris could cloud the orbit and make positioning new satellites impossible, disrupting our current way of life. More pressing, however, is that if a country’s satellites are successfully destroyed by an enemy state, military capabilities can be severely hindered or destroyed, leaving the country vulnerable to attack and unable to coordinate its military forces on the ground.

Diminished future use of near space

Whether caused by weapons testing or actual aggression, the subsequent proliferation of debris around the planet would damage our future ability to access space. Not only would debris act as shrapnel to preexisting assets in space, but it would also become much more difficult to launch satellites or rockets, hindering scientific research, space exploration, and commercial operations.

From the past fifty-odd years of activity in space alone, the debris left behind in Earth’s orbital field has already become hazardous to spacecraft — a main reason why the U.S. and the Soviet Union did not continue with [ASAT testing during the Cold War](https://www.nytimes.com/2008/03/09/weekinreview/09myers.html). If greater pollution were to occur, space itself could be become unusable, resulting in the collapse of the global economic system, air travel, and various communications.

Power imbalances and proliferation on the ground

Only so many states currently have access to space—which means any militarization be by the few, while other states would be left to fend for themselves. This would establish a clear power imbalance that could breed distrust among nations, resulting in a more insecure world and a veritable power keg primed for war. Additionally, deterrence measures taken by states with access to space would escalate, attempting to build up weapons caches not dissimilar to the nuclear weapons stockpiling activities of the Cold War.

In any arms race, it is inevitable that more advanced weaponry is created. Yet, this does not only pose a risk to assets in space. Should a terrestrial war break out, this weaponry may eventually be deployed on the ground, and space-faring states would be able to capitalize on the power imbalance by using these new developments against states that have not yet broken into the space industry or developed equally-advanced weaponry.

Into the Future

The militarization of space would inevitably increase the chances of war, and also threaten the industries that rely on space to carry out their daily operations. Without treaties and resolutions to regulate and limit armament in space, the international community risks facing extreme consequences. Furthermore, with the history of U.S. disinterest in UN efforts to regulate space, the implementation of a meaningful, multilateral agreement for arms control in space is unlikely.

Ultimately, the international community will need to regulate actions, militarization, and the possibility of eventual armament in space sooner rather than later in order to reduce the threat of major war, economic destruction, and global insecurity.

#### Scenario two is heg:

#### Chinese space domination will boost their military success as China improves ASAT capabilities and develops weapons that they can use to target the US.

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Harsh Vasani, “How China is Weaponizing Outer Space,” The Diplomat, January 19, 2017, https://thediplomat.com/2017/01/how-china-is-weaponizing-outer-space/

In June 2013, Chinese President Xi Jinping spoke to astronauts at the launch of the Shenzhou X manned mission and said that China will take bigger steps in space exploration in pursuit of its “space dream.” He acknowledged that the [space dream is part of the dream to make China stronger](http://europe.chinadaily.com.cn/china/2013-06/25/content_16653622.htm). “With the development of space programs, Chinese people will take bigger strides to explore further into space,” he said. In another occasion, on April 24, 2016, marking China’s first “space day,” the president asked scientists to help realize [China’s dream of becoming a global space giant](http://economictimes.indiatimes.com/news/international/world-news/make-china-a-global-space-giant-xi-jinping/articleshow/51967279.cms). In both the instances, the Chinese president seemed to have benign intentions behind China’s space modernization and ambitions; however, open source literature available on China’s space dreams points out that the Chinese strategic community sees space as the ultimate high ground, the key to military success on the terrestrial battlefield.

Washington believes that underlying the various civilian aspects of China’s space program is an active military component. A [2015 report prepared by the U.S. Department of Defense](http://www.cfr.org/china/department-defense-military-security-developments-involving-peoples-republic-china/p28408) suggests that China has invested in advanced space capabilities, with particular emphasis on “satellite communication (SATCOM), intelligence, surveillance, and reconnaissance (ISR), satellite navigation (SATNAV), and meteorology, as well as manned, unmanned, and interplanetary space exploration.” The report claims that along with its civilian space program, China continues to develop a variety of capabilities designed to limit or prevent the use of space-based assets by adversaries during a crisis or conflict, including the “development of directed-energy weapons and satellite jammers.”

A [report prepared for the U.S.-China Economic and Security Review Commission](http://www.uscc.gov/Research/china-dream-space-dream-chinas-progress-space-technologies-and-implications-united-states) states that the People’s Liberation Army (PLA) recognizes that in a time of war it must deny enemies the use of strategic information about troop and ship movements, incoming missiles, navigation, communication, etc, along with depriving its opponents the use of C4ISR systems. The report goes on to state that “Chinese analysts assess that the employment of space-based C4ISR capabilities by potential adversaries, especially the United States, requires the PLA to develop capabilities to attack space systems. Based on this assessment, Chinese analysts surmise that the loss of critical sensor and communications capabilities could imperil the U.S. military’s ability to achieve victory or to achieve victory with minimal casualties.”

There is considerable merit in Washington’s claims about the dual-use nature of China’s space program. For instance, Colonel Li Daguang, writing in his book Space War published by National Defense University in 2001, recommends that the Chinese should combine military and civilian technology and integrate peacetime and wartime facilities. His rationale was that space equipment is costly to develop and maintain, hence it is important to have civil-use technology that can also have military applications.

Evolution of China’s ASAT Weapons Capability

A brief survey of recent tests by Beijing confirms that China is rapidly improving its counter space program and making advances in its anti-satellite systems. China’s first ASAT test was conducted in May 2005 and its capabilities have come a long way since. Most notably, a 2007 test destroyed a redundant Feng Yun 1-C weather satellite owned by China, leaving over 3,000 dangerous pieces of debris in space. The test was conducted in low Earth orbit (LEO), approximately 800 kilometers above Earth.

A 2013 test by Beijing involved its new missile, the DN-2 or Dong Neng-2, and the test was conducted in “nearly geosynchronous orbit,” where most of the United States’ ISR satellites are located. The direct ascent test, launched from Xichang, reached an [altitude of 18,600 miles](http://freebeacon.com/national-security/china-tests-anti-satellite-missile/). On October 30, 2015, China tested the DN-3 exoatmospheric vehicle, reported to be able to destroy U.S. satellites. Chinese press reports said the test was a missile defense interceptor flight test. However, [The Washington Free Beacon quotes unnamed defense officials](http://freebeacon.com/national-security/china-tests-anti-satellite-missile/) as saying that the DN-3 is “primarily a direct-ascent missile designed to ram into satellites and destroy them, even if intelligence assessments hold that the weapon has some missile defense capabilities.”

Along with direct-ascent ASAT weapons, China is also believed to be developing other space weapons. In June 2016, China launched the Aolong-1 spacecraft on a Long March 7 rocket. China claims that the Aolong-1 is tasked with cleaning up space junk and collecting man-made debris in space. However, other reports suggest that the spacecraft, equipped with a robotic arm, is a dual-use ASAT weapon. The Aolong-1 is believed to be the first in a series of spacecraft that will be tasked with collecting man-made space debris. Quoting an [unnamed researcher with the National Astronomical Observatories](http://www.scmp.com/news/china/diplomacy-defence/article/1982526/china-militarising-space-experts-say-new-junk-collector) in Beijing, the South China Morning Post points out that it is unrealistic to remove all space debris with robots; rather, for the People’s Liberation Army the robot is a potential ASAT weapon.

Beijing’s recent space activities indicate that it is [developing co-orbital anti-satellite systems to target U.S. space assets](http://www.thespacereview.com/article/2903/1). Co-orbital anti-satellite systems consist of a satellite “armed with a weapon such as an explosive charge, fragmentation device, kinetic energy weapon, laser, radio frequency weapon, jammer, or robotic arm.” Besides the “hard-kill” methods, Beijing is also testing soft-kill methods to incapacitate enemy satellites. For instance, China has been acquiring a [number of foreign and indigenous ground-based satellite jammers since the mid-2000s](http://www.cfr.org/china/department-defense-military-security-developments-involving-peoples-republic-china/p28408). These jammers are designed to disrupt an adversary’s communications with a satellite by overpowering the signals being sent to or from it. The PLA can use these jammers to deny an adversary the access to the GPS and other satellite signals. Directed energy lasers are also a soft-kill method that could be used in an anti-satellite mission. China has been committing resources to the research and development for directed energy weapons since the 1990s.

China’s Counterspace Program: Aimed at the U.S.

The Chinese believe that the greatest threat to them comes from the United States. To counter the United States’ conventional strength and gain strategic parity, Chinese strategists believe, Beijing will need to strike at the U.S. Achilles heel — Washington’s over-reliance on satellites for C4ISR. Beijing plans to exploit the vulnerable space infrastructure of the United States in the case of a war.

According to a [recent RAND report,](http://www.rand.org/pubs/research_reports/RR392.html) space and counterspace operations would be important elements in any armed confrontation between the United States and China. The transformational warfighting capabilities that U.S. military forces have developed since the end of the Cold War are largely enabled by “satellite support, and space-based ISR and communication connectivity would be especially important in the broad expanses of the Western Pacific theater.”

The PLA’s interest in the use of space for military purposes gained momentum after the 1991 Gulf War, which has been referred to as the “first space war,” and has only increased since. According to [some Chinese analysts](https://thediplomat.com/2015/10/should-the-us-fear-chinas-new-space-weapons/), “the U.S. military relies upon space for 70‒80 percent of its intelligence and 80 percent of its communication.” Some Chinese writings also attribute an almost omnipotent quality to U.S. space-based intelligence, surveillance, and reconnaissance (ISR) and conclude that the U.S. receives exquisite intelligence from these platforms.

According to [Martin France and Richard Adams](http://www.uscc.gov/Research/assessment-china%E2%80%99s-anti-satellite-and-space-warfare-programs-policies-and-doctrines), however, “The PLA’s development of ASAT weapons is primarily not a reaction to U.S. space control initiatives. It is driven instead by very practical considerations of regional security and influence, and the desire to conduct asymmetric warfare against a superior foe if conflict arises.”

France and Adams believe that Beijing seeks to offset the dominance of U.S. conventional forces by exploiting their dependence on spaceborne information assets. China also hopes to guarantee the viability of its nuclear deterrent by holding the critical space-segment of American missile defense systems at risk. Finally, the Chinese space program also contributes to the PLA’s anti-access/area denial (A2/AD) capabilities by providing critical C4ISR support to long-range precision strike weapons and providing the ability to threaten U.S. space-based assets.

The DN-2 2013 test jolted Washington and made the United States realize that crucial national security satellites, parked in geostationary earth orbit, are well within the reach of Beijing. As a response, Pentagon announced the launch of a “Space War Center” to counter threats from China and Russia in space, part of a $5 billion boost in space security spending for the Department of Defense. However, over a year and a half later, precious little has come of the Center.

#### Increased ASAT capabilities for China will wreck US deterrence and warfighting abilities, emboldening Chinese invasion of Taiwan—this means either the US doesn’t intervene, angering allies, or miscalculation escalates to a nuclear war.

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Brian G. Chow & Brandon Kelley,” China’s Anti-Satellite Weapons Could Conquer Taiwan—Or Start a War,” August 21, 2021, https://nationalinterest.org/feature/china’s-anti-satellite-weapons-could-conquer-taiwan—or-start-war-192135

On July 1, 2021—the one-hundredth birthday of the Chinese Communist Party—[President Xi Jinping](https://asia.nikkei.com/Politics/Full-text-of-Xi-Jinping-s-speech-on-the-CCP-s-100th-anniversary) declared that China will “[advance peaceful national reunification](https://nationalinterest.org/blog/reboot/could-taiwan%E2%80%99s-terrain-stop-chinese-invasion-its-tracks-191919)” with Taiwan. It would be easy to dismiss such statements as mere political rhetoric: certainly, Taiwan would never willingly accede to Chinese demands to rejoin the fold. But China’s rapidly advancing anti-satellite (ASAT) capabilities could open up another avenue: deterring United States intervention on Taiwan’s behalf in order to coerce reunification without firing a shot.

If current trends hold, then China’s[Strategic Support Force](https://ndupress.ndu.edu/Portals/68/Documents/stratperspective/china/china-perspectives_13.pdf) will be capable by the late 2020s of holding key U.S. space assets at risk. [Chinese military doctrine](https://nationalinterest.org/blog/reboot/nowhere-earth-will-be-safe-us-china-war-172523), statements by senior officials, and past behavior all suggest that China may well believe threatening such assets to be an effective means of deterring U.S. intervention. If so, then the United States would face a type of “Sophie’s Choice”: decline to intervene, potentially leading allies to follow suit and Taiwan to succumb without a fight, thereby enabling Xi to achieve his goal of “peacefully” snuffing out Taiwanese independence; or start a war that would at best be long and bloody and might well even cross the nuclear threshold.

This emerging crisis has been three decades in the making. In 1991, China watched from afar as the United States used space-enabled capabilities to obliterate the Iraqi military from a distance in the first Gulf War. The People’s Liberation Army quickly set to work developing capabilities targeted at a perceived Achilles’ heel of this new [American way of war](https://nationalinterest.org/feature/secrets-and-lies-role-truth-great-power-information-warfare-170579): reliance on vulnerable space systems.

This project came to fruition with a direct ascent[ASAT weapons test](https://fas.org/sgp/crs/row/RS22652.pdf) in 2007, but the test was limited in two key respects. First, it only reached low Earth orbit. Second, it generated thousands of pieces of long-lasting space junk, provoking immense[international ire](https://spacenews.com/u-s-official-china-turned-to-debris-free-asat-tests-following-2007-outcry/). This backlash appears to have taken China by surprise, driving it to seek new, more usable ASAT types with minimal debris production. Now, one such ASAT is nearing operational status: spacecraft capable of rendezvous and proximity operations (RPOs).

Such spacecraft are[inevitable](https://www.airuniversity.af.edu/Portals/10/SSQ/documents/Volume-12_Issue-2/Chow.pdf#page=22) and cannot realistically be limited. The United States, European Union, China, and others are developing them to provide a range of satellite services essential to the[new space economy](https://www.morganstanley.com/ideas/space-economy-themes-2021), such as in situ repairs and refueling of satellites and active removal of space debris. But RPO capabilities are dual-use: if a satellite can grapple space objects for servicing, then it might well be capable of grappling an adversary’s satellite to move it out of its servicing orbit. Perhaps it could degrade or disable it by bending or disconnecting its solar panels and antennas all while producing minimal debris.

This is [a serious threat](https://nationalinterest.org/feature/can-america-lose-china-189020), primarily because no international rules presently exist to limit close approaches in space. Left unaddressed, this lacuna in international law and space policy could enable a prospective attacker to pre-position, during peacetime, as many spacecraft as they wish as close as they wish to as many high-value targets as they wish. The result would be an ever-present possibility of sudden, bolt-from-the-blue attacks on vital space assets—and worse, on many of them at once.

China has conducted at least[half a dozen tests of RPO](https://swfound.org/media/207179/swf_chinese_rpo_fact_sheet_apr2021.pdf#page=3) capabilities in space since 2008, two of which went on for years. Influential space experts have noted that these tests have plausible peaceful purposes and are in many cases similar to those conducted by the United States. This, however, does not make it any less important to establish effective legal, policy, and technical counters to their offensive use. Even if it were certain that these capabilities are intended purely for peaceful applications—and it is not at all clear that that is the case—China (or any other country) could at any time decide to repurpose these capabilities for ASAT use.

There is still time to get out ahead of this threat, but likely not for much longer. China’s RPO capabilities have, thus far, lagged about five years behind those of the United States. There are reasons to believe this gap may close, but even assuming that it holds, we should expect to see China demonstrate an operational dual-use rendezvous spacecraft by around 2025. (The first instance of a U.S. commercial satellite docking with another satellite to change its orbit occurred in[February 2020](https://news.northropgrumman.com/news/releases/northrop-grumman-successfully-completes-historic-first-docking-of-mission-extension-vehicle-with-intelsat-901-satellite).)

At the same time, China is expanding its capacity for rapid spacecraft manufacturing. The[Global Times](https://www.globaltimes.cn/page/202101/1213345.shtml) reported in January that China’s first intelligent mass production line is set to produce 240 small satellites per year. In April,[Andrew Jones](https://spacenews.com/china-is-developing-plans-for-a-13000-satellite-communications-megaconstellation/#:~:text=China%20is%20developing%20plans%20for%20a%2013%2C000%2Dsatellite%20megaconstellation,-by%20Andrew%20Jones&text=HELSINKI%20%E2%80%94%20China%20is%20to%20oversee,the%20country's%20major%20space%20actors.) at SpaceNews reported that China is developing plans to quickly produce and loft a thirteen thousand-satellite national internet megaconstellation. It is not unreasonable to assume that China could manufacture two hundred small rendezvous ASAT spacecraft by 2029, possibly more.

If this happens, and Beijing was to decide in 2029 to launch these two hundred small RPO spacecraft and position them in close proximity to strategically vital assets, then China would be able to simultaneously threaten disablement of the entire constellations of U.S. satellites for missile early warning (about a dozen satellites with spares included); communications in a nuclear-disrupted environment (about a dozen); and positioning, navigation, and timing (about three dozen); along with several dozen key communications, imagery, and meteorology satellites. Losing these assets would severely degrade U.S. deterrence and warfighting capabilities, yet once close pre-positioning has occurred such losses become almost impossible to prevent. For this reason, such pre-positioning could conceivably deter the United States from coming to Taiwan’s aid due to the prospect that intervention would spur China to disable these critical space systems. Without their support, the war would be much bloodier and costlier—a daunting proposition for any president.

Should the United States fail to intervene, the consequences would be disastrous for both Washington and its allies in East Asia, and potentially the credibility of U.S. defense commitments around the globe. Worse yet, however, might be what could happen if China believes that such a threat will succeed but proves to be wrong. History is rife with examples of major wars arising from miscalculations such as this, and there are many pathways by which such a situation could easily escalate out of control to a full-scale conventional conflict or even to nuclear use.

#### Space dominance is key to US hegemony.

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Jaewoon Choo, “The United States and China: Competition for Superiority in Space to Protect Resources and Weapon Systems,” Open Asia, 2021, https://www.openasia.asia/the-united-states-and-china-competition-for-superiority-in-space-to-protect-resources-and-weapon-systems/

Whoever rules space rules the future

There is one reason why the two countries' space strategy competition will inevitably lead to a hegemony competition. This is because they try to conquer the space order. Conquering the space order is to define and establish the space order. Those who dominate space will dominate almost all sectors of the future world, including economy, technology, environment, cyberspace, transportation and energy. That's why the United States is considered as a hegemonic country on Earth today. The U.S. is recognized as a hegemonic country because it establishes and leads the economic, financial, trade, political, and diplomatic order.

There are two areas in the world today where international order has not been established. One is virtual space, which is the cyber world. The other is the space. Since the international order of these two areas is closely correlated with each other, it is likely that the establishment of the order in these two areas will be pursued simultaneously. This means that cyber order cannot be discussed without discussing satellite issues.

The Communist Party of China recognized this early on. At the 19th National Communist Party Congress in 2017, it expressed its justification for establishing space order. President Xi Jinping declared that China's diplomatic stage in the 21st century has expanded beyond the Earth into space and virtual space. It was the moment when China defined the concept of diplomatic space as the "universe" beyond the Earth.

He then explained that the establishment of a system that can even manage the order of the universe and the virtual world eventually means the establishment of practical governance. Therefore, he justified that China's diplomatic horizon has no choice but to expand into space. Furthermore, he stressed that he is confident that the ideation of building such governance serves as the foundation for the community of common destiny for mankind which China pursues. In other words, he publicly urged China to have the capabilities and means to become a key country in building governance in these two areas.

This led the Trump administration to spare no effort to develop space science and technology and space projects, which are the basis of space order. Since President George W. Bush, the maintenance work for supremacy in space has been carried out. President Obama also introduced a policy to encourage U.S. private companies to participate in space projects to expand the foundation for supremacy in space.

It was President Trump who actualized all these. He was the one who legalized private companies' space development projects under the Space Policy Directive-I. He also thoroughly reflected his “America First” principle in the space business. For example, all the substances obtained in space, including minerals, were no longer defined as "common goods." He also promised that space activities by private companies in the United States would be free from restrictions such as the Outer Space Treaty and the 1979 resolution by the United Nations Committee on the Peaceful Uses of Outer Space.

Space and the moon were known as repositories of resources. As it became known that the resources that are scarce or will be depleted on Earth are very abundant outside the Earth in space, the space race has gotten intense. This is why the space race has been promoted on a geoeconomic level. However, in order to secure these benefits of geoeconomic strategies, geopolitical strategies must be accompanied. In other words, military defenses should be backed up to protect the resource acquisition process.

Fearing this, the United Nations Committee on the Peaceful Uses of Outer Space strictly regulates the military use of space. However, the fact that the logic of developing naval power to protect long-range foreign interests on Earth is reflected in the strategic thinking of securing space profits is the decisive factor that has driven the space race today.

The repositories of resources and future energy sources

There are three strategic benefits that drive the U.S.-China competition for supremacy in space. The first is the infinite resource in space. There are endless resources buried in more than 10,000 asteroids orbiting the Earth. They are known to have an abundance of resources such as carbon, zinc, cobalt, platinum, gold, silver and titanium, in which platinum and titanium, for example, can be sold for $30,000 to $50,000 per kilogram.

Second, the future energy source lies in space. Power supply using solar energy will be possible by establishing a space power plant that concentrates solar energy in the Earth-Moon area and transmitting it to Earth through laser beams. Here, the supplied solar power is known to be 35 to 70% more powerful than the solar energy on Earth. By 2100, 70 terawatts of energy will be needed, and it is expected that 332 terawatts can be supplied through the development of space solar power plants in a geostationary orbit.

Third, the desire to dominate space for hegemony has established the space competition relationship between the U.S. and China. Although each started from different strategic interests, in the end, they have one common goal.

#### US leadership in this decade solves global war and results in a peaceful end to Chinese revisionism **Erickson and Collins 10/21** [(Andrew, A professor of strategy in the U.S. Naval War College’s China Maritime Studies Institute)(Gabriel, Baker Botts fellow in energy and environmental regulatory affairs at Rice University’s Baker Institute for Public Policy) “A Dangerous Decade of Chinese Power Is Here,” Foreign Policy, 10/18/2021] U.S. and allied policymakers are facing the most important foreign-policy challenge of the 21st century. **China’s power is peaking**; so is the political position of Chinese President Xi Jinping and the Chinese Communist Party’s (CCP) **domestic strength.** In the long term, China’s **likely decline** after this peak is a **good thing.** But right now, it creates a **decade of danger** from a system that increasingly realizes it only has a **short time** to fulfill some of its **most critical**, long-held **goals.**

Within the next five years, China’s leaders are likely to conclude that its deteriorating demographic profile, structural economic problems, and technological estrangement from global innovation centers are eroding its leverage to annex Taiwan and achieve other major strategic objectives. As Xi internalizes these challenges, his foreign policy is likely to become even more accepting of risk, feeding on his nearly decadelong track record of successful revisionist action against the rules-based order. Notable examples include China occupying and militarizing sub-tidal features in the South China Sea, ramping up air and maritime incursions against Japan and Taiwan, pushing border challenges against India, occupying Bhutanese and Tibetan lands, perpetrating crimes against humanity in [Xinjiang](https://www.nytimes.com/interactive/2019/11/16/world/asia/china-xinjiang-documents.html), and coercively enveloping Hong Kong.

The relatively low-hanging fruit is plucked, but Beijing is emboldened to grasp the biggest single revisionist prize: Taiwan.

Beijing’s actions over the last decade have triggered backlash, such as with the so-called AUKUS deal, but concrete constraints on China’s strategic freedom of action may not fully manifest until after 2030. It’s remarkable and dangerous that China has paid few costs for its actions over the last 10 years, even as its military capacities have rapidly grown.

Beijing will likely conclude that under current diplomatic, economic, and force postures for both “gray zone” and high-end scenarios, the 2021 to late 2020s timeframe still favors China—and is attractive for its 68-year-old leader, who seeks a historical achievement at the zenith of his career.

U.S. planners must mobilize resources, effort, and risk acceptance to maximize power and thereby deter Chinese aggression in the coming decade—literally starting now—and innovatively employ assets that currently exist or can be operationally assembled and scaled within the next several years. That will be the first step to pushing back against China during the 2020s—a decade of danger—before what will likely be a waning of Chinese power.

As Beijing aggressively seeks to undermine the international order and promotes a narrative of inevitable Chinese strategic domination in Asia and beyond, it creates a dangerous contradiction between its goals and its medium-term capacity to achieve them. China is, in fact, likely nearing the apogee of its relative power; and by 2030 to 2035, it will cross a tipping point from which it may never recover strategically. Growing headwinds constraining Chinese growth, while not publicly acknowledged by Beijing, help explain Xi’s high and apparently increasing risk tolerance. Beijing’s window of strategic opportunity is sliding shut.

China’s skyrocketing household debt levels exemplify structural economic constraints that are emerging much earlier than they did for the United States when it had similar per capita GDP and income levels. Debt is often a wet blanket on consumption growth. A 2017 analysis published by the Bank for International Settlements found that once the household debt-to-GDP ratio in a sample of 54 countries exceeded 60 percent, “the negative long-run effects on consumption tend to intensify.” China’s household debt-to-GDP ratio surpassed that empirical danger threshold in late 2020. Rising debt service burdens thus threaten Chinese consumers’ capacity to sustain the domestic consumption-focused “dual circulation” economic model that Xi and his advisors seek to build. China’s growth record during the past 30 years has been remarkable, but past exceptionalism does not confer future immunity from fundamental demographic and economic headwinds.

As debt levels continue to rise at an absolute level that has accelerated almost continuously for the past decade, China also faces a hollowing out of its working-age population. This critical segment peaked in 2010 and has since declined, with the rate from 2015 to 2020 nearing 0.6 percent annually—nearly twice the respective pace in the United States. While the United States faces demographic challenges of its own, the disparity between the respective paces of decline highlights its relative advantage compared to its chief geopolitical competitor. Moreover, the United States can choose to access a global demographic and talent dividend via immigration in a way China simply will not be able to do.

Atop surging debt and worsening demographics, China also faces resource insecurity. China’s dependence on imported food and energy has grown steadily over the past two decades. Projections from Tsinghua University make a compelling case that China’s oil and gas imports will peak between 2030 and 2035. As China grapples with power shortages, Beijing has been reminded that supply shortfalls equal to even a few percentage points of total demand can have outsized negative impacts.

Domestic resource insufficiency by itself does not hinder economic growth—as the Four Asian Tigers’ multi-decade boom attests. But China is in a different position. Japan and South Korea never had to worry about the U.S. Navy interdicting inbound tankers or grain ships. In fact, the United States was avowedly willing to use military force to protect energy flows from the Persian Gulf region to its allies. Now, as an increasingly energy-secure United States pivots away from the Middle East toward the Indo-Pacific, there is a substantial probability that energy shipping route protection could be viewed in much more differentiated terms—with oil and liquefied natural gas cargoes sailing under the Chinese flag viewed very differently than cargoes headed to buyers in other regional countries.

Each of these dynamics—demographic downshifts, rising debts, resource supply insecurity—either imminently threatens or is already actively interfering with the CCP’s long-cherished goal of achieving a “moderately prosperous society.” Electricity blackouts, real estate sector travails (like those of Evergrande) that show just how many Chinese investors’ financial eggs now sit in an unstable $52 trillion basket, and a solidifying alignment of countries abroad concerned by aggressive Chinese behavior all raise questions about Xi’s ability to deliver. With this confluence of adverse events only a year before the next party congress, where personal ambition and survival imperatives will almost drive him to seek anointment as the only Chinese “leader for life” aside from former leader Mao Zedong, the timing only fuels his sense of insecurity. Xi’s anti-corruption campaigns and ruthless removal of potential rivals and their supporters solidified his power but likely also created a quiet corps of opponents who may prove willing to move against him if events create the perception he’s lost the “mandate of heaven.” Accordingly, the baseline assumption should be that Xi’s crown sits heavy and the insecurity induced is thereby intense enough to drive high-stake, high-consequence posturing and action.

While Xi is under pressure to act, the external risks are magnified because so far, he has suffered few consequences from taking actions on issues his predecessors would likely never have gambled on. Reactions to party predations in Xinjiang and [Hong Kong](https://home.treasury.gov/policy-issues/financial-sanctions/recent-actions/20210716_33) have been restricted to diplomatic-signaling pinpricks, such as sanctioning responsible Chinese officials and entities, most of whom lack substantial economic ties to the United States. Whether U.S. restraint results from a fear of losing market access or a belief that China’s goals are ultimately limited is not clear at this time.

While the CCP issues retaliatory sanctions against U.S. officials and proclaims a triumphant outcome to its hostage diplomacy, these tactical public actions mask a growing private awareness that China’s latitude for irredentist action is poised to shrink. Not knowing exactly when domestic and external constraints will come to bite—but knowing that when Beijing sees the tipping point in its rearview mirror, major rivals will recognize it too—amplifies Xi and the party’s anxiety to act on a shorter timeline. Hence the dramatic acceleration of the last few years.

Just as China is mustering its own strategic actions, so the United States must also intensify its focus and deployment of resources. The United States has taken too long to warm up and confront the central challenge, but it retains formidable advantages, agility, and the ability to prevail—provided it goes all-in now. Conversely, if Washington fails to marshal its forces promptly, its achievements after 2030 or 2035 will matter little. Seizing the 2020s would enable Beijing to ~~cripple~~ [destroy] the free and open rules-based order and entrench its position by economically subjugating regional neighbors (including key U.S. treaty allies) to a degree that could offset the strategic headwinds China now increasingly grapples with.

Deterrence is never certain. But it offers the highest probability of avoiding the certainty that an Indo-Pacific region dominated by a CCP-led China would doom treaty allies, threaten the U.S. homeland, and likely set the stage for worse to come. Accordingly, U.S. planners should immediately mobilize resources and effort as well as accept greater risks to deter Chinese action over the critical next decade.

The greatest threat is armed conflict over Taiwan, where U.S. and allied success or failure will be fundamental and reverberate for the remainder of the century. There is a high chance of a major move against Taiwan by the late 2020s—following an extraordinary ramp-up in People’s Liberation Army capabilities and before Xi or the party state’s power grasp has ebbed or Washington and its allies have fully regrouped and rallied to the challenge.

So how should policymakers assess the potential risk of Chinese action against Taiwan reaching dangerous levels by 2027 or possibly even earlier—as emphasized in the testimonies of Adms. Philip Davidson and John Aquilino? In June, Chairman of the Joint Chiefs Gen. Mark Milley testified to the House of Representatives that Xi had “challenged the People’s Liberation Army to accelerate their modernization programs to develop capabilities to seize Taiwan and move it from 2035 to 2027,” although China does not currently have the capabilities or intentions to conduct an all-out invasion of mainland Taiwan.

U.S. military leaders’ assessments are informed by some of the world’s most extensive and sophisticated internal information. But what’s striking is open-source information available to everyone suggests similar things. Moving forward, a number of open-source indicators offer valuable “early warning lights” that can help policymakers more accurately calibrate both potential timetables and risk readings as the riskiest period of relations—from 2027 onward—approaches.

Semiconductors supply self-sufficiency. Taiwan is the “OPEC+” of semiconductors, accounting for approximately two-thirds of global chip foundry capacity. A kinetic crisis would almost certainly disrupt—and potentially even completely curtail—semiconductor supplies. China presently spends even more each year on semiconductor imports (around $380 billion) than it does on [oil](http://english.customs.gov.cn/Statics/0aba4bfd-f8ed-477c-9d16-dc3def897b7b.html), but much of the final products are destined for markets abroad. Taiwan is producing cutting-edge 5-nanometer and 7-nanometer chips, but China produces around 80 percent of the rest of the chips in the world. The closer China comes to being able to secure “good enough” chips for “inside China-only” needs, the less of a constraint this becomes.

Crude oil, grain, strategic metals stockpiles—the commercial community (Planet Labs, Ursa Space Systems, etc.) has developed substantial expertise in cost-effectively tracking inventory changes for key input commodities needed to prepare for war.

Electric vehicle fleet size—the amount of oil demand displaced by electric vehicles varies depending on miles driven, but the more of China’s car fleet that can be connected to the grid (and thus powered by blockade-resistant coal), the less political burden Beijing will face if it has to weather a maritime oil blockade imposed in response to actions it took against Taiwan or other major revisionist adventures. China’s passenger vehicle fleet, now approximately 225 million units strong, counts nearly 6.5 million electric vehicles among its ranks, the lion’s share of which are full-battery electrics. China’s State Council seeks to have 20 percent of new vehicles sold in China be electric vehicles by 2025. This target has already basically been achieved over the last few months, meaning at least 3.5 to 4 million (and eventually many more) new elective vehicles will enter China’s car fleet each year from now on.

Local concentration of maritime vessels—snap exercises with warships, circumnavigations, and midline tests with swarms of aircraft highlight the growing scale of China’s threat to [Taiwan](https://www.andrewerickson.com/2021/06/quick-look-cmsis-4-6-may-2021-conference-large-scale-amphibious-warfare-in-chinese-military-strategy-taiwan-strait-campaign-focus/). But these assets alone cannot invade the island. To capture and garrison, Beijing would need not only air, missile, naval, and special operations forces but also the ability to move lots of equipment and—at the very least—tens of thousands of personnel across the Taiwan Strait. As such, Beijing would have to amass maritime transport assets. And given the scale required, this would alter ship patterns elsewhere along China’s coast in ways detectable with artificial intelligence-facilitated imagery analysis from firms like Planet Labs (or national assets).

Only the most formidable, agile American and allied deterrence can kick the can down the road long enough for China’s slowdown to shut the window of vulnerability. Holding the line is likely to require frequent and sustained proactive enforcement actions to disincentivize full-frontal Chinese assaults on the rules-based order in the Indo-Pacific. Chinese probing behavior and provocations must be met with a range of symmetric and asymmetric responses that impose real costs, such as publishing assets owned by Chinese officials abroad, cyber interference with China’s technological social control apparatus, “hands on” U.S. Navy and Coast Guard enforcement measures against Maritime Militia-affiliated vessels in the South China Sea, intensified air and maritime surveillance of Chinese naval bases, and visas and resettlement options to Hong Kongers, Uyghurs, and other threatened Chinese citizens—including CCP officials (and their families) who seek to defect and/or leave China. U.S. policymakers must make crystal clear to their Chinese counterparts that the engagement-above-all policies that dominated much of the past 25 years are over and the risks and costs of ongoing—and future—adventurism will fall heaviest on China.

Bombastic Chinese reactions to emerging cohesive actions verify the approach’s effectiveness and potential for halting—and perhaps even reversing—the revisionist tide China has unleashed across the Asian region. Consider the recent nuclear submarine deal among Australia, the United States, and the United Kingdom. Beijing’s strong public reaction (including toleration of [nuclear threats](https://www.globaltimes.cn/page/202109/1234460.shtml) made by the state-affiliated *Global Times*) highlights the gap between its global information war touting China’s irresistible power and deeply insecure internal self-perception. Eight nuclear submarines will ultimately represent formidable military capacity, but for a bona fide superpower that believes in its own capabilities, they would not be a game-changer. Consider the U.S.-NATO reaction to the Soviet Union’s commissioning of eight Oscar I/II-class cruise missile subs during the late Cold War. These formidable boats each carried 24 SS-N-19 Granit missiles specifically designed to kill U.S. carrier battle groups, yet NATO never stooped to public threats.

With diplomatic proofs of concepts like the so-called AUKUS deal, the Quadrilateral Security Dialogue, and hard security actions like the Pacific Deterrence Initiative now falling into place, it is time to comprehensively peak the non-authoritarian world’s protective action to hold the line in the Indo-Pacific. During this decade, U.S. policymakers must understand that under Xi’s strongman rule, personal political survival will dictate Chinese behavior. Xi’s recreation of a “one-man” system is a one-way, high-leverage bet that decisions he drives will succeed.

If Xi miscalculates, a significant risk given his suppression of dissenting voices while China raises the stakes in its confrontation with the United States, the proverbial “leverage” that would have left him with outsized returns on a successful bet would instead amplify the downside, all of which he personally and exclusively signed for. Resulting tensions could very realistically undermine his status and authority, embolden internal challengers, and weaken the party. They could also foreseeably drive him to double down on mistakes, especially if those led to—or were made in the course of—a kinetic conflict. Personal survival measures could thus rapidly transmute into regional or even global threats.

If Xi triggered a “margin call” on his personal political account through a failed high-stakes gamble, it would likely be paid in blood. Washington must thus prepare the U.S. electorate and its institutional and physical infrastructure as well as that of allies and partners abroad for the likelihood that tensions will periodically ratchet up to uncomfortable levels—and that actual conflict is a concrete possibility. Si vis pacem, para bellum (“if you want peace, prepare for war”) must unfortunately serve as a central organizing principle for a variety of U.S. and allied decisions during the next decade with China.

Given these unforgiving dynamics and stakes, implications for U.S. planners are stark: Do whatever remains possible to “peak” for deterrent competition against China by the mid-to-late 2020s, and accept whatever trade-offs are available for doing so.

Nothing we might theoretically achieve in 2035 and beyond is worth pursuing at the expense of China-credible capabilities we can realistically achieve no later than the mid-to-late 2020s.

#### Framing:

#### The standard is maximizing expected wellbeing, or utilitarianism.

#### Prefer it—

#### Util is a lexical prerequisite to any other framework because actors can’t make decisions under other moral theories when their lives or bodily security are in danger because the necessary moral conditions are inhibited.

#### Actor Spec— States must use util. Any other standard dooms the moral theory

**Goodin 90.** Robert Goodin 90, [professor of philosophy at the Australian National University college of arts and social sciences], “The Utilitarian Response,” pgs 141-142 //RS

My larger argument turns on the proposition that there is something special about the situation of public officials that makes utilitarianism more probable for them than private individuals. Before proceeding with the large argument, I must therefore say what it is that makes it so special about public officials and their situations that make it both more necessary and more desirable for them to adopt a more credible form of utilitarianism. Consider, first, the argument from necessity. Public officials are obliged to make their choices under uncertainty, and uncertainty of a very special sort at that. All choices – public and private alike – are made under some degree of uncertainty, of course. But in the nature of things, private individuals will usually have more complete information on the peculiarities of their own circumstances and on the ramifications that alternative possible choices might have for them. Public officials, in contrast, are relatively poorly informed as to the effects that their choices will have on individuals, one by one. What they typically do know are generalities: averages and aggregates. They know what will happen most often to most people as a result of their various possible choices, but that is all. That is enough to allow public policy-makers to use the utilitarian calculus – assuming they want to use it at all – to choose general rules or conduct.

#### Pleasure and pain are the starting point for moral reasoning—they’re our most baseline desires and the only things that explain the intrinsic value of objects or actions

**Moen 16**, Ole Martin (PhD, Research Fellow in Philosophy at University of Oslo). "An Argument for Hedonism." Journal of Value Inquiry 50.2 (2016): 267.

Let us start by observing, empirically, that **a widely shared judgment about intrinsic value** and disvalue **is that pleasure is intrinsically valuable and pain is intrinsically disvaluable**. On virtually any proposed list of intrinsic values and disvalues (we will look at some of them below), pleasure is included among the intrinsic values and pain among the intrinsic disvalues. This inclusion makes intuitive sense, moreover, for **there is something undeniably good about the way pleasure feels and something undeniably bad about the way pain feels**, and neither the goodness of pleasure nor the badness of pain seems to be exhausted by the further effects that these experiences might have. “Pleasure” and “pain” **are** here **understood inclusively**, as encompassing anything hedonically positive and anything hedonically negative. 2 The special value statuses of pleasure and pain are manifested in how we treat these experiences in our everyday reasoning about values. If you tell me that you are heading for the convenience store, **I might ask: “What for**?” This is a reasonable question, for when you go to the convenience store you usually do so, not merely for the sake of going to the convenience store, but for the sake of achieving something further that you deem to be valuable. You might answer, for example: “To buy soda.” This answer makes sense, for soda is a nice thing and you can get it at the convenience store. I might further inquire, however: “What is buying the soda good for?” This further question can also be a reasonable one, for it need not be obvious why you want the soda. You might answer: “Well, I want it for the pleasure of drinking it.” If I then proceed by asking “But what is the pleasure of drinking the soda good for?” the discussion is likely to reach an awkward end. **The reason is that the pleasure is not good for anything further; it is simply that for which going to the convenience store and buying the soda is good**. 3 As Aristotle observes: “**We never ask** [a man] **what** his **end is in being pleased, because we assume that pleasure is choice worthy in itself**.”4 Presumably, a similar story can be told in the case of pains, for if someone says “This is painful!” we never respond by asking: “And why is that a problem?” We take for granted that **if something is painful, we have a sufficient explanation of why it is bad**. If we are onto something in our everyday reasoning about values, it seems that **pleasure and pain are both places where we reach the end of the line in matters of value. Although pleasure and pain thus seem to be good candidates for intrinsic value and disvalue**, several objections have been raised against this suggestion: (1) that pleasure and pain have instrumental but not intrinsic value/disvalue; (2) that pleasure and pain gain their value/disvalue derivatively, in virtue of satisfying/frustrating our desires; (3) that there is a subset of pleasures that are not intrinsically valuable (so-called “evil pleasures”) and a subset of pains that are not intrinsically disvaluable (so-called “noble pains”), and (4) that pain asymbolia, masochism, and practices such as wiggling a loose tooth render it implausible that pain is intrinsically disvaluable. I shall argue that these objections fail. Though it is, of course, an open question whether other objections to P1 might be more successful, I shall assume that if (1)–(4) fail, we are justified in believing that P1 is true itself a paragon of freedom—there will always be some agents able to interfere substantially with one’s choices. The effective level of protection one enjoys, and hence one’s actual degree of freedom, will vary according to multiple factors: how powerful one is, how powerful individuals in one’s vicinity are, how frequent police patrols are, and so on. Now, we saw above that what makes a slave unfree on Pettit’s view is the fact that his master has the power to interfere arbitrarily with his choices; in other words, what makes the slave unfree is the power relation that obtains between his master and him. The difﬁculty is that, in light of the facts I just mentioned, there is no reason to think that this power relation will be unique. A similar relation could obtain between the master and someone other than the slave: absent perfect state control, the master may very well have enough power to interfere in the lives of countless individuals. Yet it would be wrong to infer that these individuals lack freedom in the way the slave does; if they lack anything, it seems to be security. A problematic power relation can also obtain between the slave and someone other than the master, since there may be citizens who are more powerful than the master and who can therefore interfere with the slave’s choices at their discretion. Once again, it would be wrong to infer that these individuals make the slave unfree in the same way that the master does. Something appears to be missing from Pettit’s view. If I live in a particularly nasty part of town, then it may turn out that, when all the relevant factors are taken into account, I am just as vulnerable to outside interference as are the slaves in the royal palace, yet it does not follow that our conditions are equivalent from the point of view of freedom. As a matter of fact, we may be equally vulnerable to outside interference, but as a matter of right, our standings could not be more different. I have legal recourse against anyone who interferes with my freedom; the recourse may not be very effective—presumably it is not, if my overall vulnerability to outside interference is comparable to that of a slave— but I still have full legal standing.68 By contrast, the slave lacks legal recourse against the interventions of one speciﬁc individual: his master. It is that fact, on a Kantian view—a fact about the legal relation in which a slave stands to his master—that sets slaves apart from freemen. The point may appear trivial, but it does get something right: whereas one cannot identify a power relation that obtains uniquely between a slave and his master, the legal relation between them is undeniably unique. A master’s right to interfere with respect to his slave does not extend to freemen, regardless of how vulnerable they might be as a matter of fact, and citizens other than the master do not have the right to order the slave around, regardless of how powerful they might be. This suggests that Kant is correct in thinking that the ideal of freedom is essentially linked to a person’s having full legal standing. More speciﬁcally, he is correct in holding that the importance of rights is not exhausted by their contribution to the level of protection that an individual enjoys, as it must be on an instrumental view like Pettit’s. Although it does matter that rights be enforced with reasonable effectiveness, the sheer fact that one has adequate legal rights is essential to one’s standing as a free citizen. In this respect, Kant stays faithful to the idea that freedom is primarily a matter of standing—a standing that the freeman has and that the slave lacks. Pettit himself frequently insists on the idea, but he fails to do it justice when he claims that freedom is simply a matter of being adequately (and reliably) shielded against the strength of others. As Kant recognizes, the standing of a free citizen is a more complex matter than that. One could perhaps worry that the idea of legal standing is something of a red herring here—that it must ultimately be reducible to a complex network of power relations and, hence, that the position I attribute to Kant differs only nominally from Pettit’s. That seems to me doubtful. Viewing legal standing as essential to freedom makes sense only if our conception of the former includes conceptions of what constitutes a fully adequate scheme of legal rights, appropriate legal recourse, justiﬁed punishment, and so on. Only if one believes that these notions all boil down to power relations will Kant’s position appear similar to Pettit’s. On any other view—and certainly that includes most views recently defended by philosophers—the notion of legal standing will outstrip the power relations that ground Pettit’s theory.

#### No intent-foresight distinction for states.

Enoch 07 Enoch, D [The Faculty of Law, The Hebrew Unviersity, Mount Scopus Campus, Jersusalem]. (2007). INTENDING, FORESEEING, AND THE STATE. Legal Theory, 13(02). doi:10.1017/s1352325207070048 https://www.cambridge.org/core/journals/legal-theory/article/intending-foreseeing-and-the-state/76B18896B94D5490ED0512D8E8DC54B2

The general difficulty of the intending-foreseeing distinction here stemmed, you will recall, from the feeling that attempting to pick and choose among the foreseen consequences of one’s actions those one is more and those one is less responsible for looks more like the preparation of a defense than like a genuine attempt to determine what is to be done. Hiding behind the intending-foreseeing distinction seems like an attempt to evade responsibility, and so thinking about the distinction in terms of responsibility serves 39. Anderson & Pildes, supra note 38. I will use this text as my example of an expressive theory here. 40. See id. at 1554, 1564. 41. For a general critique, see Mathew D. Adler, Expressive Theories of Law: A Skeptical Overview, 148 U. PA. L. REV. 1363 (1999–2000). 42. As Adler repeatedly notes, the understanding of expression Anderson & Pildes work with is amazingly broad, so that “To express an attitude through action is to act on the reasons the attitude gives us”; Anderson & Pildes, supra note 38, at 1510. If this is so, it seems that expression drops out of the picture and everything done with it can be done directly in terms of reasons. 43. This may be true of what Anderson and Pildes have in mind when they say that “expressive norms regulate actions by regulating the acceptable justifications for doing them”; id. at 1511. http://journals.cambridge.org Downloaded: 03 Aug 2014 IP address: 134.153.184.170 Intending, Foreseeing, and the State 91 to reduce even further the plausibility of attributing to it intrinsic moral significance. This consideration—however weighty in general—seems to me very weighty when applied to state action and to the decisions of state officials. For perhaps it may be argued that individuals are not required to undertake a global perspective, one that equally takes into account all foreseen consequences of their actions. Perhaps, in other words, individuals are entitled to (roughly) settle for having a good will, and beyond that let chips fall where they may. But this is precisely what stateswomen and statesmen—and certainly states—are not entitled to settle for.44 In making policy decisions, it is precisely the global (or at least statewide, or nationwide, or something of this sort) perspective that must be undertaken. Perhaps, for instance, an individual doctor is entitled to give her patient a scarce drug without thinking about tomorrow’s patients (I say “perhaps” because I am genuinely not sure about this), but surely when a state committee tries to formulate rules for the allocation of scarce medical drugs and treatments, it cannot hide behind the intending-foreseeing distinction, arguing that if it allows45 the doctor to give the drug to today’s patient, the death of tomorrow’s patient is merely foreseen and not intended. When making a policy-decision, this is clearly unacceptable. Or think about it this way (I follow Daryl Levinson here):46 perhaps restrictions on the responsibility of individuals are justified because individuals are autonomous, because much of the value in their lives comes from personal pursuits and relationships that are possible only if their responsibility for what goes on in the (more impersonal) world is restricted. But none of this is true of states and governments. They have no special relationships and pursuits, no personal interests, no autonomous lives to lead in anything like the sense in which these ideas are plausible when applied to individuals persons. So there is no reason to restrict the responsibility of states in anything like the way the responsibility of individuals is arguably restricted.47 States and state officials have much more comprehensive responsibilities than individuals do. Hiding behind the intending-foreseeing distinction thus more clearly constitutes an evasion of responsibility in the case of the former. So the evading-responsibility worry has much more force against the intending-foreseeing distinction when applied to state action than elsewhere.

#### Only consequentialism explains degrees of wrongness—if I break a promise to meet up with someone for lunch, it’s not as bad as breaking a promise to take a dying person to the hospital.

#### Extinction outweighs—

1. **Moral uncertainty means preventing extinction should be our highest priority.  
   Bostrom 12** [Nick Bostrom. Faculty of Philosophy & Oxford Martin School University of Oxford. “Existential Risk Prevention as Global Priority.” Global Policy (2012)]  
   These reflections on **moral uncertainty suggest** an alternative, complementary way of looking at existential risk; they also suggest a new way of thinking about the ideal of sustainability. Let me elaborate.¶ **Our present understanding of axiology might** well **be confused. We may not** nowknow — at least not in concrete detail — what outcomes would count as a big win for humanity; we might not even yet **be able to imagine the best ends** of our journey. **If we are** indeedprofoundly **uncertain** about our ultimate aims,then we should recognize that **there is a great** option **value in preserving** — and ideally improving — **our ability to recognize value and** to **steer the future accordingly. Ensuring** that **there will be a future** version of **humanity** with great powers and a propensity to use them wisely **is** plausibly **the best way** available to us **to increase the probability that the future will contain** a lot of **value.** To do this, we must prevent any existential catastrophe.

#### Extinction is the only impact that’s irreversible—forecloses any possibility of improvement in the future and subjects everyone to suffering

#### We have an ethical responsibility to future generations to save as many lives as possible

#### Underview:

#### I get 1ar theory—anything else justifies infinite abuse. Default to drop the debater, competing interps, no rvis, and the highest layer of the round. The 1ar is too short to make up for time tradeoff. No RVIs or new 2nr theory—otherwise the 6 minute 2nr makes the 2ar impossible—it’s key to fairness, which all their arguments agree is important.