

ICC CP

1NC

1NC – Ban Use

[Country] should request an advisory opinion with binding force from the International Criminal Court over whether the use of lethal autonomous weapons constitutes a “crime of aggression”.

The International Criminal Court should convene and, if a dispute is present, issue a binding advisory opinion that the use of lethal autonomous weapons constitutes a “crime of aggression.”

The counterplan uses the ICC instead of a new treaty---that solves better AND broadens the definition of “crime of aggression”

Lucas Dayton **Bradley 13**. JD, UGA, “Regulating Weaponized Nanotechnology: How the International Criminal Court Offers a Way Forward,” *Georgia Journal of International & Comparative Law*, 2013, <https://digitalcommons.law.uga.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1053&context=gjicl>

Because of the current state of regulation, it will be necessary to articulate and implement structures for regulating nanotechnology as a weapon and not just as a new research technology. Current weapons regulations are at best inadequate and contain too many contradictions and ambiguities to function effectively. The International Criminal Court (ICC), while imperfect, is currently the best solution for such regulation. The ICC already exists and would not require the adoption of a new set of international treaties. Its charter seeks to prevent acts of large-scale destruction and crimes against humanity. This large-scale frame of reference is appropriate because one of the more serious effects of weaponized biotech could be biological warfare.¹²⁵ Additionally, the ICC can target both elected state actors and private actors within states for their crimes.

A. The International Criminal Court

The ICC is an international body designed to punish “serious crimes of concern to the international community.”¹²⁶ The Court was established in response to the African and Yugoslavian atrocities in the 1990s, after international consensus that a permanent body was necessary.¹²⁷ The signers of the Rome Statute, which established the Court, believed that it should be an independent court based on an international treaty.¹²⁸ Though the crimes of the mid-1990s were the crucial catalyst for the ICC’s formation, the Nuremberg and Tokyo trials are also considered predecessors to the Court, and they addressed many of the same issues that the ICC faces today.¹²⁹

The ICC prosecutes large-scale crimes, the main causes of action being genocide, crimes against humanity, aggression, and war crimes.¹³⁰ Scholars fear weaponized nanotechnology because in several years or decades, it could cause catastrophic damage that currently only weapons of mass destruction can.¹³¹ Because these crimes could threaten broad populations,¹³² they fit within the general scope of ICC prosecutions. After prosecuting African genocides,¹³³ the ICC would likely have more gravitas and institutional capability to deal with crimes of the magnitude that weaponized nanotechnology could facilitate.

The most straightforward path by which the ICC could prosecute weaponized nanotechnology is by incorporating the technology into its definition of the crime of aggression. Article 5 of the Rome Treaty recognizes a crime of aggression as one of the four major crimes that the ICC should prosecute.¹³⁴ However, the crime is not currently under the effective jurisdiction of the ICC.¹³⁵ The Rome Treaty delayed including an official definition, opting instead to incorporate the crime later.¹³⁶ The Treaty did not establish an official definition of the crime of aggression in time to incorporate it into the established war crimes, genocide, and crimes against humanity jurisdictions that were already codified within.¹³⁷

Counterplan competes---

1] Normal means is a new treaty. Absent specification, default to normal means evidence---it's most predictable.

Bonnie Docherty 16. Senior researcher in the Arms Division of Human Rights Watch and senior clinical instructor at the Harvard Law School International Human Rights Clinic (IHRC), "Making the Case: The Dangers of Killer Robots and the Need for a Preemptive Ban," Human Rights Watch. December 9, 2016. https://www.hrw.org/report/2016/12/09/making-case/dangers-killer-robots-and-need-preemptive-ban#_ftn135

In December 2016, states parties to the **Convention on Conventional Weapons** (CCW) will **convene** in Geneva **for the treaty's Fifth Review Conference** and decide on future measures **to address "lethal autonomous weapons systems"** (LAWS), their term for these weapons. Spurred to act by the efforts of the Campaign to Stop Killer Robots, **CCW states have held three informal meetings** of experts on LAWS since 2014. At the Review Conference, states parties should agree to establish a Group of Governmental Experts. The formation of **this formal body would compel states to** move beyond talk and **create** the expectation of an **outcome**. That outcome should be **a legally binding prohibition on fully autonomous weapons**. To build support for a ban, this report responds to critics who have defended the developing technology and challenged the call for a preemptive prohibition. The report identifies 16 of the critics' key contentions and provides a detailed rebuttal of each. It draws on extensive research into the arguments on all sides. In particular, it examines academic publications, diplomatic statements, public surveys, UN reports, and international law.

2] "Ban" means a new treaty.

HRW 20. Human Rights Watch, "Stopping Killer Robots," *HRW*. August 10, 2020.

<https://www.hrw.org/report/2020/08/10/stopping-killer-robots/country-positions-banning-fully-autonomous-weapons-and>

This report shows how 97 countries have responded to this challenge and elaborated their views on lethal autonomous weapons systems since the matter was first discussed at the Human Rights Council in 2013. It surveys **where these countries** stand on **calls to ban fully autonomous weapons** and retain meaningful human control over the use of force.

Such **a legally binding instrument could come in the form of a new protocol** to the Convention on Conventional Weapons (CCW), which has discussed this concern since 2014. Or, with sufficient political leadership, **killer robots could be banned by a treaty** negotiated via a **standalone process** similar to the initiatives that successfully prohibited antipersonnel landmines in 1997 and cluster munitions in 2008.

3] The counterplan is an international body---that's not a state. The UN proves.

UN ND (The United Nations, not a state. "About UN Membership" <https://www.un.org/en/sections/member-states/about-un-membership/index.html#:~:text=The%20United%20Nations%20is%20neither,representatives%20of%20a%20new%20Government.>)
DLuo

The recognition of a new State or Government is an act that only other States and Governments may grant or withhold. It generally implies readiness to assume diplomatic relations. **The United Nations is neither a State nor a Government**, and therefore

does not possess any authority to recognize either a State or a Government. **As an organization of independent**

States, it may admit a new State to its membership or accept the credentials of the representatives of a new Government.

4] The plan prohibits the weapons---the counterplan only limits use.

HRW 20. Human Rights Watch, "Stopping Killer Robots," *HRW*. August 10, 2020. <https://www.hrw.org/report/2020/08/10/stopping-killer-robots/country-positions-banning-fully-autonomous-weapons-and>

Banning fully autonomous weapons means prohibiting weapons systems that lack meaningful human control.

Since 2013, 30 countries have called for a ban on such fully autonomous weapons: Algeria, Argentina, Austria, Bolivia, Brazil, Chile, China, Colombia, Costa Rica, Cuba, Djibouti, Ecuador, Egypt, El Salvador, Ghana, Guatemala, Holy See, Iraq, Jordan, Mexico, Morocco, Namibia, Nicaragua, Pakistan, Panama, Peru, State of Palestine, Uganda, Venezuela, and Zimbabwe.

China has called for a treaty to ban the use of lethal autonomous weapons systems, but not their

development or production, which is unsurprising given that it is also among the nations most advanced in pursuing such weapons.

Regulating new systems through the ICC is key to a view of aggression that expands what counts as territorial---status quo interpretations exclusively read it as land-based and territorial.

Lucas Dayton **Bradley 13**. JD, UGA, "Regulating Weaponized Nanotechnology: How the International Criminal Court Offers a Way Forward," *Georgia Journal of International & Comparative Law*, 2013, <https://digitalcommons.law.uga.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1053&context=gjicl>

--"Crime of Aggression" is currently understood to be a nation invading another nation

--This doesn't really encapsulate 21st century wars – LAWs, cyber, space, etc – it's not land-based but rather happens in different domains

--Regulating LAWs through an expanded view of crime of aggression is legitimizing the view that territory is not just land-based

The rest of the recommendation attempts to define the crime of aggression in more specific terms.¹⁴³ These terms seem almost universally to apply to the movement of land-based or naval-based armies against a rival state power.¹⁴⁴ The recommendations (though current) spend little time addressing or considering the implications of modern technological power and its destructive effect on the broad-based civilian structures within societies.¹⁴⁵ The Working Group's recommendations seem keyed towards re-fighting the wars of the early twentieth century—they explicitly prohibit many uses of overt land warfare while ignoring current projection of nonconventional force.¹⁴⁶

The crime of aggression's current definition omits language that could regulate nanotechnology. First, the ICC's promise is that it can potentially offer prosecutions against both official state actions and de facto state actions (or those undertaken by powerful interests within a country that still do not technically possess state power).¹⁴⁷ The current draft of the crime of aggression "distinguishes between the 'act of aggression' (what a state does) and the 'crime of aggression' (what a leader does)."¹⁴⁸ This gap addresses the difference between an actual national act of aggression against another state and the planning, initiation, and execution of such an act by the country's political leadership.¹⁴⁹ This gap in prosecutorial authority could severely hinder any number of decentralized crimes. Ophardt addresses the potential jurisdictional gap in terms of cyber warfare, but the gap applies equally to nanotechnology governance. Fundamentally, the current ICC theories on

aggression rely on **“traditional concepts of territorial integrity”**¹⁵⁰ While this current definition might be insufficient, the regulation of aggression might prove more useful than initially imagined.

An expanded view of territoriality is key to justifying self-defense zones in space.

Michael B. **Cerny et al. 20**. MPhil Candidate at the University of Oxford, with Raphael J. Piliero, David W. Bernstein, Brandon W. Kelley, “Countering Co-Orbital ASATs: Warning Zones in GEO as a Lawful Trigger for Self-Defense,” *The Nonproliferation Policy Education Center*, May 2020, http://npolicy.org/article_file/Countering_Co-Orbital_ASATs-_Warning_Zones_in_GEO_as_a_Lawful_Trigger_for_Self-Defense_.pdf

***SDZs = Self-Defense Zones

The conclusion of the Permanent Court of Justice in the Lotus case further complicates the ability for states to claim some competence or special jurisdiction in SDZs. As described by Z. Papp—

...international law does not prohibit a state from exercising (prescriptive) jurisdiction in its own territory in respect of any case which relates to acts that have taken place abroad. According to the findings of the Court, the states' corresponding discretion is solely limited by prohibitive rules of international law. As regards exercising enforcement powers, it cannot be exercised by a state outside its territory except by virtue of a permissive rule derived from international custom or from a convention.¹²¹

Consequently, for a state to lawfully create an SDZ, it would need to establish that the zone itself was not prohibited by international law, and that the zone was enforceable outside the state's territory due to some permissive rule.

However, Article II of the OST prohibits a state from establishing these conclusions. This brings us to the third qualification to the ‘non-appropriation’ principle in Article II that national appropriation is prohibited “by any other means.”¹²² Despite the fact that states only exercise special jurisdiction in ADIZs over the high seas, Cuadra writes the “competence claimed here, however, is one of limited sovereignty in airspace over waters beyond the territorial seas, for the specific purpose of ‘national security.’”¹²³ Demonstrating that these principles would constitute national appropriation according to Article II of the OST, the exercise of “limited sovereignty” through an SDZ would certainly constitute national appropriation, because such a claim would be tied to a specific purpose or competence, such as national security, that is explicitly prohibited under the “any other means” qualification in Article II of the OST. Furthermore, without some special purpose or claim of limited sovereignty, states could not invoke the right to self-defense. For example, Blau and Gore propose that the penetration of an established zone in space would constitute a threat, but Schwetjke offers no evidence to suggest that this would constitute some permission allowing or circumventing the issue of appropriation.¹²⁴

Space stalking threats are emerging---only self-defense zones can solve.

Chow '17 - independent policy analyst with over 25 years as a senior physical scientist specializing in space and national security. He holds a PhD in physics from Case Western Reserve University and an MBA with distinction and PhD in finance from the University of Michigan

Brian G Chow, “Stalkers in Space: Defeating the Threat,” *Strategic Studies Quarterly* 11, no. 2 (Summer 2017): 82-116, https://www.airuniversity.af.edu/Portals/10/SSQ/documents/Volume-11_Issue-2/Chow.pdf.

A Neglected Focus

The most worrisome threat from space **stalkers is their use for a surprise attack by simultaneously disabling critical satellites**. As early as 2001, the Rumsfeld Commission worried that **“the U.S. is an attractive candidate for a ‘Space Pearl Harbor,’”** and **space stalkers**

could be the instrument to turn that worry into a fateful reality.²⁴ The commission also issued a warning: “The question is whether the U.S. will be wise enough to act responsibly and soon enough to reduce its space vulnerability. Or whether, as in the past, a disabling attack against the country and its people—a ‘Space Pearl Harbor’—will be the only event able to galvanize the nation and cause the U.S. Government to act.”²⁵ The argument here aims to spur responsible US action—and soon.

Whether by design or luck, China’s ASAT developmental activities and space arms-control proposals since the 2007 test could make the United States and the international community continue to focus on countering ground-based ASAT threats and neglect emerging spacebased stalkers. For example, on 13 May 2013, China fired a ballistic missile reaching an altitude of “possibly over 20,000 miles,” whereas the geosynchronous Earth orbits (GEOs) are at 22,236 miles. In a paper requested by the U.S.-China Economic and Security Review Commission, Cray Murray, senior policy analyst at the commission, stated “available data suggests it was intended to test at least the launch vehicle component of a new high-altitude ASAT capability.”²⁶ Tests since 2007 made the United States consider the growing traditional ground-launched ASAT threats to be much more urgent than space stalkers and thus focused the US Strategic Portfolio Review,²⁷ space budget increase, and new programs on these traditional threats.

In congressional testimony on 15 March 2016, Douglas Loverro, deputy assistant secretary of defense for space policy, stated, “To deter space attack, would-be attackers need to understand or at least suspect that their attacks will likely be unsuccessful. . . . As we’ve worked through that calculus we arrive at the conclusion that of the three pathways we’ve outlined— reconstitution, defensive operations, and resilience—resilience is the best path for both understandable assurance and robust assurance. It’s also the area where we can best offset the advantages that adversaries seek to exploit with their offensive space control ambitions.”²⁸ Loverro provided no indication of how to deal with space stalkers or the level of resilience needed to deny the effectiveness of stalkers. His three pathways do not provide sufficient defense against space stalkers.

Reconstitution takes time, and the US fighting force cannot wait that long. Also, not knowing which types of critical satellites would be targeted and destroyed, the United States could not afford to fund a quick and adequate reconstitution on all critical types.

Defensive operations, whether passive or active, would require adequate warning time of the pending attack to initiate and execute actions to block the attack. If space stalkers are allowed to tailgate satellites closely, there would not be enough time to mount an effective defense.

In the same testimony, Loverro described better anti-jam and antispoof technologies, more resilient next-generation satellites, life extension of on-orbit legacy satellites, and partnerships with allied nations and commercial partners.²⁹ These resilience measures are aimed at the rapidly growing traditional space threats. Against space stalkers, these measures cannot meet his aforementioned requirement for deterrence by providing “understandable assurance and robust assurance” that “their attacks will likely be unsuccessful.”

There are two reasons that resilience is inadequate in countering the emerging space-stalking threat. First, passive defenses, such as anti-jamming and evasive maneuver, would be either irrelevant or ineffective against space stalkers even if the defenses were executed preemptively, because space stalkers could dedicate much of their on-board resources (such as fuel and propulsion) for the sole purpose of attack, including chasing down an escaping target satellite. Second, backups drawn

from partners might have lower capability and take time to resume lost services, and partners might not be able to spare the full capacity requested by the United States.

More importantly, as stated in the 2011 National Security Space Strategy, **the current strategy** for “preventing and deterring aggression against space infrastructure”—including satellites—**has been focusing on countering traditional ground-based ASAT weapons** such as direct-ascent ballistic missiles, jammers, and lasers. The strategy has five elements:

1. “Support diplomatic efforts to promote norms of responsible behavior in space.”
2. “Pursue international partnerships that encourage potential adversary restraint.”
3. “Improve our ability to attribute attacks.”
4. “Strengthen the resilience of our architectures to deny the benefits of an attack.”
5. “Retain the right to respond, should deterrence fail.”³⁰

These five elements either have not been used to deal with the emerging space stalker threat or are far from adequate to counter it.

The first two elements are important in **establishing international norms to justifiably and fairly counter space stalkers**, as these elements **are the best way to develop mutual understanding and arrive at mutually beneficial compromise**. Unfortunately, exchanges and measures developed thus far tend to focus on space activities during peacetime. As far as weapons in space and deterrence of space

war are concerned, the **diplomatic efforts** and international partnerships **have been focusing on** either **the unattainable goal of banning all weapons** in space **or** the endless debate **about** the control of traditional **Earth-based ASAT threats**, but to the neglect of the emerging space-stalker threat. While the emphasis of the third element has been on attributing traditional space attacks, it should have been stated explicitly to include the attribution of space stalkers not just after, but also before, the attack. The fourth element would provide far too little survivability to many of the critical **satellites already on orbit**, because they **cannot be retrofitted on orbit to be**

resilient or reconstituted quickly and adequately **enough to perform the same lost capability**. Finally, after space-stalking attacks begin, the response according to the fifth element would be too late to save US-critical satellites. **Retaliation would not deter Chinese space stalking, because**

destroying such critical satellites would benefit China far more than the cost of US punishment as a proportional response. China could deter US intervention without firing a terrestrial shot or even a shot from space stalkers, **as merely being too close for comfort would suffice**. This outcome may well be the ultimate goal of China’s counterspace strategy. In sum,

while current efforts to implement the National Security Space Strategy might protect satellites or their missions against traditional threats, these efforts alone cannot protect satellites against simultaneous space-stalker attacks, because these attacks do not provide adequate warning for defense.

As discussed in the previous section, a space weapons ban proposed by China and Russia cannot ban space stalkers. Can any other space proposal deal with the presence of space stalkers? Over the years, the most ambitious one that focused on peaceful and dangerous space activities was proposed by the Stimson Center. Michael Krepon and his colleagues posted the initial draft of “Model Code of Conduct for the Prevention of Incidents and Dangerous Military Practices in Outer Space” on the Stimson Center’s website in 2004. Stimson’s Code originally was intended to deal with all space activities, whether peaceful civil and military activities or dangerous military practices. The latter include ASATs and others agreed by party members as dangerous. However, this Code could not deal with space stalkers because their physical appearance and activities cannot be reliably distinguished from those of peaceful civil and military satellites.

The Stimson's Code and efforts did have a significant influence on the European Union's (EU) Space Code of Conduct. Its latest version, "Draft International Code of Conduct for Outer Space Activities," was released in 2014.³¹ It focuses on accidental collisions from space, as opposed to intentional collisions from ASATs, where space stalkers belong. Both the Stimson Center and the EU decided to focus on peaceful activities, because such a focus would be relatively far more acceptable to the major spacefaring nations as well as a more diverse group of nations. Therefore, it is unlikely the EU Space Code would now go back to including dangerous military activities or practices. Moreover, since the EU Code merely relies on public shaming, it is suitable for managing peacetime space activities but not for deterring a space war. In a crisis, China could be willing to be shamed by breaking an agreement if it could significantly degrade US space mission capability for war-fighting support or, better yet, deter US intervention in the first place without firing a shot in space or on Earth.

Similar to government officials' statements, major reports from think tanks and other research organizations focus on how to deal with the rapidly growing traditional threats, not the emerging space-stalker threat from rendezvous-and-proximity operations (RPO). In his 2010 treatise *Deterrence and First-Strike Stability in Space: A Preliminary Assessment*, Forrest Morgan did not mention China's RPOs at all. He argued generally for "a national space policy that explicitly condemns the use of force in space and declares that the United States will severely punish any attacks on its space systems and those of friendly states in ways, times, and places of its choosing."³² His punishment or retaliation could not protect the satellites being attacked and, as discussed above, the benefits of such an attack to China could far exceed the punishment China might incur. In any case and as stated earlier, punishment does not meet Loverro's requirement for deterrence: "To deter space attack, would-be attackers need to understand or at least suspect that their attacks will likely be unsuccessful."³³ Therefore, regardless whether Morgan's policy could deter traditional space attacks, it could not induce would-be attackers to believe that "their attacks will likely be unsuccessful." On the contrary, China could be convinced that once enough critical satellites are disabled, the United States could either fight with inadequate space support or simply not intervene at all. Morgan is also a key author of the U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power 1996–2017, released in 2015. The focus is again exclusively on traditional threats without any mention of RPOs.³⁴

In January 2016, the Center for a New American Security released the report *U.S. Defense Strategy for Space*, by Elbridge Colby.³⁵ He focused on traditional space threats from missiles, jammers, and lasers and did not mention RPOs, including their potential threats.

In April 2016, the National Bureau of Asian Research released a special report, which contains an article by Brian Weeden and Xiao He on US-China strategic relations in space. They did discuss RPOs and stated that, "A more promising approach is to focus on transparency and confidencebuilding measures [TCBM] for both direct ascent and RPO. TCBMs are a means by which governments can share information to help create mutual understanding and trust and reduce misperceptions and miscalculations."³⁶ They also described how space situational awareness (SSA) capability can detect and monitor close approaches.³⁷ However, while TCBMs and SSA are important, they are far from adequate to deter or protect satellites targeted by space stalkers and do not meet Loverro's requirement for deterrence cited above.

In June 2016, Rebecca Heinrichs of the Hudson Institute released a report on "Space and the Right to Self Defense," which did not mention RPOs.³⁸ The report focused on the desirability of space-based interceptors for ballistic missile defense. Also in June 2016, the Atlantic Council released a paper, *Toward a New National Security Space Strategy: Time for a Strategic Rebalancing*, by Theresa Hitchens and Joan Johnson-Freese. They asserted that "maneuverable satellites being developed in the United States and elsewhere for rendezvous-and-proximity operations (RPO) are often considered nefarious capabilities by potential adversaries, causing finger pointing in both directions."³⁹ They did not offer a prescription to deal with RPOs or any other specific threat. Similar to other reports, the Hitchens–Johnson-Freese study is a high-level report and argues for a rebalancing, which "would require a continued emphasis on strategic restraint in the very near term, as well as a continued focus on diplomacy."⁴⁰

Finally, in August 2016, the National Academies of Sciences, Engineering, and Medicine released a report titled *National Security Space Defense and Protection: Public Report*.⁴¹ It is also a high-level report and does not mention RPOs or their use for attack.

Preemptive Defense against Space Stalkers

A successful defense against space stalkers will benefit not only the United States but also other nations. Many nations rely on US satellites such as the Global Positioning System (GPS) and communications satellites for critical services. Also, **a multilateral or international agreement based on the same concept and measures to protect US satellites would protect other nations' satellites as well**, including those of China and Russia.

On 15 November 2014, Secretary of Defense Chuck Hagel announced the Defense Innovation Initiative (DII), "a broad Department-wide initiative to pursue innovative ways to sustain and advance our military superiority for the 21st Century and improve business operations throughout the Department."⁴² He said that the DII is "an initiative that we expect to develop into a game-changing third 'offset' strategy." Subsequent Secretary of Defense Ashton Carter continued to pursue this third offset strategy. Hagel's

pronouncements and Carter's actions provide the needed attention and resources to deal with the space-stalker threat, which calls for a new operational concept such as preemptive self-defense as the last resort.

Deterring and defending against space stalkers starts with two principles. First, **once a space object is in orbit, one cannot reliably distinguish an ordinary satellite from a space stalker.** Thus **space stalkers cannot be banned without banning all satellites.** This **indistinguishability explains the difficulty in verifying violations** in the joint proposal of PPWT by Russia and China for banning space weapons, which include space stalkers. **An alternative** to their proposal is that **the international community** instead **bans dangerous positioning** of space objects, which can be satellites and/or space stalkers. **Banning dangerous configurations is observable and verifiable.** Second, **routine** space **operations could bring one or even a few** space **objects close** to another nation's satellites at the same time. **These occurrences cannot be prohibited** and must be accommodated.

The above two principles are analogous to the Third United Nations Convention on the Law of the Sea (**UNCLOS** III), or simply the Law of the Sea, adopted in 1982. Unlike PPWT attempting to ban weapons in space, **UNCLOS** III **does not ban warships** or attack submarines at sea **but**, instead, **allows states to exercise control over contiguous areas.** Two concepts, if modified, can be applied to deal with space stalkers, with or without a space agreement.

First is contiguous zone, within which "the coastal State may exercise the control necessary to (a) prevent infringement of its customs, fiscal, immigration or sanitary laws and regulations within its territory or territorial sea; [and] (b) punish infringement of the above laws and regulations committed within its territory or territorial sea."⁴³

The application to space is by having a self-defense zone around a nation's satellite **and having the right to "punish infringement"** as stated above.⁴⁴ Even with the self-defense zone, the owner of the satellite would continue to comply with Article II of the 1967 Outer Space Treaty 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."⁴⁵ While the owner of the satellite does not have sovereignty over the self-defense zone, the United States can propose, according to Article IX of the 1974 Convention on Registration of Objects Launched into Outer Space, that this Convention be amended to automatically include the self-defense zone in the registration of the satellite to be launched or, retroactively, already launched into space.⁴⁶

Second, Article 17 of UNCLOS III says "ships of all States, whether coastal or land-locked, enjoy the right of innocent passage through the territorial sea."⁴⁷ Similarly **in space, satellites** of all states **enjoy the right of passage through the self-defense zones** of others, **provided it is innocent and not part of a threatening configuration** to multiple satellites.

Implementing Preemptive Self-Defense against Space Stalkers

The purpose of preemption is to prohibit the positioning of space objects to tailgate (or closely lead) **more than an innocuous threshold number of another country's satellites.** The Space Security and Defense Program already established by the DOD and the National Intelligence Office **should decide whether the threshold is three, four, five, or some other number.** **Once** the threshold is **determined**, **the United States can plan to use preemption as the last resort** against the threat of space stalkers with a number exceeding the threshold. At the same time, **the United States can plan to use traditional, postattack self-defense**

to protect satellites or their missions or to deter satellite attacks. Since preemption eliminates the far more damaging attacks that result from a larger number of space stalkers, it makes the job of post-attack self-defense feasible. Moreover, since there is no peaceful reason to tailgate so many satellites at the same time, simultaneously stalking a large number of another nation's satellites is justifiably treated as hostile intent requiring a last-resort preemption to neutralize such a threat. This is equally justified as the proper use of self-defense. The ultimate purpose of last-resort preemptive self-defense is that it does not actually have to be executed.

Therefore, the adversary knowing its space-stalking attack to be futile would not pose a space-stalking threat in the first place. In any case, declaring, during peacetime, the US right of self-defense to prevent an imminent space-stalking attack can garner international condemnation of anyone setting up such a threat during a crisis and international support of US defensive actions. This declaration could also reduce incentives for an aggressor to pose the space-stalking threat.

One could define a geosynchronous satellite as tailgating if its longitude of the ascending or descending node or orbital plane's inclination is less than 0.2 degree from that of another country's satellite already occupying that orbit. If the United States wants to deter and defend against simultaneous space-stalking attacks against GEO satellites, it could declare that any country that positions its space objects within 0.2 degree in longitude (148 km in minimum separation) or inclination of more than a threshold number of another country's satellites is the aggressor and the defender has the right to exercise self-defense even before any actual attacks begin. The threshold number could be between three and five. However, the actual threshold, as well as the minimum separation, should be first determined by the DOD and then brought to the international community by the State Department for discussion and negotiation. It is feasible to arrive at both useful and practical thresholds. For example, both the United States and China need not reposition any of their operational satellites to observe the above suggested rule of 0.2-degree minimum satellite separation between any pair of US-China GEO satellites.⁴⁸

The rapidly growing number of small (less than 500 kg) satellites forces the need to observe guidelines on their orbital placements so their deployment would not appreciably enhance the space-stalking threat but would maintain much of their civil benefits. Space expert John Bradford reported 36 successful launches of microsatellites (typically defined as 10 kg to 50 kg) and nanosatellites (1 kg to 10 kg) in 2012; 92 in 2013 and 158 in 2014.⁴⁹ In January 2015, WorldVu Satellites Ltd. said it had secured Qualcomm Inc. and Virgin Group as investors in the OneWeb satellite Internet network. The network is planned to have some 650 125-kg satellites operating at 1,200-km altitude.⁵⁰ In June 2015, SpaceX filed a proposal to test a very large fleet of 4,025 small satellites for high-speed Internet service to be launched over a period of 15 years to around 1,200-km altitude.⁵¹ Thus, thousands of small satellites will populate low Earth orbits (LEO) in the near future. The concern is that China or Russia could make space stalkers in the form of small satellites and conceal them among other small satellites. This concern should be addressed now, not after more small satellites are planned or launched. Since all these satellites aim to be cheap for predominately communications and Earth observation, they are placed in LEOs. There should be an international understanding or agreement that they will not be placed in or travel to

GEOs or medium Earth orbits (MEO). This restriction would not affect the utility of small satellites because there are few commercial reasons for them to be placed in those higher orbits.

The prohibition of positioning a space-stalking threat for simultaneous attacks can and should first be applied to GEOs as described in this article. For MEOs and elliptical Earth orbits (EEO), no country would need to change its current satellite orbits to meet the guidelines in this article to deal with the space-stalker threat, as their satellites in these orbits are already well separated from those of every other country's. As to LEO satellites, which will soon number in the thousands, closeproximity restrictions can still be established with an approach similar to that for GEOs. However, the design of the prohibition for LEOs should be discussed along with other issues including:

- how DOD's plan for disaggregating large LEO satellites for better mission survivability will work;
- how DOD's arrangements with commercial providers and other governments in using their space and other assets for backup will work;
- which types of LEO satellites DOD needs to protect against simultaneous attacks by multiple space stalkers;
- how transparent should be the function and capability of small satellites to the international community; and
- how several thousand small satellites launched into LEO can be made to avoid collisions and creating space debris.

Since GEOs host many critical satellites for space-faring nations, if the prohibition against threatening space stalkers were only enforced there, the chance of triggering a war in space that spreads to Earth could be reduced.

Goes nuclear!

Adams '18 – Former Staff Writer at Digital Trends, journalist

Dallon. "Weaponized Satellites and the Cold War in Space," Digital Trends, May 1, 2018, <https://www.digitaltrends.com/cool-tech/weaponized-satellites-and-the-cold-war-in-space/>.

High stakes

On October 27, 1962, a nuclear-armed Soviet submarine had been spotted patrolling near the U.S. blockade line around Cuba, kicking off the Cuban Missile Crisis. In an attempt to bring the submarine to the surface, a U.S. destroyer began dropping non-lethal depth charges.

The captain of the submarine mistakenly believed these charges were an attack and ordered his crew to arm the nuclear-tipped torpedo for launch. If this launch occurred, the U.S. would have presumably retaliated with a barrage of nukes launched at predetermined locations across the USSR.

Per Soviet protocols, all three of the Russian submarine's commanding officers needed to agree unanimously on the decision to launch the warhead. The second in command, Vasili Arkhipov, refused to consent to a launch. The commanding officers eventually brought the submarine to the surface and returned to Russia without incident.

In essence, one man's last-minute decision prevented what could easily have been the beginning of World War III.

This is perhaps as close the world has ever come to a doomsday scenario, and it's chilling to think a moment of indeterminacy would have meant instant annihilation for millions. But unfortunately, the potential for a grave accident due to misinterpretation is dreadfully ripe in the space-age Cold War we're currently entrenched in.

"In regards to indeterminacy of an attack: Bingo! Attribution is tremendously difficult," says Samson. "If a satellite stops working in orbit, it's not always apparent why. It could be because of faulty parts, solar flares, or deliberate interference."

Let's say, for instance, a U.S. intelligence satellite is taken out by a solar flare or fleck of debris while a Chinese or Russian satellite with suspected ASAT potential floats haphazardly nearby. The U.S. would have every reason to believe this was a possible preemptive strike to diminish U.S. GPS capacity before a larger attack. Would defense officials wait calmly with such crucial satellite assets potentially in the crosshairs? Probably not.

While there is currently tremendous potential for a military battle to begin in space, the ensuing war would extend to earth soon thereafter. This unnerving warning was echoed by General John Hyten, head of the U.S. Air Force Space Command. "If war does extend into space someday – and I hope it never does – the first response is not going to be in space," he warned.

All things considered, it could easily be argued that the risk of an existential threat on this pale blue dot has never been higher. It's incredible that a nuclear weapon hasn't been used on civilians in more than 70 years, but most military experts would agree it is a matter of when, not if.

Without meaningful legislation to prevent such a disaster, life on this planet could disappear as quickly as a blip on a radar screen, with only the artificial halo of orbiting trash left to tell the tale.

Counterplan solves better. Countries will circumvent the plan's ban.

Lucas Dayton **Bradley 13**. JD, UGA, "Regulating Weaponized Nanotechnology: How the International Criminal Court Offers a Way Forward," *Georgia Journal of International & Comparative Law*, 2013, <https://digitalcommons.law.uga.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1053&context=gjicl>

Finally, preemptively shutting off the spigot of nanotechnology-based weapons may be nearly impossible without the catastrophe that Bowman & Hodge allude to¹¹⁰ because nations will be unwilling to submit to nanotechnology regulations that preemptively deter weapons development.¹¹¹ The proscriptive measures currently available do not sufficiently deter states from weapon development given the powerful financial incentives favoring weapon development;¹¹² asking states to submit to pre-emptive checks of nascent technology with great economic potential is quixotic at best.¹¹³

1NC – Ban Possession + Use

[Country] should request an advisory opinion with binding force from the International Criminal Court over whether the possession or use of lethal autonomous weapons constitutes a “crime of aggression”.

The International Criminal Court should convene and, if a dispute is present, issue a binding advisory opinion that the possession or use of lethal autonomous weapons constitutes a “crime of aggression.”

The counterplan uses the ICC instead of a new treaty---that solves better AND broadens the definition of “crime of aggression”

Lucas Dayton **Bradley 13**. JD, UGA, “Regulating Weaponized Nanotechnology: How the International Criminal Court Offers a Way Forward,” *Georgia Journal of International & Comparative Law*, 2013, <https://digitalcommons.law.uga.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1053&context=gjicl>

Because of the current state of regulation, it will be necessary to articulate and implement structures for regulating nanotechnology as a weapon and not just as a new research technology. Current weapons regulations are at best inadequate and contain too many contradictions and ambiguities to function effectively. The International Criminal Court (ICC), while imperfect, is currently the best solution for such regulation. The ICC already exists and would not require the adoption of a new set of international treaties. Its charter seeks to prevent acts of large-scale destruction and crimes against humanity. This large-scale frame of reference is appropriate because one of the more serious effects of weaponized biotech could be biological warfare.¹²⁵ Additionally, the ICC can target both elected state actors and private actors within states for their crimes.

A. The International Criminal Court

The ICC is an international body designed to punish “serious crimes of concern to the international community.”¹²⁶ The Court was established in response to the African and Yugoslavian atrocities in the 1990s, after international consensus that a permanent body was necessary.¹²⁷ The signers of the Rome Statute, which established the Court, believed that it should be an independent court based on an international treaty.¹²⁸ Though the crimes of the mid-1990s were the crucial catalyst for the ICC’s formation, the Nuremberg and Tokyo trials are also considered predecessors to the Court, and they addressed many of the same issues that the ICC faces today.¹²⁹

The ICC prosecutes large-scale crimes, the main causes of action being genocide, crimes against humanity, aggression, and war crimes.¹³⁰ Scholars fear weaponized nanotechnology because in several years or decades, it could cause catastrophic damage that currently only weapons of mass destruction can.¹³¹ Because these crimes could threaten broad populations,¹³² they fit within the general scope of ICC prosecutions. After prosecuting African genocides,¹³³ the ICC would likely have more gravitas and institutional capability to deal with crimes of the magnitude that weaponized nanotechnology could facilitate.

The most straightforward path by which the ICC could prosecute weaponized nanotechnology is by incorporating the technology into its definition of the crime of aggression. Article 5 of the Rome Treaty recognizes a crime of aggression as one of the four major crimes that the ICC should prosecute.¹³⁴ However, the crime is not currently under the effective jurisdiction of the ICC.¹³⁵ The Rome Treaty delayed including an official definition, opting instead to incorporate the crime later.¹³⁶ The Treaty did not establish an official definition of the crime of aggression in time to incorporate it into the established war crimes, genocide, and crimes against humanity jurisdictions that were already codified within.¹³⁷

Counterplan competes---

1] Normal means is a new treaty. Absent specification, default to normal means evidence---it's most predictable.

Bonnie Docherty 16. Senior researcher in the Arms Division of Human Rights Watch and senior clinical instructor at the Harvard Law School International Human Rights Clinic (IHRC), "Making the Case: The Dangers of Killer Robots and the Need for a Preemptive Ban," Human Rights Watch. December 9, 2016. https://www.hrw.org/report/2016/12/09/making-case/dangers-killer-robots-and-need-preemptive-ban#_ftn135

In December 2016, states parties to the **Convention on Conventional Weapons** (CCW) will **convene** in Geneva **for the treaty's Fifth Review Conference** and decide on future measures **to address "lethal autonomous weapons systems"** (LAWS), their term for these weapons. Spurred to act by the efforts of the Campaign to Stop Killer Robots, **CCW states have held three informal meetings** of experts on LAWS since 2014. At the Review Conference, states parties should agree to establish a Group of Governmental Experts. The formation of **this formal body would compel states to** move beyond talk and **create** the expectation of an **outcome**. That outcome should be **a legally binding prohibition on fully autonomous weapons**. To build support for a ban, this report responds to critics who have defended the developing technology and challenged the call for a preemptive prohibition. The report identifies 16 of the critics' key contentions and provides a detailed rebuttal of each. It draws on extensive research into the arguments on all sides. In particular, it examines academic publications, diplomatic statements, public surveys, UN reports, and international law.

2] "Ban" means a new treaty.

HRW 20. Human Rights Watch, "Stopping Killer Robots," *HRW*. August 10, 2020.

<https://www.hrw.org/report/2020/08/10/stopping-killer-robots/country-positions-banning-fully-autonomous-weapons-and>

This report shows how 97 countries have responded to this challenge and elaborated their views on lethal autonomous weapons systems since the matter was first discussed at the Human Rights Council in 2013. It surveys **where these countries** stand on **calls to ban fully autonomous weapons** and retain meaningful human control over the use of force.

Such **a legally binding instrument could come in the form of a new protocol** to the Convention on Conventional Weapons (CCW), which has discussed this concern since 2014. Or, with sufficient political leadership, **killer robots could be banned by a treaty** negotiated via a **standalone process** similar to the initiatives that successfully prohibited antipersonnel landmines in 1997 and cluster munitions in 2008.

3] The counterplan is an international body---that's not a state. The UN proves.

UN ND (The United Nations, not a state. "About UN Membership" <https://www.un.org/en/sections/member-states/about-un-membership/index.html#:~:text=The%20United%20Nations%20is%20neither,representatives%20of%20a%20new%20Government.>)
DLuo

The recognition of a new State or Government is an act that only other States and Governments may grant or withhold. It generally implies readiness to assume diplomatic relations. **The United Nations is neither a State nor a Government**, and therefore

does not possess any authority to recognize either a State or a Government. **As an organization of independent**

States, it may admit a new State to its membership or accept the credentials of the representatives of a new Government.

Regulating new systems through the ICC is key to a view of aggression that expands what counts as territorial---status quo interpretations exclusively read it as land-based and territorial.

Lucas Dayton **Bradley 13**. JD, UGA, "Regulating Weaponized Nanotechnology: How the International Criminal Court Offers a Way Forward," *Georgia Journal of International & Comparative Law*, 2013, <https://digitalcommons.law.uga.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1053&context=gjicl>

--"Crime of Aggression" is currently understood to be a nation invading another nation

--This doesn't really encapsulate 21st century wars – LAWs, cyber, space, etc – it's not land-based but rather happens in different domains

--Regulating LAWs through an expanded view of crime of aggression is legitimizing the view that territory is not just land-based

The rest of the recommendation attempts to define the crime of aggression in more specific terms.¹⁴³ These terms seem almost universally to apply to the movement of land-based or naval-based armies against a rival state power.¹⁴⁴ The recommendations (though current) spend little time addressing or considering the implications of modern technological power and its destructive effect on the broad-based civilian structures within societies.¹⁴⁵ The Working Group's recommendations seem keyed towards re-fighting the wars of the early twentieth century—they explicitly prohibit many uses of overt land warfare while ignoring current projection of nonconventional force.¹⁴⁶

The crime of aggression's current definition omits language that could regulate nanotechnology. First, the ICC's promise is that it can potentially offer prosecutions against both official state actions and de facto state actions (or those undertaken by powerful interests within a country that still do not technically possess state power).¹⁴⁷ The current draft of the crime of aggression "distinguishes between the 'act of aggression' (what a state does) and the 'crime of aggression' (what a leader does)."¹⁴⁸ This gap addresses the difference between an actual national act of aggression against another state and the planning, initiation, and execution of such an act by the country's political leadership.¹⁴⁹ This gap in prosecutorial authority could severely hinder any number of decentralized crimes. Ophardt addresses the potential jurisdictional gap in terms of cyber warfare, but the gap applies equally to nanotechnology governance. Fundamentally, the current ICC theories on aggression rely on "traditional concepts of territorial integrity."¹⁵⁰ While this current definition might be insufficient, the regulation of aggression might prove more useful than initially imagined.

An expanded view of territoriality is key to justifying self-defense zones in space.

Michael B. **Cerny et al. 20**. MPhil Candidate at the University of Oxford, with Raphael J. Piliero, David W. Bernstein, Brandon W. Kelley, "Countering Co-Orbital ASATs: Warning Zones in GEO as a Lawful Trigger for Self-Defense," *The Nonproliferation Policy Education Center*, May 2020, http://npolicy.org/article_file/Countering_Co-Orbital_ASATs-Warning_Zones_in_GEO_as_a_Lawful_Trigger_for_Self-Defense_.pdf

***SDZs = Self-Defense Zones

The conclusion of the Permanent Court of Justice in the *Lotus* case further complicates the ability for states to claim some competence or special jurisdiction in SDZs. As described by Z. Papp—

...international law does not prohibit a state from exercising (prescriptive) jurisdiction in its own territory in respect of any case which relates to acts that have taken place abroad. According to the findings of the Court, the states' corresponding discretion is

solely limited by prohibitive rules of international law. As regards exercising **enforcement** powers, it **cannot be exercised by a state outside its territory** except by virtue of a permissive rule derived from international custom or from a convention.¹²¹

Consequently, **for a state to lawfully create an SDZ, it would need to establish that the zone** itself was not prohibited by international law, and that the zone **was enforceable outside the state's territory** **due to some permissive rule**.

However, Article II of the OST prohibits a state from establishing these conclusions. This brings us to the third qualification to the 'non-appropriation' principle in Article II that national appropriation is prohibited "by any other means."¹²² Despite the fact that states only exercise special jurisdiction in ADIZs over the high seas, Cuadra writes the "competence claimed here, however, is one of limited sovereignty in airspace over waters beyond the territorial seas, for the specific purpose of 'national security.'"¹²³ Demonstrating that these principles would constitute national appropriation according to Article II of the OST, the exercise of "limited sovereignty" through **an SDZ would certainly constitute national appropriation, because such a claim would be tied to a specific purpose or competence, such as national security**, that is **explicitly prohibited** under the "any other means" qualification in Article II of the OST. Furthermore, **without some special purpose or claim of limited sovereignty states could not invoke the right to self-defense**. For example, Blau and Gore propose that the penetration of an established zone in space would constitute a threat, but Schwetje offers no evidence to suggest that this would constitute some permission allowing or circumventing the issue of appropriation.¹²⁴

Space stalking threats are emerging---only self-defense zones can solve.

Chow '17 - independent policy analyst with over 25 years as a senior physical scientist specializing in space and national security. He holds a PhD in physics from Case Western Reserve University and an MBA with distinction and PhD in finance from the University of Michigan

Brian G Chow, "Stalkers in Space: Defeating the Threat," Strategic Studies Quarterly 11, no. 2 (Summer 2017): 82-116, https://www.airuniversity.af.edu/Portals/10/SSQ/documents/Volume-11_Issue-2/Chow.pdf.

A Neglected Focus

The most worrisome threat from space stalkers is their use for a surprise attack by simultaneously disabling critical satellites. As early as 2001, the Rumsfeld Commission worried that **"the U.S. is an attractive candidate for a 'Space Pearl Harbor,' "** and **space stalkers could** be the instrument to **turn that worry into a fateful reality.**²⁴ The commission also issued a warning: **"The question is whether the U.S. will** be wise enough to act responsibly and soon enough to **reduce its space vulnerability. Or whether,** as in the past, a disabling attack against the country and its people—**a 'Space Pearl Harbor'—will be the only event able to galvanize the nation** and cause the U.S. Government to act."²⁵ The argument here aims to spur responsible US action—and soon.

Whether by design or luck, China's ASAT developmental activities and space arms-control proposals since the 2007 test could make the United States and the international community continue to focus on countering ground-based ASAT threats and neglect emerging spacebased stalkers. For example, on 13 May 2013, China fired a ballistic missile reaching an altitude of "possibly over 20,000 miles," whereas the geosynchronous Earth orbits (GEOs) are at 22,236 miles. In a paper requested by the U.S.-China Economic and Security Review Commission, Cray Murray, senior policy analyst at the commission, stated "available data suggests it was intended to test at least the launch vehicle component of a new high-altitude ASAT capability."²⁶ Tests since 2007 made the United States consider the growing traditional ground-launched ASAT threats to be much more urgent than space stalkers and thus focused the US Strategic Portfolio Review,²⁷ space budget increase, and new programs on these traditional threats.

In congressional testimony on 15 March 2016, Douglas **Loverro**, deputy assistant secretary of defense for space policy, stated, **"To deter space attack, would-be attackers need to** understand or at least **suspect** that

their attacks will likely be unsuccessful. . . . As we've worked through that calculus we arrive at the conclusion that of the three pathways we've outlined— reconstitution, defensive operations, and resilience—resilience is the best path for both understandable assurance and robust assurance. It's also the area where we can best offset the advantages that adversaries seek to exploit with their offensive space control ambitions.”²⁸ Loverro provided no indication of how to deal with space stalkers or the level of resilience needed to deny the effectiveness of stalkers. His three pathways do not provide sufficient defense against space stalkers.

Reconstitution takes time, and the US fighting force cannot wait that long. Also, not knowing which types of critical satellites would be targeted and destroyed, the United States could not afford to fund a quick and adequate reconstitution on all critical types.

Defensive operations, whether passive or active, would require adequate warning time of the pending attack to initiate and execute actions to block the attack. If space stalkers are allowed to tailgate satellites closely, there would not be enough time to mount an effective defense.

In the same testimony, Loverro described better anti-jam and antispoof technologies, more resilient next-generation satellites, life extension of on-orbit legacy satellites, and partnerships with allied nations and commercial partners.²⁹ These resilience measures are aimed at the rapidly growing traditional space threats. Against space stalkers, these measures cannot meet his aforementioned requirement for deterrence by providing “understandable assurance and robust assurance” that “their attacks will likely be unsuccessful.”

There are two reasons that resilience is inadequate in countering the emerging space-stalking threat. First, passive defenses, such as anti-jamming and evasive maneuver, would be either irrelevant or ineffective against space stalkers even if the defenses were executed preemptively, because space stalkers could dedicate much of their on-board resources (such as fuel and propulsion) for the sole purpose of attack, including chasing down an escaping target satellite. Second, backups drawn from partners might have lower capability and take time to resume lost services, and partners might not be able to spare the full capacity requested by the United States.

More importantly, as stated in the 2011 National Security Space Strategy, the current strategy for “preventing and deterring aggression against space infrastructure”—including satellites—has been focusing on countering traditional ground-based ASAT weapons such as direct-ascent ballistic missiles, jammers, and lasers. The strategy has five elements:

1. “Support diplomatic efforts to promote norms of responsible behavior in space.”
2. “Pursue international partnerships that encourage potential adversary restraint.”
3. “Improve our ability to attribute attacks.”
4. “Strengthen the resilience of our architectures to deny the benefits of an attack.”
5. “Retain the right to respond, should deterrence fail.”³⁰

These five elements either have not been used to deal with the emerging space stalker threat or are far from adequate to counter it.

The first two elements are important in **establishing international norms to justifiably and fairly counter space stalkers**, as these elements **are the best way to develop mutual understanding and arrive at mutually beneficial compromise**. Unfortunately, exchanges and measures developed thus far tend to focus on space activities during peacetime. As far as weapons in space and deterrence of space war are concerned, the **diplomatic efforts** and international partnerships **have been focusing on** either **the unattainable goal of banning all weapons** in space **or** the endless debate **about** the control of traditional **Earth-based ASAT threats**, but to the neglect of the emerging space-stalker threat. While the emphasis of the third element has been on attributing traditional space attacks, it should have been stated explicitly to include the attribution of space stalkers not just after, but also before, the attack. The fourth element would provide far too little survivability to many of the critical **satellites already on orbit**, because they **cannot be retrofitted** on orbit **to be resilient or reconstituted quickly** and adequately **enough to perform the same lost capability**. Finally, after space-stalking attacks begin, the response according to the fifth element would be too late to save US-critical satellites. **Retaliation would not deter Chinese space stalking because destroying such critical satellites would benefit China far more than the cost of US punishment as a proportional response. China could deter US intervention without firing a terrestrial shot** or even a shot from space stalkers, **as merely being too close for comfort would suffice**. This outcome may well be the ultimate goal of China's counterspace strategy. In sum, while current efforts to implement the National Security Space Strategy might protect satellites or their missions against traditional threats, these efforts alone cannot protect satellites against simultaneous space-stalker attacks, because these attacks do not provide adequate warning for defense.

As discussed in the previous section, a space weapons ban proposed by China and Russia cannot ban space stalkers. Can any other space proposal deal with the presence of space stalkers? Over the years, the most ambitious one that focused on peaceful and dangerous space activities was proposed by the Stimson Center. Michael Krepon and his colleagues posted the initial draft of "Model Code of Conduct for the Prevention of Incidents and Dangerous Military Practices in Outer Space" on the Stimson Center's website in 2004. Stimson's Code originally was intended to deal with all space activities, whether peaceful civil and military activities or dangerous military practices. The latter include ASATs and others agreed by party members as dangerous. However, this Code could not deal with space stalkers because their physical appearance and activities cannot be reliably distinguished from those of peaceful civil and military satellites.

The Stimson's Code and efforts did have a significant influence on the European Union's (EU) Space Code of Conduct. Its latest version, "Draft International Code of Conduct for Outer Space Activities," was released in 2014.³¹ It focuses on accidental collisions from space, as opposed to intentional collisions from ASATs, where space stalkers belong. Both the Stimson Center and the EU decided to focus on peaceful activities, because such a focus would be relatively far more acceptable to the major spacefaring nations as well as a more diverse group of nations. Therefore, it is unlikely the EU Space Code would now go back to including dangerous military activities or practices. Moreover, since the EU Code merely relies on public shaming, it is suitable for managing peacetime space activities but not for deterring a space war. In a crisis, China could be willing to be shamed by breaking an agreement if it could significantly degrade US space mission capability for war-fighting support or, better yet, deter US intervention in the first place without firing a shot in space or on Earth.

Similar to government officials' statements, major reports from think tanks and other research organizations focus on how to deal with the rapidly growing traditional threats, not the emerging space-stalker threat from rendezvous-and-proximity operations (RPO). In his 2010 treatise *Deterrence and First-Strike Stability in Space: A Preliminary Assessment*, Forrest Morgan did not mention China's RPOs at all. He argued generally for "a national space policy that explicitly condemns the use of force in space and declares that the United States will severely punish any attacks on its space systems and those of friendly states in ways, times, and places of its choosing."³² His punishment or retaliation could not protect the satellites being attacked and, as discussed above, the benefits of such an attack to China could far exceed the punishment China might incur. In any case and as stated earlier, punishment does not meet Loverro's requirement for deterrence: "To deter space attack, would-be attackers need to understand or at least suspect that their attacks will likely be unsuccessful."³³ Therefore, regardless whether Morgan's policy could deter traditional space attacks, it could not induce would-be attackers to believe that "their attacks will likely be unsuccessful." On the contrary, China could be convinced that once enough critical satellites are disabled, the United States could either fight with inadequate space support or

simply not intervene at all. Morgan is also a key author of the U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power 1996–2017, released in 2015. The focus is again exclusively on traditional threats without any mention of RPOs.³⁴

In January 2016, the Center for a New American Security released the report U.S. Defense Strategy for Space, by Elbridge Colby.³⁵ He focused on traditional space threats from missiles, jammers, and lasers and did not mention RPOs, including their potential threats.

In April 2016, the National Bureau of Asian Research released a special report, which contains an article by Brian Weeden and Xiao He on US-China strategic relations in space. They did discuss RPOs and stated that, “A more promising approach is to focus on transparency and confidencebuilding measures [TCBM] for both direct ascent and RPO. TCBMs are a means by which governments can share information to help create mutual understanding and trust and reduce misperceptions and miscalculations.”³⁶ They also described how space situational awareness (SSA) capability can detect and monitor close approaches.³⁷ However, while TCBMs and SSA are important, they are far from adequate to deter or protect satellites targeted by space stalkers and do not meet Loverro’s requirement for deterrence cited above.

In June 2016, Rebecca Heinrichs of the Hudson Institute released a report on “Space and the Right to Self Defense,” which did not mention RPOs.³⁸ The report focused on the desirability of space-based interceptors for ballistic missile defense. Also in June 2016, the Atlantic Council released a paper, Toward a New National Security Space Strategy: Time for a Strategic Rebalancing, by Theresa Hitchens and Joan Johnson-Freese. They asserted that “maneuverable satellites being developed in the United States and elsewhere for rendezvous-and-proximity operations (RPO) are often considered nefarious capabilities by potential adversaries, causing finger pointing in both directions.”³⁹ They did not offer a prescription to deal with RPOs or any other specific threat. Similar to other reports, the Hitchens–Johnson-Freese study is a high-level report and argues for a rebalancing, which “would require a continued emphasis on strategic restraint in the very near term, as well as a continued focus on diplomacy.”⁴⁰

Finally, in August 2016, the National Academies of Sciences, Engineering, and Medicine released a report titled National Security Space Defense and Protection: Public Report. ⁴¹ It is also a high-level report and does not mention RPOs or their use for attack.

Preemptive Defense against Space Stalkers

A successful defense against space stalkers will benefit not only the United States but also other nations. Many nations rely on US satellites such as the Global Positioning System (GPS) and communications satellites for critical services. Also, a multilateral or international agreement based on the same concept and measures to protect US satellites would protect other nations’ satellites as well including those of China and Russia.

On 15 November 2014, Secretary of Defense Chuck Hagel announced the Defense Innovation Initiative (DII), “a broad Department-wide initiative to pursue innovative ways to sustain and advance our military superiority for the 21st Century and improve business operations throughout the Department.”⁴² He said that the DII is “an initiative that we expect to develop into a game-changing third ‘offset’ strategy.” Subsequent Secretary of Defense Ashton Carter continued to pursue this third offset strategy. Hagel’s pronouncements and Carter’s actions provide the needed attention and resources to deal with the space-stalker threat, which calls for a new operational concept such as preemptive self-defense as the last resort.

Deterring and defending against space stalkers starts with two principles. First, once a space object is in orbit, one cannot reliably distinguish an ordinary satellite from a space stalker. Thus space stalkers cannot be banned without banning all satellites. This indistinguishability explains the difficulty in verifying violations in the joint proposal of PPWT by Russia and China for banning space weapons, which include space stalkers. An alternative to their proposal is that the international community instead bans dangerous positioning of space objects, which can be satellites and/or space stalkers. Banning dangerous configurations is observable and verifiable. Second, routine space operations could bring one or even a few space objects close to another nation’s satellites at the same time. These occurrences cannot be prohibited and must be accommodated.

The above two principles are **analogous to** the Third United Nations Convention on the Law of the Sea (UNCLOS III), or simply the Law of the Sea, adopted in 1982. Unlike PPWT attempting to ban weapons in space, **UNCLOS III does not ban warships** or attack submarines at sea **but**, instead, **allows states to exercise control over contiguous areas**. Two concepts, if modified, can be applied to deal with space stalkers, with or without a space agreement.

First is contiguous zone, within which “the coastal State may exercise the control necessary to (a) prevent infringement of its customs, fiscal, immigration or sanitary laws and regulations within its territory or territorial sea; [and] (b) punish infringement of the above laws and regulations committed within its territory or territorial sea.”⁴³

The application to space is by having a self-defense zone around a nation’s satellite **and having the right to “punish infringement”** as stated above.⁴⁴ Even with the self-defense zone, the owner of the satellite would continue to comply with Article II of the 1967 Outer Space Treaty 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.”⁴⁵ While the owner of the satellite does not have sovereignty over the self-defense zone, the United States can propose, according to Article IX of the 1974 Convention on Registration of Objects Launched into Outer Space, that this Convention be amended to automatically include the self-defense zone in the registration of the satellite to be launched or, retroactively, already launched into space.⁴⁶

Second, Article 17 of UNCLOS III says “ships of all States, whether coastal or land-locked, enjoy the right of innocent passage through the territorial sea.”⁴⁷ Similarly **in space, satellites** of all states **enjoy the right of passage through the self-defense zones** of others, **provided it is innocent and not part of a threatening configuration** to multiple satellites.

Implementing Preemptive Self-Defense against Space Stalkers

The purpose of preemption is to prohibit the positioning of space objects to tailgate (or closely lead) **more than an innocuous threshold number of another country’s satellites. The Space Security and Defense Program** already established by the DOD and the National Intelligence Office **should decide whether the threshold is three, four, five, or some other number. Once** the threshold is **determined, the United States can plan to use preemption as the last resort** against the threat of space stalkers with a number exceeding the threshold.

At the same time, **the United States can plan to use traditional, postattack self-defense** to protect satellites or their missions or to deter satellite attacks. **Since preemption eliminates the far more damaging attacks** that result from a larger number of space stalkers, **it makes the job of post-attack self-defense feasible**. Moreover, **since there is no peaceful reason to tailgate so many satellites at the same time, simultaneously stalki**ng a large number of another nation’s satellites **is justifiably treated as hostile intent requiring** a last-resort **preemption** to neutralize such a threat. This is equally justified as the proper use of self-defense. **The ultimate purpose** of last-resort preemptive self-defense **is** that **it does not actually have to be executed**

Therefore, **the adversary** knowing its space-stalking attack to be futile **would not pose a space-stalking threat in the first place**. In any case, **declaring,** during peacetime, **the US right of self-defense to prevent an imminent space-stalking attack can garner international condemnation of anyone setting up such a threat during a**

crisis and international support of US defensive actions. This declaration could also reduce incentives for an aggressor to pose the space-stalking threat.

One could define a geosynchronous satellite as tailgating if its longitude of the ascending or descending node or orbital plane's inclination is less than 0.2 degree from that of another country's satellite already occupying that orbit. **If the United States wants to deter and defend against simultaneous space-stalking attacks** against GEO satellites, **it could declare** that **any country that positions its space objects within** 0.2 degree in longitude (**148 km** in minimum separation) or inclination of more than a threshold number of another country's satellites **is the aggressor and the defender has the right to exercise self-defense** even before any actual attacks begin. The threshold number could be between three and five. However, **the actual threshold**, as well as the minimum separation, **should be** first **determined by the DOD and then brought to the international community by the State Department for discussion and negotiation**. It is feasible to arrive at both useful and practical thresholds. For example, **both the United States and China need not reposition any of their operational satellites to observe the above suggested rule** of 0.2-degree minimum satellite separation between any pair of US-China GEO satellites.⁴⁸

The rapidly growing number of small (less than 500 kg) **satellites forces the need to observe guidelines** on their orbital placements so their deployment would not appreciably enhance the space-stalking threat but would maintain much of their civil benefits. Space expert John Bradford reported 36 successful launches of microsatellites (typically defined as 10 kg to 50 kg) and nanosatellites (1 kg to 10 kg) in 2012; 92 in 2013 and 158 in 2014.⁴⁹ In January 2015, WorldVu Satellites Ltd. said it had secured Qualcomm Inc. and Virgin Group as investors in the OneWeb satellite Internet network. The network is planned to have some 650 125-kg satellites operating at 1,200-km altitude.⁵⁰ In June 2015, SpaceX filed a proposal to test a very large fleet of 4,025 small satellites for high-speed Internet service to be launched over a period of 15 years to around 1,200-km altitude.⁵¹ Thus, **thousands of small satellites will populate** low Earth orbits (**LEO**) in the near future. The concern is that **China or Russia could make** space **stalkers in the form of small satellites and conceal them among other small satellites**. **This concern should be addressed now**, not after more small satellites are planned or launched. Since all these satellites aim to be cheap for predominately communications and Earth observation, they are placed in LEOs. **There should be an international understanding** or agreement that **they will not be placed in or travel to GEOs** or medium Earth orbits (MEO). **This restriction would not affect the utility of small satellites** because there are few commercial reasons for them to be placed in those higher orbits.

The **prohibition of positioning a space-stalking threat** for simultaneous attacks can and **should first be applied to GEOs** as described in this article. **For MEOs and** elliptical Earth orbits (**EEO**), **no country would need to change its current satellite orbits** to meet the guidelines in this article to deal with the space-stalker threat, as their satellites in these orbits are already well separated from those of every other country's. As to LEO satellites, which will soon number in the thousands, closeproximity restrictions can still be established with an approach similar to that for GEOs. However, the **design of the prohibition for LEOs should be discussed** along with other issues including:

- how DOD's plan for disaggregating large LEO satellites for better mission survivability will work;
- how DOD's arrangements with commercial providers and other governments in using their space and other assets for backup will work;

- which types of LEO satellites DOD needs to protect against simultaneous attacks by multiple space stalkers;
- how transparent should be the function and capability of small satellites to the international community; and
- how several thousand small satellites launched into LEO can be made to avoid collisions and creating space debris.

Since GEOs host many critical satellites for space-faring nations, **if the prohibition** against threatening space stalkers **were only enforced there,** **the chance of triggering a war** in space that spreads to Earth **could be reduced**.

Goes nuclear!

Adams '18 – Former Staff Writer at Digital Trends, journalist

Dallon. "Weaponized Satellites and the Cold War in Space," Digital Trends, May 1, 2018, <https://www.digitaltrends.com/cool-tech/weaponized-satellites-and-the-cold-war-in-space/>.

High stakes

On October 27, 1962, **a nuclear-armed Soviet submarine had been spotted patrolling near the U.S. blockade line around Cuba, kicking off the Cuban Missile Crisis.** In an attempt to bring the submarine to the surface, **a U.S. destroyer began dropping non-lethal depth charges.**

The captain of the submarine mistakenly believed these charges were an attack and ordered his crew to arm the nuclear-tipped torpedo for launch. If this launch occurred, **the U.S. would have presumably retaliated with a barrage of nukes launched at predetermined locations** across the USSR.

Per Soviet protocols, all three of the Russian submarine's commanding officers needed to agree unanimously on the decision to launch the warhead. The second in command, Vasili Arkhipov, refused to consent to a launch. The commanding officers eventually brought the submarine to the surface and returned to Russia without incident.

In essence, **one man's last-minute decision prevented** what could easily have been the beginning of **World War III.**

This is perhaps as close the world has ever come to a doomsday scenario, and it's chilling to think **a moment of indeterminacy would have meant instant annihilation for millions.** But unfortunately, **the potential for a grave accident due to misinterpretation is dreadfully ripe in the space-age Cold War** we're currently entrenched in.

"In regards to indeterminacy of an attack: **Bingo! Attribution is tremendously difficult,**" says Samson. **"If a satellite stops working in orbit, it's not always apparent why. It could be because of faulty parts, solar flares, or deliberate interference."**

Let's say for instance, **a U.S. intelligence satellite is taken out by a solar flare or fleck of debris** while **a Chinese or Russian satellite** with suspected ASAT potential

floats haphazardly nearby. The U.S. would have every reason to believe this was a possible preemptive strike to diminish U.S. GPS capacity before a larger attack. Would defense officials wait calmly with such crucial satellite assets potentially in the crosshairs? Probably not.

While there is currently tremendous potential for a military battle to begin in space, the ensuing war would extend to earth soon thereafter. This unnerving warning was echoed by General John Hyten, head of the U.S. Air Force Space Command. “If war does extend into space someday – and I hope it never does – the first response is not going to be in space,” he warned.

All things considered, it could easily be argued that the risk of an existential threat on this pale blue dot has never been higher. It’s incredible that a nuclear weapon hasn’t been used on civilians in more than 70 years, but most military experts would agree it is a matter of when, not if.

Without meaningful legislation to prevent such a disaster, life on this planet could disappear as quickly as a blip on a radar screen, with only the artificial halo of orbiting trash left to tell the tale.

1NC – National Regs/Criminalization Fail

National bans get circumvented---only an international legal regime can solve.

Lucas Dayton **Bradley 13**. JD, UGA, "Regulating Weaponized Nanotechnology: How the International Criminal Court Offers a Way Forward," *Georgia Journal of International & Comparative Law*, 2013, <https://digitalcommons.law.uga.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1053&context=gjicl>

Current regulation is almost entirely national in nature, rather than international.⁷⁰ Such regimes might incentivize responsible development of nanotechnology among corporate or research-based actors, because some regulatory frameworks on the national level do provide for penalties for malfeasance.⁷¹ However, if the concern is malfeasance by a nation, or an actor with enough influence on a national level to enjoy de facto control, then regulations on the national level would prove ineffective. What international guidelines that do exist are exactly that—guidelines.⁷² These guidelines offer prescriptive goals for what an ideal future of nanotechnology would look like.⁷³ However, they do not have the regulatory muscle or the threat of real sanctions so they do not truly shape the evolution of the technology or convince actors to alter their behavior in its deployment.⁷⁴

On the national level, regulations that offer any meaningful guidance to nanotechnology innovators do not always recognize nanotechnology as a new field with unique challenges. As noted earlier, nanoparticles are fundamentally unstable because of their size.⁷⁵ They behave in ways that similar chemicals do not because unpredictable principles of quantum mechanics dictate how these particles move and interact with the environment around them.⁷⁶

There's a strong incentive in favor of circumvention.

Lucas Dayton **Bradley 13**. JD, UGA, "Regulating Weaponized Nanotechnology: How the International Criminal Court Offers a Way Forward," *Georgia Journal of International & Comparative Law*, 2013, <https://digitalcommons.law.uga.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1053&context=gjicl>

If the international community waits to enact these enforcements until nanotechnology is deployed in an international conflict, the consequences may be far worse for two reasons. First, the technology has shown enough destructive potential that an intentionally combative use of it could easily exceed the consequences of an industrial accident.¹¹⁶ Second, it would be difficult to regulate this technology during an actual conflict because of the incentives of war and the uncertainties of classifying nanotechnology.

Warfare naturally pits state actors against each other. Because nations at war are fighting for their own survival in a zero-sum game, Bowman and Hodge's proposed regulations on the national level are unlikely to succeed.¹¹⁷ If a nation can gain a competitive advantage by suspending its own national policies, there may be an incentive to do so. As for the current international regulations that govern delivery vehicles and present technologies, nanotechnology is becoming increasingly difficult to define because of its unique properties.¹¹⁸ A coherent international voice would clarify the acceptability of these new technologies. For example, there is currently debate about whether the DIME system that Israel recently deployed against the Palestinians violates international weapons treaties because it bears some similarities to banned chemical weapons; however, there is no body to issue a definitive international ruling on the subject.¹¹⁹

1NC – Solves Terror Adv

ICC regulations solve terrorist use of LAWs---the ICC can effectively hold non-state actors responsible.

Lucas Dayton **Bradley 13**. JD, UGA, "Regulating Weaponized Nanotechnology: How the International Criminal Court Offers a Way Forward," *Georgia Journal of International & Comparative Law*, 2013, <https://digitalcommons.law.uga.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1053&context=gjicl>

Further avenues of attack against nontraditional actors are enumerated throughout ICC regulations. For example, there is a regulation against "following an attack by a State to originate from its sovereign territory," which "is also considered an act of aggression."¹⁵⁸ Ophardt speculates that the breadth of this definition could allow the ICC flexibility in legitimately prosecuting nations that harbor non-state groups within their borders and allow them to develop weaponized nanotechnology.¹⁵⁹ The functional predecessors of the ICC also zealously prosecuted non-state actors for their complicity in human rights violations; the Nuremburg prosecutions included actions against those who financed the Nazi regime on the theory that their actions had enabled the atrocities that followed.¹⁶¹

The International Criminal Court's charter allows for prosecutions against states that commit crimes of aggression or leaders that commit crimes against humanity.¹⁶² It contains multiple other avenues for theoretically attacking unorthodox and technically advanced crimes that can originate from either state or non-state impetuses.¹⁶³ And, it is an established body that actually has the mechanisms to try cases.¹⁶⁴ Other proposals for the creation of new bodies to regulate only nanotechnology do not acknowledge these realities.¹⁶⁵ The risks from intentionally weaponized nanotechnology are too great and too pressing to entrust to radically new legal provisions that are untested.

