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### 1

#### CP:

#### The Russian Federation ought to become a signatory of the Artemis Accords.

#### The People’s Republic of China ought to

#### become a signatory of the Artemis Accords,

#### end all space cooperation with the Russian Federation, and

#### end all space projects outside the scope of Artemis Accords.

#### The United States ought to designate an exception to the Wolf Amendment to enable bilateral cooperation on space projects.

David 21 “Can the U.S. and China Cooperate in Space?” LEONARD DAVID AUGUST 02, 2021 <https://www.scientificamerican.com/article/can-the-u-s-and-china-cooperate-in-space/> SM

Rather than await a heavy lift from the White House to change the Wolf Amendment, Head suggests it could be more fruitful for scientists to petition Congress for an exception so that they can work bilaterally with their Chinese peers on space projects. A way forward could be through the Inter-Agency Consultative Group for Space Science, an informal collective of researchers from major space agencies that executes interagency coordination on select missions.

Having China become a signatory of the Artemis Accords might be a productive pathway, too, Head adds. Led by the U.S. Department of State and NASA, these accords describe a shared vision for principles, grounded in the Outer Space Treaty of 1967, to create a safe and transparent environment that facilitates exploration, science and commercial activities on the moon. As of this writing, a dozen countries have embraced the Artemis Accords: Australia, Brazil, Canada, Italy, Japan, Luxembourg, New Zealand, South Korea, Ukraine, the United Arab Emirates, the U.K. and the U.S.

#### It’s competitive

Nelson 20 “The Artemis Accords and the Future of International Space Law” Jack Wright Nelson [Jack Wright Nelson is a Research Associate at the Faculty of Law of the National University of Singapore and a Member of the International Institute of Space Law. The author is grateful to the Faculty's Centre for Banking & Finance Law for supporting his ongoing research.], December 10, 2020 <https://www.asil.org/insights/volume/24/issue/31/artemis-accords-and-future-international-space-law> SM

The Artemis Accords

The Accords' ten operative paragraphs can be grouped into three categories. The first category reinforces certain core tenets of international space law. In particular, the Accords emphasize that all space activities must be for "peaceful purposes" and performed "in accordance with relevant international law."[8] The Accords also reaffirm and expand upon astronaut assistance obligations from the Rescue Agreement and registration requirements from the Registration Convention.[9]

The second category of operative paragraphs concerns specific operational issues. To this end, the Accords promote transparency, interoperability, and the sharing of scientific data.[10] On the pressing issue of space debris, the Accords' signatories have committed to engage in mitigation planning.[11]

The first and second categories are unlikely to be controversial: the first restates well-accepted law, while the second codifies nascent best practice. But the third category of operative paragraphs aims to progress international space law by promoting particular interpretations of the Outer Space Treaty concerning lunar heritage protection, space resource extraction, and the "deconfliction"[12] of space activities. Further, there are potential conflicts between the Accords and the most recent treaty to emerge from COPUOS—the Moon Agreement.[13]

The Outer Space Treaty and the Moon Agreement

Regarding lunar heritage protection, the Accords state that signatories:

intend to preserve outer space heritage . . . compris[ing] historically significant human or robotic landing sites, artifacts, spacecraft and other evidence of activity on celestial bodies.[14]

Signatories to the Accords also:

affirm that the extraction of space resources does not inherently constitute national appropriation under Article II of the Outer Space Treaty.[15]

Reducing the legal uncertainty surrounding space resource extraction was a key impetus for the development of the Accords. They build upon an Executive Order issued in April 2020 by President Trump to internationally promote space resource extraction.[16] But it is a controversial issue. Ultimately, the Accords represent a compromise. They do not expressly state that space resource extraction is legal. Rather, they simply state a negative: that such activity would not in and of itself amount to national appropriation (which Article II of the Outer Space Treaty—as extracted below—expressly prohibits).

Regarding space activities deconfliction, the Accords provide detailed guidance on the establishment and operation of "safety zones" around lunar installations.[17] Safety zones are buffer areas in which lunar activities would be subject to specific notification and coordination procedures in order to reduce the risk of collisions or interference. However, carving out or otherwise demarcating portions of the lunar surface—whether required for lunar heritage protection, space resource extraction, or safety zones—may face legal hurdles.

First, dividing up the lunar surface could breach the fundamental principle of non-appropriation of celestial bodies. Article II of the Outer Space Treaty provides that:

[o]uter space, including the Moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means.

Second, a divided lunar surface could prevent states from exercising their exploration, use, and free access rights. Article I, paragraph 2 of the Outer Space Treaty provides that:

[o]uter space, including the Moon and other celestial bodies, shall be free for exploration and use by all States without discrimination of any kind, on a basis of equality and in accordance with international law, and there shall be free access to all areas of celestial bodies.

#### Sino Russian absence decks Artemis credibility.

Jhaveri 20 “Launching for Gold: The Artemis Accords and the Legality of Extraterrestrial Mining” KUNAL JHAVERI 2020 <http://www.mjilonline.org/launching-for-gold-the-artemis-accords-and-the-legality-of-extraterrestrial-mining/> SM

The U.S. aims to resolve the interpretative ambiguity of “national appropriation” by attempting to codify American policy on extraterrestrial mining into international customary law. The Artemis Accords arrived after the U.S. Congress passed of the Space Act 2015, which established the right to use and trade space resources into American domestic law.[xvi] Through the Artemis Accords, the U.S. advances the policy articulated by Congress that countries and companies can own the materials they extract from space objects and bodies without claiming ownership over the entirety of the extraterrestrial object or body. According to NASA Administrator Jim Bridenstine, the U.S. “believe[s] that, just like in the ocean, you can extract resources from the ocean. But that doesn’t mean you own the ocean. You should be able to extract resources from the Moon. Own the resources but not own the Moon.”[xvii]

While conceding that national appropriation of space, including celestial bodies, is not permitted, the U.S.-led Artemis Accords intends to exploit the absence of a clear prohibition of harvesting space resources in the OST and international customary law frameworks. The Artemis Accords, if adhered to by its signatories and if accepted by a broader contingent of nations, could enable the U.S. interpretation of national appropriation in space, as articulated by Administrator Bridenstine, to prevail and make the U.S., the licensing nation for the majority of the world’s space enterprises, the apparent custodian of the Moon, asteroids, and other celestial bodies.[xviii] As acquiescence is often tantamount to consent in customary international law, the Artemis Accords’ interpretation of OST’s Article II, if not disputed by other nations, would likely strengthen the U.S. interpretation.

Ultimately, the utilization of bilateral agreements that dictate norms of behavior as a condition of involvement in a space program is a significant undertaking in space governance. For now, the Artemis Accords is just a collection of broadly phrased guidelines, without any defined enforcement mechanisms. All seven partnering countries that have agreed to the Accords with the U.S. are expected participants in the Artemis Program and have the potential to adhere to the Accords’ stated principles. In the leadup to the signing, Japan signaled interest in lunar exploration[xix] and Luxembourg adopted domestic legislation that permits space mining.[xx] The UAE and Australia are both actively trying to establish collaborative links with the broader space industry; the Accords represent an attractive opportunity for these countries to bolster their space capacity.[xxi] Further, Italy, the UK, and Canada all have public ambitions to develop their space manufacturing industries and view the Artemis Program as an opening to grow their respective space industries.[xxii]

Nevertheless, significant absences form the signing of the Accords threaten the framework’s legitimacy to define international law on extraterrestrial mining. Russia and China, two of the world’s leading space powers behind the U.S. have not signed the Artemis Accords. Russia has already labeled the Artemis Program as being too “US-centric.”[xxiii] China’s absence is partially explained by the U.S.’ statutory prohibition on NASA’s ability to coordinate any joint scientific activity with the country.[xxiv] Germany, France and India, countries with well-developed space programs, are also notably absent for the Accords. Time will tell how these absentees will react to the Artemis Accords’ interpretation of national appropriation as it relates to extraterrestrial mining. With disagreement likely, the Artemis Accords’ interpretation is unlikely to become the universal standard in the near future.

#### Resolves the Sino-Russia coop advantage and preserves US dominance – functionally surrenders the space race which de-escalates conflict.

WHITTINGTON 21 “The new race to the moon: the Artemis Alliance vs. the Sino-Russian Axis” 3/28/21 MARK WHITTINGTON <https://thehill.com/opinion/technology/545280-the-new-race-to-the-moon-the-artemis-alliance-vs-the-sino-russian-axis> SM

The new race to the moon: the Artemis Alliance vs. the Sino-Russian Axis

Space News recently reported that China and Russia have signed a memorandum of understanding to build what the two countries call an “International Lunar Research Station” (ILRS). The facility would conduct a number of activities either on the lunar surface or lunar orbit and would be “open to all interested countries and international partners.”

Whether deliberate or not, the two countries have formed an axis against what has come to be known as the Artemis Alliance being formed by NASA with a number of countries and commercial partners. In effect, China and Russia have challenged the United States and the rest of the world to a new race to the moon.

With the Biden administration having endorsed the Trump-era Artemis program, it looks like two credible, rival return-to-the-moon programs are now ongoing. Since one of those programs is run by two authoritarian nations and the other is led by NASA and consists of what many would consider the civilized world, the very definition of a race to the moon has developed, without fanfare, without brave speeches throwing down gauntlets.

Is this a good thing or a bad thing?

On the positive side, nothing like competition with a hostile power or two focuses the mind and ensures that the Artemis program remains on track and on a sensible schedule. The Apollo program succeeded because the winner of the race to the moon would have bragging rights for being the more technologically adept superpower.

On the negative side, what happens to determine which side “wins” the modern space race? During the Apollo-era, the answer was easy. President John F. Kennedy declared the goal of sending a man to the moon and returning him safely to the Earth before the end of the 1960s. In July 1969, the mission was accomplished. Indeed, the Apollo program had enough momentum for six more manned lunar missions before the United States stopped going to the moon and turned to other priorities.

What must happen for the winner to be declared in the new moon race? Who is first to return to the moon is not as important as what happens next.

The south pole of the moon is replete with water ice in shadowed craters, Water can be used to help sustain a lunar base. Water can be refined into rocket propellent, making the moon a refueling stop for spacecraft headed to other destinations in the solar system, such as Mars.

The moon also has a number of other resources ranging from rare earths, to platinum-group metals, to industrial metals such as titanium, iron and aluminum. Helium-3, an isotope embedded in lunar soil, could serve as fuel for future fusion power plants.

In short, the side that first exploits lunar resources effectively will be the side that creates a space-based industrial revolution enabled by lunar resources. Either the Sino-Russian Axis or the Artemis Alliance will own the future.

A few years ago, according to Space.com, Ian Crawford, a professor of planetary science and astrobiology at Birkbeck College in the UK, suggested that an economic case could be made for prospecting and mining lunar resources as a way to enable a near-Earth industrial infrastructure. He was skeptical about helium-3, which he regarded as a kind of “fossil fuel.” However, he concluded that in aggregate, the variety of resources on the moon could be exploited in an economical manner.

The other question is, who can own space resources? The Outer Space Treaty prohibits any assertion of sovereignty on the moon or any other celestial body. However, Congress passed a law a few years ago called the U.S. Space Launch Competitiveness Act that asserts that American citizens who mine space resources, including on the moon, own those resources. The fact that the United States owns the moon rocks that the Apollo astronauts gathered is seen as a precedent. On the other hand, some suggest that since the act can be seen as an assertion of sovereignty, it violates the spirit of the Outer Space Treaty. The governments of China and Russia might be expected to support the latter view.

In order to avoid conflict over resources on the moon or anywhere else in space, some kind of agreement, perhaps based on the Artemis Accords, needs to be struck between the Artemis Alliance and the Sino-Russian Axis. The first side to exploit a deposit of minerals should own it. Otherwise, we might expect the possibility that the Third World War might start on the moon with catastrophic consequences.

#### Artemis Accords establish Lunar Governance which stops resource conflicts.

Elvis et al 21 Elvis, Martin, Alanna Krolikowski, and Tony Milligan. "Concentrated lunar resources: imminent implications for governance and justice." Philosophical Transactions of the Royal Society A 379.2188 (2021): 20190563. //Elmer

3. Disputes over ‘potentially harmful interference’ If conflicts over lunar resources arise in the coming decade, as seems probable, they will incentivize searches for creative interpretations of the only applicable treaty with broad international recognition, the 1967 Outer Space Treaty (OST) [47]. More specifically, they may invite creative interpretations of Article II’s explicit statement that ‘Outer space, including the Moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means’. While the letter and the spirit of the Treaty prohibit formal appropriation, some of its provisions may in fact enable unexpected forms of de facto appropriation. In particular, Article IX introduces the principle of parties’ ‘due regard’ for the activities of other parties. The Treaty also states that, if a party’s activity could cause ‘potentially harmful interference with activities of other States’, parties can enter in consultations to address the matter. These concepts have enduring relevance. A statement of principles for the Artemis Accords, an architecture of bilateral agreements for lunar cooperation proposed by the United States in 2020, reaffirms commitment to Article IX and emphasizes a duty for parties to coordinate with and notify each in order to prevent interference [48]. These provisions in view, we recognize that parties could invoke their research activities to seek the exclusion from nearby areas of others whose activities present interference risks. At minimum, where significant resources are at stake, it seems likely that disputes over expectations and the practical meaning of ‘due regard’ will arise and require resolution. No mechanism for resolving such disputes currently exists. We argue here that our previous work on the Peaks of Eternal Light [3], identifying the likelihood of competition for this limited resource, is not a special case. Disputes over entitlements to access and entitlements to exclude, in order to prevent ‘potentially harmful interference,’ will apply in many cases, independent of the local resources or the lack thereof. But they are especially likely to occur at, or near to, the strategically valuable locations where lunar resources happen to be concentrated.

#### Military escalation from Lunar Conflicts – draw-in now due to Military interests.

David 21 Leonard David 12-6-2021 "Military interest in the moon is ramping up" <https://www.space.com/military-interest-moon-cislunar-space> (Leonard David is an award-winning space journalist who has been reporting on space activities for more than 50 years. Currently writing as Space.com's Space Insider Columnist among his other projects, Leonard has authored numerous books on space exploration, Mars missions and more, with his latest being "Moon Rush: The New Space Race" published in 2019 by National Geographic.)//Elmer

There is growing interest in protecting strategic assets in cislunar space, the realm between Earth and the moon. The U.S. Space Force is not the only entity engaged in reflecting on the topic of how best to extend military presence far from Earth. Other nations such as China are doing so as well. Parallel to air, land and sea skirmishes between nations here on Earth, is cislunar space, and perhaps the moon itself, an emerging military "high ground" and new territory for conflict? There’s a variance of views, according to experts Space.com talked to. Cislunar primer Earlier this year, the Air Force Research Laboratory distributed "A Primer on Cislunar Space," a document targeted at military space professionals who will answer the call to develop plans, capabilities, expertise and operational concepts for the region. "Cislunar space has recently become prominent in the space community and warrants attention," the document explains. As the U.S. Space Force "organizes, trains, and equips to provide the resources necessary to protect and defend vital U.S. interests in and beyond Earth orbit," the primer also underscores that new collaborations will be key to "operating safely and securely on these distant frontiers." Visionary wish list In the interim, the Defense Sciences Office at the U.S. Defense Advanced Research Projects Agency (DARPA) has blueprinted a wish list of new research to enable the fabrication of future space structures — including the use of lunar resources to enable those structures. Some of that research will be performed by the Novel Orbital and Moon Manufacturing, Materials and Mass-efficient Design program, or NOM4D. NOM4D aims to develop new materials, manufacturing, and design technologies to enable future structures to be built in Earth orbit or on the moon's surface. For instance, large solar arrays, large radio frequency reflector antennas and segmented infrared reflective optics are visualized. Building a precision structure while minimizing the required mass fraction brought from Earth will enable a spectrum of Department of Defense systems to be built using lunar-derived materials, DARPA officials say. "For the purposes of understanding the hypothetical use case, proposers may consider fabrication of structures on orbit or on the lunar surface for relaunch back into orbit as long as the proposed system is consistent with the Outer Space Treaty," NOM4D documentation explains. Contract negotiations are currently underway, with the selection of NOM4D winners soon to be announced, DARPA has advised Space.com. Military moon Advertisement The U.S. military has eyed the moon before. As far back as 1959, when NASA was still picking its first astronauts, the U.S. Army was concocting plans for a moon base, under the title of Project Horizon, explained Robert Godwin, a space historian and owner of Apogee Books, a Canadian publishing house that examines a variety of space history topics. Some details of the U.S. military's past interest in the moon remain classified to this day, Godwin said. In particular, there were looks at a nuclear bomb detonation in orbit around the moon that would empower "the weapon" — an X-ray laser that would take out enemy satellites and spacecraft, he told Space.com. That was then. But valuable U.S. assets on the moon, such as planned commercial ventures there, will make "the military presence to ensure their safety," Godwin said, "almost inevitable." "Back in 1959, the U.S. military was fretting over whether they could get supplies of toilet paper up there," he added. Looking back, he said those working on Project Horizon were coming out of World War II, practiced in moving hundreds of thousands of tons of heavy equipment around the world. "The fact they were going to have to make that equipment 'go up' instead of 'sideways' seemed to be secondary to their thinking," Godwin said. To that end, things have progressed. For example, scientists now believe that there's a lot of water on the moon. "But at the end of the day, you still go skin the cat. The way to do that could be more affordable now," Godwin said.

#### Space war goes nuclear.

Johnson-Freese 17 Joan Johnson-Freese, Professor and chair of space science and technology @ Naval War College, 17, Space Warfare in the 21st Century, Routledge, ISBN 978131552917, p 18-20.

Space warfare runs two untenable risks: the creation of destructive debris and escalation to terrestrial, even nuclear, warfare. Kinetic warfare in space creates debris traveling at a speed of more than 17,000 miles per hour, which then in itself becomes a destructive weapon if it hits another object—even potentially triggering the so-called Kessler Syndrome,86 exaggerated for dramatic effect in the movie Gravity. Ironically, both China and the United States learned the negative lessons of debris creation the hard way. In 1985, the United States tested a miniature homing vehicle (MHV) ASAT launched from an F-15 aircraft. The MHV intercepted and destroyed a defunct US satellite at an altitude of approximately 250 miles. It took almost 17 years for the debris resulting from that test to be fully eliminated by conflagration re-entering the Earth’s atmosphere or being consumed by frictional forces, though no fragment had any adverse consequences to another satellite—in particular, no collisions. China irresponsibly tested a direct-ascent ASAT in 2007, destroying one if its defunct satellites. That test was at an altitude almost twice that of the 1985 US test. The debris created by the impact added 25 percent to the debris total in low Earth orbit87 and will dissipate through the low Earth orbit, heavily populated with satellites, for decades, perhaps centuries, to come. Perhaps most ironically, because of superior US debris-tracking capabilities, the United States—even though not required to do so—has on more than one occasion warned China that it needed to maneuver one of its satellites to avoid a collision with debris China itself had likely created.88 In 2013, a piece of Chinese space junk from the 2007 ASAT test collided with a Russian laser ranging nanosatellite called BLITS, creating still more debris.89 The broader point is that all nations have a compelling common interest in avoiding the massive increase in space debris that would be created by a substantial ASAT conflict. Gen. Hyten has said that not creating debris is “the one limiting factor” to space war. “Whatever you do,” he warns, “don’t create debris.”90 While that might appear an obvious “limiting factor,” preparing to fight its way through a debris cloud had been a Pentagon consideration in the past. Now, however, sustaining the space environment has been incorporated into Pentagon space goals. Beyond debris creation, MacDonald points out that as China becomes more militarily capable in space and there is more symmetry between the countries, other risks are created – specifically, escalation. That is, the United States could threaten to attack not just Chinese space assets, but also ground-based assets, including ASAT command-and-control centers and other military capabilities. But such actions, which would involve attacking Chinese soil and likely causing substantial direct casualties, would politically weigh much heavier than the U.S. loss of space hardware, and thus might climb the escalatory ladder to a more damaging war that both sides would probably want to avoid.91 MacDonald isn’t alone in concerns about escalation. Secure World Foundation analyst Victoria Samson has also voiced apprehension regarding US rhetoric that does not distinguish between actions against unclassified and classified US satellites, stating that “things can escalate pretty quickly should we come into a time of hostility.”92 Theresa Hitchens explained the most frightening, but not implausible, risk of space war escalation in a 2012 Time magazine interview. Say you have a crisis between two nuclear-armed, space-faring countries, Nation A and Nation B, which have a long-standing border dispute. Nation A, with its satellite capability, sees that Nation B is mobilizing troops and opening up military depots in a region where things are very tense already, on the tipping point. Nation A thinks: “That’s it, they’re going to attack.” So it might decide to pre-emptively strike the communications satellite used by Nation B to slow down its ability to move toward the border and give itself time to fortify. Say this happens and Nation B has no use of satellites for 12 hours, the time it takes it to get another satellite into position. What does Nation B do? It’s blind, it’s deaf, it’s thinking all this time that it’s about to be overwhelmed by an invasion or even nuked. This is possibly a real crisis escalation situation; something similar has been played out in U.S. Air Force war games, a scenario-planning exercise practiced by the U.S. military. The first game involving anti-satellite weapons stopped in five minutes because it went nuclear – bam. Nation B nuked Nation A. This is not a far-out, “The sky’s falling in!” concern, it is something that has been played out over and over again in the gaming of these things, and I have real fears about it.93 While escalation to a nuclear exchange may seem unthinkable, in war games conducted by the military, nuclear weapons are treated as just another warfighting weapon. Morgan also voiced concerns about escalation generally and nuclear escalation specifically in the 2010 RAND report, stating: The adversary would also likely be deterred from damaging U.S. satellite early-warning system (SEWS) assets to avoid risking inadvertent escalation to the nuclear threshold, but that firebreak would almost certainly collapse with the conclusion that such escalation is inevitable and that it is in the adversary’s interest to launch a preemptive nuclear strike.94

### 2

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

#### It competes.

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

Chinese commercial satellite has been spotting meteors and aurora

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

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

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

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

#### Here’s the cards – we’ll insert re-h/l – they also h/l-ed some of these lines in the aff

#### 1AC Patel

* As a result, there are now 78 commercial space companies operating in China, according to a 2019 report by the Institute for Defense Analyses. More than half have been founded since 2014, and the vast majority focus on satellite manufacturing and launch services.
* 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, Hisea-1, featuring three-meter resolution. Spacety wants to launch a constellation of these satellites to offer high-quality imaging at low cost.
* But there were a few achievements the rest of the world might not have noticed. One was the November 7 launch of Ceres-1, a new type of rocket that, at just 62 feet in height, is capable of taking 770 pounds of payload into low Earth orbit. The launch sent the Tianqi 11 communications satellite into space.
* What are the market needs that Hines is referring to? Satellites, and rockets that can launch them into orbit. The space industry is undergoing a renaissance thanks to two big trends spurred by the commercial industry: we can make satellites for less money by making them smaller and using off-the-shelf hardware; and we can also make rockets for less money, by using less costly materials or reusing boosters after they’ve already flown (which SpaceX pioneered with its Falcon 9). These trends mean it is now cheaper to send stuff into space, and the services and data that satellites can offer have come down in price accordingly.

#### 1AC Curcio

* 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.

#### We’ll read ev.

Thornburg 18 [(Matthew, associate editor at the Michigan Journal of International Law) “Are the Non-appropriation Principle and the Current Regulatory Regime Governing Geostationary Orbit Equitable for All of Earth’s States?,” November 30, 2018 http://www.mjilonline.org/are-the-non-appropriation-principle-and-the-current-regulatory-regime-governing-geostationary-orbit-equitable-for-all-of-earths-states/] TDI

As the law currently stands, geostationary orbit – a constant orbital position above Earth’s equator – is governed by the OST and is therefore subject to the treaty’s attendant ban on national appropriation. Spaces, or slots, in geostationary orbit[2] are desired because they are exceedingly convenient for communicating with earth. They are highly limited and as a consequence, highly valuable. Moreover, these spaces are allotted on a first-come-first-served basis[3] making them virtually unattainable by less scientifically and economically advanced states[4], or those that are just plain late to the game. The ban on national appropriation is enumerated in the Second Article of the OST, which states: “Outer space, including the moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by other means.”[5] The geostationary orbital position is generally agreed upon by experts[6] as part of “outer space” and consequently, forbidden from appropriation. The OST is clear in prohibiting claims of sovereignty, but the subsequent clauses leave much to interpretation when considering what other acts constitute “national appropriation.” In other words, the question surrounding geostationary orbital slots is “whether the continued exclusive occupation by a geostationary satellite of the same physical area is a violation of the ban on national appropriation”[7] by use, occupation, or other means. In his article, Major Legal Issues Arising from the Use of the Geostationary Orbit, Stephen Gorove says that, “it is not clear that a satellite in geostationary orbit would be able to maintain its exact position and occupy the same area over a period of time…” so as to “appropriate” and thus violate Article II of the OST. The analysis should not turn on whether the satellites in geostationary orbit maintain their exact position. Instead, it is the continual use of the orbital slot that should be examined in light of the OST prohibition. The average lifespan of a geostationary satellite is 15-20 years,[8] effectively shutting out any other state’s use of that slot for at least that long. A time frame of this nature seems to be the exact type of “use or occupation” the treaty seeks to foreclose because of the consequent unequal access to the use of space, and the consequent potential to cement the economic interests of certain nations and firms. Compounding this concern is the fact that operators of the geostationary satellites need only refile with the International Telecommunications Union (“ITU”) to “renew” a slot and replace old satellites with new ones.[9] Essentially, such operators keep the orbital slot indefinitely. In light of the OST – a treaty dominated by goals of fair and equitable use and access to space – endless use of these valuable slots should rise to the level of national appropriation by means of use, occupation, or other means.

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

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

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

B. Spatial Properties

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

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

C. Spectral Properties

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

IV. DISCUSSIONS AND CONCLUSION

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

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

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

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

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

#### SDGs solve extinction

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

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

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

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

Will global warming cause extinction?

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

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

What species will go extinct if global warming continues?

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

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

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

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

## 3

#### 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.

#### 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.s

## Case

### Advantage

#### T/L They've read maybe two cards that talk about China's private industry -- every single other piece of 1AC evidence either is about the public or vaguely gestures at the private sector alongside the public

#### Chinese entities are unprofitable, pale in comparison to the U.S. and have ZERO experience —Sequoia in green

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The rivalry between the US and China, whose space program has surged over the last two decades, is what most people mean when they refer to the 21st-century's space race. China is set to build a new space station later this year and will likely attempt to send its taikonauts to the moon before the decade ends. But these big-picture projects represent just one aspect of the country’s space ambitions. Increasingly, the focus is now on the commercial space industry as well. The nation's growing private space business is less focused on bringing prestige and glory to the nation and more concerned with reducing the cost of spaceflight, increasing its international influence—and making money. “The state is really great at large, ambitious projects like going to the moon or developing a large reconnaissance satellite,” says Lincoln Hines, a Cornell University researcher who focuses on Chinese foreign policy. “But it’s not responsive to meeting market needs”—one big way to encourage rapid technological growth and innovation. “I think the government thinks its commercial space sector can be complementary to the state,” he says. What are the market needs that Hines is referring to? Satellites, and rockets that can launch them into orbit. The space industry is undergoing a renaissance thanks to two big trends spurred by the commercial industry: we can make satellites for less money by making them smaller and using off-the-shelf hardware; and we can also make rockets for less money, by using less costly materials or reusing boosters after they’ve already flown (which SpaceX pioneered with its Falcon 9). These trends mean it is now cheaper to send stuff into space, and the services and data that satellites can offer have come down in price accordingly. China has seen an opportunity. A [2017 report by Bank of America Merrill Lynch](https://www.cnbc.com/2017/10/31/the-space-industry-will-be-worth-nearly-3-trillion-in-30-years-bank-of-america-predicts.html) estimates that the space industry could be worth up to $2.7 trillion by 2030. Setting foot on the moon and establishing a lunar colony might be a statement of national power, but securing a share of such a highly lucrative business is perhaps even more important to the country’s future. “In the future, there will be tens of thousands of satellites waiting to launch, which is a major opportunity for Galactic Energy” says Wu Yue, a company spokesperson. The problem is, China has to make up decades’ worth of ground lost to the West. How did China get here—and why? 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. 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.

**\*\*1AC EVIDENCE STOPS\*\***

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. 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. Other challenges None of these new companies are yet profitable, and it will be quite some time before they are. “There isn’t any sign of indication that this industry will flop,” says Hines. “But many experts do think a lot of these companies will go out of business.” Apart from the challenge of attracting customers outside China, many companies are still trying to figure out who exactly their customers ought to be. American companies like SpaceX and Blue Origin had billionaire founders ready to burn cash to take on large risks, push past big failures, and finally get off the ground. And while a Chinese billionaire entered the industry last year, “there is no Chinese Elon Musk to push these riskier ventures forward,” says Hines. It’s also unclear whether Chinese companies, even those supported by wealthy backers, will have that appetite for risk. Zheng says one thing Spacety has offered is exceptional transparency with clients for whom it is developing satellites—something that’s still uncommon for Chinese firms. “Many of them have no kind of spaceflight experience,” he says. “They want to see and learn what goes on, but the large companies won’t allow for that. We’re different.” Lastly, China needs to figure out a legal framework that can guide the commercial industry in more explicit terms, and specify what’s allowed and what is not. It is the only major space power without a specialized space law. (The American version is Title 51 of the United States Code.) While the hope is that free enterprise can generate innovation, national governments are still liable for whatever space activities a country’s private companies conduct. There’s a need to license and approve these missions, ensuring that governments know what they’ve signed up for. Despite all this, China’s space industry is rolling forward. These new startups haven’t just adopted American business practices—they’ve also begun to embrace American startup culture as a way to foster business relationships and grow. During my video call with Spacety’s Zheng, the company’s Beijing CEO, Yang Feng, briefly dropped in to say hello, on his way back from a party where he’d been schmoozing and enjoying drinks with many peers and partners in the industry. “It’s part of the way we do business now,” Zheng said. “Innovation is not just new technology itself—it’s also a new way of doing things.”

#### Curcio is literally about how the Chinese government has historically had to develop on it’s own Sequoia reads blue

Curcio 8/24 [(Blaine, an Affiliate Senior Consultant for Euroconsult, based in Hong Kong. Since joining Euroconsult in 2018, he has contributed to a wide range of consulting missions and research reports, primarily covering the satcom sector globally, and broader space industry in China.) “Developments in China's Commercial Space Sector” The National Bureau of Asian Research, 8/24/2021. https://www.nbr.org/publication/developments-in-chinas-commercial-space-sector/] BC

There has been discussion that China and Russia might partner to develop a lunar space station. How is this affecting China-Russia space cooperation as well as China’s 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.

#### Chinese space will be dominated by government enterprises — they're far more established making private corporations unprofitable and limits them to a niche role instead of broad capabilities

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"Tapping into China’s Space Program," China Briefing News, https://www.china-briefing.com/news/tapping-into-chinas-space-program/] mk

China’s space program From the launch of China’s space program in the mid-1950s to becoming a complete space power with autonomous access to outer space and to deep-space exploration, China has been very persistent in pursuing a “space dream”, as said by Chinese President Xi Jinping in 2013. Especially in recent years, China’s space industry has produced remarkable achievements. In 2019, China became the first country to send an uncrewed rover to the far side of the Moon. In 2020, China successfully put into orbit its final Beidou satellite in June, sent an unmanned probe to Mars in July, launched an uncrewed mission called Chang’e-5 with the aim of collecting lunar material in November, and successfully landed the Chang’e-5 probe on the moon’s surface in December. In 2021, China accelerated its Tiangong Space Station program, with the successful launch of the Tianhe core module in April, the Tianzhou-2 cargo craft in May, the Shenzhou-12 manned spaceship in June, and another planned Tianzhou-3 mission in September. A more detailed timeline of China’s space station construction can be found below. China's space station program In the long-term, China has set the following goals for its space program: Improve China’s standing in the world of space science Establish a crewed space station Crewed missions to the Moon Establish a crewed lunar base Robotic mission to Mars Exploit Earth-Moon space for industrial development The two state-owned enterprises behind China’s space program China’s space activity has been overwhelmingly dominated by two state-owned enterprises: China Aerospace Science & Industry Corporation Limited (CASIC) and China Aerospace Science and Technology Corporation (CASC). CASIC and CASC provide the technology and devices required by the state space and military programs, such as launch vehicles, satellites, manned spaceships, cargo spaceships, deep space explorers, space station, nuclear missiles, conventional ground-to-ground missiles, and air and missile defense equipment. The two state-owned corporations have decades of experience, secured state funding, thousands of personnel, dozens of labs and subsidiaries, and an established suite of high-tech products and services. In the years ahead, the Chinese state-owned space titans will continue to lead the country’s space program, while private commercial space companies are likely to serve as “supplements” to China’s broader space activities. Participation of private commercial players The past decade has witnessed an explosive growth in the number of China’s commercial space companies. By November 2020, China was home to over 160 commercial space companies. More than half of them were founded since 2014 – a year after Xi Jinping took over as the new leader of China and the government decided to treat civil space development as a key area of innovation. The private space enterprises boast a range of offerings from satellite manufacturing and rocket launch. FutureAerospace, a state-funded industry think tank, reports that investment in Chinese commercial space firms totaled RMB 3.57 billion (US$550 million) in 2018, and will exceed RMB 30.6 billion (US$4.7 billion) by 2025. The upsurge is fueled by rising demand for launching satellites. In the next decade, China envisions massive constellations of commercial satellites that can offer services ranging from high-speed internet for aircraft to tracking coal shipments. To boost the commercial space industry, China uses government contracts and subsidies to give these companies a foot up. However, state-owned commercial space companies like Expace and China Rocket can have easier access to government funding and Chinese financing. Private commercial space companies either receive government support or seek venture capital. A 2019 report by the Institute for Defense Analyses estimates that VC funding for Chinese space companies reached US$516 million in 2018, although the amount was far shy of the US$2.2 billion American companies raised. Unlike American companies, such as SpaceX and Blue Origin, whose billionaire founders are ready to take on large expensive risks, Chinese companies who are late starters have to consider whether they can be supported by deep-pocked and risk-prone investors. Some private companies like LandSpace and MinoSpace have managed to accrue foreign investment, which could make it easier for them to compete on a global scale, in terms of taking on overseas clients, launching from other countries, and attracting international talents. However, to maintain investor confidence will not be easy. At present, none of the new commercial space companies are profitable. These companies’ launch success rates have been erratic. And they have shown no sign of explosive innovation – the current offerings consist almost solely for small, solid-fuel, single-use rockets. Thus, China’s private commercial space sector is not yet positioned to upend the state-dominated or global space ecosystems any time soon, though eventually new entrants may carve out niche areas for themselves in the domestic market.

#### China's distinct environment guarantee’s private failure independently they're funded by the govt which guarantees circumvention and contracts are given to the public not the private

Waidelich 21 [Brian Waidelich, Brian Waidelich is a Research Analyst with the China and Indo-Pacific Security Affairs Division at CNA, 3-13-2021, "China’s commercial space sector shoots for the stars," East Asia Forum, https://www.eastasiaforum.org/2021/03/13/chinas-commercial-space-sector-shoots-for-the-stars/] mk

Despite the hype surrounding Chinese space startups, the prospects for a Chinese SpaceX are not so optimistic. China’s space startups are hardly commercial, compared to countries like the United States where commercial space ventures are meaningfully supported by private capital. Some of China’s commercial space companies are directly state-owned, such as Expace and China Rocket. Other nominally private companies have received substantial investment from provincial and local governments. The lack of private capital at risk diminishes these companies’ motivation to innovate or lower costs. ‘Private’ Chinese space startups also find themselves facing two massive state-owned enterprises (SOEs) that dominate both the domestic industry and Chinese financing. The state-owned Expace received over one billion RMB (US$154 million) in series A financing, while nominally private Chinese companies like iSpace received around 100 million RMB (US$15 million). This apparent favouritism aligns with Chinese President Xi Jinping’s stated objective of making SOEs ‘stronger, better, and bigger’. Legislative gaps create further uncertainties for the activities of China’s commercial space companies. China still has no comprehensive space law, despite incorporating the need for one in the National People’s Congress’s legislation plan in 2013. New regulations on commercial launches in 2019 were a step forward, but many ambiguities remain. It is still unclear, for example, whether companies can build their own launch sites, or if they must use one of the four military-controlled sites. The launch record of China’s commercial space companies has also been rocky. Two of the three ‘private’ companies to conduct orbital launches — OneSpace and LandSpace — have failed in their sole attempts. Several other companies have fared better, but all three of their most recent launches — two by Expace in July and September 2020, and one by iSpace in February 2021 — ended in failure. These challenges suggest that China’s commercial space industry cannot yet rival its US and European counterparts. Chinese commercial launch companies have shown no signs of explosive innovation; indeed, their current offerings consist almost solely of small, solid-fuel, single-use rockets. Nor have these companies offered prices to challenge global leaders — Expace has announced launches of its Kuaizhou rockets at US$10,000/kg of payload, which will be eventually lowered to US$5000/kg, but this doesn’t even come close to SpaceX’s advertised prices — about US$2720/kg for the Falcon 9, and US$1410/kg for the Falcon Heavy. In the years ahead, breakthroughs in Chinese space technologies will almost certainly come from traditional state-owned contractors, not nominally private firms. CASC and the China Aerospace Science and Industry Corporation have decades of experience, secure state funding, thousands of personnel, dozens of labs and subsidiaries, and an established suite of high-tech products and services. These contractors’ best products and services will be primarily offered to Chinese military and government organisations, rather than private or international clients. The addition of ‘private’ commercial space companies provides China’s traditional contractors with some token competition, and eventually new entrants may carve out niche areas for themselves in the domestic market. But Chinese commercial space firms will not lead China’s space program — indeed, these companies describe themselves as ‘supplements’ to China’s broader space activities. They are not positioned to disrupt the domestic or global space ecosystems with low-cost, innovative offerings any time soon.

#### The Private cannot exist independently under domestic law ZEROs solvency

Nie 12-24 (Mingyan Nie, JD; Nanjing University of Aeronautics and Astronautics Department of Law; 12-24-2021; "The Growth of China’s Non-governmental Space Sector in the Context of Government Support for Public-Private Partnerships: An Assessment of Major Legal Challenges";S*pace Policy* (2021) https://doi.org/10.1016/j.spacepol.2021.101461., accessed 1-14-2022; JPark)

* PPPs = public-private partnerships
* Strict and opaque governmental regulation basically makes it impossible for private entities to act independently and are subsumed by the state
* Laws are deliberately unclear to maximize state control – e.g., classifying launch vehicles as weapons

In light of China’s recent policies and other measures, it is evident that decision-makers in the space industry intend to privatize space activities to meet urgent market demands and social goals, including promoting PPPs.19 However, the **military dominates the Chinese space industry**, and the government **controls nearly all civil** space **activities**, while state-owned companies conduct programs related to space exploration. These dynamics have led to an unclear administration of space activities that has created an unstable environment for the growth of private enterprises. In addition, the reality of military-dominated space activities has engendered **harsh regulations** for **all non-governmental affairs** related to space exploration. 3.1. Complex administration of space activities and the non-governmental participation The role of the military and the government in the space field has resulted in a complicated framework for governing space activities in China. SASTIND, which was established under the Ministry of Industry and Information Technology of the PRC (MIIT), is the main administrative body under the State Council tasked with coordinating and managing the country’s space activities20. The impact of China’s military on space activities is extremely relevant. The role of the Equipment Development Department (EDD), which belongs to the People’s Republic of China Central Military Commission,21 is also notable. The EDD is qualified to conduct space projects directly. For instance, the human spaceflight program and the launching infrastructure, including launching sites and the hub of China’s telemetry, tracking, and control network, are mainly operated by the EDD. Furthermore, the EDD collaborates with SASTIND to establish regulations, monitor their implementation, allocate research funds, and determine the qualification of private entities to enter the space industry [[17], p.13]. This **complicated** and **opaque organizational structure** is **detrimental** to the participation of private actors in space-related activities in China. Space facilities, including launching sites, are controlled by the military that does not distinguish the nature of space activities. Thus, private enterprises with a sole focus on developing commercial space activities will have to fulfill the same high-level military requirements as the government. Additionally, the co-existence of more than one administrative body with similar supervision functions impedes non-governmental enterprises’ involvement in space activities [[31], pp. 4–5]. 3.2. Strict supervision of non-governmental entry into the space field: focusing on launch activities and satellite development In contrast to the United States, which promotes private entities to comprehensively participate in numerous space areas through PPPs [5], existing Chinese PPP policies related to space activities stress the domains of space science research, the launching of commercial satellites, the manufacture and operation of satellites, space infrastructure construction, and so on.22 The newly defined scope of the new type of infrastructure in China contains satellite internet, which motivates the creation of PPPs in space programs, and demands the growth of private participants to succeed in doing so. The fields of most relevance to this are launching activities and satellite development (including micro-satellite). Furthermore, emerging non-governmental space corporations are mainly interested in developing their launching and satellite manufacturing capacities (including micro-satellites) [32]. This is consistent with the policy requirements and constitutes a good starting point for conducting space PPPs and will, in turn, contribute to the growth of the commercial space industry. However, the administration of the rules of these areas is unfavorable for the non-governmental sector. Concerning launch activities, in June 2019, SASTIND and EDD announced the ‘Notice on Promoting the Orderly Development of Commercial Launch Vehicles’ (2019 Notice) [33]. Commercial launch activities are divided into phases of research and development, manufacturing, and launching. For non-governmental entities that intend to get involved in any of these phases, authorization is required. However, conditions and other requirements for obtaining such permissions are unfavorable. For example, launch vehicles are identified as a weapon. Given that SASTIND provides authorization for the research, development, and manufacture of weapons, any related technology must comply with the ‘Regulation on the Administration of Licenses for Scientific Research and Production of Weapons and Equipment’23 and the ‘Measures for the Implementation of the License for Scientific Research and Production of Weapons and Equipment’.24 Furthermore, the 2019 Notice states that every applicant must receive support from the provincial government where its enterprise is registered. The involved provincial government must inform SASTIND by issuing a letter to express their support and elaborate supervision measures to ensure that relevant enterprises have conducted the authorized space activities in compliance with confidentiality, safety, security, and quality standards. Thus, before conducting authorized operations, a notification to SASTIND and the EDD is required. The requirements stipulated in the 2019 Notice are unfavorable to private entities starting space activities for many reasons. First, the 2019 Notice refers the notification process to the EDD. However, no further details are available on this procedure. Moreover, the specific functions of the EDD in this process are not explained. Second, the relevant provincial government’s letter is a prerequisite for applying to receive authorization. Also, the provincial government’s supervision measures are the primary basis for conducting permitted activities. However, how the applicants obtain the provincial government’s approval letter is unclear. Third, whether the supervision measures elaborated by the relevant provincial government are only applicable to the specific applicant or equally applicable to similar subsequent applicants is not addressed [[31], pp. 5–6]. In the context of conducting PPPs, provincial governments can act as the ‘public’ party, so if no specifics are clarified, it is **difficult** to ensure a **fair** **legal environment** for establishing PPPs in space, which may breed corruption. The launching phase is also strictly administrated. This phase mandates that the application of launching permits should generally be consistent with the ‘Interim Measures on the Administration of Permits for Civil Space Launch Project’, which was released in2002.25 However, an extra review process by the EDD has been added as the pre-condition for approving the permit. Furthermore, any launching activity should be carried out on officially authorized launching sites or testing grounds, administrated and controlled by the military department, and the rules thereof should be observed. When referring to the development of satellites, no regulations have been adopted thus far. Non-governmental enterprises that intend to invest in this field have to meet the requirements of national security safeguards. Accordingly, licenses are necessary. Since the government and military have historically been responsible for the research and manufacture of satellites, no specific rules applicable to the private sector can be found in this field. In 2008, the Aerospace Dongfanghong Development Ltd., Shenzhen (ADD Ltd.), a state-owned corporation, was established.26 This corporation focuses on micro-satellite development. It is the first Chinese company that received authorization to research and develop micro-satellites [35]. Before initiating micro-satellite development programs, this corporation established the ‘certified weapon and equipment quality management system’. Therefore, the corporation was qualified ‘as a weapon and equipment bearer’ and obtained permission to conduct weapon and equipment research and product and met the requirements of acting as a so-called ‘national secondary class confidential qualified corporation’.27 As a result, the ADD Ltd. example offers valuable insights into non-governmental entities that want to get involved in satellite development, especially micro-satellites, as part of the recent interest in building satellite-based interest as a new type of infrastructure. However, these conditions or qualifications are inconsistent with the fundamental policies of facilitating private growth in space-related activities. Specific rules must be formulated to remove or simplify the excessive obstacles that impede private participation in satellite development, including the development of micro-satellites and the implementation of relevant policies. Concerning the procedural requirements for satellites manufacturing, non-governmental enterprises have to get approval from the NDRC. These firms must submit application documents, including the files issued by the provincial development and reform commission, the application report, and the confidential agreement to begin work [36]. Similar to the launch permit application, these application requirements set forth by the NDRC allow for the provincial departments to determine the details of the process, creating an unstable legal environment for potential applicants. In brief, the inevitable growth of the private sector in space is the main reason for creating PPPs in space exploration. Yet, the **current dominant role of the military** in China’s space industry results in a **complex administrative framework** and **strict requirements** for those non-governmental entities willing to undertake space activities. This constrains the development of the private space sector that remains in an underdeveloped stage to date. In addition, ambiguous rules concerning the power of the relevant provincial departments in authorizing launching activities and satellite development make creating and effective implementation of space PPPs more difficult. However, given the growing importance of the private sector in the implementation of the PPP policies regarding space, the existing rules and regulations should be improved.

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

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

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

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

### Defense

#### Aff cards are prescriptive not descriptive – disease i/l relies the US doing a bunch of random thigs like econ dev + military – WTO withdrawal and covid reponse proves

#### No Taiwan invasion – military, political, and economic costs outweigh.

Michael A. Cohen, MA, 21 [Fellow @ The Century Foundation, Adjunct Lecturer in School of International and Public Affairs @ Columbia], "No, Neocons, China Is Not About to Invade Taiwan," New Republic, 11-19-2021 <https://newrepublic.com/article/164485/why-china-will-not-invade-taiwan> C.VC

Earlier this month, the Defense Department released its annual report to Congress on “Military and Security Developments Involving the People’s Republic of China.” While the report lays out the ways in which China’s “People’s Liberation Army” is seeking to modernize its forces, the threat to Taiwan of armed invasion is still minimal at best:

Large-scale amphibious invasion is one of the most complicated and difficult military operations, requiring air and maritime superiority, the rapid buildup and sustainment of supplies onshore, and uninterrupted support. An attempt to invade Taiwan would likely strain PRC’s armed forces and invite international intervention. These stresses, combined with the PRC’s combat force attrition and the complexity of urban warfare and counterinsurgency, even assuming a successful landing and breakout, make an amphibious invasion of Taiwan a significant political and military risk.

One might expect that a country intent on launching the largest and most difficult amphibious invasion in history would be making intense preparations. That’s not happening.

As the Pentagon report notes, Chinese naval investments have focused on building up the capacity to launch “regional and eventually global expeditionary missions rather than the large number of landing ship transports and medium landing craft that would be necessary for a large-scale direct beach assault.” The Pentagon also finds that while China is focusing on conducting joint operations that involve forces from the army, navy, and air force, as of present it currently lacks such capabilities.

That the Chinese military enjoys vast military superiority vis-à-vis Taiwan is not in doubt. But that such resources can be used to mount an amphibious assault is something else altogether. The Chinese military last fought a war in 1979 against Vietnam, and the PLA was badly bloodied. That means that the soldiers and officers who make up China’s military today have virtually no direct combat experience.

China’s own media outlets have, according to the Pentagon, noted the PLA’s shortcomings, which include that “commanders cannot (1) judge situations; (2) understand higher authorities’ intentions; (3) make operational decisions; (4) deploy forces; and, (5) manage unexpected situations.” These problems would be challenging enough in a conventional conflict. For a complex invasion of Taiwan, they would render such efforts virtually impossible.

One big reason is that Taiwan is about as inhospitable an environment as can be imagined for an amphibious invasion. Ian Easton, a defense expert who has written extensively about Taiwan defense strategy, wrote earlier this year that the country’s “coastal terrain … is a defender’s dream come true. Taiwan has only 14 small invasion beaches, and they are bordered by cliffs and urban jungles.” Easton also notes that “many of Taiwan’s outer islands bristle with missiles, rockets, and artillery guns. Their granite hills have been honeycombed with tunnels and bunker systems.”

A Chinese invasion of Taiwan would look more like the World War II Marine assaults on the rough and unforgiving terrain of Pacific islands than it would D-Day (which was no walk in the park, either) but against an exponentially more competent and technologically advanced military. Even if somehow China were successful in invading Taiwan and occupying the island, it would then find itself in the position of having to pacify and potentially rebuild an advanced nation of 23 million people (two million of whom are members of the nation’s military reserves).

Putting aside the virtually insurmountable military obstacles, there’s the larger issue of how the U.S. and other nations in the region would respond (in recent weeks, Japanese leaders have made clear their determination to help Taiwan in the wake of Chinese invasion). The U.S. could play a decisive role, even without boots on the ground in Taiwan. For example, American naval and air forces could wreak havoc on Chinese supply lines.

As Rachel Esplin Odell and Eric Heginbotham wrote recently in Foreign Affairs (in response to Skylar Mastro): “To seize control of the island, China would need to keep its fleet off Taiwan’s coast for weeks, creating easy targets for antiship cruise missiles launched from Taiwan or from U.S. bombers, fighter aircraft, and submarines.”

Ultimately, no one knows what the U.S. would do in response to a Chinese attack. In recent months, President Biden has twice publicly stated that the U.S. will defend Taiwan, which rhetorically goes so beyond the long-held policy of “strategic ambiguity” that the White House has been forced to walk back his comments. But even if Biden got too far out on his skis, his misstatements create even further confusion for China about U.S. intentions.

Those who are argue that China could invade Taiwan are assuming that Beijing would willingly initiate a conflict that could lead, potentially, to the involvement of the world’s strongest military, backed by thousands of nuclear weapons. Such assumptions throw the entire notion of deterrence on its head.

Lastly, there are the political and financial costs. If China were to attack Taiwan, it would require the mobilization of millions of its citizens and billions, or even trillions, in spending simply to prepare for war. Success would bring with it an even larger price tag for rebuilding Taiwan and integrating the island into China. Anything other than complete military success and acquiescence by the international community would reap an ill wind for Chinese leaders. Economic isolation; interruption of trade ties that have been essential to China’s economic growth over the past two decades; and a generation, if not more, of mistrust and hostility from the U.S., China’s Asian neighbors, and likely the international community would almost certainly be the result.

A Chinese invasion of Taiwan that was anything but a success would likely leave the nation politically isolated, economically damaged, and reputationally crippled. And ironically, a failed attack could lead to a Taiwanese declaration of independence—one that China would be incapable of stopping. All that, at a time when the Chinese economy is facing a collection of economic headwinds—from an energy crunch and a growing real estate crisis to slowing economic growth.

#### Sino-Russian Alliance collapses inevitably due to Lack of Will.

Rome 21 [Nathaniel Rome (the associate editor for technology and security at the Georgetown Security Studies Review). "A Chinese-Russian Moon Base? Not So Fast." Foreign Policy. October 17, 2021. Accessed 1/22/2022. <https://foreignpolicy.com/2021/10/17/moon-base-china-russia-lunar-space-nasa/> //Xu]

In June, China and Russia unveiled a road map for a plan for a joint moon base dubbed the International Lunar Research Station, the latest example of burgeoning Sino-Russian cooperation and a direct challenge to the United States’ own plan for a moon base. “More than six decades ago, brave men began their exploration of the moon.” the Chinese-Russian announcement video said. “This time we come with greater courage, stronger determination, and more ambitious goals.” The plan is stunning in its ambition—a multidecade, multilateral effort consisting of 14 missions and culminating in a potential manned base—making it the largest cooperative project between China and Russia in space. This effort follows a trend of increased Sino-Russian cooperation in economic, military, and diplomatic spheres. To Americans, it is a challenge: The two primary U.S. adversaries are collaborating on a high-tech endeavor in an attempt to outmatch NASA’s lunar base plans—part of the Artemis program—and wrest leadership in space exploration away from the United States. The Sino-Russian lunar base and the Artemis program both aim to recruit a global coalition of states to construct a lunar research base on the moon’s south pole. Beyond science and exploration, these efforts are about national prestige, spurring new technologies and industry, experimenting with resource extraction, and setting the groundwork for other missions to the moon and to Mars. There has been minimal response from governments around the world, and no country has yet taken up China and Russia on their invitation to participate in the lunar research station. Governments considering a response—such as European countries that are reportedly “discussing the proposal”—are presumably occupied with the same question: Will this plan succeed, or is it hot air from propagandists in Beijing and Moscow? A detailed look at the plan reveals that it faces numerous significant hurdles judging from the checkered history of Sino-Russian space cooperation, the daunting technical barriers the plan faces, and the delicate political balance that must continue for the project to succeed. The proposed lunar base would be the most significant Sino-Russian cooperative venture in space—by a considerable margin. Previous cooperation between the two powers has yielded mixed success. In 1957, the Soviet Union and China signed the New Defense Technical Accord, whereby Moscow provided Beijing with nuclear and missile-related capabilities. Chinese scientists, directed by Mao Zedong, began researching satellites and expected Russian assistance. In 1958, the CIA speculated that substantial Russian assistance could allow China to launch a satellite by 1959 or 1960. However, when Chinese scientists visited Moscow a few months later, they were given the cold shoulder: They were not allowed to view satellite designs or launch sites and were advised to give up on satellites. By 1960, Soviet advisors left China due to the deepening political fissure between the two leading communist states, ending hopes for space cooperation. Over the succeeding decades, the Soviet Union’s focus was squarely on competition with the United States while China advanced its own indigenous space program. The next period of cooperation was in the mid-1990s, when Russia sold space technology—including designs for the Soyuz capsule—which accelerated China’s development of a manned space program. In 2007, China and Russia signed an agreement for “joint Chinese-Russian exploration of Mars,” culminating in a 2011 launch of a Mars orbiter and landing craft. However, the Russian rocket malfunctioned, causing Russian and Chinese spacecraft to come crashing back down to Earth, an embarrassing conclusion to both countries’ first attempt to reach the red planet. Building and maintaining a lunar base would require massive financial investment, the development of new technologies, and substantial advances in rocket technology by both China and Russia. There is no public budget for the project, but it would surely require tens of billions of dollars. For comparison, NASA estimates that the Artemis program will cost $86 billion by 2025. Russia’s space program is severely cash-strapped and has seen it’s budget fall 18 percent since 2014, with deeper cuts planned over the next three years. Funding difficulties have undermined Russian space priorities such as their flagship post-Soviet rocket, the Angara, which is already 16 years behind schedule. China’s space program is better resourced—second only to the United States’ among national initiatives—and would probably finance most of the joint project, as Russian commentators have gleefully noted. But Beijing may prefer to finance other ongoing initiatives such as the Tiangong space station and its own high-profile Mars and lunar missions; similarly, Russia may allocate its limited resources toward a planned multibillion-dollar space station. The lunar station plan would require both countries to develop new advanced modules. Extrapolating from the proposed diagram and Chinese academic writing on the subject, the project would require the development of space nuclear power, tunneling rovers, swarms of small autonomous robots, long-range communications systems, moon-based telescopes, resource extraction capabilities, and—if it is to support humans—a whole host of habitation technologies. These are ambitious capabilities for two countries that have only ever landed rovers on the moon. This plan would also require China and Russia to successfully field new heavy-lift rockets in the early 2030s. China plans to use the Long March 9, which has been under development since 2011. China aims to have the system ready by 2030, leaving little margin for delays. A bigger issue is Russia’s heavy-lift rocket. The project’s road map depicts a Russian Angara-class rocket that appears to be around 300 feet tall. No such rocket exists. In fact, the rocket seems to be a recycled and rescaled diagram of a long-discarded Angara rocket configuration. This suggests that either a new heavy-lift rocket will be constructed within the struggling Angara program or the diagram is a misleading placeholder for another developmental rocket. Neither scenario inspires confidence. In any joint project, the most important determinant of success is the political will of both parties, which could be undermined in three main ways. The first is the domestic political situation in each country: Will other priorities take precedent over a joint lunar base and prompt either party to miss timelines or suspend participation, particularly since both countries will probably experience leadership changes over the decadeslong project? The second consideration is the power dynamic between Beijing and Moscow, and how it evolves over the project’s duration of more than 20 years. It is no secret that Beijing is the senior party in project, has a better resourced space program, and is advancing at a faster rate. China had been discussing this lunar base since 2016 before inviting Russia to participate. Will China tolerate Russian partnership if Moscow’s tasks are persistently delayed? In an ominous start, Russia’s first contribution, the Luna-25 mission, has encountered “problems” and has been delayed seven months. On the flip side, will Russia—with its proud history of space exploration—tolerate playing second fiddle to the Chinese upstarts? The third variable is whether both Russia and China will continue to view the United States as their primary geopolitical competitor in the coming decades. Mutual opposition to perceived U.S. space dominance has been the primary driver of cooperation between Moscow and Beijing. Forecasting power dynamics between great powers over a 20-year timeframe is an incredibly difficult—perhaps futile—effort, but one cannot simply assume stasis. China and Russia are quick to promote their ambitious joint lunar project to the world, saying it will “benefit all mankind.” But the plan faces substantial, though not insurmountable, challenges, judging from the lackluster history of Sino-Russian space cooperation, financial and technical barriers, and the delicate political balance that the project requires. Other governments eyeing the Sino-Russian moon base as a competitive alternative to the Artemis program would do well to look again at the proposal’s viability and practical value.

#### No disease extinction

Owen Cotton-Barratt 17, et al, PhD in Pure Mathematics, Oxford, Lecturer in Mathematics at Oxford, Research Associate at the Future of Humanity Institute, 2/3/2017, Existential Risk: Diplomacy and Governance, https://www.fhi.ox.ac.uk/wp-content/uploads/Existential-Risks-2017-01-23.pdf

For most of human history, natural pandemics have posed the greatest risk of mass global fatalities.37 However, there are some reasons to believe that natural pandemics are very unlikely to cause human extinction. Analysis of the International Union for Conservation of Nature (IUCN) red list database has shown that of the 833 recorded plant and animal species extinctions known to have occurred since 1500, less than 4% (31 species) were ascribed to infectious disease.38 None of the mammals and amphibians on this list were globally dispersed, and other factors aside from infectious disease also contributed to their extinction. It therefore seems that our own species, which is very numerous, globally dispersed, and capable of a rational response to problems, is very unlikely to be killed off by a natural pandemic.

One underlying explanation for this is that highly lethal pathogens can kill their hosts before they have a chance to spread, so there is a selective pressure for pathogens not to be highly lethal. Therefore, pathogens are likely to co-evolve with their hosts rather than kill all possible hosts.39

#### No heg impact

* empirics and political psychology prove US posture is unrelated to great power peace
* other factors aren’t accounted for in their analysis

Fettweis 17 [Christopher Fettweis, associate professor of political science at Tulane University. Unipolarity, Hegemony, and the New Peace. May 8, 2017. http://www.tandfonline.com/doi/pdf/10.1080/09636412.2017.1306394?needAccess=true]

After three years in the White House, Ronald Reagan had learned something surprising: “Many people at the top of the Soviet hierarchy were genuinely afraid of America and Americans,” he wrote in his autobiography. He continued: “Perhaps this shouldn’t have surprised me, but it did … I’d always felt that from our deeds it must be clear to anyone that Americans were a moral people who starting at the birth of our nation had always used our power only as a force for good in the world…. During my first years in Washington, I think many of us took it for granted that the Russians, like ourselves, considered it unthinkable that the United States would launch a first strike against them.” 100 Reagan is certainly not alone in believing in the essential benevolent image of his nation. While it is common for actors to attribute negative motivations to the behavior of others, it is exceedingly difficult for them to accept that anyone could interpret their actions in negative ways. Leaders are well aware of their own motives and tend to assume that their peaceful intentions are obvious and transparent.

Both strains of the hegemonic-stability explanation assume not only that US power is benevolent, but that others perceive it that way. Hegemonic stability depends on the perceptions of other states to be successful; it has no hope to succeed if it encounters resistance from the less powerful members of the system, or even if they simply refuse to follow the rules. Relatively small police forces require the general cooperation of large communities to have any chance of establishing order. They must perceive the sheriff as just, rational, and essentially nonthreatening. The lack of balancing behavior in the system, which has been puzzling to many realists, seems to support the notion of widespread perceptions of benevolent hegemony.101 Were they threatened by the order constructed by the United States, the argument goes, smaller states would react in ways that reflected their fears. Since internal and external balancing accompanied previous attempts to achieve hegemony, the absence of such behavior today suggests that something is different about the US version.

Hegemonic-stability theorists purport to understand the perceptions of others, at times better than those others understand themselves. Complain as they may at times, other countries know that the United States is acting in the common interest. Objections to unipolarity, though widespread, are not “very seriously intended,” wrote Kagan, since “the truth about America’s dominant role in the world is known to most observers. And the truth is that the benevolent hegemony exercised by the United States is good for a vast portion of the world’s population.” 102 In the 1990s, Russian protests regarding NATO expansion—though nearly universal—were not taken seriously, since US planners believed the alliance’s benevolent intentions were apparent to all. Sagacious Russians understood that expansion would actually be beneficial, since it would bring stability to their western border.103 President Clinton and Secretary of State Warren Christopher were caught off guard by the hostility of their counterparts regarding the issue at a summit in Budapest in December 1994.104 Despite warnings from the vast majority of academic and policy experts about the likely Russian reaction and overall wisdom of expansion itself, the administration failed to anticipate Moscow’s position.105 The Russians did not seem to believe American assurances that expansion would actually be good for them. The United States overestimated the degree to which others saw it as benevolent.

Once again, the culture of the United States might make its leaders more vulnerable to this misperception. The need for positive self-regard appears to be particularly strong in North American societies compared to elsewhere.106 Western egos tend to be gratified through self-promotion rather than humility, and independence rather than interdependence. Americans are more likely to feel good if they are unique rather than a good cog in society’s wheel, and uniquely good. The need to be perceived as benevolent, though universal, may well exert stronger encouragement for US observers to project their perceptions onto others.

The United States almost certainly frightens others more than its leaders perceive. A quarter of the 68,000 respondents to a 2013 Gallup poll in sixty-five countries identified the United States as the “greatest threat to world peace,” which was more than three times the total for the second-place country (Pakistan).107 The international community always has to worry about the potential for police brutality, even if it occurs rarely. Such ungratefulness tends to come as a surprise to US leaders. In 2003, Condoleezza Rice was dismayed to discover resistance to US initiatives in Iraq: “There were times,” she said later, “that it appeared that American power was seen to be more dangerous than, perhaps, Saddam Hussein.” 108 Both liberals and neoconservatives probably exaggerate the extent to which US hegemony is everywhere secretly welcomed; it is not just petulant resentment, but understandable disagreement with US policies, that motivates counterhegemonic beliefs and behavior.

To review, assuming for a moment that US leaders are subject to the same forces that affect every human being, they overestimate the amount of control they have over other actors, and are not as important to decisions made elsewhere as they believe themselves to be. And they probably perceive their own benevolence to be much greater than do others. These common phenomena all influence US beliefs in the same direction, and may well increase the apparent explanatory power of hegemony beyond what the facts would otherwise support. The United States is probably not as central to the New Peace as either liberals or neoconservatives believe.

In the end, what can be said about the relationship between US power and international stability? Probably not much that will satisfy partisans, and the pacifying virtue of US hegemony will remain largely an article of faith in some circles in the policy world. Like most beliefs, it will remain immune to alteration by logic and evidence. Beliefs rarely change, so debates rarely end.

For those not yet fully converted, however, perhaps it will be significant that corroborating evidence for the relationship is extremely hard to identify. If indeed hegemonic stability exists, it does so without leaving much of a trace. Neither Washington’s spending, nor its interventions, nor its overall grand strategy seem to matter much to the levels of armed conflict around the world (apart from those wars that Uncle Sam starts). The empirical record does not contain strong reasons to believe that unipolarity and the New Peace are related, and insights from political psychology suggest that hegemonic stability is a belief particularly susceptible to misperception. US leaders probably exaggerate the degree to which their power matters, and could retrench without much risk to themselves or the world around them. Researchers will need to look elsewhere to explain why the world has entered into the most peaceful period in its history.

The good news from this is that the New Peace will probably persist for quite some time, no matter how dominant the United States is, or what policies President Trump follows, or how much resentment its actions cause in the periphery. The people of the twenty-first century are likely to be much safer and more secure than any of their predecessors, even if many of them do not always believe it.

#### Decline has popularized restraint – a bipartisan coalition formed to avoid the failures of liberal hegemony

Ashford 21 Emma Ashford is a Senior Fellow at the New American Engagement Initiative at the Atlantic Council’s Scowcroft Center for Strategy and Security, September/October 2021, "Strategies of Restraint," Foreign Affairs, <https://www.foreignaffairs.com/articles/united-states/2021-08-24/strategies-restraint> mvp

For nearly three decades after the end of the Cold War, U.S. foreign policy was characterized by a bipartisan consensus: that as the world’s “indispensable nation” and with no competitor, the United States had little choice but to pursue a transformational agenda on the world stage. Over the last few years, however, that consensus has collapsed. A growing chorus of voices are advocating a strategy of restraint—a less activist approach that focuses on diplomatic and economic engagement over military intervention. And they have found a receptive audience. In that, they have undoubtedly been helped by circumstance: the United States’ failed “war on terror,” the rise of China, and growing partisan polarization at home have all made it clear that U.S. foreign policy cannot simply remain on autopilot. Even those who continue to argue for an interventionist approach to the world typically acknowledge that their strategy must be shorn of its worst excesses. Where restraint was once excluded from the halls of power and confined largely to academic journals, now some of its positions have become official policy. Although President Donald Trump’s record was defined by dysfunction more than any coherent strategy, he did wind down the war in Afghanistan, raise doubts about the value of U.S. alliances in Europe and Asia, and question the wisdom of military intervention and democracy promotion. President Joe Biden, for his part, has begun withdrawing U.S. troops from Afghanistan, has initiated a review of the United States’ global military posture, and has taken steps to stabilize the U.S.-Russian relationship. In 2019, Jake Sullivan, now Biden’s national security adviser, wrote, “The U.S. must get better at seeing both the possibilities and the limits of American power.” That this sentiment is now openly embraced at the highest levels of government is nothing short of a win for those who have long called for a more restrained U.S. foreign policy. Yet victory also raises a question: Where do restrainers go from here? With Washington having dialed down the war on terrorism, the most politically popular of their demands has been achieved. Now, they are liable to face an uphill battle over the rest of U.S. foreign policy, such as how to treat allies or what to do about China—issues that have little public salience or on which the restrainers are divided. Although often bundled together by Washington’s foreign policy elites and derided as isolationists, the members of the restraint community include a diversity of voices, running the gamut from left-wing antiwar activists to hard-nosed conservative realists. It should not be surprising that they disagree on much. If the restraint camp focuses on what divides them rather than what unites them, then it will find itself consumed with internecine battles and excluded from decision-making at the very moment its influence could be at its height. But there is a viable consensus, a path forward for restraint that can achieve the most important goals, alienate the fewest members of the coalition, and win new converts. This more pragmatic strategy, which would entail the gradual lessening of U.S. military commitments, would not achieve the most ambitious of the restrainers’ goals. But it has the best chance of moving U.S. foreign policy in a more secure and more popular direction. A DEBATE REBORN The idea that the United States is uniquely qualified to reshape the world has manifested itself in different ways in the 30 years since the collapse of the Soviet Union marked the end of a bipolar world. Humanitarian intervention, democracy promotion, and counterterrorism—all were attempts to mold the world according to American preferences. Yet the unipolar moment has largely failed to live up to expectations. Today, democracy is in decline, there are more state-level conflicts than at any time since 1990, the war on terrorism has largely failed, and China’s rise has given the lie to the notion that the United States can prevent the emergence of peer competitors. Washington’s foreign policy community now appears to accept the need for a course correction, although it remains divided on the specifics. Today, opinion is increasingly coalescing around three distinct views. The first of these is a modified form of liberal internationalism, the school of thought that believes that U.S. leadership is a stabilizing force in the world, emphasizes militarized deterrence, and has faith in a liberal, rules-based international order. Proponents of this approach often frame threats from China and Russia as threats to this order rather than as threats to concrete U.S. security interests. Yet the strain of this view dominant today is also, at least in theory, a softer, reformed version of the post–Cold War consensus, one that takes into account critiques of recent U.S. foreign policy and rejects parts of the war on terrorism. Because they are more aware of the limits of American power than their predecessors, advocates of this view are best described as liberal internationalists, rather than liberal interventionists. The scholars Mira Rapp-Hooper and Rebecca Lissner—both of whom now serve on the National Security Council—belong to this camp. As they wrote in these pages in 2019, “Rather than wasting its still considerable power on quixotic bids to restore the liberal order or remake the world in its own image, the United States should focus on what it can realistically achieve.” Restrainers have not offered a coherent alternative to today’s foreign policy. Another alternative has percolated out of the synthesis of the Republican foreign policy establishment and the Trump administration: a form of belligerent unilateralism that prioritizes maintaining U.S. military primacy. This “America first” approach to the world is also a clear successor to the old consensus, but one that privileges power over diplomacy and U.S. interests over a liberal order. Like their liberal internationalist counterparts, the America firsters—both Trump administration alumni and more mainstream Republican foreign policy hands—have absorbed the notion that U.S. foreign policy has become unpopular, particularly among the GOP base. They have therefore shifted from democracy promotion and nation building toward a militarized global presence more akin to classic imperial policing. They also reject some of the core liberal components of the old consensus, spurning diplomacy and arms control, fetishizing sovereignty, and preferring American solutions to global problems over multilateral solutions. For them, the liberal order is a mirage. As Nadia Schadlow, a veteran of the Trump White House, wrote in these pages in 2020, “Washington must let go of old illusions, move past the myths of liberal internationalism, and reconsider its views about the nature of the world order.” Both approaches to the world are still problematic. A rebooted liberal internationalism may succeed at rehabilitating the United States’ image, but it is unlikely to advance democracy or build a unified liberal order through nonmilitary means when military ones have failed. And as the global balance of power shifts, liberal internationalism simultaneously overestimates the contributions that U.S. allies can make to collective defense and underestimates the differences they have with Washington. The “America first” approach, for its part, may yield short-term dividends—Trump, after all, was able to force U.S. allies to abide by sanctions on Iran and renegotiate the North American Free Trade Agreement—but it has diminishing returns. The more the United States uses coercive tools against other countries, the more they will look for ways to blunt those tools. And both approaches lean heavily on a forward U.S. military presence in ways that could all too easily trigger an unplanned conflict, particularly in Asia. The remaining alternative, restraint, comes from outside the Washington policymaking world and is largely focused on these flaws. It is far more ideologically diverse than the other two, but most restrainers agree on several core principles. They share a conviction that the United States is a remarkably secure nation, that unlike many great powers in history, it faces no real threat of invasion, thanks to geography and nuclear weapons. They argue that U.S. foreign policy has been characterized in recent years by overreach and hubris, with predictably abysmal results. And they think U.S. foreign policy is overmilitarized, with policymakers spending too much on defense and too quickly resorting to force. Most important, advocates of restraint strike directly at the notion of the United States as the indispensable nation, considering it instead as but one among many global powers. RESTRAINT’S MOMENT The most common slap at restrainers is that they focus too much on criticism without offering plausible policy alternatives. That is not an entirely accurate evaluation; individual proponents of restraint have offered detailed prescriptions for everything from the war in Afghanistan to U.S.-Russian relations. But it is true that restrainers have often focused on what draws them together—namely, their shared criticisms of the status quo—rather than what would pull them apart: the question of which specific policies to implement instead. As restraint enters the mainstream conversation, the distinctions within this group are coming to the surface. Restraint contains several different overlapping ideas. The first (and best defined) of these is an academic theory of grand strategy formulated by the political scientist Barry Posen in his 2014 book, Restraint. His version of restraint envisages a much smaller military based primarily within the United States. Other restrainers—such as the international relations theorists John Mearsheimer and Stephen Walt—advocate a grand strategy of offshore balancing, a distinct but related approach that also calls for downsizing the United States’ global military role. (The distinction between the two is one of degree: Posen backs an entirely offshore military presence, whereas Mearsheimer and Walt admit that the United States may occasionally need to intervene to keep a hostile state from dominating a key region.) As grand strategies, both leave many granular policy details unstated, but they present internally coherent and fully formulated approaches to the world. There is also a looser definition of “restraint.” Increasingly, the term is Washington shorthand for any proposal for a less militarized and activist foreign policy. That includes those put forth not just by academic realists but also by progressive Democrats and conservative Republicans in Congress, as well as various antiwar groups (such as Code Pink and the Friends Committee on National Legislation) and newer entrants into the antiwar space (such as the veterans’ group Common Defense). Thus, the term “restraint” is now used as often to signify this broader political movement as it is to describe a grand strategy. Any movement that includes Mearsheimer and Code Pink is by necessity a big tent, and indeed, there are many motivations for restraint. For some, it might be a moral consideration: many libertarians believe that war grows the state, and anti-imperialists want to rein in what they see as an overbearing military-industrial complex. For others, the motivation is financial: although conservative deficit hawks are far less vocal on defense than on other issues, they exist, and many progressives and even some mainstream Democrats view cuts to military spending as an easy way to free up resources for infrastructure or social programs. For others in the restraint community, it is personal: some of the recent activism around ending the war on terrorism has been driven by veterans who are concerned about what the conflict has done to their fellow soldiers and to American society writ large. Then there are the strategists, for whom the pursuit of restraint is largely about avoiding the failures and risks of the current approach. There are even those who might be called “restraint-curious,” people who are open to a more restrained foreign policy on specific issues but reject the broader notion. The result is a coalition that—much like its opposition—is broad and bipartisan, a partnership of the left and the right in which the two sides don’t agree with each other on much else. Consider the congressional activism around ending U.S. support for the Saudi-led war in Yemen, a movement that was spearheaded by two liberals, Senator Bernie Sanders of Vermont and Senator Chris Murphy, a Democrat from Connecticut, and two Republicans, Senators Rand Paul of Kentucky and Mike Lee of Utah. Or consider the strange bedfellows made by the war in Afghanistan. In the House of Representatives, advocates of withdrawal included Alexandria Ocasio-Cortez of New York, the standard-bearer of the Democratic Party’s left wing, and Matt Gaetz of Florida, a Republican devotee of Trump. The transpartisan nature of the coalition pushing for restraint is one of its core strengths.

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

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

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

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

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

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