# China War Good (and Bad)

Big thank you to Aayan Ali, Sanjith Geevarghese, Mishelle Kamyshnikov, Lenox Leverett, Mike Li, Krish Mysoor, Mahi Shah, Ishan Sharma, Cy Turner

# AFF

## BMD Fails

### 2AC – Tests Prove

#### Even if funding goes into BMD recent testing proves they are ineffective

**Lockie, 18** – (Alex Lockie- former news editor and a military and foreign-policy blogger at Business Insider, "US ballistic missile defense just doesn't work — but we keep spending billions and billions on it", 2-2-2018, Business Insider, <https://www.businessinsider.com/us-ballistic-missile-defense-doesnt-work-but-we-spend-billions-on-it-2018-2)//mishelle>

The US tried and failed to intercept a missile on Wednesday, and also announced it would spend another $6.5 billion on missile defense interceptors. The US has spent more than $40 billion on missile defense projects over the last 15 years, and has no real credible capability to show for it. Ballistic missile defense plays into the complicated game of nuclear deterrence, which some say provides theoretical protection, but **nobody can prove that**. The US public learned on Wednesday that the US Navy tried and failed for the second time in a year to intercept a missile with an SM-III missile from the defense contractor Raytheon. On the same day, the Pentagon announced it would spend another $6.5 billion on 20 more missile interceptors for the ground-based midcourse defense system (GMD), which is meant to protect the US homeland from missile attacks from North Korea or Russia. But the GMD has a bad track record. It recently had a successful test that may have calmed the fears of some in the US amid nuclear tensions with North Korea, but a recent paper on the test shows it was unrealistically generous. Laura Grego and David Wright, leading experts in the field of ballistic missiles, writing for the Union of Concerned Scientists, found that the so-called intercontinental ballistic missile (ICBM) the GMD knocked down was flown on a favorable trajectory, slower than the real thing, and without any of the tricks or savvy North Korea might use in an actual attack. The paper concludes the US has no reliable ballistic missile defense capability for the homeland. That capability, or lack thereof, comes after the US has spent more than $40 billion over the last decade in a half on ballistic missile defense. During that time, Boeing, Raytehon, and Lockheed Martin, key players in the BMD scene, have all posted record profits — and they continue to get contracts with the Pentagon. To be clear, the US can defend against some, shorter-range missiles. Aegis-equipped ballistic missile destroyers at sea have a good track record of defending themselves, but they're not meant to go after ICBMs. Patriot missiles have saved some lives from short-range missile attacks on the battlefield, though that has been historically over-hyped or just lied about.

### 2AC – Impossible

#### An improvement in missile defense still won’t be effective- chances of nuclear weapons hitting are high and outweigh

**Grego, 18** – (Laura Grego- Stanton Nuclear Security Fellow at MIT's Laboratory for Nuclear Security and Policy, on leave from the Union of Concerned Scientists' Global Security Program, where she is senior scientist and research director, "US Ground-based midcourse missile defense: Expensive and unreliable", 6-28-2018, Taylor & Francis, https://www-tandfonline-com.proxy.lib.umich.edu/doi/full/10.1080/00963402.2018.1486592)//mishelle

Where dissuasion is concerned, many factors inform a country’s decision making about whether to develop ICBM technology, and at what cost. But a strategic missile defense system would have to be very effective to alter an adversary’s cost-to-benefit calculation. A marginally effective missile defense system, or a system of unknown effectiveness, may well create an incentive to build more, or more sophisticated, missiles than states would otherwise build. **No evidence suggests that building or improving the GMD system has had or will have any appreciable effect on potential adversaries’ decisions to develop long-range missiles.** The dramatic increase in tempo in North Korea’s missile testing program happened after the GMD’s nominal deployment and development. Similarly, Iran has continued to develop its long-range missile technology, launching four small satellites into orbit between 2009 and 2015 and developing its more capable Simorgh booster. What about deterrence? The primary way a missile defense system helps deter an attack is by creating uncertainty in the adversary’s mind about whether that attack would succeed in achieving its goals. Under Cold War thinking, if a peer adversary such as the Soviet Union (or Russia) contemplated a carefully planned strike against hardened US military targets, and if effective missile defenses existed, the adversary might be uncertain how much of the US retaliatory force would remain intact after the attack. According to this logic, missile defense would help deter an adversary’s nuclear first strike. The same logic does not apply to an attack that a country such as North Korea, Iran, or even China might consider. These countries’ missile arsenals are too small and inaccurate to mount an effective counterforce strike on hardened US military targets; they would necessarily target cities and civilian infrastructure. Central in deterring North Korea from launching nuclear weapons against the United States is the certainty of a devastating US response. **The presence or absence of US missile defense has no meaningful effect on the deterrence already afforded by US offensive nuclear and conventional forces.** That brings the discussion to defense against a missile attack. While North Korea’s nuclear and missile tests of the last few years indicate that Pyongyang is within reach of the ability to build a nuclear-armed missile that can reach the United States, these missiles are and will remain relatively inaccurate – whether or not North Korea ceases its test program. North Korean missiles cannot be used to credibly threaten hardened targets such as US nuclear command and control or missile silos, and would instead be targeted on larger, less protected sites, such as cities. For this reason, the GMD system would need to be very effective if it were to influence US decision making, as even one nuclear-armed missile could devastate a city. Reliably defending against an all-out assault is not feasible. While President Trump stated on television17 last October that “We have missiles that can knock out a missile in the air 97 percent of the time,” testing data show there is no basis for expecting interceptors to work more than 40 to 50 percent of the time, even under the easiest and most generous conditions.18 Using multiple interceptors against each target can improve these odds, but this approach does not fundamentally change the situation; the chance of a nuclear weapon getting through would still be dangerously high. Consider an attack with five missiles.19 Using four interceptors against each target, each with a kill probability of 50 percent, the odds that one warhead would get through are 28 percent – or higher, if the failure modes are not independent of each other (for example, if the guidance systems of all the interceptors are faulty in the same way). The odds may yet be worse if the adversary uses numerous credible decoys that the GMD system cannot distinguish from legitimate targets, and so must engage. Thus, while the GMD system may provide some defense against the simplest threats, it cannot provide the type of robust defense necessary to substantially change decision making calculus.20

## Chinese Retaliation

#### Yes nuc retal !

Michael O’Hanlon ‘19, senior fellow at The Brookings Institution, specializing in defense and foreign policy issues. *The Senkaku Paradox: Risking Great Power War Over Small Stakes*, p. 49-50 //GBS

This somewhat sanguine conclusion is far from certain, however. It hinges in part on a willingness in Washington to accept many thousands of American battlefield dead and at least some risk of nuclear escalation. Even though U.S. nuclear forces far exceed those of the PLA, China might conclude that its disproportionate interests in the Taiwan issue warranted nuclear brinkmanship, especially if China had already possibly lost thousands of its own people in conventional combat, which would heighten the stakes as well as the reputational importance of the outcome of the conflict. These concerns could be amplified if the United States, intentionally or not, began to strike the nuclear assets of the PLA in the course of conventional fighting near Taiwan. If that happened, China might face a “use them or lose them” dilemma.101 Nuclear attack against a carrier, or a high-altitude nuclear airburst over a base like Kadena (designed to destroy people and equipment immediately below, without generating lots of fallout), might seem particularly attractive options to Beijing.

#### First strike causes retal – “use it or lose it” dilemma, and planners favor offensive action

Joshua Rovner ’17, Political scientist specializing in intelligence, strategy, and U.S. foreign policy. “Two kinds of catastrophe: nuclear escalation and protracted war in Asia”, Journal of strategic studies Vol. 40, Issue 5, 2017, pp. 696-730 // gbs

Finally, inadvertent escalation may occur when conventional attacks put the adversary’s nuclear force at risk. Under these conditions, the target state might reasonably worry that the attack is only the first phase of a larger war. There may be no way to offer credible reassurances that it is not. Fearing the destruction or incapacitation of its nuclear deterrent, the target state might face a “use it or lose it” dilemma. Inadvertent escalation is especially likely if key command and control nodes are vulnerable or if conventional and nuclear target sets are indistinguishable. The danger also increases if military organizations indulge organizational preferences for offensive action. This encourages planners to err on the side of attacking all available targets. While it might sense to allow the adversary to retain some capabilities in order to reduce the incentives for escalation, planners may bridle at the thought of consciously allowing the enemy to retain the capacity for attack.14

#### Laundry list of psychological factors.

Joshua Rovner ’17, Political scientist specializing in intelligence, strategy, and U.S. foreign policy. “Two kinds of catastrophe: nuclear escalation and protracted war in Asia”, Journal of strategic studies Vol. 40, Issue 5, 2017, pp. 696-730 // gbs

The first is psychological. Cognitive biases may cause leaders to misperceive rival intentions, mistaking signals of restraint for signs of danger. Prewar expectations strongly influence how individuals interpret new information, and they will ignore or reframe dissonant information so it fits into their existing beliefs. Misperceptions intensify after the shooting starts, when information is ambiguous and incomplete. Carl von Clausewitz dwelt on the problem in the aftermath of the Napoleonic Wars, noting that intelligence reports were often contradictory and unreliable “in the thick of fighting.” Despite advances in intelligence and communications, the fog of war remains an enduring problem. Organized violence is an iterative process, and each side has incentives to hide its actions and deceive its adversary. Violence also unleashes intense emotions that obscure the material effects of battle. Commanders may not understand whether they are winning or losing, and in lieu of reliable intelligence they are likely to let passion overtake good judgment. “In short,” Clausewitz concluded, “most intelligence is false, and the effect of fear is to multiply lies and inaccuracies.” 9

Wartime leaders are prone to attribution bias, or the belief that their counterparts are inherently evil. Leaders in conflict are likely to assume the worst about their rivals or else they would not have picked a fight in the first place. Attribution bias causes them disregard the notion that their enemies have limited goals and are willing to accept partial victories. They are also prone to reject peace overtures as meaningless gestures at best, or as efforts to lull them into passivity before escalating the conflict.10 Finally, prospect theory tells us that individuals will fight harder to avoid losing a possession than they will to gain something new. If leaders equate settling with losing, then they will be tempted to risk escalation. All of these psychological pressures are exacerbated under stress and tight time constraints.11

## Counterforce Fails

### 2AC – General

#### The US has fundamentally misunderstood Chinese nuclear strategy – they have centered resources on establishing a survivable nuclear arsenal rather than quantitative increases – and they’ve succeeded

**Brown 21** — (Gerald C., [Gerald C. Brown is an analyst with Valiant Integrated Services focusing on nuclear deterrence and East Asian security.], “Understanding the Risks and Realities of China’s Nuclear Forces“, Arms Control Association, 06-2021, Available Online at https://www.armscontrol.org/act/2021-06/features/understanding-risks-realities-chinas-nuclear-forces, mysoor)

In its recent annual threat assessment, the U.S. intelligence community described how China is pursuing “the most rapid expansion and platform diversification of its nuclear arsenal in its history” and is intending to “at least double the size of its nuclear stockpile during the next decade.” Although deeply concerning, this description should be put in context. The U.S. Department of Defense estimates China’s deployed nuclear forces to number in the low 200s. Even if doubled, this is substantially lower than the approximately 1,500 deployed strategic nuclear forces the United States maintains on alert daily under the New Strategic Arms Reduction Treaty. Despite the rising numbers, China seems unlikely to quantitatively outpace U.S. nuclear forces in the foreseeable future. Nevertheless, China’s capabilities represent a substantial threat that must not be ignored. Quantitative comparisons of nuclear arsenals are a relatively crude manner of understanding nuclear risks and, in the case of the U.S.-Chinese relationship, wholly insufficient. More than ever, U.S. policymakers need to understand Chinese nuclear strategy. In the U.S.-Chinese context, policymakers should be more focused on how conventional weapons and related strategies could impact the nuclear calculus between the two countries. Chinese Nuclear Strategy Unlike Russia and the United States, China has found nuclear weapons to be of rather limited utility in war-fighting. It built what it describes as a “lean and effective” nuclear deterrent, with the intentions of deterring a nuclear attack and preventing nuclear coercion.1 Strategists in Beijing have long thought that the destructive force of nuclear weapons limits their utility, while conventional forces are more flexible and usable in conflict. Conventional forces are thought to be where wars are won or lost.2 In that sense, China’s nuclear forces are intended to check U.S. nuclear dominance while winning conventional conflicts at lower levels of escalation. To make that happen, China is seeking to build a nuclear force capable of surviving a nuclear first strike and retaliating with an unacceptable level of damage. Experts have perhaps best described China’s nuclear strategy as one of “assured retaliation.”3 Instead of seeking parity with other nuclear states and being able to engage in counterforce campaigns, China finds it sufficient to maintain a more modest, secure, and survivable force. If China can sufficiently absorb a first strike and retaliate, even with only a few warheads, Beijing believes an adversary is unlikely to decide that the risk of attacking China is worth the benefit. Since China’s first nuclear test in 1964, it has consistently maintained a public, declaratory no-first-use policy, adhering to what it describes as a “self-defensive nuclear strategy” that would anticipate using nuclear weapons only as a “counterattack in self-defense.”4 Western analysts have rightfully pointed out that a no-first-use pledge may not be entirely credible on its own. Although the pledge may be sincerely held, during a crisis, escalation could be unpredictable. Additionally, a small number of Chinese analysts have suggested that what China defines as a counterattack may be ambiguous under certain, limited conditions, such as conventional attacks seeking to neutralize China’s nuclear forces.5 Despite Western doubts, the fact remains that Chinese strategists believe that the pledge holds true. An unambiguous no-first-use stance remains the official stance of the Chinese government, and China’s nuclear strategy is built around this concept. Authoritative texts on Chinese military thinking have described three major missions for Chinese nuclear forces. In peacetime, they seek to deter enemies from launching a nuclear war with China. In wartime, they constrain the scope of war, preventing a conventional conflict from escalating to a nuclear exchange. If war does escalate to nuclear conflict, they serve to conduct nuclear counterattacks.6 The texts consistently describe only one envisioned use of nuclear weapons, the nuclear counterattack operation, in response to a nuclear strike.7 Operational practices have reinforced this. Beijing maintains a highly centralized nuclear warhead storage and handling system, with warheads typically thought to be stored unmated from their delivery vehicles rather than loaded and ready for launch.8 Further, training for nuclear brigades reflects the practice of counterattacking under nuclear conditions. Yet, there are indications of evolution. Recent U.S. government reports have suggested that some People’s Liberation Army Rocket Force (PLARF) brigades may spend time on higher alert and may seek to shift to a launch-on-warning posture in the future in order to increase survivability under nuclear attack. China has been developing a space-based early-warning system with assistance from Russia that could support this.9 Nuclear Force Projections As the U.S. annual threat assessment noted, there are signs of recent substantial changes in Chinese nuclear forces. The most important changes have been primarily qualitative, but notable quantitative changes are also occurring. These are understandably alarming to U.S. policymakers. Although the size of Chinese nuclear forces may still be dwarfed by the U.S. arsenal, its growth represents a substantial complication for the United States. Further, although the United States and Russia are modernizing their arsenals, they have been reducing their stockpiles over the past few decades slowly but significantly. China’s nuclear expansion represents a concerning shift away from its obligations under the nuclear Nonproliferation Treaty to reduce its arsenal, and that is likely to impact U.S. and Russian decision-making. Yet, understanding these changes in the context of China’s nuclear strategy is important. Instead of trying to reach parity with or exceed the U.S. nuclear arsenal, China seems intent on ensuring that it has an assured retaliatory capability following U.S. strikes. Given U.S. nuclear and technological superiority, China likely has never had a sufficiently survivable nuclear deterrent against the United States, a goal that was more aspirational than anything else. Revolutions in intelligence, surveillance, and reconnaissance technologies, coupled with advances in conventional precision weapons, have long rendered China’s nuclear forces vulnerable. The U.S. ballistic missile defense program threatens to intercept any surviving retaliatory force, further jeopardizing China’s retaliatory capability. For the first time in history, the People’s Liberation Army (PLA) seems to be moving toward a survivable nuclear force capable of executing a second strike. Research suggests that Chinese nuclear expansions and modernization are oriented toward creation of a more mobile and redundant force that can survive U.S. counterforce capabilities, including conventional systems such as the Conventional Prompt Global Strike system, and its missiles being able to penetrate U.S. missile defense systems.10 Consequently, although China’s nuclear force size will expand, it does not appear likely to expand to the size of the U.S. nuclear arsenal in the near future. There is understandable doubt about the claim of China doubling its nuclear arsenal, but it does not appear to be out of the question. China is fielding an increasing number of multiple independently targetable reentry vehicle weapons, such as the DF-5B deployed in 2015 and the recently deployed DF-5C and DF-41, that improve the ability of China’s intercontinental ballistic missile (ICBM) arsenal to penetrate the U.S. missile defense system.11 Defense Department estimates do not appear to include the DF-41, which is just starting to be deployed. Installing multiple warheads on these weapons will quickly expand the number of nuclear weapons in China’s arsenal. Further, PLARF brigades have been increasing at an unprecedented rate. The number of PLARF brigades reportedly increased from 29 to 40 between 2017 and 2020, and brigades continue to be added as new missile types are fielded.12 China’s shift to a nuclear triad will further increase the number of its nuclear warheads as these new systems are equipped. China is creating a more survivable nuclear submarine force, expanding the number of Type 094 ballistic missile submarines and developing the quieter Type 096 submarine with the JL-3 sea-launched ballistic missile as a complement. The PLA Air Force is also adopting a nuclear mission by developing a new air-launched ballistic missile that may be nuclear capable, as well as the nuclear-capable H-20 strategic bomber.13 Significantly, not all of China’s nuclear weapons are intercontinental forces capable of striking targets located in the continental United States. China has invested in nuclear weapons that specifically threaten the immediate region. Its new air capabilities, along with recently deployed midrange and intermediate-range ballistic missiles such as the DF-21E and the DF-26, hold regional adversaries and U.S. overseas bases at risk. China also recently deployed a new hypersonic glide vehicle, the DF-17, that may be nuclear capable. Importantly, although China’s nuclear expansion may be oriented toward a strategy of assured retaliation, that does not prevent Beijing from orienting its expanding nuclear capabilities toward a more threatening posture in the future. As China’s capabilities expand, its operational doctrine may well follow suit.

#### Deeply buried facilities, mobile strategic systems, improved defenses, and increased proliferation means counterforce is a fantasy

**Gallagher and Cevallos 21** [Mark, [School of Engineering Management, Air Force Institute of Technology WPAFB OH], Michael [School of Engineering Management, Air Force Institute of Technology WPAFB OH] “What Threat Do China’s New Missile Silos Pose to the US?“, Journal of Military Studies, 08-10-2021, Available Online at [https://sciendo.com/article/10.2478/jms-2021-0012#](https://sciendo.com/article/10.2478/jms-2021-0012), mysoor)

Abstract: A counterforce attack intends to disable an opponent’s nuclear arsenal to limit potential damage from that adversary. We postulate a future when harden- ing and deeply burying fixed sites, transition to mobile strategic systems, and improved defences make execut- ing a counterforce strategy against an adversary’s nuclear forces extremely difficult. Additionally, our postulated future has multiple nations possessing nuclear weapons. Consequently, each country needs to consider multi- ple actors when addressing the question of how to deter a potential adversary’s nuclear attack. We examine six nuclear targeting alternatives and consider how to deter them. These strategies include nuclear demonstration, conventional military targets, and attacks consisting of communications/electronics, economic, infrastructure, and population centers that a nation might consider strik- ing with nuclear weapons. Since these alternative strikes require only a few nuclear weapons, executing one of them would not significantly shift the balance of nuclear forces. The attacking country’s remaining nuclear forces may inhibit the attacked country or its allies from respond- ing. How can nations deter these limited nuclear attacks? Potentially, threatening economic counter-strikes seems to be the best alternative. How might escalation be con- trolled in the event of a limited attack? Other instruments of power, such as political or economic, might be employed to bolster deterrence against these types of nuclear strikes. 1 Introduction Nuclear deterrence is based on the threat of retaliation if attacked (Lieber and Press 2017). Mazarr (1991) states ‘one of the crucial aspects of nuclear deterrence is a strategy for targeting a retaliation to achieve the greatest deterrent effect.’ Gray (2007) concludes ‘there has to be a nuclear strategy’ indicating the intended response to a nuclear strike to deter an adversary. The goal of counterforce attacks is to disarm the adversary’s nuclear forces. The United States and the Soviet Union transitioned from targeting cities to a coun- terforce strategy during the Cold War as weapon delivery accuracy improved and weapon yields increased. Argu- ments for a counterforce strategy include limiting nuclear retaliation by destroying an adversary’s offensive nuclear capabilities. Ewers (2016) contends, ‘The United States should maintain a counterforce targeting strategy to hold the nuclear forces at risk and provide restraint from esca- lation with the peers and near-peers.’ Additionally, attack- ing an adversary’s nuclear weapons is considered a more moral approach than targeting cities. A common current nuclear approach contends that adversaries are deterred from attacking a country with nuclear weapons because the attacked country could respond with any of their surviving nuclear weapons (Ewers 2016). In other words, if an adversary cannot execute a counterforce strategy that completely cripples their target’s nuclear capabilities, they will not attack with nuclear weapons. This article challenges the notion that a counterforce strategy, which targets an adversary’s nuclear capabilities, effectively deters all nuclear attacks. Consider a hypothetical situation where two coun- tries each have over a thousand nuclear weapons. One country attacks the other with a single nuclear weapon. Would the attacked country strike back or be deterred by their adversary’s remaining arsenal? What if the nuclear attack caused significant economic damage but didn’t directly kill anyone? Would the attacked country strike back against the other’s population? If neither side can destroy the other side’s nuclear weapons, what types of targets might they attack? This paper examines targets that do not fall under the current counterforce strategy, not as advocates of these targets, but to ensure that all types of nuclear attacks are deterred. Before discussing possible attack and appropri- ate responses, we first examine three trends which may undermine a country’s ability to execute a counterforce strategy, improved weapon system survivability, enhanced defences, and expanded proliferation (Gallagher and Sorice 2014). 1.1 Survivability States with nuclear weapons have improved the surviv- ability of their nuclear weapons and associated delivery systems in case of an adversary attack, even with nuclear weapons. The initial efforts included reinforcing fixed sites to withstand nuclear blasts. These efforts have expanded into creating deeply buried facilities. Another approach has been to increase the mobility of strategic nuclear delivery systems, thus ensuring that they are challenging to find and target. For example, aircraft capable of delivering nuclear weapons have always been mobile targets that could shift from one airfield to another to reduce the chance of being destroyed. Additionally, land-based ballistic missile launchers are being deployed on either trucks or trains to make them difficult to target. The sea-launched ballistic missile submarines have combined mobility and hardening; the submarine’s strength to withstand water pressure is also effective pro- tection against nuclear blast overpressure and dynamic pressure. Additionally, these submarines operate in the world’s largest thermal sink, which reduces their suscep- tible range to thermal effects. Hence, submarines are not only challenging to find, but they are also highly resistant to nuclear weapon effects should they be detected. While decreasing their nuclear forces in total numbers, the United States and Russia have steadily increased the percentages of their nuclear forces that are survivable through mobility. Lieber and Press (2017) and Long and Green (2015) contend that improvements in intelligence technology will eventually track and target current mobile delivery methods; however, future sensing capabilities may be rapidly overwhelmed with decoys and other new countermeasures. We also presume that a country initiating a strike would expend their vulnerable weapons and maintain their more survivable weapons in reserve. For this article, we postulate a future where hard- ening, mobility, deception, and other means will con- tinue to make targeting an adversary’s strategic systems increasingly much more difficult. 1.2 Defences Nations are also increasing their defences to reduce any adversary’s ability to penetrate to their targets. Defences are not new (Cimbala and McDermott 2015). Countries threatened by adversaries attacking with bombers and cruise missiles have established air defence networks. For a while, stealth technology mitigated the advances of air defences; however, the improved sophistication of integrated air defence networks may significantly reduce the ability of bombers and cruise missiles to penetrate to targets. Along with enhanced detection, the range of inter- ceptor missiles has dramatically increased. Local area defences against ballistic missiles have existed for decades. Recent trends have indicated an increase in the size of the defended area and the effective- ness of the interceptors (Lowther and Cimbala 2017). For example, the Office of the Secretary of Defense (2019) in the 2019 Missile Defense Review states, ‘The United States is protected against a limited ICBM [inter-continental bal- listic missile] attack.’ One possible counter to improved defences is faster penetrators, such as hypersonic weapons. A few weapons with such advanced penetrative capabilities may even be able to assist in deterring an attack from a country with an extensive defence network. Zala (2019) concludes the ‘new non-nuclear weapon technologies – such as bal- listic missile defense, anti-satellite weapons, and pre- cision-strike missile technology – will make nuclear deterrence relationships that were once somewhat stable less so.’ 1.3 Proliferation Proliferation is another challenge to a counterforce strat- egy (Mazarr 1995; Jo and Gartzke 2007). During the Cold War, the United States and the Soviet Union only had to be concerned about the size of their arsenal relative to their single adversary. Now, each country must also consider its nuclear arsenal relative to all potential nuclear-armed adversaries and coalitions. An extensive exchange between two countries might leave the third country with the most remaining nuclear weapons (Kristensen and Norris 2018). 1.4 Study assumptions For this discussion, we postulate a future world where the following holds. Multiple states have nuclear weapons. No state or coalition of states can execute a counterforce first strike that sufficiently eliminates an adversary’s nuclear weapons to not be concerned about a nuclear counter-strike in response. No countries have an effective global defence system, rendering all vulner- able to strategic attacks. Each nation needs to consider multiple adversaries. Contrary to our assumptions, Lieber and Press (2017) contend that ‘hardening and concealment—have been undercut by leaps in weapons accuracy and a revolution in remote sensing’ and further ‘countries that have considerable resources can buck these trends and keep their forces survivable, albeit with considerable cost and effort.’ In contrast, Mazarr (2007) states that the United States cannot achieve any of its counterforce goals.

#### Tech has changed counterforce calculations – nuclear capability alone is insufficient

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We stand on the cusp of a Third Nuclear Age. If this new era comes to pass, the main characteristics of the global nuclear order are likely to see considerable challenge.1 This shift is being driven by the development of a suite of strategic non-nuclear weaponry (SNNW)2 and enabling technologies, in conjunction with a fundamental political shift relating to perceptions of nuclear threats and debates about how they should be addressed. Together, these trends fundamentally challenge the canon of academic and policy thinking about nuclear weapons and nuclear stability, and mean that decision-makers must contemplate new risks of inadvertent escalation, miscalculation, and nuclear use, and the possibility of counterforce missions unencumbered by the political and moral restraints associated with the nuclear taboo.3 Essentially, we are set to move from a global nuclear order based on the assumption that developments in nuclear weapons are the primary driver of stability and instability, to one in which non-nuclear capabilities play an equally, if not more important role. Thus, the defining feature of the Third Nuclear Age will be that nuclear geopolitics, risks, crises, deployments, postures, balances, arms control, and non-proliferation will all be shaped as much by developments in SNNW capabilities as by nuclear weapons.

We argue that a Third Nuclear Age will be a product of that which has preceded it: Second Nuclear Age thinking about the benefits of deploying SNNW combined with the return of the kind of major power competition associated with the First Nuclear Age, is likely to make the Third Nuclear Age a highly dangerous one. While we may only be on the cusp of this transition it could hardly be timelier to begin thinking about the impact of these dynamics on the management of the global nuclear order. This is important given that, as we argue further below, there is nothing preordained or irreversible about the onset of a Third Nuclear Age. This new era will be one of our own making.

This article builds on recent work by focusing on the strategic implications of the development of various SNNW systems and advances in sensing and reconnaissance but makes a more ambitious argument about the political and strategic impact of SNNW.4 We argue that five factors have been either ignored or underappreciated in the existing literature: First, while leading scholars have recognised the challenges posed by individual SNNW, the combination of these technologies and the considerable influence on policy has been largely overlooked in current analyses. Second, we go beyond recent arguments about nuclear counterforce options,5 to suggest that the non-nuclear components of these new capabilities are as important, if not more important, than developments in nuclear forces. Third, while much focus has rightly been placed on the United States, we suggest that the SNNW phenomenon is, or at least will become, truly global and is intrinsically tied-in with shifts in polarity, regional dyads, and interstate power balances. Fourth, the impact is more far-reaching than a challenge to secure second-strike nuclear forces, and instead will impact all aspects of the global nuclear order. This is because the challenge is not simply technological but is fundamentally co-constitutive with a change in how decision-makers and analysts think about the management of nuclear threats. Therefore, we should expect the politics of arms control and multilateral cooperation on nuclear issues to play out in new ways. Lastly, when it comes to the timing of the impacts of SNNW deployments, we argue that perceptions of what may be developed or deployed, or worst-case scenarios of how they might be used, are equally, if not more important than the purpose or the capability of the systems deployed today, when it comes to real-world policy impact.

### 2AC – Dual Use

#### China’s missile modernization means counterforce fails

Ian Bowers ’22, Associate Professor at the Centre for Joint Operations, Royal Danish Defence College. “Counterforce Dilemmas and the Risk of Nuclear War in East Asia”, Journal for Peace and Nuclear Disarmament: Volume 5, 2022, pp. 6-23 // gbs

China’s emphasis on rapid and significant improvements in its missile capabilities is driven by the strategic desire to hold at risk US and allied naval forces throughout North and Southeast Asia. China’s so-called anti-access/area-denial strategy seeks to deny the United States and its allies the secure use of the sea and reduce their operating capacity on land (Congressional Research Service 2022, 4). Conceptually, this would allow China to rapidly achieve military objectives while holding off immediate efforts to counter them. The range of these missile systems would include the East and South China Seas (the first Island chain) and arguably extend into the Western Pacific in the open seas between Japan and Guam. To enact such a strategy, China must have the ability to overwhelm missile defenses and still disrupt significant facilities such as airfields, C4 ISR (Command, Control, Communications, Computers [C4] Intelligence, Surveillance and Reconnaissance [ISR]) nodes, ports, and ships at sea. The People’s Liberation Army Rocket Forces’ (PLARF) conventional missile capabilities, therefore, provide Beijing with either a powerful tool to shape the operational picture should war break out or a potent first-strike capability aimed at degrading the enemy’s capabilities before they can respond. China’s current phase of modernization seems to have made substantial inroads into undermining traditional areas of US military strength. Numerous reports now suggest that China has attained the capability to overwhelm US naval platforms and facilities in Japan and the ROK, potentially destroying capabilities before they are deployed (Shugart and Gonzalez 2017; Townshend, Thomas-Noone, and Steward 2019). Targeting moving naval vessels is a harder proposition. However, China now possesses increasing numbers of advanced sensors capable of covering multiple domains, including over-the-horizon radar and surveillance satellites that, when networked with other capabilities and effective data processing and analytics, provide near-constant coverage of strategically important areas such as the East and South China Seas and the Western Pacific (Bowers and Kirchberger 2021, 629). China’s military modernization over the preceding 20 years has resulted in rapid developments in its missile and rocket capabilities. China reportedly possesses a potent array of intercontinental, intermediate, medium, and short-range ballistic missiles alongside a large inventory of air-, sea-, and ground-launched cruise missiles. One analysis suggests that these numbers have risen significantly over the past fifteen years (US Department of Defense 2019a, 47). Numerical growth is only one element of China’s missile modernization. Recently introduced capabilities include multiple and maneuverable terminal stages/warheads, deep penetrating warheads, and increased accuracy (Jane’s Sentinel Security Assessment 2018). China’s inventory of SRBMs (short-range ballistic missiles) include the DF-11, DF-12, DF-15, and DF-16 family of missiles, with ranges between 250 and 1000 km. These missiles are capable of carrying multiple types of warheads, and incremental developments indicate a focus on increased accuracy (later models of the DF-11 and −15 may have a circular error probability of 50 m), maneuverability, and stealth (Jane’s Sentinel Security Assessment 2018). The medium-range DF-21 series has also seen substantial development since its introduction in 1991. The DF-21C introduced in 2006 reportedly possesses greater accuracy and greater range than the original missile. The 1500-km range DF-21D is an anti-ship ballistic missile that has attained some notoriety in US defense and media circles, gaining the moniker “carrier killer” due to its suspected mission of targeting US aircraft carriers operating in waters proximate to China (Missile Defense Project 2016). Similarly, the DF26, which entered service in 2015, has a range of 3000– 4000 km. It is the first conventional Chinese missile to be able to target Guam and, if deployed at Chinese facilities in the South China Sea, US facilities in Australia (Gomez 2017). It has been reported that in the summer of 2020 China successfully tested the DF-21D and the ASBM variant DF-26B against a moving target in the South China Sea (Kaziani 2020). Importantly, the DF-26 is capable of both nuclear and conventional capabilities; some analysis suggests that DF-26 units in the field have both warheads available to them (Pollack and LaFoy 2020). Exactly why China would do this is impossible to fully explain. One possible reason is to hide the number of nuclear missiles that China has, in a form of shell game. A second is protection: To reduce the risk of US attack, a dual capability puts doubt in the minds of opposition tactical planners about the nature of the target and the potential of uncontrolled escalation from conventional to nuclear war (Pollack and LaFoy 2020). This would make a conventionally armed DF-26 more survivable in any conventional war-fighting scenario as targeting it would be fraught with potential risk.

### 2AC – Lieber and Press

#### Counterforce fails – Lieber and Press’s analysis is flawed

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There are two ways to think of the nuclear revolution. One of them is the simple destructiveness of a general war fought with ballistic missiles and thermonuclear weapons. No one has put this better than Daniel Deudney: In an age when the term “revolution” is used indiscriminately, few have hesitated to use such language with full seriousness to describe the impact of nuclear weapons upon the state-centered world security order. This sense of the revolutionary stems from certain awesome facts that are beyond controversy: nuclear science and technology have given us the capability to wreak violence at an unprecedented scale and speed. To find historical analogies for a full-scale nuclear war one must look to great cataclysms like the Fall of Rome, the Mongol Invasions, the Black Plague, the European Invasion of the Americas, and the world wars and imagine several of them occurring at once and greatly compressed in time, perhaps into a single afternoon.1 A general nuclear war, fought in the all-out manner of other major wars like World War Two, would not only wreak this kind of destruction in days, if not hours; it could also eradicate human civilisation forever and possibly even kill every human being and most other forms of life on the planet. It hard to see how anyone could deny that this constitutes a revolution, and the authors of the book under review here, Keir Lieber and Daryl Press, do not try to do that. It is the second way of thinking about the nuclear revolution that comprises the real debate, and this is how it has shaped the practice of international politics. Earlier theorists, most notably Robert Jervis, argued that the prospect of nuclear omnicide would discourage the world’s states, and especially those in possession of nuclear arsenals, from competing with one another intensively. They would avoid serious security competition and war: international politics at the greatpower level would settle into a condition of stability and peace. This claim has led many scholars interested in this second way of thinking to question how ‘revolutionary’ the nuclear revolution actually has been. During the late Cold War, as Brendan Rittenhouse Green has clearly demonstrated in a recent book, the United States abandoned the policy of Mutual Assured Destruction (MAD) and sought nuclear superiority over the USSR, apparently a plain disconfirmation of Jervis’s theory.2 And in the post-Cold War era, as the present authors under review argue, the U.S. is pursuing new counterforce and defence systems with the evident aim of achieving war-winning capability against nuclear rivals, such as Russia and China. If the nuclear revolution has so radically transformed international politics, these scholars insist, why have nuclear powers, and especially the United States, continued to engage in intense security competition with their rivals and sought to deploy war-winning nuclear arsenals? It is an exceedingly important question. In The Myth of the Nuclear Revolution, Lieber and Press develop a careful answer. Operating from the structural realist assumption that states face a world of constant danger and security competition with their major rivals, they make two overarching claims. The first is that the development of nuclear missiles and thermonuclear bombs during the Cold War did not completely transform international politics. To be sure, nuclear weapons make deterrence far easier to achieve and the prospect of general war far more grim, but the world has not changed as radically as proponents of the nuclear revolution claim. The second, as we have already noted, is that in the post-Cold War era new military technologies may soon enable states, namely the US, to wage nuclear war without initiating a global apocalypse, either by using very small nuclear weapons in a minor war, or by launching a counterforce attack against a larger rival that would eliminate its ability to retaliate. We should note at the outset that we do not intend to dispute the book’s technical claims that the US may be on the verge of developing such war-winning military capabilities, and therefore will not be engaging with some of the book (parts of chapters 3–4) in any detail. For the purposes of our argument, we concede this point. Rather, we will deal with the book’s two larger, if sometimes implicit, claims: that the nuclear revolution has not transformed international politics; and that for the first time, the United States can and should reject nuclear stalemate and seek the ability to wage a winning nuclear war. (1) The Myth of the Nuclear Revolution? In the first part of their book, Lieber and Press make several points that seek to show that international politics under the spectre of nuclear war is not all that different from pre-nuclear eras. We have chosen three that are clearly contestable, and will deal with each in turn. The first point deals with problem of annihilation. As everyone agrees, a nuclear war threatens not simply to deliver defeat to an attacked nation but to eradicate it completely. While this might be debatable with respect to continental-size nations like the US, Russia, or Canada, it is not when it comes to compact countries like Japan, Great Britain, or the Czech Republic. The British Prime Minister Harold Macmillan told President Eisenhower at the height of the Berlin Ultimatum crisis in 1959 that ‘eight bombs’ would put an end to the United Kingdom, and it is likely that in the event of a general war the Soviet Union would have targeted Britain with many times that number. Such an attack would have killed just about everyone in that country and destroyed its political and economic institutions beyond repair. Is this not a revolutionary development? Lieber and Press maintain that is not: nations at war have been annihilated before. It was a common practice in the classical world, most notoriously at Melos and Carthage; during the Second World War the allies bombed Germany and Japan into submission, and the Soviet Union ravaged its sector of Germany and other states during the war’s last days. ‘Yet the possibility of suffering such serious losses,’ Lieber and Press state, ‘did not deter the combatants from going to war’ (p. 13). This is not a convincing argument. On one hand, the sacking of city-states of Carthage and Melos was a political decision, made by leaders intent on punishing their adversaries; other defeated states during the Greek and Roman empires suffered far less, and had the leaders of these two city-states known for sure what was coming they might have made different decisions. On the other, while it is true that (west) Germany and Japan were viciously attacked by their enemies during World War Two, it is equally true that they were hardly annihilated and indeed prospering not long after 1945. That would not have been the case with Great Britain after a general nuclear attack. There is a larger point. The difference between annihilation in the pre-nuclear era and nuclear annihilation today is that the latter is a function of the weaponry itself. Rome’s brutalisation of Carthage was not about the weaponry the Romans deployed but their determination to eradicate a recalcitrant enemy. The situation could not be more different in a putative nuclear war. Had the United States and the Soviet Union gone to a general nuclear war, they would have destroyed not simply one another but allied states, like Poland or Italy, without necessarily having any interest whatsoever in punishing these, or indeed any nation’s, populations. It would be nothing other than an unavoidable consequence of a large-scale nuclear war. This is a revolutionary development that distinguishes the nuclear era from previous ones. A second point is one often used by nuclear revolution sceptics, from many different sides of the debate: that nuclear states have been attacked before. If Egypt and Syria were so afraid of nuclear retaliation, why did they attack Israel? Argentina sought to take the Falkland Islands from Great Britain, another nuclear power. In late 1950, China entered the Korean War: its main adversary was the United States. This demonstrates, Lieber and Press maintain, that the fear of nuclear attack is not as powerful as revolution advocates claim. This argument, made too often, simply does not speak to the relevant claim made by nuclear revolution advocates: that nuclear powers will not wage major war upon one another, for fear of unleashing a conflagration that would kill not only themselves but trigger the kind of apocalypse described by Deudney. Since the beginning of modern international history, large powers have repeatedly attacked others with the aim of defeating and conquering them. This happened twice in the space of 30 years during the early twentieth century, but has not happened, or even come very close to happening, since then. If the fear of nuclear war explains this, as Lieber and Press seem to acknowledge (p. 18), it also surely constitutes a revolutionary development in international politics. The final point is perhaps the most important one. This is the assertion that the pursuit of arms-racing and nuclear superiority by major powers, though again primarily the United States, demonstrates in itself the fallacy of the nuclear revolution. Lieber and Press make their case clearly: We are seventy-five years into the nuclear era, and nuclear-armed states are still competing as if they lived in a pre-nuclear world. Could it really be that leaders are still misperceiving the core strategic factors that allegedly define the nuclear age (p. 5, italics in original)? This argument, echoing that made by Green and others, assumes that when states make important decisions, like building lots of nuclear weapons, and they do so consistently over years, it must be rational and strategic. There are two crucial problems with this assertion. On one hand, in referring to ‘nucleararmed states’ it does not distinguish between military planners and political decision-makers. The U.S. military developed plans to win nuclear war throughout the Cold War. Yet when the possibility of actual war loomed, for example during the Berlin and Cuban crises, the United States made major concessions to the USSR in order to avoid war, despite its massive nuclear superiority at that time. After Cuba, American and Soviet leaders steered clear of direct showdowns for the rest of the Cold War. They did so because they lived in a nuclear world.3 If ‘states’ mean military bureaucracies, and not their political leaders, then perhaps Lieber and Press’s claim may be true. But that is an odd way to define a state. On the other hand, the very claim that any policy adhered to over decades must be strategic is also debatable. The United States refused to recognise communist China for thirty years, and there was no shortage of supporters of this policy who defended it upon strategic grounds. Then it abandoned that policy, and the isolation of China is now seen by most historians as a mistake driven primarily by domestic politics. For roughly twenty years, the US regarded the survival of South Vietnam as a core national security interest, and it fought a ground war for a decade to pursue this goal. American leaders repeatedly argued throughout this period that staying in Vietnam was strategically rational and important. Then the US abandoned South Vietnam, and the war is widely seen today as an irrational disaster. These examples, and others that could be mentioned,4 show that it is entirely plausible that a state might pursue a particular policy, even for a long time, for reasons that turn out to be not strategic and rational. As Dwight D. Eisenhower suggested sixty years ago, this is particularly likely to occur when the policy relates to basic issues of national security, and when it at the same time provides employment, wealth, and influence to powerful leaders and constituencies.5 We are not claiming here that the US decision to engage in nuclear security competition during the late Cold War or in the contemporary era must be attributed to the military-industrial complex, and cannot have been driven by genuine strategic reasons. This is a very difficult argument to prove. Rather, we contend that the Lieber and Press claim that consistent behaviour over the years demonstrates, eo ipso, strategic rationality is clearly disproven by many counter-examples and appears to rule out by assertion other explanations. It runs the risk of tautology. The Defensive Realist Stability, and Offensive Realist Instability, of MAD On their way to demonstrating the myth of nuclear revolution, Lieber and Press investigate ‘how much is enough’ to preserve stalemate among nucleararmed states. This they present as a technical question with multiple parts. How many weapons with what specifications must survive a first strike in order to guarantee devastating retaliation? How survivable are the nation’s secondstrike weapons? What degree of survivability is sufficient to deter others’ aggression? The authors treat this question of how the quantity and quality of nuclear fire power affects strategic stability as a technical question with two extremes: ‘even small, potentially vulnerable arsenals are enough,’ or ‘nuclear-armed countries [must] build truly survivable arsenals’ grounding ‘assured retaliation’ (32). They deviate from earlier studies by analysing the impact of Soviet arms build up on US strategy, rather than vice versa. Furthermore, they assess the efficacy of deterrence under conditions of peace and war. They identify four US theories of deterrence: existential deterrence, minimum deterrence, assured retaliation, and assured destruction. They then provide a chronology of the development of US strategic postures: 1945–1949, US nuclear monopoly; 1950–1955, Soviet existential deterrent; 1956–1960, Soviet minimum deterrent; 1962–1964, Soviet assured retaliation; 1965–1990, mutual assured destruction. Lieber and Press argue that despite appearances to the contrary, including the fallacious ‘Missile Gap’ alarmism of the late 1950s, that US defence analysts ‘had accurate intelligence assessments of existing Soviet strategic forces’ (49). The implication here is that it is strictly a technical question of ‘how much is enough.’ It is not a question of policy choice, for example between whether defensive realism (Robert Jervis) or offensive realism (John Mearsheimer) provides a more efficacious security posture. Lieber and Press assume that US strategic intelligence is complete, and that defence officials’ response to that intelligence is fully rational. They hold that assured retaliation and assured destruction will both result in competitive security politics. In the first case nations vie to achieve assured retaliatory capability, and to deny it to others. In the second case, security competition is intense because states will seek damage limitation capabilities as well as greater offensive capability. Lieber and Press argue that during the early Cold War, the US planned an overwhelming preemptive strike on the Soviet Union were they to threaten attack (57–58). With increasing nuclear parity between the two countries, the US had to settle for assured retaliation in the 1960s. The US realized threats of initiating general nuclear war were incredible because they were suicidal. Therefore the US explored limited nuclear options to be integrated into a flexible response and graduated war plan (53). Even in the 1960s, US leaders upheld the goal of winning a war against the Soviets through a ‘rapid nuclear disarming strike’ (63). Counterforce weapons were developed to challenge the Soviets’ assured retaliatory power. Satisfied that the US strategic response to the Soviets throughout the Cold War demonstrates the instability of mutual deterrence via assured retaliation or destruction, the authors move on to argue that security competition in this dynamic, and unstable, equilibrium can be reversed. As a step to making this argument they conclude there were defence pessimists who endorse a strategic stance consistent with offensive realism. These pessimists take two actions which Lieber and Press deem rational: they endorse limited nuclear options to introduce into conventional conflict; and they back this flexible response approach with ‘substantial nuclear capabilities’ to achieve escalation dominance (96, 104). Here they accurately discuss the US persistent rejection of mutual assured destruction in favor of striving to achieve strategic dominance. Yet they refer to the Cold War years 1965–1990 as characterized by MAD (48). This is a curious, and telling, assertion. The authors have argued that despite the existential condition of mutual assured destruction, US defence pessimists, who controlled nuclear policy by 1980, in fact treated nuclear war as winnable and developed weapons capability and a strategic posture to support their aim. Lieber and Press position themselves as neutral social scientists analysing the US response to USSR nuclear weapons development to conclude that the nuclear revolution is a myth. Intense security competition throughout the Cold War, they argue, proves nuclear weapons do not offer nations the promise of stable security, even given their acquisition of a secure second-strike capability. Their evidence is the US response to Soviet military innovations. Although they acknowledge the United States turn to flexible response and limited nuclear options, they fail to recognize or discuss the fifth nuclear strategy of preparing to fight and win a nuclear war (p. 140, fn 4). Thus they fail to recount the intense nuclear security debate within the US between proponents of assured retaliation, and advocates of the war fighting school advocated by Albert Wohlstetter, Herman Kahn, Colin Gray, and James R. Schlesinger during the last three decades of the Cold War. Perceptions about the precarity of MAD supported concrete bureaucratic steps to shift the US strategic posture away from accepting the stalemate imposed by assured destruction. James Schlesinger, Secretary of Defence under Richard Nixon, was a chief architect of the war fighting stance. He played a fundamental role in shifting Jimmy Carter’s erstwhile support of the MAD doctrine to that of the offensive countervailing posture with the Commander in Chief’s signature on Presidential Directive 59 in 1980. This historical evidence, which Lieber and Press interestingly do not mention, complicates their straightforward account that intense security competition underneath mutual retaliatory capability refutes the concept of nuclear revolution. This is not only because the US decision to pursue a countervailing strategy in the 1970s belies their claim that the period 1965–90 was defined by mutual assured destruction. Even more important is the fact that this new strategy was not advocated as a response to new Soviet technological and military capabilities, but rather was a policy choice based upon political factors unrelated to the nuclear balance. This undermines the authors’ claim that the United States declined to overturn MAD during the Cold War because of technological limitations and the size of the Soviet arsenal.6 In the end, their assessment of US nuclear policy during the Cold War is unclear. Did the two Cold War superpowers engage in an intense security competition during its last three decades under a condition of MAD, as they state in the book and also in their famous 2006 article, ‘The End of MAD?’7 Or did the United States decide to pursue a war-winning strategy in the late 1970s, which by definition entailed a rejection of MAD and the associated logic of the nuclear revolution? And if the latter answer is correct, why do they not discuss it at all in the book? The question is not just an academic one. The United States found itself after the end of the Cold War in a position of tremendous preponderance, unprecedented in the history of modern international relations. Its erstwhile rival, Russia, was in free fall after the USSR’s collapse, and China remained a modest military power. Other powerful states around the world were allied with the US. But America could not translate its preponderance into primacy, because both Russia and China retained their second-strike nuclear arsenals, making it too dangerous not only to invade either state but even to seriously coerce them. The obvious way to overcome this problem, of course, is to develop a warwinning nuclear policy for the post-Cold War world. And as Lieber and Press show better than anyone else, the United States has gravitated toward this objective over the past two decades with its acquisition of advanced new weaponry, defence systems, and sensory and other counterforce technologies. Supporters and critics of MAD alike all acknowledge that it only holds if states possess invulnerable second-strike arsenals. If the United States becomes able to eliminate that condition with technology, then MAD does come to an end, as the two authors precisely argued in 2006. The problem here, even more so than in the late 1970s, is that such a policy cannot in any way be characterised as defensive. Neither China nor Russia possess or are seeking to possess a nuclear arsenal that could prevail over the United States, so by pursuing a war-winning strategy the US would be clearly announcing its interest in global primacy. This would be a policy choice, not a response to Russian or Chinese capabilities. Indeed, and following Lieber and Press’s own reasoning, China’s ongoing commitment to a basic nuclear deterrent and Russian political and economic weakness means that the conditions could not be more suitable for the re-establishment of Schelling’s and Jervis’s defensive, and mutually stable, condition of MAD. If the United States rejects that, it will be because it chose to do so, not because it had no alternative. An implausible, almost surreal, disinclination to acknowledge that the US is facing a strategic choice about what to do about its nuclear policy, and that what it decides to do will be far more important than anything else in affecting the policies of other nations, pervades much of the book. In their conclusion Lieber and Press state that a ‘policy implication’ of their analysis is that, ‘in some cases,’ countries will work hard to create truly survivable retaliatory forces, while their rivals will strive to hone counterforce capabilities to keep those retaliatory forces vulnerable. For example, we expect that China will continue to add significant nuclear capabilities (such as new mobile missiles) to its arsenal, as well as bolster its command-and-control capabilities—all part of a traditional path to developing a secure, survivable second-strike force. In turn, the United States will continue to modernize its nuclear arsenal and develop offensive (e.g., long-range precision conventional strike systems) and defensive (e.g. missile defence) means to counter Chinese retaliatory capabilities.8 For example? IR scholarship has long been plagued by prescription masquerading as description, but this passage takes the cake. The United States is a preponderant unipole which at present spends more on its military than the next ten or so nations combined. It is the only state on earth which now, or in the foreseeable future, could possibly ‘hone counterforce capabilities’ in order to make other large states’ ‘retaliatory forces vulnerable’, as everyone even vaguely familiar with nuclear politics today knows. The debate in Washington about what nuclear posture the US should, not ‘will,’ adopt, a debate in which Lieber and Press themselves have long been active participants, is how determinedly the US should pursue war-winning capabilities over other large nuclear states.9 No other nation is having this debate or is even capable of doing so. Moreover, everyone knows that China’s future nuclear decisions will be made entirely in response to what the United States does, because if the US develops the capability to ‘counter’ Chinese retaliatory forces, China will become vulnerable to US predation, and it will surely take the necessary steps to deal with this threat that any Realist student of international relations would expect.10 Committing fully to a comprehensive war-winning strategy therefore will not only cost the US untold billions of dollars in new military spending over the next years and decades; it is also likely to trigger an arms race and intense security competition with China that the latter state has signalled over decades it would prefer to avoid. Following this dangerous course of action is a policy choice the United States does not have to make, particularly given the fiscal demands created by the Covid-19 pandemic and the massive domestic programmes the new Biden administration has embarked upon. This is precisely why the question is so heavily debated in Washington. Lieber and Press have long made a powerful case that new US technological capabilities threaten to overturn MAD. However, their prediction of a policy outcome for which they have long advocated damages the logical consistency of their argument.

### 2AC – Remote Sensing Fails

#### Tracking weapons is impossible. Countermeasures, weather, and coverage gaps.

TEL = transporter-erector launcher vehicles

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Based on this analysis, I offer some assessments and recommendations surrounding the competition between TELs and remote-sensing. Tracking TELs requires the development of critical technologies. There are currently gaps where extant remotesensing systems are not capable of tracking TELs, namely at night and during periods of bad weather. If a state wishes to develop the capability to track TELs, they should focus their efforts on technologies which address those gaps. Similarly, when evaluating emerging remote-sensing technologies, the focus of analysis should be on the technology’s ability to close those gaps. Analysis of critical technologies should focus on countermeasures. When evaluating the potential effects of an emerging technology, analysis should focus not only on the effectiveness of that technology, but also the existence, effectiveness, and availability of the countermeasures. Broad endeavors such as tracking are only as strong as their weakest link. Critical technologies are a naturally attractive target for countermeasures as they present a single point of failure. SBR is not a promising means of tracking TELs. While SBR has the elements of a critical technology, and the ability to operate under conditions where other deployed modalities do not have tracking capability, SBR is vulnerable to simple countermeasures. While some countermeasures, such as RCSR with RAM, would require significant research and development effort, effective countermeasures such as decoys are technologically simple and should be deployable at scale for relatively low cost. Some countermeasures, such as jammers and ASAT weapons, are already in deployment as they serve other purposes, so SBR, if pursued, would be deployed into a hostile environment. Electronic warfare and ASAT weapons also present the risk of escalation through entanglement, so states should expect a decrease in their security if they choose to deploy an SBR system with capability to track (permissive) TELs. Modest SBR capability should not undermine strategic stability. One key finding of this work is that a seeker’s uncertainty in a TELs position grows during gaps in coverage of sufficient length. For the case of tracking TELs, if shelters are kilometers apart, regular gaps of length on the order of a few to ten minutes are sufficient to prevent tracking. Concern has been raised in the literature that the relatively modest collection of fewer than two dozen SBR satellites deployed by countries around the world would be sufficient to undermine the survivability of TELs [9]. Even if all deployed SBR satellites were utilized as a cohesive constellation (it is unclear if this is possible), there would be an average gap of more than twenty minutes between overflights [9].7 The U.S. collection of six SBR satellites would present more than 90 minute gaps between overflights. These gaps are sufficiently large that a motivated hider could easily exploit them. The deployment of modest numbers of SBR satellites (e.g. twenty to thirty) should not undermine TEL survivability nor provoke escalatory countermeasures on the grounds of TEL survivability. Fears that remote-sensing will inevitably undermine TEL survivability and damage strategic stability are overblown. Tracking with remote-sensing is potentially more challenging than is widely understood. In a game of hide-and-seek, the seeker does not contend with what that hider does, but what they could do. The hider does not need to be passive in the competition, as they can actively interfere with remote-sensing through countermeasures. The hider also has the advantage of being able to be reactive, they do not need to deploy countermeasures until after the seeker has committed to developing a particular remote-sensing system. That said, history has shown that countermeasures can sometimes be hard to leverage, and survivability can be undermined. Degradation of survivability is not inevitable, however. Which way the balance will tip depends on the specific technologies in question, and in the case of SBR, the advantage lays with the hider.

#### Prefer our model. Conclusions reached considering all factors possible. Insert this chart for reference.

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Diagram

Description automatically generated

#### Can’t find their nukes.

#### 1. Jammers.

#### a. Jammer arrays.

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Stationary Jammer Arrays A jammer array is a collection of jammers which are used to collectively deny radar operations in an area. Taking advantage of the huge disparity in the 𝐽𝑆𝑅, jammers can reach signal-equivalence at very modest powers and gains. If attempting to jam multiple satellites at once, jammers could be directed to cover the entire upward facing 2𝜋 steradian. More complicated arrays could use directed apertures, such as parabolic dish reflectors, to directly illuminate overflying satellites. These would be more complex and costly, but would avoid inadvertently jamming other systems. A jammer array could be conceived of on two scales, jamming a local area and overcoming array adaptation. The more modest approach is to jam radar operations in a local area. This could be accomplished by distributing a number of low-power jammers in an area where the hider wishes to deny the seeker the ability to observe.20 One possibility would be to mount these jammers on shelters. If the shelter spacing 𝑠 is similar to or less than the beam swath width, then this would prevent the seeker from observing those shelters, or the avenues between them. The jammers could be run continuously, or toggled. If run continuously, the area spanned by the local jammer array would be a permanent gap in coverage. In effect, this would create a single distributed shelter where the TEL could operate without risk of being detected, so long as the jammers were operating. If toggled, the jammers could be turned on when a TEL deployed to the local area, kept on for long enough for the TEL to be able to move anywhere within the local jammer array area.21 The jammers could then be toggled off and the seeker would not know which of the shelters covered by the jammer array housed the TEL. The TEL could remain in that shelter throughout its patrol lifetime without needing to move. This would change the dynamics of how the seeker’s uncertainty would accrue over time. Rather than organically accruing over time, the seeker’s uncertainty would grow linearly with time proportional to TEL velocity from when the jammer array was activated until the array was deactivated or the boundary of the jammer array was reached. The hider would have a strong incentive not to move after this point (so as not to risk detection) so the uncertainty would not necessarily grow thereafter. Utilizing a local jammer array, the hider has the ability to generate positional uncertainty effectively on demand, limited only by the costs of emplacing the jammers, and the provocativeness of utilizing them (discussed below). One such array would be needed for each TEL patrol to be protected.

#### b. Mobile Jammers.

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Mobile Jammers The other method for employing jammers to shield the movement of TELs is utilizing mobile jammers. Mobile jammers are already part of the electronic-warfare arsenal of Russia, includes the Krashuka-4 mobile jammer system. The U.S. Defense Intelligence Agency (DIA) has assessed that Russian mobile jammers have the capability to deny SAR observations as well interfere with satellite communications [121]. While mobile jammers could be utilized to transiently set up a jammer array in an area, this would be inefficient compared to a static jammer array (though more flexible). For example, to create an area of uncertainty 10 shelters in extent would require 10–61 mobile jammers for a linear or gridded road system, respectively. A more efficient method for utilizing jammers would be in exploiting their mobility. A mobile jammer creates a moving blind spot for the seeker. By moving a TEL alongside the jammer, the hider can mask TEL movements. To cover a shelter-to-shelter movement, the jammer would need to approach the shelter containing a TEL, and move with it to another shelter where the TEL could encamp. The hider would be unable to determine if a TEL was present, or moved at all. So, if a mobile jammer passed through any TEL’s area of uncertainty while operating its jammer, that TEL’s possible positions would be spread over every shelter the jammer subsequently passed

#### 2. Fixed Shelters.

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6.1.2 Shelter Spacing Shelters are an integral part of the hider’s ability to keep TELs undetected for an extended period of time. As noted in Chapter 4, shelters are any location in which a TEL cannot be detected by remote-sensing systems. This could be a natural area, or a permanent or temporary structure.9 It is under the hider’s control how many, and how closely spaced these shelters are. Fixed Shelters Fixed shelters are permanent or semi-permanent locations for TELs to hide. Electromagnetic radiation, such as micro- and radio-waves are reflected by conductive surfaces, as discussed in Chapter 2. Dielectric substances, such as wood can also reflect or absorb radio waves in sufficient thickness. The hider could use a number of materials to build shelters. A simple material for reflecting radiowaves is a conductive metal mesh. The size of holes in a mesh determines if it is radar-reflective. Radio waves are reflected by the metal of the mesh, but the holes in the mesh act as waveguides which can allow radiation to pass through if it has a high enough frequency. The cutoff frequency of a rectangular waveguide, the lowest frequency that can travel through the waveguide, is 𝜔𝑐 = 𝑐 √︂(︁𝑛𝜋 𝑎 )︁2 + (︁𝑚𝜋 𝑏 )︁2 , (6.2) where 𝑐 is the speed of light, 𝑛 and 𝑚 are mode numbers associated with the waveguide dimensions 𝑎 and 𝑏, respectively, where 𝑎 ≥ 𝑏 The lowest frequency mode that is allowed is the TE10 mode where 𝑛 = 1 and 𝑚 = 0. The cutoff frequency of a waveguide is therefore

#### 3. TEL shaped decoys.

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TEL-Shaped Decoy An average RCS decoy is capable of deceiving SMTI, which only measures the RCS distribution. SAR and ISAR instead measure the spatial distribution of the scattering centers of the target, which can be used to form an image. An average RCS decoy can be constructed from a small number of corner reflectors while a TEL-shaped decoy mimics not just the sizes of the scattering centers, but also their spatial distribution. One of the challenges of creating a TEL-shaped decoy is that TELs are large objects. Decoys are ideally easily and cheaply built, so that many can be used in conjunction (discussed in detail below). A shape decoy must be able to approximate the physical size of a real TEL, meaning that it will be on the order of tens of meters in length. The challenges of creating a TEL-shaped decoy mirror those of shaping an actual TEL for RCSR. The same set of radar reflective materials, metal sheets or mesh can be used to control the RCS of a decoy. In the case of TEL RCSR, the TEL itself is large and can serve as a skeleton on which the outer radar reflective skin can be mounted. One possible decoy design would be to utilize an interior scaffolding made of inexpensive and lightweight material such as PVC tubing or aluminum struts to form the scaffold over which a wire mesh could be stretched. Integrating the mesh with a fabric or plastic liner, the same color as a TEL would make the decoy difficult to identify with optical modalities, in the case it was moved during the day.16 In order to make such a simple decoy indistinguishable from an actual TEL, the same procedure could be used on actual TELs, i.e. decoys are made more convincing when used in conjunction with RCSR shaping. Making the TEL decoy mobile would allow the hider additional modes for deceiving the seeker. Two simple methods for making a shape decoy mobile are mounting it on a smaller vehicle or on a trailer. In both cases, the decoy needs to be made lightweight enough that it can be carried by a vehicle such as one of the TEL convoy support vehicles. A TEL sized decoy could be skinned with 60–180 kg of material.17 If scaffolding were constructed from aluminum tubing, it could weigh on the order of a few hundred kilograms.18 Collectively, the decoy material would weight half a ton, approximately the payload weight capacity of a half-ton pickup truck. Such a decoy could be fabricated for roughly the cost of the pickup truck itself, on the order of tens of thousands of dollars. A less expensive option would be to mount the decoy on a trailer that could be towed by a security vehicle. This would have the advantage of being able to be disconnected and left in a shelter indefinitely.

#### 4. Covered Roads.

Thomas D. MacDonald 21, a fellow in the Nuclear Policy Program at the Carnegie Endowment for International Peace. He has an interdisciplinary scientific background which he applies to interesting technical problems which are interwoven with political concerns. June 2021, “Hide and Seek: Remote Sensing and Strategic Stability,” Massachusetts Institute of Technology, accessed online via UMich libraries

Covered Roads The hider can also create road segments that permanently cannot be observed with radar systems by creating covered roads. This effectively reduces the inter-shelter spacing to zero. If a TEL enters a covered road section, after a time 𝐶/𝑣TEL where 𝐶 is the length of the sheltered road segment, the seeker’s uncertainty will span the covered segment. The hider can deter an attack from an attacker with a risk tolerance of 𝑃𝑘 and 𝑛𝑤 available by building a covered roads totaling at most ∑︁ 𝑖 𝐶𝑖 ≤ 𝑃𝑘𝑛𝑤2𝑟𝑤 , (6.4) of length, where 𝐶𝑖 is the length of the 𝑖the covered segment and 𝑟𝑤 is the weapon effect radius. The equivalence holds if all 𝑛TEL are deployed within the covered segments, and the covered segments are built in multiples of 𝑟𝑤. I will take this as the upper bound. In practice the hider could keep TELs deployed outside of the covered roads in addition to the covered segments, and force the seeker to allocate inefficient numbers of warheads by building covered segments of non-integer multiple lengths of 𝑟𝑤. Covered roads could also be utilized as tunnels to connect naturally well-sight-blocked areas in order facilitate spread of uncertainty.

#### 5. Radar Absorbing Material.

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Radar-Absorbing Material There are two primary approaches for modulation of the surface reflection characteristics, radar-absorbing materials (RAM) and surface-shape modulation. TELs are primarily made from metal, which is a near-perfect reflector of radio waves. Metal can be coated with RAM which absorbs a portion of the incident field, decreasing the magnitude of the reflected electric field. RAM operate by diminishing the magnitude of radar reflections by coupling the incident field into a partially conductive, lossy medium [116]. At a boundary between two media (such as air and a TEL), some fraction of the incident energy will reflect off of the boundary and some will transmit into the second medium. Figure 6-5 shows a schematic of a wave approaching a boundary. At normal incidence, for a wave traveling from medium 1 to medium 2, 𝑅 = 𝜂2 − 𝜂1 𝜂2 + 𝜂1 , 𝑇 = 2𝜂2 𝜂2 + 𝜂1 , (6.6) where 𝑅 is the reflection coefficient, 𝜂𝑖 is the wave impedance of the 𝑖 th medium.10 The reflectivity (𝑟) and transmissivity 𝑡 of the boundary are 𝑟 = |𝑅| 2 , 𝑡 = |𝑇| 2 . (6.7)

[figure 5 omitted]

#### 6. Sight-blocking structures.

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6.1.3 Sight-Blocking Structures The hider can build sight-blocking structures alongside roads if they want to decrease the probability of detection of satellites which are at large incidence angles. Sight-blocking structures, as discussed in Chapter 4, can impinge on lines-of-sight to a road segment as a function of their height and lateral displacement from the road. The maximum incidence angle (𝜃max) at which a TEL on a road segment is visible is 𝜃max(𝛼) = 𝜋 2 − tan−1 [︂ 𝑕𝑠𝑏 − 𝑕𝑚 𝑑𝑟(𝛼) ]︂ , (6.5) where 𝑕𝑠𝑏 is the height of the sight blocking structure, 𝑕𝑚 is the highest point on the TEL which the seeker needs line-of-sight to, and 𝑑𝑟(𝛼) is the distance to the sight blocking object from the center point of the TEL as a function of the azimuthal angle from the heading of the TEL 𝛼. Sight-blocking structures are most effective when they are tall, close to the road, or both.

### 2AC – Silos

#### New Chinese nuclear silos destroy counterforce options

**Cabot 21** — (Adam Cabot, [Adam Cabot has a Master’s in international relations and is currently researching nuclear strategy.], “What Threat Do China’s New Missile Silos Pose to the US?“, The Diplomat, 07-16-2021, Available Online at https://thediplomat.com/2021/07/what-threat-do-chinas-new-missile-silos-pose-to-the-us/, mysoor)

The silos will significantly complicate counterforce options. What can Washington do? The Washington Post recently reported that over 100 missile silos have been discovered being built in a desert near the city of Yumen in China. Chinese media have since claimed that the structures are actually part of a wind farm, but the experts behind the Post piece stand by their analysis. Analysts indicate that these silos will probably house the newest intercontinental ballistic missile (ICBM) in the Chinese strategic nuclear arsenal, the DF-41. This ICBM can reach the continental United States, is solid-fueled, and is believed to eventually be a replacement for the liquid-fueled, silo-based DF-5 ICBM. Estimates vary, but the DF-41 is rumored to be able to carry anywhere from three to 10 nuclear warheads. This is a formidable strategic weapon seemingly designed to be utilized as a component of a launch-on-warning policy while deployed in hardened silos. What threat do these ICBM silos pose for the United States and what should the U.S. do to counter the threat? Let’s start by putting ourselves in China’s position. There could be two primary reasons why President Xi Jinping has decided to build over 100 new ICBM silos. These reasons are not mutually exclusive. The first reason could simply be to adopt a launch-on-warning policy. This would mean most if not all the silos will probably be filled with the DF-41 and China will utilize an early warning system to detect an enemy attack and respond by launching its ICBMs before they can be destroyed in the silos. Adding strength to this theory are reports that Russia has been assisting China to build a ballistic missile early warning system. The adoption of a launch-on-warning policy would increase the survivability of China’s strategic nuclear weapons and bring them closer to the standard of the United States and Russia. The second reason could be to complicate U.S. counterforce targeting, meaning the targeting of the enemy’s military infrastructure. Under the Strategic Arms Reduction Treaty (New START), the United States and Russia are each allowed to have 1,550 deployed strategic nuclear warheads. The introduction of over 100 ICBM silos significantly adds to potential targets that the U.S. must consider in planning for a nuclear attack. In the event of a strategic nuclear conflict, it is expected that at least two warheads would be utilized for hardened counterforce targets, reducing the U.S. arsenal by over 200 weapons. A recent statement by the Chinese Ministry of Foreign Affairs stressed the growth and advancement of the Russia-China comprehensive strategic partnership of coordination. While this is not technically an alliance at this stage, it is highly plausible that the cooperation between the two countries could include deliberately complicating U.S. targeting plans and degrading the U.S. strategic nuclear arsenal. In this scenario, the Chinese silos could collectively contain just a handful of ICBMs. The United States would still be required to target each silo, as there would be no certainty regarding which of the over 100 silos contained missiles. With the element of having to allocate at least two warheads to ensure the destruction of hardened targets, it’s evident that the U.S. arsenal will be stretched thin as it still needs to maintain a credible deterrent against Russia. It will be further stretched if China decides to continue building ICBM silos. One can see how this is an effective strategy designed to complicate a U.S. strategic response. So, what can the United States do about it? It’s critical that the U.S. builds and maintains a robust nuclear warfighting capability. With an effective triad of air, sea, and land based strategic nuclear weapons, the United States is illustrating that it has options available for different contingencies. Added to this capability are tactical nuclear weapons based in Europe and the introduction of the low-yield submarine-launched ballistic missile deployed on the Ohio-class ballistic missile submarines. As diverse as this force is, it still does not adequately deal with the addition of Chinese silos due to New START limitations. A possible option is the introduction and deployment of land based nuclear medium and intermediate range ballistic missiles within range of Chinese strategic weapons. These could be positioned in countries willing to accept them and due to the demise of the Intermediate-Range Nuclear Forces (INF) Treaty in 2019, the quantity deployed would not be subject to restrictions. The deployment of INF range nuclear weapons would resolve the issue of stretching the U.S. strategic arsenal thin. A step forward for the Biden administration would be to publicly commence negotiations with countries willing to house these weapons while keeping the door open to China for a diplomatic solution. The potential threat of being surrounded by U.S.-controlled INF range weapons could result in China re-thinking its opposition to entering into New START negotiations with the United States and Russia. If nothing is done to counter China’s rapid nuclear weapons increase, we could see hundreds more ICBM silos being built, rendering the U.S. strategic arsenal inadequate to deal with multiple threats in addition to fulfilling its extended deterrence role to allies including South Korea, Japan, and Australia. China and Russia have demonstrated that they are united in reducing the influence and power of the United States in order to achieve their own strategic goals. A future strategic nuclear alliance between China and Russia is not a fantasy. China has the technological and economic capability to continue modernizing and increasing the size of its nuclear forces exponentially. While it is seemingly lagging behind in an effective ballistic missile early warning system and ballistic missile submarines, it already possesses a robust nuclear force including INF range weapons and mobile ICBM launchers. It will not take China long to bridge the gap and the United States may find itself dangerously outnumbered against two major nuclear powers. The Biden administration needs to proactively deal with this now because China is steamrolling ahead to catch up.

### 2AC – Subs

#### China has already developed nuclear submarines far more powerful than US tech – Generals are SWEATING

**Osborn 21** — (Kris, [Kris Osborn serves as Defense Editor for the National Interest. He previously served at the Pentagon as a Highly Qualified Expert with the Office of the Assistant Secretary of the Army - Acquisition, Logistics & Technology. Osborn has also been an anchor and on-air military analyst for national TV networks.], “Why China's Nuclear Armed Submarines Make U.S. General Sweat“, National Interest, 11-10-2021, Available Online at <https://nationalinterest.org/blog/buzz/why-chinas-nuclear-armed-submarines-make-us-general-sweat-196050>, mysoor)

The People’s Republic of China is fielding newer submarine-launched ballistic missiles that can fly farther distances. China is developing submarines with the ability to put the United States at risk of catastrophic nuclear attack from submarines, according to a Pentagon report. China already operates six Jin-class nuclear-powered ballistic missile submarines armed with JL-2 intercontinental-range submarine-launched ballistic missiles (SLBMs). Now, the People’s Liberation Army is preparing to produce a far more lethal, longer-range JL-3 nuclear-armed ballistic missile variant. The People’s Republic of China (PRC) is fielding newer SLBMs that can fly farther distances, such as the JL-3, China “will gain the ability to target the continental United States from littoral waters, and thus may consider bastion operations to enhance the survivability of its sea-based deterrent,” according to the Defense Department’s 2021 report on Military and Security Developments involving the People’s Republic of China. Unlike the JL-2, which fires at more limited ranges, the JL-3 will reportedly operate with an ability to travel as far as fifty-six hundred miles. That means Jin-class submarines will not need to operate close to the shore in order to pose a threat to the United States. “The current range limitations of the JL-2 will require the JIN to operate in areas north and east of Hawaii if the PRC seeks to target the east coast of the United States,” according to the report. The JL-3 substantially changes this calculus. The PRC currently operates six Jin-class SSBNs equipped to carry up to twelve JL-2 missiles. The range of these weapons restricts the geographical flexibility of Chinese commanders, which would have a higher chance of being detected. This range extension of the JL-3 is significant because it enables the newer Chinese submarine-launched nuclear missiles to outrange the U.S. Navy’s Trident II D5 missiles, which reportedly operate at ranges up to four thousand miles. Inland portions of mainland China are roughly ten thousand kilometers or so from the California coast. The math shows the JL-3 missiles will likely allow China’s nuclear-armed submarines to attack California or other parts of the United States from almost anywhere in the Pacific Ocean.

#### Ultraquiet propulsion means the Navy can’t detect them – proves counterforce fails

**Holmes 21** — (James, [James Holmes is J. C. Wylie Chair of Maritime Strategy at the Naval War College and author of “Visualize Chinese Sea Power,” in the current issue of the Naval Institute Proceedings. The views voiced here are his alone.], “Deathly Quiet: The Navy Can’t Kill China’s Submarines If It Cant Find Them“, National Interest, 8-17-2021, Available Online at https://nationalinterest.org/blog/reboot/deathly-quiet-navy-can%E2%80%99t-kill-china%E2%80%99s-submarines-if-it-cant-find-them-191921, mysoor)

Word has it that China’s People’s Liberation Army Navy (PLA Navy) has staged a breakthrough in submarine propulsion. Here's What You Need To Remember: The PLA Navy may be poised to overcome a technological and tactical defect that has plagued it since its founding. Word has it that China’s People’s Liberation Army Navy (PLA Navy) has staged a breakthrough in submarine propulsion. At any rate, that’s the word from marine engineer Rear Admiral Ma Weiming, a specialist in electromagnetic systems. Admiral Ma recently reported on state-run CCTV that shipwrights are installing shaftless rim-driven pumpjets in China’s “next-generation nuclear submarines,” meaning attack or ballistic-missile boats. (Click here for a layman’s description of pumpjet technology.) Ma crowed that Chinese engineers are “now way ahead of the United States, which has also been developing similar technology.” If Admiral Ma is playing it straight—rather than hyping promising but yet-to-be-proven gadgetry—then the PLA Navy is poised to overcome a technological and tactical defect that has plagued it since its founding. American submariners long lampooned Soviet and Chinese nuclear boats for being noisy and easy to detect. PLA Navy boats remained backward long after the Cold War. Ultraquiet propulsion, though, would put an end to unquestioned U.S. acoustic supremacy, opening up new operational and strategic vistas before the PLA Navy while ushering in a deadlier phase of U.S.-China strategic competition. The rim-driven pumpjet is an electrically driven “propulsor” that simplifies and thus quiets an engineering plant. Older technology typically uses gears to connect the elements of a drive train. Steam spins the innards of high-speed turbines. Turbines spin far too fast for any main propulsion shaft or propeller, however, so ships outfitted with traditional engineering plants have “main reduction gears” that step down the speed of rotation drastically, to speeds useful for the shaft that turns the screw and impels the hull through the water. Gears are noisemakers. Pumpjet technology dispenses with them, simplifying and silencing plant operations. The design also reduces cavitation—bubbles churned up when a propeller turns rapidly underwater, leaving low-pressure zones behind the blades where water can boil. Cavitation emits noise that enemy sonar operators may hear. Thus it can alert hostile anti-submarine-warfare (ASW) forces, helping them find, track and target the emitter. Hence the allure of novel technology that suppresses cavitation. Now, there are ample grounds for skepticism toward Admiral Ma’s claims. New technology remains a hypothesis until tested out in real-world operations. But at the same time it’s doubtful Ma was simply showboating for Chinese TV viewers. Rising competitors have caught up with established navies before, or even leapfrogged them in certain areas. The Imperial Japanese Navy defied expectations, devising the Long Lance torpedo that it deployed to devastating effect at Pearl Harbor. The Soviet Navy concocted antiship missiles and torpedoes that give the U.S. Navy fits to this day. Thus it behooves us to ask what if: what if China pulls off a technological leap of similar magnitude? Set aside the question of whose submarines are quieter than whose. Boastfulness—the urge to be the biggest, best and most of everything, and to have others acknowledge it—forms a strand in China’s cultural DNA. Ma is indulging in it. But no one is going to hold a contest to measure noise given off by U.S. Navy and PLA Navy boats, and award victory to the quietest fleet. Combat is the true arbiter of military effectiveness—and undersea combat hinges on whether “hiders” or “finders” prevail. It pits a sub’s capacity for silent running against the acuity of ASW sensors and operators trying to ferret it out. In other words, if American hiders remain quiet enough to evade Chinese finders, they hold the advantage of stealth. If acoustics has befriended the PLA Navy, then American finders have a problem. And if both submarine services can elude ASW hunters, then both they and surface fleets are in dire peril. “Peer” submarines could engage one another at close proximity in the deep, or strike against surface vessels without warning. Indeed, the surface of embattled oceans could verge on no-go territory. That prospect makes this thought experiment about the future of subsurface warfare worthwhile. Suppose rim-driven pumpjet propulsors do pan out for China’s navy. How might commanders use newly elusive boats? First of all, they might afford nuclear-powered ballistic-missile submarines (SSBNs, known to U.S. submariners as “boomers”) precedence when installing newfangled propulsion hardware. The PLA Navy already operates a sizable fleet of diesel-electric attack subs that satisfices for antiaccess/area-denial purposes. They can make shift until silent-running nuclear-powered attack subs (SSNs) join the fleet. SSNs can wait. By contrast, the navy stands at the brink of fielding its first effective SSBNs. Fabricating a new capability would seem to take precedence over improving an old but adequate one—especially if the nation’s nuclear deterrent depends on the new capability. If this logic prevails, how will the PLA Navy employ working boomers? To all appearances, it envisions employing the South China Sea as an offshore “bastion” for SSBNs, much as the Soviet Navy of yesteryear made semienclosed waters into protected bastions for its missile boats. Undersea deterrence, then, probably numbers among the motives impelling the PLA to transform rocks and atolls into fortified outposts, acquaint itself with underwater hydrography, and so forth. China’s Type 094 SSBNs or their pumpjet-equipped descendants could slip out of the sub base on Hainan Island, descend into South China Sea waters, lose themselves in the depths and dare rival navies to come into China’s “near seas”—expanses that fall under the shadow of land-based PLA missiles and aircraft—to hunt them. Or if Chinese Communist Party leaders feel comfortable granting SSBN skippers the liberty to venture outside the near seas (though that’s a lot of atomic firepower to entrust to a naval officer whose loyalties might prove suspect), the Luzon Strait affords a convenient entryway to the western Pacific. Within the strait lies the Bashi Channel, a deep underwater thoroughfare into the Pacific. The weather between Luzon and the southern tip of Taiwan often works against airborne ASW; subs transiting the channel can conceal their whereabouts by diving beneath thermal layers that play tricks with sound. An ultraquiet SSBN, in short, could thrive in South China Sea patrol grounds—and beyond. Second, PLA Navy commanders doubtless salivate at the prospect of ultraquiet attack boats. They could merge new SSNs—presumably the Type 095s under development—into their antiaccess defenses against the U.S. Pacific Fleet. They could package new with old units inventively. For example, they could station a picket line of diesel boats and older Type 093 SSNs along likely axes of approach from Hawaii or U.S. West Coast seaports. Speedy but quiet Type 095s could act as “skirmishers,” operating forward of the pickets. SSNs could snipe at the Pacific Fleet’s flanks during its westward voyage while scouting for the rest of the fleet, and for shore-based PLA defenders. They could mount piecemeal attacks against the American fleet, or even try to herd it toward the picket line for additional punishment. PLA commanders thus could use ultramodern platforms to wring new value out of legacy platforms. Such an approach would harness the latest technology while staying true to China’s Maoist tradition of “active defense.” Active defense—which, as Chinese military folk remind us, remains the “essence” of Chinese military strategy decades after Mao Zedong’s demise—envisions luring foes deep into Chinese-held territory. PLA defenders stage tactical actions to weary enemies as they come. They fall on isolated units and try to smash them. Successive small-scale attacks enfeeble enemy forces, setting the stage for decisive battle on Chinese ground. Think about the options that may become available to Chinese skippers as propulsor technology matures. Diesel boats could act as western Pacific pickets, or congregate in wolfpacks to concentrate firepower from multiple axes. Relatively noisy Type 093s could act as decoys, distracting American ASW hunters while Type 095s spring ambushes at opportune moments. And on and on. Commanders could combine and recombine forces in limitless ways—in keeping with China’s way of war. Call it undersea active defense. Third, the advent of quiet-running SSNs would let the PLA Navy play submarine-on-submarine games reminiscent of those once played by U.S. and Soviet boats. To date, lacking a peer to U.S. Navy Los Angeles– or Virginia-class SSNs, the PLA Navy has employed its submarine fleet mainly as an antisurface force. It waits offshore for hostile forces to approach, then does its best to pummel them with missiles or torpedoes. American submariners, by contrast, will tell you the best ASW weapon is another submarine. They view hunting subs as their chief contribution to high-seas warfare. Chinese submariners might follow suit if their boats ran quiet enough, and boasted sensors sensitive enough, to make sub-on-sub ASW an option. Or they might incorporate ASW into their operational portfolio while retaining the emphasis on antiship missions. Either way, PLA submarine operations would take on an intensely offensive hue. No longer would the sub force be a mostly static force lofting antiship missiles toward adversary surface task forces. It would seek out adversary subs as well—and, if successful, project China’s antiaccess defenses into the depths in a serious way for the first time. No longer could the United States’ silent service prowl Asian waters with impunity. Indeed, if both fleets were comparable in stealth, cat-and-mouse games might predominate. This would be a dangerous business. Reaction times would be minimal if boats could only detect and track one another at intimate range. Proximity would magnify the prospect of collisions, accidents of other types, or even inadvertent exchanges of fire. Both navies and their political masters must think ahead about how to manage close-quarters encounters in the deep. And fourth, the debut of pumpjet-equipped SSNs would empower Beijing to mount a standing presence in faraway recesses of the South China Sea and Indian Ocean for the first time. Diesel boats have ventured into the “far seas” in recent years, but they must put into port at regular intervals to refuel. This exposes them to detection. SSNs can remain at sea, and undersea, as long as their food and stores hold out. The crew—not the engineering plant—thus constitutes the limiting factor on a nuclear-powered boat’s at-sea endurance. The Indian Navy has taken notice of PLA Navy forays into India’s home region, and grasps the implications of high-tech Chinese SSNs cruising the Indian Ocean. Indeed, some Indian mariners deem such a presence a red line for competition between the two navies. It can be no accident, then, that there’s an antisubmarine flair to this summer’s Malabar exercises among the Indian Navy, U.S. Navy and Japan Maritime Self-Defense Force. All three navies dispatched aircraft carriers for maneuvers for the first time. The Japanese flattop JS Izumo is a euphemistically dubbed “helicopter destroyer” optimized for hunting submarines. What hostile subs may lurk in the Bay of Bengal, where the exercises are underway, apart from China’s? Hider-finder competition, it seems, has come to the Indian Ocean. Does new engineering technology herald an age of Chinese maritime supremacy? Of course not. Carl von Clausewitz portrays martial strife as constant struggle between “wrestlers” striving to “throw” each other for strategic gain. That goes for acoustic one-upmanship as well. One contender innovates; the other resolves to outdo it. It appears, consequently, that more equal undersea competition lies in store. To prepare for it, U.S. Navy submariners must learn to think of PLA Navy subs not as prey to be devoured by American predators but as worthy foes, capable of some sub hunting of their own. The silent service must adjust to the new, old reality of peer competition beneath the waves. The game’s afoot.

#### Chinese nuclear submarines are undetectable and numbers are increasing

**Jamali and O'Connor 21** — (Naveed and Tom, [Naveed Jamali is a Newsweek editor at large; former FBI double agent and the author of "How to Catch a Russian Spy", Tom O'Connor is an award-winning senior writer of foreign policy at Newsweek, where he specializes in the Middle East, North Korea and other areas of international affairs and conflict. He has previously written for International Business Times, the New York Post, the Daily Star (Lebanon) and Staten Island Advance.], “China's submarine fleet is catching up to the U.S., causing partners to panic“, Newsweek, 10-29-2021, Available Online at <https://www.newsweek.com/chinas-submarine-fleet-catching-us-causing-partners-panic-1643709>, mysoor)

China's push for mass military modernization includes new, more advanced submarines to add to the world's largest navy, causing U.S. partners in the region to scramble to acquire new capabilities of their own. Their answer to the rising underwater threat is a passenger plane-sized submarine killer called the P-8 Poseidon, and orders for the aircraft are pouring in from countries like Australia and India. Both are members of the Quadrilateral Security Dialogue, which also includes the U.S. and Japan as part of a quasi-alliance that seeks to enforce a "free and open Indo-Pacific." And countries as far away as Germany, Norway and the United Kingdom have also purchased the aircraft. One senior Pentagon intelligence official said it's no coincidence that countries were buying up the anti-submarine warfare platform. "China is expanding their undersea warfare capability to extend beyond the South China Sea, which presents a strategic threat to not only nations with territorial disputes, but throughout the entire Pacific area," the official told Newsweek. "It is essential for the national security of partner nations to have the ability to detect and monitor Chinese submarines. The P-8 Poseidon is the best capability to perform that task." "With an advanced anti-submarine warfare suite," the official added, "the P-8 is the best answer to countering Chinese submarines." A spokesperson for Boeing, the U.S. aerospace company that produces the P-8 and its submarine-fighting P-8A variant, said the aircraft was "deployed around the world, with more than 135 aircraft in service, and over 400,000 collective mishap-free flight hours." But even with these new capabilities in stock, China's prowess continues to multiply, presenting a formidable competitor as tensions simmer across the seas of Asia. The U.S. military's latest assessment of Chinese military power, published in September 2020, estimated that China had 50 diesel-powered attack submarines, six nuclear-powered attack submarines and four nuclear-powered ballistic missile submarines. The U.S. is estimated to possess roughly 68 submarines, all nuclear-powered, but China's fleet is expanding rapidly. The report described submarine development as a "high priority" for the People's Liberation Army Navy, and estimated that the force "will likely maintain between 65 and 70 submarines through the 2020s, replacing older units with more capable units on a near one-to-one basis." China has set out to update two key submarine models, the Xia-class Type 092 and the Jin-class Type 094, according to a report published last month by French submarine expert Eric Genevelle and retired U.S. Navy submarine sonar technician Richard W. Stirn. This campaign includes vessels equipped with nuclear-capable submarine-launched ballistic missiles (SLBMs), as well as an array of other weapons such as anti-ship missiles and torpedos. The latest Chinese SLBM, known as JL-2A, has a range of nearly 8,600 kilometers, more than 5,340 miles, putting potential targets as far as the U.S. mainland within range, as estimated in Genevelle and Stirn's paper. China's submarine fleet serves another important strategic function. These quiet undersea craft traverse the depths largely undetected, making them ideal for gathering intelligence as they conduct missions as far out as the Indian Ocean. They also can serve to fortify Beijing's broad territorial claims across geopolitically sensitive spots in the South China Sea and East China Sea, where Japan last month sent both warplanes and warships in response to a suspected Chinese submarine spotted too close for Tokyo's comfort to islands claimed by both countries. With the U.S. and partnered nations seeking to challenge China's version of the world map, the People's Republic views submarines as a key asset. Using advanced monitoring equipment, China seeks to establish what it refers to as a "Great Underwater Wall" to keep tabs on some of the world's busiest waterways in the South China Sea.

#### Independently, China’s development of nuclear subs causes miscalc – extinction

**Jennings 21** — (Ralph, [Ralph Jennings has covered news in China, Taiwan and Southeast Asia for the past 14 years. The native of Portland, Ore. found his interest in journalism overseas while earning a University of California-Berkeley mass communication degree that drew heavily on anthropology courses. He was a natural in gathering news from under-covered communities while working at newspapers for seven years in California.Based in Beijing from 1999, Ralph would talk to people ranging from those living in frozen brick homes short of coal to the Communist officials who set policy for them. He moved to Taipei in 2006. There he has worked further on his anthro-journalism by learning the language of high-tech pros and the culture of investment bankers. Taipei serves also as Ralph's launch pad into Southeast Asia for news, or in one case to write the 2012 Insight Guide to the Philippines. He’s going now for a master’s in mass communication from Taiwan’s No. 2 university.], “Nuclear Sub Mystery Highlights Risk of China-US Miscalculation “, VOA, 10-13-2021, Available Online at https://www.voanews.com/a/nuclear-sub-mystery-highlights-risk-of-china-us-miscalculation/6269388.html, mysoor)

SAN FRANCISCO, CALIFORNIA — A mysterious incident involving an American nuclear submarine in the South China Sea has analysts weighing the risk that a similar mishap — perhaps involving a U.S. treaty partner — could spark an unwanted conflagration between the United States and China. Experts say the danger is growing as Beijing aggressively advances its territorial claims in the South and East China seas while Western nations counter with a growing number of naval passages designed to support freedom of navigation through the contested waters. The stakes were further raised last month with the announcement of the new AUKUS alliance among the United States, Britain and Australia, which will provide Australia with 10 new nuclear-powered submarines. In the latest incident, a U.S. nuclear-powered submarine hit an unknown underwater object on October 2, the U.S. Navy's Pacific Fleet said in a news release. The Navy said crewmembers aboard its Seawolf-class submarine USS Connecticut were hurt, though no one's life was threatened, and that it is investigating what happened. But an analysis published on the Chinese state-controlled CGTN news website said last week that the U.S. use of nuclear submarines to "secretly infringe on China's maritime territory in the South China Sea runs the risk of triggering a war between these two major powers by miscalculation." The CGTN analyst is not the only one who is worried. Other experts tell VOA they fear that a more serious incident between China and a U.S. treaty ally such as Japan or the Philippines could, under certain circumstances, trigger a severe response from Washington. The exact U.S. recourse would depend on the details of the actual incident, said Scott Harold, Washington-based senior political scientist with the Rand Corporation research organization. "Is a bump an attack or does it have to result in an injury or an actual death or a sinking?" Harold asked. "I think those would be areas where U.S. policymakers and in particular U.S. defense officials and military officers would be very quickly trying to assess what is the intention, what is the threshold, is the host nation — meaning the third-party Japan or the Philippines — is it able to respond without the United States?" The U.S. Indo Pacific Command in Hawaii did not answer requests for comment on the risk of accidents near China. China's neighbors, US alliances China calls about 90% of the South China Sea its own despite competing claims from the Philippines and three other Southeast Asian countries that are sympathetic to the West. Beijing claims all of Taiwan, a self-ruled island that's supported by Washington, and vies with Japan for control over parts of the East China Sea. Successive U.S. presidents have seen their Asian allies as buffers against China in any showdown between superpowers. Treaties obligate Washington to consider helping its allies in military crises. Increasing numbers of Chinese military flights near Taiwan, where the island's air force sometimes chases the planes away, is raising the specter of a mishap now, analysts believe. The 1979 Taiwan Relations Act gives Washington the option of intervening on Taipei's behalf. "How long do you keep poking your fist in Taiwan's face before you miscalculate at one point?" asked Carl Thayer, emeritus professor of politics at the University of New South Wales in Australia. "The aircraft could cross a line, or Taiwan's air defenses, which have been turned on and locked onto some of these flights as a warning, could lead to firing missiles." News reports this month saying the United States has stationed troops in Taiwan for at least a year could prompt an angry China to send more planes toward the island, said Oh Ei Sun, senior fellow at the Singapore Institute of International Affairs. The Philippines, for its part, might risk an accident with Chinese vessels even if warned against it by the United States, Oh said. The 2022 Philippine presidential race could be a trigger point, he added, if Sino-Philippine relations become a campaign issue. Vessels from China and the Philippines got into a protracted standoff in 2012 over Scarborough Shoal, a fisheries-rich feature that each side claims as its own. "I think the Filipinos, they are very independent minded, and when something happened, the U.S. may be obligated by treaty obligation to come to their rescue," Oh said. A miscalculation involving China and Japan would probably prompt the United States to examine "gray zone contingencies" before responding, Harold said. Those would mean learning, for example, whether the mishap involved Chinese naval boats or fishing boats, Harold said. U.S. officials would explore further whether Japan needed U.S. help or could follow up on its own, he said. Allies, including the United States, U.K. and Australia, are making ever clearer to China that they would "react in a contingency," Harold said. Informal Sino-foreign channels to bury accidents China and the United States have their own informal resolution channel for collisions and accidental misfires, lowering the risk of conflict, analysts believe. U.S. Indo-Pacific Command holds regular maritime consultations with the PLA to boost sea and air safety while reviewing any incidents, a command spokesperson said. “U.S. Indo-Pacific Command vessels and aircraft comply with international laws and norms that guide safe and professional operations in international waters and airspace and we rely on other nations operating in the Indo-Pacific to do the same,” the spokesperson said. Beijing hopes to avoid war but will fume and blame the United States over any accidents, they say. China did both after the deadly U.S. bombing of the Chinese Embassy in Belgrade in 1999 during a war over Kosovo — Washington called the strike accidental — and after the 2001 emergency landing of a U.S. reconnaissance plane that two Chinese fighter jets had chased near China's south coast. "The situation has become a chicken game basically, and countries are just shadowing each other," said Eduardo Araral, associate professor at the National University of Singapore's public policy school. "There's no intention to harm each other probably, but accidents can and do happen."

#### Counterforcing is impossible – they’ll nuke us from the water.

Kyle Mizokami 22; writes on defense and security issues in Asia, particularly Japan; founder and editor for the blogs Japan Security Watch, Asia Security Watch and War Is Boring. “Satellite Catches Likely New Chinese Missile Submarine,” Popular Mechanics, MAY 17, 2022 https://www.popularmechanics.com/military/navy-ships/a40011949/satellite-spots-new-chinese-missile-submarine/

A commercial satellite has taken pictures of what is probably a new Chinese missile submarine.

The submarine, photographed in drydock, is likely nuclear powered and built to launch cruise missiles.

The new sub could also be the first Chinese sub to incorporate a pumpjet propulsor instead of a more traditional propeller.

Photographs taken by a U.S.-based commercial satellite firm show what is likely a new type of Chinese navy submarine. The sub, photographed out of the water in drydock, is likely a Type 093B, an improved version of the Type 093 Shang class nuclear powered submarines. The subs are likely meant to launch cruise missiles at enemy ships and land targets, much like Russian submarines have engaged targets on the ground in Ukraine.

The photos were taken by Planet Labs, with analysis done by AllSource Analysis. The image depicts a submarine drydock at the Huludao shipyard in Liaoning province. AllSource Analysis describes the submarine as 360 feet long with cruciform tail fins and control vanes on the sail.

One important detail of this new submarine: the tail is apparently obscured from view. All of China’s submarines use propellers as propulsors, but many newer U.S. and NATO submarines, including the U.S. Navy’s Virginia class and the Royal Navy’s Astute class, use pump-jet propulsors. A submarine equipped with pumpjets can sail more quietly than one with propellers, allowing a sub to evade enemy listening devices and slip in closer to its target. Hiding the tail strongly suggests the sub is not equipped with a traditional brass propeller.

The Shang class, China’s most recent class of nuclear powered attack submarines, was developed in the mid-1990s and the first two subs were commissioned in 2002 and 2003, respectively. Naval warfare authority H.I. Sutton believes China has built at least 10 Shang submarines.

The U.S. Navy’s Office of Naval Intelligence estimates the Shang class is noisier than the Soviet Victor III-class submarines developed in the late 1960s. This places them at least two generations behind their American counterparts in terms of stealthiness. A pumpjet propulsor would be a substantial upgrade for the Shangs without investing in a new hull.

Meanwhile, Defense News spotted an intriguing detail in its imagery of the same submarine: vertical launch missile silos embedded in the hull for land attack and anti-ship cruise missiles. When cruise missiles first went to sea, submarines launched them from torpedo tubes. Most of China’s current submarines use this method. More modern submarines, including the Virginia class, migrate cruise missiles to separate vertical launch silos, allowing a submarine to fire its missiles while still keeping torpedo tubes dedicated to torpedoes.

Earlier Shang submarines, with only six torpedo tubes, are unable to launch more than six missiles at once—at the expense of not having any torpedoes loaded and ready for self defense. The new submarine will probably store at least twice as many missiles in silos, launching them all in seconds and presenting a much more complex threat for the defender to shoot them down.

In the event of war, China will use submarines like the Type 093B to hit targets deep in enemy territory with land attack cruise missiles. The U.S. and Russia have used submarine-launched cruise missiles to strike targets in Sudan, Yugoslavia, Afghanistan, Yemen, Libya, Iran, Syria, and Ukraine. China could use its submarines to attack targets in Taiwan, Japan, or given the Type 093B’s nuclear propulsion, as far away as Hawaii.

### 1AR – Subs – AT: Physics

#### Wrong. Major disadvantages like cooling and stealth technology.

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SQUID-based magnetometers still suffer from major disadvantages: they require extreme cooling and can be challenging to set up.40 Together with their detection range, this currently makes it unlikely that SQUIDs will be put on satellites anytime soon. While cryogenic cooling is already used in space for astronomy missions, it remains overly expensive. Moreover, space radiation seriously affects superconductive technology generated signals.41 Another problem is the lack of market proof processing solutions to image and identify findings. Furthermore, submarines can apply magnetic shielding. Similarly to preventing acoustic detection, stealth technology can minimise their magnetic signature. Deploying magnetometers on planes, ships or unmanned aerial, surface or underwater vehicles (UAV, UUS, UUV, respectively) could provide more of a step-development in anti-submarine warfare. But these platforms also pose some constraints. UAVs require lightweight, small volume and very low power consumption devices.42 UUVs’ limiting factor is its battery life, determined by the power demands of the propulsion and onboard systems.43 As one sensor produces too much noise, it requires spatial correlation of a signal from more detectors. An array of detectors is necessary. Yet networked UAVs or UUV’s covering a specific area to find a submarine could prove too costly, especially if they turn easy to defeat. As such, quantum magnetometers will unlikely be a game-changer for now. Even if they improve the location range to, say, 100 kilometres, this remains a location which requires prior knowledge of the submarine’s rough position

#### Sensibility issues and adversaries adapt.

Katarzyna Kubiak 20, a Senior Policy Fellow on nuclear and arms control policy. Previously, she was a Transatlantic Post-Doc Fellow for International Relations and Security at the Norwegian Institute for Defence Studies (IFS), an associate at the German Institute for International and Security Affairs (SWP), a research assistant at the Institute for Peace Research and Security Policy (IFSH), a field researcher for the National Consortium for the Study of Terrorism and Responses to Terrorism (START) and a fellow in the German Bundestag. December 2020, “Quantum Technology and Submarine Near-Invulnerability,” European Leadership Network.

Quantum gravity gradiometers will be very sensitive. That creates two problems. First, although putting them in space would solve the issue of their subsequent sensitivity to ground noise, space-based quantum gravity sensing or mapping is unlikely to detect submarines. Due to a combination of instrument sensitivity and satellite altitude, satellite gravity sensing will have a limited spatial resolution on the ground. Even if the currently estimated achievable resolution of around 100 km could be reduced up to 10 km, it would still be a few orders of magnitude the size of a submarine.46 Whether further improvements will be possible remains to be seen after the first quantum gravity gradiometers are put into space. Second, even if the spatial resolution would improve, gravity gradiometers would see a lot from space as a lot is happening in and above waters – think, for instance, of commercial underwater infrastructure, surface ships, planes etc. Even if a gravity gradiometer would be able to detect and distinguish a submarine, further intelligence will need to determine whose and what type of submarine it sees. Yet classification is tough. Like with birdwatching, one needs to know very well what to look for. Next to SSBNs waters are crowded with commercial, research and conventional military submarines. In 2019, militaries of 40 states operated 491 conventional and nuclear subs.47 That number excludes those owned privately or by research institutions. Distinguishing a strategic nuclear submarine would thus most likely make only sense through continuous tracking, so tracing nuclear submarines down from their known ports/bastions. While submarines can shield themselves from magnetic or acoustic detection, there are no methods to shield from gravity gradiometers. Simply because such methods have not been necessary so far. Should this change, however, in the first instance decision-makers will likely do all possible to hide their submarines better. One could design ways to decrease the detectable gravity signature by improving mass distribution on a submarines’ hull. That would need to happen at the already overly complex design stage of a submarine. Correcting mass distribution in hindsight could turn out very tricky. Moving masses in a significant way on a vessel is not easy in itself and might upset other optimisation efforts. States building new SSBNs today would need to consider this in advance.

## Counterforce Immoral

### 2AC – Unethical

#### Utilization of nuclear weapons is unethical – puts innocent lives at risk which is intrinsically wrong.

Giampaolo, 16 (Kayla, Giampaolo, 2-4-16, “Deterrence of Disarmament?: The Ethics of Nuclear Warfare,” [M.A. in Ethics & Society](https://www.carnegiecouncil.org/people/kayla-giampaolo) from Fordham University, <https://www.carnegiecouncil.org/media/article/deterrence-or-disarmament-the-ethics-of-nuclear-warfare>)

Most research across disciplines unanimously agrees that it is immoral to detonate an atomic weapon due to both short and long-term catastrophic effects. Therefore, this piece shall not focus on the actual use of nuclear weapons, but instead analyze the latter question. Using various philosophical concepts, it will explore the fundamental question as to whether any implementation of nuclear deterrence that involves a risk to civilians is morally acceptable. The models, though differing in origin and rationale, provide a unique lens from which to view this ethical dilemma.

Before analyzing various frameworks, it is first important to understand the concept of nuclear deterrence and why it is a pressing ethical issue. Deterrence is a psychological phenomenon. It involves convincing an aggressor not to attack by threatening it with harmful retaliation. A psychological dimension is involved because the success of deterrence is not due solely to the retaliators capability, but to how persuasive the message of the threat is. In other words, in order for deterrence to work, the opponent must perceive the retaliatory threat as legitimate and serious (Morgan, 1985, p. 125).

John Stuart Mills' idea of utilitarianism provides an interesting framework from which this issue can be approached. [Utilitarianism claims that](http://www.merriam-webster.com/dictionary/utilitarianism), "the aim of action should be the largest possible balance of pleasure over pain or the greatest happiness of the greatest number. "Therefore, the fundamental basis of this principle is that agents, in this case military strategists, should strive to produce the greatest amount of long-term satisfaction or pleasure for people as possible.

One key component of this principle that is highly relevant to nuclear deterrence is uncertainty. When consequences of actions are not known for certain, one should choose whichever action has the greatest expected utility. This is known as the Expected Utility Principle (Oyshile, 2008, p.65).

The problem with this is that it is nearly impossible to calculate a quantitative outcome by comparing deterrence with disarmament. This is because it is hard to calculate the probability of what action the opponent is going to choose. If the opponent is convinced by the threat of retaliation, than nuclear deterrence is successful and maximum utility is achieved. But what if the aggressor is not persuaded by the principle and chooses to attack anyway? Here a problem arises. Is it better to retaliate as forewarned to save the most lives, or continue to be attacked and avoid an immoral act?

When attempting to apply this to nuclear warfare, it initially seemed impossible. Remember, the two options being compared are nuclear deterrence and unilateral disarmament. It seems here that the worst outcomes for both options are the extinction of all humans on earth. For example, in both cases the rival country could continue to attack or other nations that possess nuclear weapons could get involved. In its most extreme form it is plausible that severe nuclear warfare could end the world. Though, it should be noted that the probability of this occurring in the case of disarmament is extremely low.

Though both concepts discussed aim to base ethical decision-making on the best or greatest outcome, neither discusses the inherent goodness of nuclear deterrence itself. Here it is useful to incorporate yet another branch of philosophy: deontology. Deontology focuses on the rightness or wrongness of the action, not on the rightness or wrongness of the consequences (Johnson, 1998, p. 15). From this framework, one could argue that it is intrinsically wrong to put other human beings, especially innocent human beings, at risk. Therefore, since the strategy of nuclear deterrence puts innocent lives in both the opponent and retaliatory countries at risk, then it too is intrinsically wrong.

### 2AC – Preemption Bad

#### Preemptive strikes are not ethically justified—other ways to resolve conflict

Freeman, 14 (Brenden Brower-Freeman, 2014, writer for JCCC Honors journal, “The Ethics of Preemptive Warfare,” <https://scholarspace.jccc.edu/cgi/viewcontent.cgi?article=1042&context=honors_journal>//mahimahi)

With issues such as the Syrian Civil War taking a central role in current political discussion, it is important to understand fully what is occurring in the conversations surrounding them. As some people call for an attack on Syria to prevent the use of weapons of mass destruction or the nation being used as an Al Qaeda base to attack the United States, others call for an overthrow of the current regime because its actions to date have been unethical. What exactly does this mean? When analyzing warfare, how can one frame ethics in such a way as to capture the nuance that goes into warfare? This becomes even more relevant when assessing the potential threats posed by North Korea and Iran. Whether it is regarding the use of a computer virus to attack an Iranian nuclear centrifuge or a missile to level a regime facility in Syria, the issue at hand remains the same; whether preemptive warfare is ever ethically justifiable. Nations like Iran, Syria and North Korea could all pose very real and imminent threats, and it is important to understand the proper way to approach that problem, just like any other. Should there be room in ethics for the preemptive strike? The answer is no. There are three philosophies that represent the ethics of war. These schools are Realism, Pacifism and Just War Theory. There could be other names for methods of approaching and viewing war and peace, but they will always fall into one of the three previously mentioned traditional philosophies based on the ethical criteria and principles of each. These approaches are evidently dominant in this regard. First, it is important to understand what makes each idea distinct and different from the other. Pacifism1 is unique in positing that no use of force is ever ethically justified. In Pacifism, the thoughts and notions of what is or is not ethical is applied broadly to relationships between nation-states. In this school of thought, it would not make sense to try to determine whether a war is just. This is because the result of every attempt to make a determination would yield the same result; that war is not just and therefore not ever ethically justifiable. By contrast, Just War Theory2 is on occasion favorable toward war and conflict. For Pacifism, war is always and continually wrong. War can never be a solution and there is always a better way to resolve the problem that is generating the conflict rather than fighting.

### 2AC – Nuclear Fallout

#### Nuclear explosions lead to dangerous after effects – nuclear radiation produces lethal effects that encompass greater distances

Wolfson and Veress, 20 (Richard Wolfson and Ferenc Dalnoki-Veress, 2020, Professor of Physics at Middlebury College and scientist-in-residence and adjunct professor, “The Devastating Effects of Nuclear Weapons, <https://thereader.mitpress.mit.edu/devastating-effects-of-nuclear-weapons-war/>/mahimahi)

The most immediate effect of a nuclear explosion is an intense burst of nuclear radiation, primarily gamma rays and neutrons. This direct radiation is produced in the weapon’s nuclear reactions themselves, and lasts well under a second. Lethal direct radiation extends nearly a mile from a 10-kiloton explosion. With most weapons, though, direct radiation is of little significance because other lethal effects generally encompass greater distances. An important exception is the enhanced-radiation weapon, or neutron bomb, which maximizes direct radiation and minimizes other destructive effects.

An exploding nuclear weapon instantly vaporizes itself. What was cold, solid material microseconds earlier becomes a gas hotter than the Sun’s 15-million-degree core. This hot gas radiates its energy in the form of X-rays, which heat the surrounding air. A fireball of superheated air forms and grows rapidly; 10 seconds after a 1-megaton explosion, the fireball is a mile in diameter. The fireball glows visibly from its own heat — so visibly that the early stages of a 1-megaton fireball are many times brighter than the Sun even at a distance of 50 miles. Besides light, the glowing fireball radiates heat.

This thermal flash lasts many seconds and accounts for more than one-third of the weapon’s explosive energy. The intense heat can ignite fires and cause severe burns on exposed flesh as far as 20 miles from a large thermonuclear explosion. Two-thirds of injured Hiroshima survivors showed evidence of such flash burns. You can think of the incendiary effect of thermal flash as analogous to starting a fire using a magnifying glass to concentrate the Sun’s rays. The difference is that rays from a nuclear explosion are so intense that they don’t need concentration to ignite flammable materials.

The intense heat can ignite fires and cause severe burns on exposed flesh as far as 20 miles from a large thermonuclear explosion.

As the rapidly expanding fireball pushes into the surrounding air, it creates a blast wave consisting of an abrupt jump in air pressure. The blast wave moves outward initially at thousands of miles per hour but slows as it spreads. It carries about half the bomb’s explosive energy and is responsible for most of the physical destruction. Normal air pressure is about 15 pounds per square inch (psi). That means every square inch of your body or your house experiences a force of 15 pounds. You don’t usually feel that force, because air pressure is normally exerted equally in all directions, so the 15 pounds pushing a square inch of your body one way is counterbalanced by 15 pounds pushing the other way. What you do feel is overpressure, caused by a greater air pressure on one side of an object.

Nuclear weapons have devastating effects. Destructive blast effects extend miles from the detonation point of a typical nuclear weapon, and lethal fallout may blanket communities hundreds of miles downwind of a single nuclear explosion. An all-out nuclear war would leave survivors with few means of recovery, and could lead to a total breakdown of society. Fallout from an all-out war would expose most of the belligerent nations’ surviving populations to radiation levels ranging from harmful to fatal. And the effects of nuclear war would extend well beyond the warring nations, possibly including climate change severe enough to threaten much of the planet’s human population.

Debate about national and global effects of nuclear war continues, and the issues are unlikely to be decided conclusively without the unfortunate experiment of an actual nuclear war. But enough is known about nuclear war’s possible effects that there is near universal agreement on the need to avoid them. As the great science communicator and astronomer Carl Sagan once said, “It’s elementary planetary hygiene to clean the world of these nuclear weapons.” But can we eliminate nuclear weapons? Should we? What risks might such elimination entail? Those are the real issues in the ongoing debates about the future of nuclear weaponry.

### 2AC – Yes Deaths

#### Nuke weapons not justified – exacerbates human suffering and a litany of other existential threats

ICRC, 18 (ICRC, 9-7-18, “Nuclear weapons- an intolerable threat to humanity,” https://www.icrc.org/en/nuclear-weapons-a-threat-to-humanity)

Nuclear weapons are the most terrifying weapon ever invented: no weapon is more destructive; no weapon causes such unspeakable human suffering; and there is no way to control how far the radioactive fallout will spread or how long the effects will last.

A nuclear bomb detonated in a city would immediately kill tens of thousands of people, and tens of thousands more would suffer horrific injuries and later die from radiation exposure.

In addition to the immense short-term loss of life, a nuclear war could cause long-term damage to our planet. It could severely disrupt the earth's ecosystem and reduce global temperatures,  
resulting in food shortages around the world.

## No Impact

### 2AC – AI

#### AI is being developed for domestic capabilities – not nuclear usage.

Franz-Stefan Gady 18, Research Fellow at the International Institute for Strategic Studies (IISS) focused on future conflict and the future of war, 11/7/2018, "Lora Saalman on How Artificial Intelligence Will Impact China’s Nuclear Strategy," <https://thediplomat.com/2018/11/lora-saalman-on-how-artificial-intelligence-will-impact-chinas-nuclear-strategy/>, sg

Chinese research indicates that its pursuit of artificial intelligence (AI) crosses a broad spectrum of both civilian and military arenas. Currently, the indication is that the vast majority of Chinese investment of labor and cost is being trained on unmanned systems and surveillance capabilities that aid in policing and counterterrorism activities. When it comes to its nuclear arsenal, much like the majority of other countries with nuclear weapons, there are no indications at this time that AI would be directly integrated into a nuclear platform.

#### China won’t outpace US AI – strategic disadvantages constraining their manufacturing sector prevents industry dominance.

Cooper and Kompella, 22 (James Cooper and Kashyap Kompella, 2-3-22, opinion contributors for the Hill, “No, China is not winning the AI race” <https://thehill.com/opinion/technology/592270-no-china-is-not-winning-the-ai-race/>//mahimahi)

In this light, as a horizontal technology that can be applied across all sectors, artificial intelligence (AI) has become a strategic priority and the [Chinese focus](https://www.afr.com/technology/is-china-winning-the-ai-race-20200805-p55imu) on superiority in this field is touted as something about which the U.S. should be concerned. Some have gone so far as to conclude that [the West has already lost the AI race](https://www.wired.co.uk/article/why-china-will-win-the-global-battle-for-ai-dominance).

Don’t believe the hype. To be sure, the availability of large amounts of data is at the heart of AI success. It is tempting to think that less-democratic regimes that amass huge amounts of data about their citizens and have scant regard for privacy can develop better AI systems using that data. However, all other things being equal, better and higher quality AI systems emerge from countries with strong data privacy and data protection regulations because AI systems must undergo greater scrutiny during their development and deployment. [An example](https://www.consumerfinance.gov/about-us/blog/innovation-spotlight-providing-adverse-action-notices-when-using-ai-ml-models/) of this can be seen in the United States regarding fair lending practices and consumer protection from credit bureaus. Further, the market for AI is global, and such high-quality AI systems find buyers in other countries as well.

Around the globe, Big Tech’s rising power has resulted in calls for more oversight. In a drastic move that stunned the industry and analysts alike, the Chinese government [recently rewrote](https://www.economist.com/the-world-ahead/2021/11/08/xi-jinpings-crackdown-on-chinese-tech-firms-will-continue) the rulebook for the country’s technology industry. In effect, China is vacating entire swaths of digital and creative industries, arenas that serve as training grounds and talent factories for other industries. This more restrictive approach may not bode well for China’s AI industry in the long term. China may find itself constrained on the extent of automation and AI in its manufacturing sector — labor-intensive manufacturing remains China’s main strength, and a high degree of automation can result in job losses, labor unrest, and instability.

Meanwhile, there is bipartisan support for AI in the United States. Former [President Trump](https://thehill.com/people/donald-trump/)proposed [increasing funding](https://thehill.com/policy/technology/482402-trump-budget-proposal-boosts-funding-for-artificial-intelligence-quantum) for AI development through the National Science Foundation. The [National AI Initiative Act](https://www.congress.gov/116/crpt/hrpt617/CRPT-116hrpt617.pdf#page=1215) of 2020 signaled a sense of urgency and suggested that several federal agencies create a national strategy on artificial intelligenceThere is draft legislation, at both the state and federal level, to promote responsible use of AI and prevent its misuse.

Strong objections to the use of facial recognition and other AI systems by law enforcement in the U.S., raised by civil liberties advocates, have led some local authorities, such as the City of San Francisco, to [ban such systems](https://www.nytimes.com/2019/05/15/business/facial-recognition-software-controversy.html?action=click&module=MoreInSection&pgtype=Article&region=Footer&contentCollection=Technology). To use a Silicon Valley phrase, these debates are “not a bug, but a feature.” They shine a light on the limitations of AI systems and help to set the “rules of the road” for proper use of AI. This will establish the U.S. as a global leader in AI regulation, once lawmakers and regulators do their work. China, meanwhile, has faced strong [global criticism](https://www.forbes.com/sites/zakdoffman/2019/05/03/china-new-data-breach-exposes-facial-recognition-and-ethnicity-tracking-in-beijing/#5623644334a7) for using facial recognition software to [monitor and surveil Uyghurs](https://www.nytimes.com/2019/04/14/technology/china-surveillance-artificial-intelligence-racial-profiling.html?module=inline.) in its Xinjiang region. China has outlined a set of [AI ethics principles](https://carnegieendowment.org/2022/01/04/china-s-new-ai-governance-initiatives-shouldn-t-be-ignored-pub-86127), but the jury is still out on enforcement and how they function in practice.

The increasing number of AI research papers and [patents](http://ipjournal.law.wfu.edu/files/2021/12/22-Wake-Forest-J.-Bus.-Intell.-Prop.-L.-43.pdf) by Chinese researchers is often cited as proof that China has caught up with the United States in this field. The increased focus is good for the Chinese AI ecosystem, and it will help them solve China-specific problems. But dominance in this emerging strategic industry is not guaranteed. The U.S. has several strategic advantages, including: the strengths of its higher education and research institutes, which attract the best STEM talent from across the world; the [largest venture capital ecosystem](https://cset.georgetown.edu/publication/tracking-ai-investment/); and the largest number of technology unicorns (start-ups with private valuations greater than $1 billion).

China is not overtaking the U.S. in artificial intelligence. The current evidence and trajectory paint a clear picture: The conditions for AI to flourish, such as incentives to experiment, freedom to pursue opportunities without restrictions, and the coming guardrails to prevent misuse, favor U.S. leadership. This is still the United States’s game to lose — though maybe both countries could win through collaboration. To solve planet-scale problems such as climate change, we are going to need AI solutions from both competitors.

#### Even if China is ahead in some places, there’s no impact – the US is ahead in places it counts.

Lopez, 20 (Todd Lopez, 7-9-20, contributor for DOD News, “Where it Counts, U.S. Leads in Artificial Intelligence,” <https://www.defense.gov/News/News-Stories/Article/Article/2269200/where-it-counts-us-leads-in-artificial-intelligence/>)

When it comes to advancements in artificial intelligence technology, China does have a lead in some places — like spying on its own people and using facial recognition technology to identify political dissenters. But those are areas where the U.S. simply isn't pointing its investments in artificial intelligence, said director of the Joint Artificial Intelligence Center. Where it counts, the U.S. leads, he said.

"While it is true that the United States faces formidable technological competitors and challenging strategic environments, the reality is that the United States continues to lead in AI and its most important military applications," said Nand Mulchandani, during a briefing at the Pentagon.

#### China lags behind the US despite President Xi’s plans

Rayome, 19 (Alison DeNisco Rayome, 4-5-19, senior editor at CNET,”How China tired and failed to win the AI race: The inside story,” <https://www.techrepublic.com/article/how-china-tried-and-failed-to-win-the-ai-race-the-inside-story/>//MS)

In July 2017, the Chinese government under President Xi Jinping released a [development plan](http://www.gov.cn/zhengce/content/2017-07/20/content_5211996.htm) for the nation to become the world leader in AI by 2030, including investing billions of dollars in [AI startups](https://www.techrepublic.com/article/chinese-ai-startups-raised-5b-in-vc-funding-last-year-outpacing-the-us/) and [research parks](https://www.techrepublic.com/article/beijing-to-build-2-billion-research-park-as-china-races-to-world-dominance-in-ai/).

Meanwhile, in the US, President Donald Trump released a long-awaited [American AI Initiative](https://www.whitehouse.gov/presidential-actions/executive-order-maintaining-american-leadership-artificial-intelligence/) executive order in February 2019. The order [calls for](https://www.techrepublic.com/article/3-things-businesses-need-to-know-about-trumps-american-ai-initiative/) heads of implementing federal agencies that perform or fund AI R&D to prioritize this research when developing budget proposals for FY 2020 on. However, it does not provide new funding to support these measures, or many details on how the plans will be implemented.

Cutting through the hype

Despite the ambitious plan and the hyped headlines, China is not as far along in its AI ventures as its state media would lead you to believe, Stieler said.

“There are a lot of half-truths and clear exaggerations that I see every day,” Stieler said. “Things that don’t work in the West also don’t work in China yet.”

These are the key elements of AI development where China lags behind the US, despite rampant media coverage.

### 2AC – Biotech

#### No CRISPR impact – China regulating in squo

David Cyranoski 19; cites He Jiankui who speaks during an interview at a laboratory in Shenzhen. (“China set to introduce gene-editing regulation following CRISPR-baby furore” Nature. May 20, 2019. <https://www.nature.com/articles/d41586-019-01580-1>

China is poised **to introduce a new regulation on gene editing in humans.** A draft of the country’s new civil code lists human genes and embryos in a section on personality rights to be protected. Experiments on genes in adults or embryos that endanger human health or violate ethical norms can accordingly be seen as a violation of a person’s fundamental rights. Lawyers say the regulation would mean that anyone who manipulates genes in humans is responsible for what happens to a person. “The law makes clear that those who do research with human genes and embryos cannot endanger human health or violate ethics,” says Zhang Peng, a criminal-law scholar at Beijing Wuzi University. **China has been revising its civil code** — the overarching legal framework that governs non-criminal disputes in areas such as marriage, inheritance and personal rights — since 2002. The latest draft was submitted last month to the **country’s chief legislative body**, the Standing Committee of the National People’s Congress, and is likely to be adopted next March. The inclusion of gene editing in the latest draft of the new civil code was a last-minute addition, however — prompted by uproar over gene-editing experiments carried out last November by Chinese biophysicist He Jiankui. He claimed to have done experiments on human embryos that resulted in twin girls whose DNA had been engineered to make them less susceptible to contracting HIV. The controversial experiments drew condemnation in China and internationally, and led to He’s sacking from the Southern University of Science and Technology in Shenzhen in January. He was also censured by Chinese authorities, but it was not clear whether he had broken any of the country’s laws. The revised civil code places experiments using human genes or embryos under the section of the code that ensures a person’s right to physical well-being, freedom, privacy and dignity. It is the first time that regulations relating to genomes have been included in the civil code, says Zhang. If the new code had been in effect when He was considering his experiments, it might have dissuaded him, says Zhang. Even if He’s work did make the twin girls less likely to get HIV, it’s possible that he inadvertently increased their susceptibility to other infectious diseases. But there’s also a danger that his experiments made unintended modifications in their genomes, as often happens in gene-editing experiments in the laboratory, leaving the twins vulnerable to genetic diseases. Under these regulations, such gene-editing experiments would be illegal, says Zhang. In March, the health ministry also **drafted regulations** that would **require** scientists to get **approval** before editing human embryos, and would impose penalties for those who broke the rules.

#### No Chinese innovation – party constraints and economic realities of Chinese markets make it impossible.

Regina Abrami 14, Director of the Lauder Institute's Global Program and Head of its International Studies faculty at the University of Pennsylvania, “Why China Can’t Innovate”, <https://hbr.org/2014/03/why-china-cant-innovate> //lenox

Innovation from the Bottom Up There are limits, though, to what even so muscular and motivated a government as China’s can mandate when it comes to innovation. Against the government’s intentions and national resources run powerful currents that originate in China’s Communist system and ancient culture. Consider how those forces can constrain the entrepreneurial creativity bubbling up in China. In the early 1990s Edward Tian (Tian Suning), a U.S.-educated entrepreneur, founded the telecom start-up AsiaInfo (now AsiaInfo-Linkage), which within three years grew into a thriving company of 320 people with revenue of $45 million. In 1996, frustrated with the slow pace of technological change in China’s telecommunications industry, then–vice premier Zhu Rongji convinced Tian that it was his duty to leave AsiaInfo in order to lead a new company, China Netcom, as it set out to build a fiber-optic network linking some 300 cities. When one of us (McFarlan) visited the company, in 2001, it was an innovative firm with an open, creative culture, despite the fact that it was jointly owned by four government agencies. In 2002, when the telecommunications giant China Telecom was broken apart by the government, its 10 northern provincial markets were integrated into China Netcom. Overnight, Tian became responsible for an organization of 230,000. The culture clash between the two organizations was extraordinary. Tian was seen by many China Telecom employees as an American outsider trying to reform a state-owned enterprise in unacceptable ways. Six months after the merger, McFarlan presented our case study on China Netcom to 70 senior Chinese executives, including 20 from the telecom industry. Rather than draw lessons from the case about the relationship between organizational change and business success, the group attacked Tian for his “un-Chinese” ways of managing—and then charged McFarlan with incompetence for presenting Silicon Valley culture in China in such a positive light. Tian soon stepped down from his CEO role and later from the China Netcom board. To outsiders, China Netcom eventually looked like a modern telecom firm, with the governance structures needed to be listed on international stock exchanges. But it remained at heart a state-owned enterprise. When we teach our current case on China Netcom, we ask MBA students to scour the company’s board for the real boss. Where, we ask, is the party secretary? The Communist Party requires a representative to be present in every company with more than 50 employees. Every firm with more than 100 employees must have a party cell, whose leader reports directly to the party in the municipality or province. These requirements compromise the proprietary nature of a firm’s strategic direction, operations, and competitive advantage, thus constraining normal competitive behavior, not to mention the incentives that drive founders to grow their own businesses. But even if the government were to disband party cells and instead redouble its efforts to encourage breakthrough innovation, there remains an even stronger disincentive: the economic realities of the markets in which Chinese companies operate. Why go to the trouble to pioneer innovative offerings when the rewards and growth prospects for incremental improvements are so vast, both at home and abroad? Consider the B2B portal Alibaba, which in 2001 was so shaky that we feared it would go bankrupt. But by creatively adapting foreign technologies to the needs of developing markets, Alibaba now serves 80 million customers in nearly 250 countries. The success of its auction website, Taobao, eventually forced eBay out of China. Or take Baidu, the Chinese search engine leader, which has grown massively in its home market with an offering that breaks no technological ground and does not challenge political orthodoxy. Having tailored its product, organization, and processes to the needs of China’s patchwork of regional markets, Baidu now has an 80% share of what has become the world’s largest search market. Just as Japan caught up with the United States technologically in many industries during the three decades after World War II, China is now doing the same through incremental innovations. Adapting technology has become a standard and highly lucrative practice. Getting that technology through acquisitions, though, is an important new trend.

#### No super soldiers – insufficient knowledge and it takes at least a century to develop.

Popy Pandey 21, Fanatic about science, history, and religion. Top writer in Science, “Is China Using Genetic Engineering to Develop Genetically-Modified Super- Soldiers?” <https://medium.com/predict/is-china-attempting-to-develop-biologically-enhanced-super-soldiers-through-genetic-engineering-c88b3d1b7a3a> //lenox

John Ratcliffe is particularly concerned about China’s rapid advancements in ‘CRISPR-Cas9’ genetic engineering technology. CRISPR-Cas9 is a revolutionary technology that enables geneticists and medical researchers to edit specific regions of the genome by deleting, inserting, or modifying DNA sequences. This is a very strong tool for a genetic alteration that was initially designed with the goal of curing hereditary illnesses. In 2020, two biologists were given the Noble Prize for this technology: Emmanuelle Charpentier and Jennifer Doudna. In 2018, He Jian Kui, a researcher working in China, claimed to have used this procedure to create two genetically modified human infants, named ‘Lulu’ and ‘Nina’. Initially, this achievement was lauded throughout the world, but subsequently, as experts dug deeper into He Jian Kui’s method, they harshly criticized it for ethical reasons. Without any methodical approach and without investigating the consequences of these experiments can result in fatal diseases in humans. In response to the global outrage, He Jian Kui was sentenced to three years imprisonment by a Chinese court. Later in the year, the Chinese government committed to enacting legislation governing human gene editing. However, Ratcliffe’s accusation that China conducts biological tests on its soldiers has dragged back China into the argument. Ratcliffe is not the only one to make such claims. Earlier this year, two researchers, Elsa Kania, and Wilson Vorndick expressed concern about China’s possible use of ‘CRISPR-Cas9’ technology to weaponize its soldiers. Additionally, they asserted that China is attempting to connect biotechnology, supercomputing, and cognitive sciences. Furthermore, both researchers asserted that ‘Biotechnology’ was a primary priority area for China’s strategic and defence development. One point worth noting is that neither Elsa Kania nor Wilson Vorndick claimed that China has achieved any success with these methods of genetically engineering their army. They only stated that the Chinese army is actively engaged in genetic engineering. Ambition Vs Reality Wilson Vorndick, a former navy officer, seemed more concerned with the future consequences of gene editing than with China’s ability to build super-soldiers. In 2019, the science journal ‘Nature’ expressed concern, that gene-editing techniques could have negative consequences for humans. These approaches have the potential to cause major mutations, posing harm to the entire humanity. Additionally, the mutation created by the technique will be very difficult to be detected. Although China has denied all of these allegations and described the US as a malicious propagandist. However, due to China’s lack of transparency, verifying the veracity of claims is exceedingly difficult. However some experts suggest, it is exceedingly unlikely that China will succeed in such endeavours in the near future. Let's understand why? Possibility of Super-Soldier In a report published in BBC, Elsa Kania disagrees with Ratcliff’s assertions, believing that China is only conducting field trials for exploratory purposes and developing a super-soldier is not easy for any nation across the world. Because our resources are insufficient to develop a super-soldier via genetic engineering at the moment. Additionally, she cites the ineffectiveness of gene editing techniques in mature adults when compared to embryonic gene editing. Dr. Helen O’Neill, a molecular geneticist at University College London, also disagrees with Ratcliff’s claim she is more worried about the possibilities of such technology than with the production of super-soldiers. Pointing out the limitation of gene-editing technology, scientists Christophe Galichet underscores the lack of precision of these technologies. He continued, ‘Although gene editing is conceivable, we are still unknown about the complete function of genes; if we change a sequence of DNA, it is possible that it may confer additional strength on the subject, but it is also possible that it will have unintended consequences. Additionally, some experts believe that China is being inspired by the west in these initiatives. According to a 2017 report from ‘The Guardian,’ US military agencies are investing millions of dollars in gene extinction technologies that can be used to eradicate malarial mosquitoes, invasive rodents, and other species.’ This has raised concerns because, while they intend to use the technology to eradicate invasive species, but it has the potential to be misused. France and the United Kingdom both issued guidelines in 2020, directing researchers to conduct research on enhanced soldiers within critical boundaries. Although numerous western countries conducted genetic engineering research, none aroused as many ethical concerns as China. Impact on Geopolitics BGI (Beijing Genomics Institute), a Chinese genome sequencing company, had marketed millions of COVID-19 test kits outside of China. Apart from this, BGI’s parental test kits are quite well-known worldwide. However, Reuters uncovered in an independent study that ‘this Chinese corporation is selling prenatal tests globally, manufacturing these kits in partnership with the country’s military, and utilizing them to harvest genetic data from millions of women for large-scale population studies. US security officials warned American labs against using such China-made testing kits as these can be leveraged for the collection of genetic data in order to push genome research in China. Even though BGI rejects these charges, Reuter stated that the evidence in hand is insufficient to prove anything, but the connections between BGI and the Chinese PLA are deeper. China has strengthened the linkages between its commercial firms and military-related research activities in recent years. Previously, BGI collaborated with the PLA on the development of technology to prevent altitude sickness among Chinese soldiers. The majority of China’s population lives in Western China, whereas their most significant borders with India are in the south and west; these borders are characterized by high altitude topography. According to ‘The New Indian Express,’ China is currently constructing multiple permanent military structures around the India-China border, named the LAC(Line of Actual Control). China attempted to intrude on the Indian side of the border on numerous occasions, resulting in numerous clashes, the most notable one was the ‘Galwan Clashes.’ Both sides suffered huge losses in the ‘Galwan clashes’ due to the high altitude and rough terrain. The higher altitude on the Chinese side across LAC gives China an operational advantage during times of conflict. However, the Chinese army suffers a lot to defend these posts along LAC because of high altitude sickness and related health problems. PLA has performed a variety of scientific studies in the past to address concerns about China’s west and south-west border’s higher altitude. Even if this doesn't conclude the possibility of a super-soldier, experts say this is alarming because it is the first step toward a military-genetic engineering link. Conclusion Although Ratcliff’s assertions appear a little far-fetched, China’s suspicious practices refocus analysts’ attention on them. Even if they succeed in generating mutant super-soilers, it will take them a minimum of a century of time, because our existing scientific understanding is insufficient to accomplish such a feat. However, due to China’s lack of transparency, we would never know what is truly going on inside the country.

### 2AC – Bioweapons

#### No impact to Chinese bioweapons.

Corey Pfluke 20, arms control and proliferation specialist for the American Foreign Policy Council, <https://www.airuniversity.af.edu/Wild-Blue-Yonder/Article-Display/Article/2094603/biohazard-a-look-at-chinas-biological-capabilities-and-the-recent-coronavirus-o/>, cy

However, an advanced biological weapons program is not enough to classify as a threat; there also needs to be a real intent to use those weapons. When it comes to China’s intention, it is possible that China would not choose to use biological weapons in any capacity because of the suffering the country saw due to Japan’s use of Shigella and plague against the nation. During the 1991 BTWC Review Conference, the Chinese delegation stated, “Of bacteriological weapons, China has always advocated the complete prohibition and thorough destruction of biological weapons and pursues a policy of not developing, producing, or stockpiling this type of weapon.”20 More recently, the Chinese Foreign Ministry stated in 2011 that China continues to support the “complete prohibition and thorough destruction of all kinds of weapons of mass destruction, including biological weapons.”21 At the same time, China was not involved in the BTWC negotiations and, before signing the treaty, ensured the inclusion of a clause that meant the treaty was only binding if all other countries in the treaty were also following the guidelines, essentially giving the state an out to not only pursue biological weapons but to use them if necessary.22 This action indicates that the Chinese wish to leave the possibility of using biological weapons open as a policy option, which in turns means a certain amount of willingness to utilize the weapons if the need arose. Overall, China may have the capability, but Beijing may not have the will to put its own people at risk, which is what makes the new subfield of genetic weapons both fascinating and frightening.

### 2AC – Hypersonics

#### China is already equipped with advanced hypersonics.

Sakshi Tiwari 21, Defense and IR Journalist for EurAsian Times, “China’s Missile Program Far Exceeds The Capability Demonstrated By US, Russia So Far – US Intelligence Report,” <https://eurasiantimes.com/chinas-missile-program-far-exceeds-the-capability-demonstrated-by-us-russia-so-far-us-intelligence-report/>, cy

Title: China’s Missile Program Far Exceeds The Capability Demonstrated By US, Russia So Far – US Intelligence Report

Russia and China have been increasing their joint military training at sea, in the air, and on land over this year, Russian Defense Minister Sergei Shoigu said on Tuesday. Earlier in the day, he spoke with his Chinese counterpart, Wei Fenghe, via video conference.

“Our armed forces interact on land, at sea and in the air. The number of operational and combat training events is growing,” Shoigu was quoted as saying after the meeting in a statement from his ministry.

The collaboration between the armed forces of Russia and China has reached a qualitatively new level in recent years, marking a “breakthrough” in practical cooperation, Chinese Defense Ministry spokesman Wu Qian said on Thursday.

“In recent years, under the strategic leadership of President Xi Jinping and President Putin, the relationship of comprehensive partnership and strategic interaction in the new era between China and Russia has continued to develop; exchanges and cooperation between the armed forces of the two countries in various fields have grown deeper; strategic communication has reached a new level; a breakthrough has been made in practical cooperation,” Wu told a briefing.

Wu also stressed that Beijing firmly supports the deepening of exchanges and contacts between the two countries, considering it instrumental to maintaining peace and stability in the world.

China’s Missiles Worrying The World

China tested a nuclear-capable hypersonic glide vehicle that went around the globe before it sped towards a target in July this year, in a test that shocked the world.

It demonstrated superior capabilities with its hypersonic weapon system and stunned officials in the West as well as in India. However, there is more to the test that was initially known.

It has now emerged that the hypersonic missile test included the launch of a separate missile from the ultra-high-speed vehicle, The Financial Times reported quoting unnamed US intelligence officials. Just a few days ago, the US had confirmed that the hypersonic missile actually “went around the world”.

This is the first time ever that any country has ever achieved this feat which required firing a missile from a parent vehicle with a speed of Mach 5 or in other words, five times the speed of sound.

Neither the United States nor Russia, two countries with the most advanced military capability and technology have demonstrated this capability yet.

In a test that was conducted sometime around late July-early August, the guided hypersonic bomb was carried around the world by a long-range missile before being released on a test target within China.

The hypersonic missile, which can be guided unlike ballistic missiles, missed the target by more than 20 miles (32 kilometers), which according to top US military official, General John Hyten, was “near enough” for a first test.

However, the latest reports have revealed that while flying from the south toward China, the hypersonic vehicle launched a separate missile that rocketed away and landed safely in the South China Sea.

The release took place while the vehicle was traveling at hypersonic speeds, exceeding 3,835 mph (6,175 km/h). China’s principal adversary, the US is still flustered and is internally brainstorming as to how China could achieve such a feat.

China’s test of a globe-circling hypersonic weapon in July included the unprecedented launch of a separate missile from the ultra-high-speed vehicle, according to the Financial Times and The Wall Street Journal.

The test showed China’s development of its strategic, nuclear-capable weapons as more advanced than any had thought, surprising Pentagon officials, South China Morning Post reported.

Pentagon Baffled By Chinese Missile

Pentagon technology experts are baffled as to how the Chinese were able to accomplish this extraordinary milestone. The released missile’s probable purpose was unknown. It might be used to aim or deflect a hypersonic attack on an adversary country’s defenses. However, it has got alarm bells ringing in the West.

A hypersonic system that can travel around the world and fire missiles at that speed is unprecedented and threatens the US, its allies and their various military assets around the globe.

“The People’s Liberation Army now has an increasingly credible capability to undermine our missile defenses and threaten the American homeland with both conventional and nuclear strikes,” Mike Gallagher, a member of the House Armed Services Committee, was quoted as saying by the Financial Times.

Washington is expected to have taken cautious note of China’s hypersonic test and is developing a powerful laser weapon capable of blasting missiles and drones after China’s latest “nuclear-capable hypersonic missile” test.

China’s Hypersonic Capabilities

China is officially known to be equipped with two deadly hypersonic missiles. The first Dong Feng-17 (DF-17), which is an HGV-equipped medium-range missile. It has a stated speed of Mach 5-10 and can carry conventional or nuclear missiles.

The DF-17 is a nightmare for all opponents, with a range of 1,800-2,500 km and a launch weight of 15,000 kg. The status of this missile, however, remains unknown.

The second is the DF-ZF HGV, which also has a top speed of Mach 5-10. It appears to be capable of “extreme maneuvers” to get around hostile defenses. The DF-17 was created to work in tandem with the DF-ZF, enhancing the capabilities of both weapons by a factor of ten.

### 2AC – Lasers

#### Vacuum decay won’t cause universal collapse – it’s science fiction. Worry about the nukes.

Ryan F. Mandelbaum 21, Senior technical writer for Gizmodo, “The Universe Is Not in Danger of Ending From a Higgs Boson Vacuum Bubble,” <https://gizmodo.com/the-universe-is-not-in-danger-of-ending-from-a-higgs-bo-1825008568>, cy

Title: The Universe Is Not in Danger of Ending From a Higgs Boson Vacuum Bubble

There are few easier ways to get people to read your website than to scare them. That’s how we ended up with the media frenzy surrounding Tiangong-1, and it’s why InfoWars continues to exist. It’s also how we’ve ended up with folks telling you the universe is due to end. Heck, we’re guilty ourselves.

Our universe had a beginning—the Big Bang. But we’d all like to know what the end would be like. Perhaps it will collapse in a big crunch, or keep expanding onwards forever. But since scientists discovered the Higgs boson particle back in 2012, some have wondered whether something stranger might happen.

A theoretical physics paper recently came out in the journal Physical Review D that really did foretell the universe’s end. Here’s a rather upsetting snippet:

“Since the lifetime [of the Standard Model of particle physics] is finite and the Universe infinite, there is likely a bubble of true vacuum already out there, far away. It is sobering to envision this bubble, with its wall of negative energy, barreling towards us at the speed of light. It seems the long-term future of our Universe is not going to be slow freezing due to cosmic acceleration but an abrupt collision with one of these bubble walls.”

That paper then predicts that the universe’s lifetime would be between 1088 and 10241 years, but probably probably around 10139 years. That’s 10,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,000,

000,000,000,000,000,000,000,000,000,000,000,000,000,000 years.

This is not something you should worry about. At all. Despite recent headlines in Newsweek, Business Insider, the Daily Mail, and others.

Here’s what the paper’s actually saying. The universe is made from teeny particles. The rules that govern those particles are called the Standard Model of physics. A few of those particles called the W+, the W-, and the Z, have mass, but several decades ago physicists thought they shouldn’t. They solved that problem with a theoretical particle (and corresponding field) called the Higgs boson.

CERN scientists finally confirmed the existence of the Higgs boson back in 2012 by slamming other particles together at the Large Hadron Collider in Switzerland. Many theoretical physicists were interested in the Higgs’ mass, because alongside another particle called the top quark, they could be used to determine whether the vacuum of the universe was “metastable” or “stable.”

Think of the vacuum of the universe (the nothingness) as a surface upon which all of the laws of physics happen. If the universe is stable, there’s nothing below the surface—it’s the true bottom. If the universe is metastable, then perhaps there’s a true bottom beneath that floor. The idea is that maybe somewhere in our vast cosmos, the floor might break. That effect would ripple through the entire universe at the speed of light as the fake floor falls out to the real one.

The laws of physics would no longer work as we expect, since there’s now a new definition to what a “vacuum” means. Perhaps nothing would be able to exist in such a vacuum.

The team of Harvard physicists were interested in the lifetime of the metastable Standard Model for the same philosophical reasons that everyone has pondered the end. And the number they got, 10139, is actually quite satisfying.

“I think people don’t have a sense as to how big these numbers are,” study author and physicist Matthew Schwartz from Harvard told Gizmodo. “It’s such an enormous out of time. But they think 10139 years is 139.”

The universe is around 10 billion, or 1010 years old. 10139 is a completely unfathomable number of years. If you could imagine the entire length of the universe from the Big Bang to now as a single day on Earth, 10139 years would still be... far longer than the current age of the universe. It’s more than the amount of time it would take to count every atom in the universe, if you had to wait from the Big Bang until now in between counting each atom. That number of years eludes any rational attempt to understand it (Which is probably why it sounds so close—our heads just short circuit and say, threat!!!). It is forever.

“I think people don’t have a sense as to how big these numbers are.”

And here’s the other thing: Physicists still don’t know for sure whether we live in that metastable universe or not. It looks like we do, based on current measurements, but further refining of the Higgs’ and top quark’s masses might reveal the first measurements were slightly off and we actually live in a stable universe. Maybe our floor is the real floor.

There are good reasons to study these things, said Schwartz. If their calculations had revealed that the Standard Model could only last for a million years, then there would have to be some other physics, perhaps new particles explaining why we were still here. But Schwartz and his team’s calculations imply that the Standard Model could last just fine without anything else, even if we did live in this metastable state. It’s also different from the conventional story, that eventually everything stops moving.

You should not worry about vacuum instabilities causing the universe to end. If you’re worried about the fate of humanity, you should worry about nukes, climate change, antibiotic-resistant pathogens, food insecurity, or clean water. The universe will be just fine.

### 2AC – Modernization

#### China already has the nuclear triad.

Kris Osborn 21, President & Editor-In-Chief of Warrior Maven, “China Solidifies "Air Leg" of Nuclear Triad Weapons Systems,” <https://warriormaven.com/global-security/china-nuclear-h-20>, cy

China is now taking substantial and decided steps forward to solidify the air-leg of a “nuclear triad” with the addition of a nuclear-capable H-6N bomber, according to the Pentagon’s recently released 2021 report on China’s military capability.

China is known to operate road-mobile ICBMs and of course arm its Jin-class submarines with JL-2 and emerging JL-3 nuclear capable missiles, yet it is only in recent years, if not months, that the People’s Liberation Army Air Force has resurrected its airborne leg. This quite simply means that China will operate with an ability to hold targets around the world at risk of nuclear attack from the air as well as from the ground and sea.

PLAAF: Airborne Leg of Nuclear Triad

“In October 2019, the PRC signaled the return of the airborne leg of its nuclear triad after the PLAAF publicly revealed the H-6N as its first nuclear-capable air-to-air refuelable bomber,” the Pentagon report, called “Military and Security Developments Involving the People’s Republic of China 2021,” states. “The H-6N features a modified fuselage that allows it to carry externally an air-launched ballistic missile (ALBM) that may be nuclear capable.”

Activating a nuclear-capable bomber such as the longstanding H-6N, soon to be joined by the new stealthy now-in-development H-20 bomber, is a key part of a large-scale Chinese nuclear weapons modernization and expansion campaign.

ICBMs

This effort, as detailed by the Pentagon report, is placing the People’s Republic of China on track to have “at least 1,000 warheads by 2030, exceeding the pace and size the DoD projected in 2020. This number of warheads will spread across a range of weapons systems to include road-mobile ICBMs with multiple reentry vehicles, submarine-launched nuclear weapons, aircraft and new ground-based ICBMs launched from silos now under construction.

Earlier this year, Adm. Charles Richard, Commander of U.S. Strategic Command, said that commercial satellite photos reveal ICBM-delivering ground silos under construction in parts of mainland China, a concerning, while not surprising development for Pentagon strategists tracking the PRCs ambitious, large scale nuclear weapons expansion.

“The PRC has commenced building at least three solid-fueled ICBM silo fields, which will cumulatively contain hundreds of new ICBM silos,” the Pentagon report states. An expanded force with new silos may suggest the China is evolving its nuclear weapons readiness posture to a “Launch-on-Warning” position.

Nuclear Capable Air-Launched Ballistic Missile

China is also supporting the air leg of its “nuclear triad” by developing a nuclear capable air-launched ballistic missile, a weapon which could represent an effort to match the now developing U.S. nuclear-capable air-launched cruise missile called the Long Range Stand-Off Weapon (LRSO).

The concept with an air-launched ballistic missile or cruise missile is to add new dimensions to a deterrence strategy by giving commanders a wide range of options with which to hold enemies at risk.

In this case, a long-range, aircraft-fired nuclear weapon could make a country vulnerable without needing a Stand-In, closer range bomber to operate above targeted territory, likely armed with advanced air defenses. The tactical notion, it seems clear, is to prepare for the widest possible sphere of contingencies.

Perhaps land-based ICBMs are destroyed or overwhelmed? Perhaps submarine-launched nuclear armed missiles are disabled, found or not in a position to strike? Perhaps nuclear-armed aircraft cannot survive stand-in operations in close proximity to air defenses? Should all of these things somehow develop unexpectedly at the same time, what options might remain? This would be where an air-launched, yet long-range nuclear weapon might prove uniquely valuable.

China's H-20 Stealth Bomber

China’s new stealthy H-20 bomber is expected to operate with an ability to carry both conventional and nuclear weapons and fly at ranges out to 8,500 kilometers, a new Pentagon report on China says.

## No Limited War

### 2AC – Generic Draw In

#### Avoidable US-China wa causes extinction and draws in other countries

Kevin Rudd 22, global president of the Asia Society and former prime minister of Australia, “A U.S.-China War Would Dwarf the Destruction in Ukraine. Both Sides Must Act Now to Avoid It,” <https://time.com/6164184/how-us-china-avoid-war/>, cy

A U.S.-China War Would Dwarf the Destruction in Ukraine. Both Sides Must Act Now to Avoid It

he world’s attention is rightly focused on the unfolding horror in Ukraine. Images of destruction and death wrought across that nation, and the harrowing experiences of refugees fleeing in their millions, testify to the tragic reality of war. And in the capitals of Europe, something once thought an impossibility—a large-scale 21st century war on the continent—has now become all too real, awakening once idealistic nations to the hard truth that such senselessness violence has not been eliminated from our modern, globalized world.

The scenes in Kyiv and Mariupol should serve as an abrupt wakeup call to those public figures who have talked loosely about inviting open warfare in our world. Most of them have never seen war themselves, or borne witness to its human cost.

In this grim moment it is important to think through, and coldly reassess the dangers presented by other potential conflicts that could be sparked by today’s geopolitical tensions. The most significant among these is, without doubt, the possibility of a war between the U.S. and China. It is a prospect that we must now acknowledge is no longer unthinkable.

Were such a conflict to begin, whether over a crisis in the Taiwan Strait, in the South China Sea, or any number of other unpredictable flashpoints, such a war would almost certainly be many times more destructive than what we are seeing in Ukraine today. It would be a conflict with vast scope for escalation across every domain, from the seas to space, and likely to draw in many other countries across the world, including America’s allies in the Pacific. Such a conflict would be a catastrophe for both countries—and for us all.

War between the United States and China is not inevitable. But U.S.-China relations continue to spiral downward, their strategic relationship adrift and buffeted by growing global crises. Muddling through will be wholly insufficient to avoid conflict. To avoid sleepwalking into a war, both countries must construct a joint strategic framework to maintain the peace—and quickly.

In my new book, The Avoidable War: the Dangers of a Catastrophic Conflict between the US and Xi Jinping’s China, I offer one such framework, which I call “managed strategic competition.” The idea is relatively simple.

First, the United States and China must have a clear, granular understanding of each other’s irreducible strategic redlines in order to help prevent conflict through miscalculation. Each side must be persuaded to conclude that enhancing strategic predictability advantages both countries, strategic deception is futile, and strategic surprise is just plain dangerous. This will require a focused, detailed diplomatic understanding on Taiwan.

Second, both countries must then embrace the reality of their competition—that is, to channel their strategic rivalry into a competitive race to enhance their military, economic, and technological capabilities. Properly constrained, such competition can deter armed conflict rather than tempt either side to risk everything by prosecuting a dangerous and bloody war with unpredictable results. Such strategic competition would also enable both sides to maximize their political, economic, and ideological appeal to the rest of the world. The strategic rationale would be that the most competitive national system would ultimately prevail by becoming (or remaining) the world’s foremost superpower and eventually shaping the world in its image. May the best system win. And I’m confident which one I’d bet on.

Third, this framework would create the political space necessary for the two countries to continue to engage in strategic cooperation in the areas where their national interests align. These spheres include: climate change, preventing the next pandemic, and maintaining global financial stability.

Finally, for this compartmentalization of the relationship to have any prospect for success, it would need to be carefully and continuously managed by a dedicated matching of cabinet-level senior officials on both sides. For the U.S., this also means any such framework would need bipartisan buy-in so it could withstand the turbulence of domestic politics. For a priority this important, this should by no means be impossible.

This approach will face criticism in both Washington and Beijing for not being sufficiently sensitive to each side’s national interests. To some in Washington, it will smack of appeasement. This is false: cold, realistic deterrence is at the core of any comprehensive strategy toward China. Meanwhile many in Beijing will argue it doesn’t sufficiently account for China’s core interests on Taiwan, and broader national pride. But as Moscow just learned in Ukraine, war and economic devastation would suit China’s interests far less.

Ultimately, my challenge to critics of managed strategic competition, and putting guardrails to the U.S.-China relationship, is simple: Come up with something better. There is little time to waste.

I have long studied, lived in, and come to deeply respect both the United States and China. The prospect of war between the two nations would be catastrophic. And, watching the destruction in Ukraine, I cannot help but recall the memory of marching as a small child in our annual ANZAC Day parade—the Australian equivalent of Memorial Day—in our tiny country town with my father, who had fought in World War II, alongside elders who had fought in World War I.

The world managed to sleepwalk into the slaughter of that first Great War, which claimed more than 15 million lives. With our eyes now wide open, we will have no excuse if we fail to avoid walking into yet another global catastrophe today.

### 2AC – India Draw In

#### Sino-India relations are irredeemable – India sides with the West in a conflict which causes escalation

**Maria Abi-Habib 9-24** — (Maria Abi-Habib, [Maria Abi-Habib is the bureau chief for Mexico, Central America and the Caribbean for the New York Times, based in Mexico City.], “Will India Side With the West Against China? A Test Is at Hand (Published 2020)“, New York Times, 09-24-2021, Available Online at https://www.nytimes.com/2020/06/19/world/asia/india-china-border.html, mysoor)

Will India Side With the West Against China? A Test Is at Hand The United States and its allies have long wanted India’s help in confronting China. Now, a deadly border clash seems likely to push India in that direction. For years, the United States and its allies have tried to persuade India to become a closer military and economic partner in confronting China’s ambitions, painting it as a chance for the world’s largest democracy to counterbalance the largest autocracy. Last week, the idea of such a confrontation became more real as Indian and Chinese soldiers clashed in the worst violence on the countries’ border in 45 years, leaving 20 Indian troops dead and causing an unknown number of Chinese casualties. Prime Minister Narendra Modi has publicly reveled in the prospect of a more muscular role for India in the region and the world. But analysts say the new tensions with China will be the starkest test yet of whether India is ready — or truly willing — to jostle with a rising power bent on expanding its interests and territory. With China facing new scrutiny and criticism over the coronavirus pandemic, Indian officials have recently seemed emboldened, taking steps that made Western diplomats feel that their goal of an India closer to the West was starting to be realized. And some believe the friction with China will push India even further in that direction. This month, India signed a major defense agreement with Australia that allows both countries to use each other’s military bases. And it is expected to invite Australia to join naval exercises it conducts with Japan and the United States, to strengthen efforts by the so-called Quad — Australia, Japan, the United States and India — to counter China’s projection of sea power in the region. India’s campaign for a larger profile in multinational organizations has also moved quickly. On Wednesday, it was elected unopposed to a nonpermanent seat on the United Nations Security Council. And in May, it won the chair of the World Health Organization’s executive board, where it promptly supported calls to investigate the origins of the coronavirus — an inquiry China had fought to block. But India is still well behind China when it comes to military and economic power. That may give India’s leaders pause over the prospect of an armed escalation on their disputed Himalayan border, where the bloody clashes broke out last week. “India will have to deploy all three — military, economic and political options,” said Samir Saran, the president of the Observer Research Foundation, an influential think tank in Delhi. “China is a large and powerful country, and a sustained response to their aggression will have to include all of these.” “The defense of liberalism and democracy and an international open system will play out between India and China,” he said. Chinese and Indian generals continue to meet along the border to discuss de-escalation efforts. And Indian officials acknowledged on Friday that the night before, China released 10 Indian soldiers seized during the fighting. (Later, China’s foreign ministry spokesman said he did not know of any prisoners being taken, but did not explicitly deny India’s announcement.) But the troop buildup is continuing, with villagers in the area and satellite imagery indicating that both sides are still sending in reinforcements. On Saturday, the Indian government released a statement blaming China for trying to erect structures across the disputed border, in territory Delhi considers its own. The government added that it would not allow China to make any unilateral changes to the border. Though India denies it, independent military analysts have estimated that Chinese troops have seized control of about 23 square miles of Indian territory in the past two months, But India’s military ability to retaliate may be limited for now. While its military is one of the world’s largest, it has failed to modernize and stay competitive, watching as China rapidly surpassed it over recent decades. This year, India announced a military budget of nearly $74 billion, compared with Beijing’s $178 billion. In India’s case, much of that spending is going to pay pensions. Economically, India has become more willing to use its vast market as a lever to pressure China. In April, it passed legislation requiring government approval for any investments from Chinese entities, a setback for China as its companies look abroad for growth. And Reuters reported on Thursday that India planned to raise tariffs on Chinese goods. Diplomats expect India to prevent the Chinese telecommunications giant Huawei from entering its market to build a 5G wireless network. The United States accuses Huawei of aiding the Chinese government in cyberespionage, and it has urged its allies to block the company’s 5G development. Although India’s potential buying power gives it one way to slap at China, it has nowhere near the spending and lending capacity that China has used to increase its global influence. Still, Indian officials have embraced the idea of being a democratic counterbalance to China, and the coronavirus has offered a chance to push that narrative as countries fume over Beijing’s handling of the pandemic. Indian political figures went on the offensive after the pandemic began, criticizing China’s authoritarian system and its lack of transparency as the coronavirus spread beyond the city of Wuhan, where it is widely thought to have begun. Vijay Gokhale, who recently retired as India’s foreign secretary and is still close to the government, wrote a lengthy opinion piece this month in which he blasted China’s handling of the pandemic. “The shortcomings of the regime,” he wrote, “will further fuel a debate on the superiority of the Chinese model as an alternative to democracy. Will this form the ideological underpinning for the birth of a new Cold War?” The pandemic also gave Mr. Modi a chance to tap his country’s giant pharmaceutical industry to strengthen diplomatic ties. Diplomats stationed in India say that in the early days of the crisis, he and his foreign minister were “constantly working the phones” to offer countries help with medicines. One Western diplomat felt that the coronavirus crisis had made India more eager to build stronger relationships to help it deal with China, and that diplomacy with India was going more smoothly than ever before. “Everyone is more willing, privately, to talk about what to do with China in a post-Covid world,” the diplomat said speaking on condition of anonymity. “The ways that China has influenced that world order can now more easily be discussed as we are all trying to figure out what the new world order is. “India represents one path,” the diplomat added, “and China represents another.” More immediately, India faces the prospect of an escalation at the border, where China had been building up its forces before the violence last week. “India wants peace,” Mr. Modi said Wednesday, “but if provoked, India is capable of giving a befitting reply.” China’s push at the border is not an isolated show of strength. Since the pandemic’s start, China has flexed harder on many different fronts: It sank a Vietnamese shipping boat, harassed Malaysian oil rig operations and tightened its control over Hong Kong in hopes of stamping out the pro-democracy movement there. But India has several reasons to feel particularly hemmed in by China. Over the past decade, China has heavily courted India’s neighbors, unraveling New Delhi’s influence on its own doorstep. As Indian and Chinese troops clashed in the Himalayas, Nepal’s government simultaneously claimed a sliver of territory on its border that India considers its own. India’s defense minister recently suggested that Nepal’s border actions were taken at the behest of China. In Pakistan, India’s archrival, China is building huge infrastructure projects, some in territory that the Indian government disputes. With every project built, China is making it harder for India to hold on to its territorial claims. And right off India’s southern coast, China took possession of a port in Sri Lanka after that country could not pay its debt to Beijing. Some Indian officials fear that China could militarize the port, which Sri Lanka denies. “India went from having a monopoly of political and military power in the region to dealing with a marketplace of competition where China is increasingly predominant,” said Constantino Xavier, a fellow at the Brookings Institution. He predicted that the new wave of border violence would prompt India to push back harder. Some see China’s buildup on the border as a calculated effort to keep India’s aspirations in check. “China doesn’t particularly want India to succeed,” said Tanvi Madan, the director of the India Project at the Brookings Institution. “A weaker India will do less strategically in its own neighborhood, allowing China to step in more; and it will engage less in places like East Africa or in regional institutions, posing little challenge to China.” China has also been sensitive about the prospects of closer ties between India and the West. On Wednesday, Global Times, a mouthpiece for the Chinese Communist Party, published an editorial claiming that the United States had given Mr. Modi’s government false confidence, and that it would ultimately abandon India. “The resources that the U.S. would invest in China-India relations are limited,” the editorial read. “What the U.S. would do is just extend a lever to India, which Washington can exploit to worsen India’s ties with China.” Despite warm meetings between Mr. Modi and President Trump, their countries’ relationship has at times been rocky. But given China’s increasingly hard line in territorial disputes, some Indian officials fear there may be little choice but to look West. In an opinion piece last week, Mr. Gokhale, the former Indian foreign secretary, said that countries could no longer ignore Beijing’s transgressions and must choose between the United States and China. “In the post-Covid age,” he wrote, “enjoying the best of both worlds may no longer be an option.”

### 2AC – Russia Draw In

#### US-China war would draw in Russia – making the conflict even more severe

Gompert et al 16 [David C. Gompert, Astrid Stuth Cevallos, Cristinia L. Garafola, 2016, <<David is a an American government official and former diplomat>>, <<Astrid is a Project Associate at the RAND Corporation with a MPhil in IR @ University of Oxford and AB in East Asian Studies @ Princeton University>>, <<Cristinia is an associate policy researcher @ the RAND Corporation>>, “War with China: Thinking Through the Unthinkable,” RAND Corporation, https://www.rand.org/pubs/research\_reports/RR1140.html]\\pairie

Overall, the decline in U.S. warfighting advantages does not mean China can win a war that the United States is willing to fight. By 2025, a war could be a military standoff, with major weapon-platform losses on both sides, in addition to losses in cyberspace and space. Yet neither side would fare so much worse than the other that it would feel compelled to concede, raising the probability that a war would be both severe and long. Such a war could be decided by economic costs, domestic political effects, and international responses. Japan’s

[Table 3.7 Omitted]

entry could offset the decline of U.S. military superiority, especially in a prolonged conflict. All these factors, taken together, would strongly favor the United States.

Recall the earlier observation that war between China and the United States could be worse than the long, severe case, as described here. In the 20th century, two great-power wars became world wars, and a third could have followed the same course, or even worse. The possibility of a Sino-U.S. war drawing in other powers and many states cannot be excluded: In addition to Japan, perhaps India, Vietnam, and NATO would be on the U.S. side; Russia and North Korea would be on China’s side. Fighting could spread beyond the region. War aims could expand, and as they did, so would the costs of losing. Even if nuclear weapons were not used, China might find other ways to attack the United States proper. Use of space and cyberspace could be severely curtailed. As long as fighting remained inclusive, destruction and hardship could fuel determination and further mobilization. In sum, both the duration and severity of war could exceed the upper case used here for purposes of analysis. If so, losses and costs would be even greater for both sides and the world, and the outcome would be no more favorable for China, despite the expansion of its power.

#### Russia will get drawn in – autocratic support

Shullman & Kendall-Taylor 22 [David O. Shullman and Andrea Kendall-Taylor, 06-22-2022, “Best and Bosom Friends: Why China-Russia Ties Will Deepen after Russia’s War on Ukraine,” CSIS Briefs, https://www.csis.org/analysis/best-and-bosom-friends-why-china-russia-ties-will-deepen-after-russias-war-ukraine]\\pairie

Backing fellow autocrats.

Since 2012, when Xi assumed leadership and Putin returned to the presidency, both leaders have prioritized efforts to push back against what they view as U.S. efforts to topple unfriendly regimes. For both, countering so-called “color revolutions” has been critical not just for pushing back against what they see as unacceptable U.S. unilateralism but also for protecting against what they assume is the ultimate goal: regime change in Moscow and Beijing.

Putin has gone to great lengths to shore up embattled dictators—including Belarus’s Aleksandr Lukashenko, Syria’s Bashar al-Assad, Kazakhstan’s Kassym-Jomart Tokayev, and Venezuela’s Nicholas Maduro—to prevent these leaders from being toppled at the hands of foreign pressure. Putin has also viewed the backing of like-minded autocrats as critical to building his image with onlooking leaders as a reliable partner willing and able to compete with Washington as a security provider.

Xi has similarly backed illiberal regimes in his periphery, including in Myanmar and Cambodia, and has complemented Russian efforts to shore up embattled leaders such as Maduro and Tokayev. The CCP—and Xi personally— have leaned into propaganda about the superiority of China’s authoritarian system and the relative weakness of democracies during the pandemic. Like Putin, Xi is driven not only by the need to defend against Western efforts to use color revolutions to weaken regime control but also the need to prevent authoritarian failures that might tarnish views of his increasingly strongman rule at home.

Xi is therefore likely to seek to prevent Putin, his closest friend and partner, from falling. Indeed, Xi would view the prospect of a collapse of Putin’s regime as a direct threat to his rule in the wake of his personal and public endorsements of the Russian leader. China’s population must not witness the popular overthrow of Putin, China’s partner in promoting an alternative vision for effective authoritarian governance and standing up to interference from the lecturing West. Furthermore, Xi does not want to set a precedent where a U.S.-led sanctions and pressure campaign among allied democracies is permitted to successfully unseat unfriendly leaders.

#### Russia would get drawn in – growing alliance with China

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Ties between Russia and China are deepening. The relationship between Russia and China has improved steadily since the waning years of the Cold War. This trend accelerated in the last decade and especially since 2014 when Russia’s illegal annexation of Crimea shut down Russian opportunities in and cooperation with the West. Indicators across virtually every dimension of the bilateral relationship highlight their growing alignment.1 Economically, China is the largest purchaser of Russian crude oil and has surpassed Germany as Russia’s largest trading partner. Militarily, their defense cooperation continues to grow, including through defense dialogues, joint exercises, and regional security cooperation. Russia continues to sell China increasingly sophisticated military technologies, though that aspect of the relationship has diminished in relative importance as China has enhanced its capabilities in this area. Politically, Russian President Vladimir Putin and Chinese President Xi Jinping enjoy close relations, and exchanges and interactions at lower levels of the Russian and Chinese governments are frequent. 2. Russia-China relations will continue to deepen as the key drivers of their relationship strengthen and constraints erode. Both Putin and Xi view the United States as a significant threat to their power. Their shared perception of the United States as a threat is an important driver of their relationship. U.S. actions such as sanctions against Russia and the administration’s trade war with China are justified approaches to addressing hostile adversaries, but also serve to push the two countries closer together. The strong consensus in Washington around great power competition as the centerpiece of U.S. foreign policy is likely to continue to provide incentive for greater alignment between Russia and China. The growing similarity between the Putin and Xi regimes is also likely to provide a basis for future cooperation. Xi has consolidated power and dismantled the consensus-based decision making that has dominated China’s post-Mao political system. While meaningful distinctions between the governments remain, China’s political system more closely resembles the Putin-dominated Russian regime.2 Research suggests that shared regime type enhances cooperation between states.3 Not only are the key drivers of bilateral relations strengthening, but many of the factors that observers long assessed would constrain the relationship are eroding. First, analysts have long held that Russian concerns about insecurity in its far east would stymie cooperation. However, the Kremlin’s concerns about this source of insecurity have diminished; today, the Russian and Chinese governments are moving ahead with infrastructure projects in border regions that had long been delayed. Moreover, Putin likely understands that China constitutes a long-term threat to Russia but appears to calculate that a far-off and uncertain threat from China is more acceptable than the immediate and certain threat he perceives from the United States. Cultural factors and historical enmity are likely to be enduring constraints on Russia-China relations. However, Xi and Putin dominate the media environments in their countries and are capable of slowly turning public opinion over time. Such a process would be hard and slow, but Beijing and Moscow have the capacity to re-shape public attitudes, should they decide to. Already, surveys show that 69 percent of Russians hold a positive view of China—the same percentage of Russians that hold negative views of the United States.4 3. Russia and China are united in their discontent with U.S. dominance—a marriage of convenience—but sustained cooperation and repeated interaction raise the likelihood of more meaningful alignment. Putin and Xi prioritize their own survival in office above all else. They both judge that the United States and its efforts to support democracy present a threat to their hold on power, and that the U.S.-dominated international order disadvantages them and fails to accommodate their interests. They are united in their discontent and share an interest in weakening Western cohesion and subverting many of the values and rules that define the post-World War II order. Although they have banded together in discontent, there is potential that their repeated interactions will foster a deeper and more enduring partnership over time. Already, Russian and Chinese values and views of the way the world should be ordered are significantly aligned. Russia and China are likely to continue to work together, and potentially coordinate their efforts to create an environment that is conducive to both of their development goals. 4. Deepening relations between Russia and China will be among the most significant U.S. foreign policy challenges in the coming decade. Russia and China are unlikely to forge a formal military alliance. But even short of such an alliance, their growing alignment and coordination will present a significant challenge for U.S. national security in the coming years. The Director of National Intelligence warned in his 2019 Annual Threat Assessment that strengthening ties between China and Russia will present a “wide variety of economic, political, counterintelligence, military, and diplomatic challenges to the United States and its allies.”5 If Russia-China relations continue to grow, it would harm U.S. interests by enhancing their mutual capabilities and stretching U.S. capabilities, complicating U.S. strategic planning by potentially dividing U.S. power, emboldening them to act knowing they will have each other’s support, enhancing the perceived legitimacy of the alternative they provide, and diluting U.S leverage over countries willing to play the United States off Russia and China.6 Russia and China are also poised to challenge U.S. interests through the complementarity of their actions.7 Russia and China take different approaches to pursuing their foreign policy objectives. Russian foreign policy is confrontational and brazen. So far, China has used a subtler and more risk-averse strategy, preferring stability that is conducive to building economic ties and influence. Although their tactics are different, they have the potential to converge in synergistic ways such that the combined effects on U.S. interests is greater than the sum of their individual efforts. This dynamic is most evident in Europe, but there is potential for greater synergies between Russia and China to create new challenges for the United States.

### 2AC – Taboo Breakdown

#### The nuclear taboo is not durable. A first strike would let all hell break loose.

Rebecca Davis Gibbons and Keir Lieber ’19. Rebecca Davis Gibbons is an assistant professor at the University of Southern Maine and formerly a postdoctoral research fellow with the Belfer Center's Project on Managing the Atom and International Security Program. Keir A. Lieber is the GOAT. “How durable is the nuclear weapons taboo?”, Journal of Strategic Studies, 42:1, 29-54, [https://doi.org/10.1080/01402390.2018.1529568 //](https://doi.org/10.1080/01402390.2018.1529568%20//) gbs

If one of the established nuclear weapons states uses nuclear weapons, the strength of the nuclear taboo would be greatly undermined. As Mark Fitzpatrick concludes, ‘the rupture to the system would be strongest if it were committed by one of the charter members of the nuclear club’. 36 The moral norm is arguably strongest among this grouping. And nuclear use by one of these powerful states makes it less likely that there would be a strong and organized international response to the violation. The established nuclear powers all sit as permanent members of the U.N. Security Council, making costly action more complicated. Moreover, use by a nuclear weapons state, in cases other than in the darkest of circumstances when state survival is at stake, could undermine the nonproliferation regime and ultimately the durability of norm against nuclear use.

### 1AR – Taboo Breakdown

#### More warrants –

#### Social science, leaders convincing the population, fog of war, and the precedent is broken – all proves the taboo is not durable

Rebecca Davis Gibbons and Keir Lieber ’19. Rebecca Davis Gibbons is an assistant professor at the University of Southern Maine and formerly a postdoctoral research fellow with the Belfer Center's Project on Managing the Atom and International Security Program. Keir A. Lieber is the GOAT. “How durable is the nuclear weapons taboo?”, Journal of Strategic Studies, 42:1, 29-54, [https://doi.org/10.1080/01402390.2018.1529568 //](https://doi.org/10.1080/01402390.2018.1529568%20//) gbs

There are good reasons for analysts to question the strength and prevalence of an international norm against nuclear use, but here we highlight several reasons why the durability of a moral-based nuclear taboo is dubious. First, the comparable case of strategic bombing does not support hypotheses about how and when norm-violation should strengthen morally-based taboos. Second, recent survey and social science research challenges the durability of a moral taboo. For example, surveys indicate that a majority of Americans, who are supposed to have internalized the nuclear taboo, would be willing to use nuclear weapons against terrorist adversaries or Iran. Furthermore, experiments in psychology tell us that leaders can encourage their population to make tragic trade-offs through their framing of choices. The strategic bombing case illustrates one such trade-off: General Eisenhower siding with strategic bombing proponents to facilitate a quicker end to World War II. Opposition to the use of nuclear weapons in the abstract does not guarantee opposition in times of crisis. Finally, precedent logics – not moral logics – appear to more commonly underlie taboos in warfare. Once the bargain against bombing civilians broke down, there was little moral compunction leading countries to stop pursuing this strategy. Furthermore, the survey literature referenced above suggests that respondents’ reluctance to have the United States employ nuclear weapons stems from a concern about precedence, not moral authority. If the nuclear taboo is based upon concern for precedent and not moral opprobrium, then resuscitating the taboo after an incident of nuclear use may be unrealistic. These findings point to a number of policy implications. Most importantly, policy-makers should be aware of the challenges to the norm against nuclear use after a future violation. Both the moral logic and precedent logic cause reason to be skeptical that the norm would remain durable. As a result, preventing nuclear use in the first place is paramount. The United States should continue to seek to strengthen the global nuclear nonproliferation regime, a major challenge at a time when NPT member states are so divided over nuclear disarmament.86 U.S. leaders should refrain from making casual nuclear threats against adversaries and should encourage other leaders to follow suit. Moreover, in its declaratory policy, the United States should restrict the intended use of its nuclear weapons to deterring nuclear attacks. If the United States or its assets were attacked with a nuclear weapon, leaders would have to strongly consider whether responding in kind would do more harm than good. Fortunately, U.S. conventional superiority means that the U.S. military would have many non-nuclear means to respond. Finally, because we find that the precedent logic to be more compelling in explaining non-use, the United States should consider ways in which it can affect whether future nuclear use is perceived as successful and how it can lead the international community in bringing about a strong sanctioning response against those responsible for such an attack. If nuclear use is perceived as unsuccessful or the attacker is meaningfully punished, the precedent is more likely to be re-established.

#### A counterforce strike would have less casualties – weakens the justification for the taboo.

Rebecca Davis Gibbons and Keir Lieber ’19. Rebecca Davis Gibbons is an assistant professor at the University of Southern Maine and formerly a postdoctoral research fellow with the Belfer Center's Project on Managing the Atom and International Security Program. Keir A. Lieber is the GOAT. “How durable is the nuclear weapons taboo?”, Journal of Strategic Studies, 42:1, 29-54, [https://doi.org/10.1080/01402390.2018.1529568 //](https://doi.org/10.1080/01402390.2018.1529568%20//) gbs

The extent of collateral damage caused by a nuclear weapon would likely play a significant role in determining the durability of a nuclear non-use norm based on moral considerations. If a nuclear detonation resulted in great destruction and many non-combatant causalities, as would likely be the case with an attack that targeted a city or generated substantial lethal nuclear fallout, one might expect that the moral underpinnings of the norm would remain intact – and perhaps even be bolstered. That is, a dramatic demonstration of the abhorrent consequences of nuclear weapons use could serve to reinforce subsequent adherence to the norm. By contrast, a nuclear attack that resulted in very few casualties – for example, as might conceivably occur with a limited counterforce strike using a few precise, low-yield weapons – would appear to weaken the normative constraint against nuclear use.30 That is, if the non-use norm were driven by revulsion at the expected massive and indiscriminate devastation that would occur if nuclear weapons were used, an instance of nuclear use that generated only modest collateral damage would undermine the norm.31

### 2AC – Yes Nuclear Winter

#### Yes nuc winter !

Andrew Glikson ‘17, paleo-climate and earth scientist at the Australian National University. “Nuclear Winter”, *The Plutocene: Blueprints for a Post-Anthropocene Greenhouse Earth*, pp. 85-91 // gbs

The effects of nuclear weapons are not limited to radiation.24 A single nuclear weapon detonated above a city will ignite mass fire over an area of 50–500 km2 from which living things have little chance to escape.25 Vast areas of forests will go up in smoke and fires would burn for weeks in cities and industrial centers and vast stored fossil fuels. The fires will produce a thick smoke layer that will drastically reduce the amount of sunlight reaching the earth’s surface. Darkness would persist for many weeks, rendering agricultural activity in the Northern Hemisphere virtually impossible if the war takes place during the growing season (Crutzen and Birks 1982). The release of dust, ash, particulate black carbon and sulphur dioxide from the fires would plunge large regions of the world into atmospheric conditions described as nuclear winter (Turco et al. 1983), threatening the survival of civilization and many species over large parts of Earth. Despite a two-thirds reduction in global nuclear arsenals since 1986, the environmental consequences of nuclear war can still end human history as even a tiny fraction of the global nuclear arsenal exploded in large urban centers would result in catastrophic disruptions of the global climate and the protective stratospheric ozone layer. A nuclear war fought with several thousand weapons could even leave much of the Earth uninhabitable.26

## War Existential

### 2AC – War = Extinction

#### US-China war goes immediately existential – even the worst theoretical accounts fall short because nuclear war cannot be controlled.

Andre Damon 21, Writer and editor for the World Socialist Web Site specializing in geopolitics and economics, “What a US nuclear war with China would look like”, <https://www.wsws.org/en/articles/2021/03/25/nuke-m25.html> //lenox

The tabletop military exercise proceeds as follows. During a freedom of navigation exercise in the South China Sea taking place in the year 2034, a group of US frigates board a Chinese civilian vessel in distress. The Americans learn the vessel houses sensitive technology and seize it. While the operation is underway, the US vessels are attacked by a Chinese fleet, which totally paralyzes them using advanced cyberweapons. When the US dispatches two aircraft carrier battle groups to the Pacific in a show of force, a total of 40 American ships are sunk with negligible Chinese losses. The numbers are not quantified, but some tens of thousands of American sailors, airmen, and marines must have lost their lives. In response, Washington launches a nuclear weapon at a Chinese coastal city, against which Beijing retaliates by launching a nuclear attack on San Diego, California and Galveston, Texas. The US retaliates by obliterating Shanghai, one of the world’s largest and most important cities. Stavridis writes that after an American nuclear attack on Shanghai, “These many months later the city remained a charred, radioactive wasteland. The death toll had exceeded thirty million. After each of the nuclear attacks international markets plummeted. Crops failed. Infectious diseases spread. Radiation poisoning promised to contaminate generations. The devastation exceeded… capacity for comprehension.” The American survivors of a Chinese nuclear attack on San Diego are left to live in “wretched camps,” where “cyclical outbreaks of typhus, measles, and even smallpox often sprouted from the unbilged latrines and rows of plastic tenting.” This appears to be a vision of hell. But it must be stated bluntly that even this depiction falls far, far short of the actual effects of a nuclear world war. By training and temperament, Stavridis is largely incapable of viewing the world through the eyes of anyone besides a military officer or “national security” bureaucrat. “Ordinary” people are not described. The various protagonists take the lives of millions, and it is very hard on them, and the reader is supposed to sympathize. In Stavridis’ account, the decisions governing the conflict are made by largely rational and analytical military technocrats. Elected leaders notionally exist, and they sometimes take actions that impinge upon the narrative, but it is the military officials that largely guide the action. Just as politicians have little impact on the plot, social dynamics and popular opinion are largely ignored. The United States carries out a nuclear attack on a Chinese port city, and it appears to have no domestic social effect, except to lead the public to bray for blood. Millions are killed, tens of millions are displaced domestically in the United States. In one single incident—the nuclear bombing of Shanghai—the United States carries out an act of mass murder surpassing in scale the vernichtungskrieg (war of extermination) waged by Nazi Germany in the Eastern front over four years. Amid all of this, there is no domestic social response. The end of World War I toppled the Russian, Austrian, Ottoman, and German empires in a massive revolutionary upheaval. The end of the Second World War completely redrew the map of Europe. But in Stavridis’ account, the population somehow remains complacent throughout a third world war while millions are slaughtered. This has nothing to do with the real world, dominated by class polarization and conflict. War will be accompanied by massive state repression. The pretext for a domestic crackdown and the need to divert intense internal social conflicts outward are, in fact, among the major unstated reasons why ruling classes are embarking upon military confrontations that can end in the acts of mass murder depicted in 2034. Finally, the military dynamics are themselves totally unrealistic. The central assumption of the book is that there exists such a thing as a “tactical” nuclear war. Military actions are calmly and rationally discussed and deliberated. Even so, it is only through an absurd and unbelievable plot twist that a strategic nuclear exchange is avoided. In a ridiculous deus ex machina, India attacks both Chinese and US vessels, bringing about an end to the war. There is no such thing as a “tactical” nuclear world war. There has never been a full-scale war between two countries armed with nuclear weapons. More importantly, there has never been a full-scale war between “great powers” armed with 21st century technology. The range, cheapness, and speed of offensive weapons, including drones and high-speed missiles, will mean that a third world war will be conducted everywhere at once, at dizzying speed and complexity. The logic of these phenomena—the complexity of global relations and domestic opposition, the expansion of the battlefield to the entire globe, the delegation of warfare to artificial intelligence—makes nuclear war impossible to control and limit to the “tit-for-tat” military exchanges depicted in the book.

### 2AC – No Limited War

#### War goes existential – China doesn’t go nuclear immediately, but conventional war sets off spirals that escalate – no chance for a limited war.

Caitlin Talmadge 18, Associate Professor of Security Studies at the Edmund A. Walsh School of Foreign Service at Georgetown University, “Beijing’s Nuclear Option: Why a U.S.-Chinese War Could Spiral Out of Control”, <https://www.foreignaffairs.com/articles/china/2018-10-15/beijings-nuclear-option>, //lenox

As China’s power has grown in recent years, so, too, has the risk of war with the United States. Under President Xi Jinping, u has increased its political and economic pressure on Taiwan and built military installations on coral reefs in the South China Sea, fueling Washington’s fears that Chinese expansionism will threaten U.S. allies and influence in the region. U.S. destroyers have transited the Taiwan Strait, to loud protests from Beijing. American policymakers have wondered aloud whether they should send an aircraft carrier through the strait as well. Chinese fighter jets have intercepted U.S. aircraft in the skies above the South China Sea. Meanwhile, U.S. President Donald Trump has brought long-simmering economic disputes to a rolling boil. A war between the two countries remains unlikely, but the prospect of a military confrontation—resulting, for example, from a Chinese campaign against Taiwan—no longer seems as implausible as it once did. And the odds of such a confrontation going nuclear are higher than most policymakers and analysts think. Members of China’s strategic com­munity tend to dismiss such concerns. Likewise, U.S. studies of a potential war with China often exclude nuclear weapons from the analysis entirely, treating them as basically irrelevant to the course of a conflict. Asked about the issue in 2015, Dennis Blair, the former commander of U.S. forces in the Indo-Pacific, estimated the likelihood of a U.S.-Chinese nuclear crisis as “somewhere between nil and zero.” This assurance is misguided. If deployed against China, the Pentagon’s preferred style of conventional warfare would be a potential recipe for nuclear escalation. Since the end of the Cold War, the United States’ signature approach to war has been simple: punch deep into enemy territory in order to rapidly knock out the opponent’s key military assets at minimal cost. But the Pentagon developed this formula in wars against Afghanistan, Iraq, Libya, and Serbia, none of which was a nuclear power. If deployed against China, the Pentagon’s preferred style of conventional warfare would be a potential recipe for nuclear escalation. China, by contrast, not only has nuclear weapons; it has also intermingled them with its conventional military forces, making it difficult to attack one without attacking the other. This means that a major U.S. military campaign targeting China’s conventional forces would likely also threaten its nuclear arsenal. Faced with such a threat, Chinese leaders could decide to use their nuclear weapons while they were still able to. As U.S. and Chinese leaders navigate a relationship fraught with mutual suspicion, they must come to grips with the fact that a conventional war could skid into a nuclear confrontation. Although this risk is not high in absolute terms, its consequences for the region and the world would be devastating. As long as the United States and China continue to pursue their current grand strategies, the risk is likely to endure. This means that leaders on both sides should dispense with the illusion that they can easily fight a limited war. They should focus instead on managing or resolving the political, economic, and military tensions that might lead to a conflict in the first place. There are some reasons for optimism. For one, China has long stood out for its nonaggressive nuclear doctrine. After its first nuclear test, in 1964, China largely avoided the Cold War arms race, building a much smaller and simpler nuclear arsenal than its resources would have allowed. Chinese leaders have consistently characterized nuclear weapons as useful only for deterring nuclear aggression and coercion. Historically, this narrow purpose required only a handful of nuclear weapons that could ensure Chinese retaliation in the event of an attack. To this day, China maintains a “no first use” pledge, promising that it will never be the first to use nuclear weapons. The prospect of a nuclear conflict can also seem like a relic of the Cold War. Back then, the United States and its allies lived in fear of a Warsaw Pact offensive rapidly overrunning Europe. NATO stood ready to use nuclear weapons first to stalemate such an attack. Both Washington and Moscow also consistently worried that their nuclear forces could be taken out in a bolt-from-the-blue nuclear strike by the other side. This mutual fear increased the risk that one superpower might rush to launch in the erroneous belief that it was already under attack. Initially, the danger of unauthorized strikes also loomed large. In the 1950s, lax safety procedures for U.S. nuclear weapons stationed on NATO soil, as well as minimal civilian oversight of U.S. military commanders, raised a serious risk that nuclear escalation could have occurred without explicit orders from the U.S. president. The good news is that these Cold War worries have little bearing on U.S.-Chinese relations today. Neither country could rapidly overrun the other’s territory in a conventional war. Neither seems worried about a nuclear bolt from the blue. And civilian political control of nuclear weapons is relatively strong in both countries. What remains, in theory, is the comforting logic of mutual deterrence: in a war between two nuclear powers, neither side will launch a nuclear strike for fear that its enemy will respond in kind. The bad news is that one other trigger remains: a conventional war that threatens China’s nuclear arsenal. Conventional forces can threaten nuclear forces in ways that generate pressures to escalate—especially when ever more capable U.S. conventional forces face adversaries with relatively small and fragile nuclear arsenals, such as China. If U.S. operations endangered or damaged China’s nuclear forces, Chinese leaders might come to think that Washington had aims beyond winning the conventional war—that it might be seeking to disable or destroy China’s nuclear arsenal outright, perhaps as a prelude to regime change. In the fog of war, Beijing might reluctantly conclude that limited nuclear escalation—an initial strike small enough that it could avoid full-scale U.S. retaliation—was a viable option to defend itself.

### 2AC – Yes Nuclear Winter

#### Even limited nuclear arsenals cause extinction through chain reactions – multiple risk scenarios

Andrea Germanos 13, senior editor and staff writer at Common Dreams, “Nuclear War Could Mean 'Extinction of the Human Race'” <https://www.commondreams.org/news/2013/12/10/nuclear-war-could-mean-extinction-human-race> //lenox

A war using even a small percentage of the world's nuclear weapons threatens the lives of two billion people, a new report warns. The findings in the report issued by International Physicians for Prevention of Nuclear War (IPPNW) and Physicians for Social Responsibility (PSR) are based on studies by climate scientists that show how nuclear war would alter the climate and agriculture, thereby threatening one quarter of the world's population with famine. Nuclear Famine: Two Billion People at Risk? offers an updated edition to the groups' April of 2012 report, which the groups say "may have seriously underestimated the consequences of a limited nuclear war." "A nuclear war using only a fraction of existing arsenals would produce massive casualties on a global scale—far more than we had previously believed," Dr. Ira Helfand, the report’s author and IPPNW co-president, said in a statement. As their previous report showed, years after even a limited nuclear war, production of corn in the U.S. and China's middle season rice production would severely decline, and fears over dwindling food supplies would lead to hoarding and increases in food prices, creating further food insecurity for those already reliant on food imports. The updated report adds that Chinese winter wheat production would plummet if such a war broke out. Based on information from new studies combining reductions in wheat, corn and rice, this new edition doubles the number of people they expect to be threatened by nuclear-war induced famine to over two billion. "The prospect of a decade of widespread hunger and intense social and economic instability in the world’s largest country has immense implications for the entire global community, as does the possibility that the huge declines in Chinese wheat production will be matched by similar declines in other wheat producing countries," Helfand stated. The crops would be impacted, the report explains, citing previous studies, because of the black carbon particles that would be released, causing widespread changes like cooling temperatures, decreased precipitation and decline in solar radiation. In this scenario of famine, epidemics of infectious diseases would be likely, the report states, and could lead to armed conflict. From the report: Within nations where famine is widespread, there would almost certainly be food riots, and competition for limited food resources might well exacerbate ethnic and regional animosities. Among nations, armed conflict would be a very real possibility as states dependent on imports attempted to maintain access to food supplies. While a limited nuclear war would bring dire circumstances, the impacts if the world's biggest nuclear arms holders were involved would be even worse. "With a large war between the United States and Russia, we are talking about the possible —not certain, but possible—extinction of the human race," Helfand told Agence-France Presse.

## War Not Inev

### 2AC – China Peaceful

#### China rise is peaceful

* Need to recut if aff reads SCS/Maritime/Taiwan scenario – this card is defense for that
* Not sure how much this links to the aff scenario – probably does to some extent though

Hediger ’22 [Peter; 6-21-2022; Former Senior Analyst for defense and security policy issues of China and of the Asia Pacific region in the Department of Defense, Protection of Population, and Sports (Swiss Ministry of Defense). Officer in the Swiss Army with peacekeeping missions with the Swiss Delegation to the Neutral Nations Supervisory Commission for the Armistice in Korea at Panmunjom (1982-1983). Swiss Defense Attaché in China and later in Japan with side accreditations to D.P.R.K., Mongolia, Singapore, and R.O.K., Indonesia, and Thailand respectively (1999-2008); “No reason to doubt peaceful character of China’s rise” <https://www.globaltimes.cn/page/202206/1268661.shtml>] Accessed – 7/9/2022, WWIS

Editor's Note:

For the Chinese people, the past decade was epic and inspirational. The country, under the leadership of the Communist Party of China with Xi Jinping at its core, has made great endeavors in boosting its economy, deepening reforms, improving the rights of its people and acting as a responsible power globally.

Currently, the world is turbulent and faces the tough questions of "what security ideas should the world embrace" and "how countries can achieve common security." In this respect, China offers its own answers by sticking to its own security formula. How should we view China's idea of "enriching the state and strengthen the army?" How important is the modernization of the PLA? The following article sheds light on these questions.

This is the 10th of the series about this special decade.

Summarizing Chinese security policy inevitably will hit upon the formula "Enrich the state and strengthen the army," which runs through the entire history of China.

In the past China repeatedly paid a high price for giving priority to build a flourishing civil society first before securing the means to defend it. Again and again a prosperous China became a target of neighboring states and remote colonial powers. Due to insufficient defense capabilities, these countries carried away what was useful to them and destroyed what could not be removed.

These historical failures have taught important lessons. In order to enhance its defense capabilities, China for a long time erected walls all along its land borders. However, these unified defense measures were not always successful. But even after temporary splitting and periods of domination by foreign rulers, China has always found itself together in renewed unity and preserved the size of its empire. It is this impressive continuity which has made China rather unique in the world.

The Communist Party of China (CPC) was founded in 1921 in the final stage of another extended period of oppression and humiliation in recent history. By providing a convincing vision of a New China, the CPC managed to attract the suffering masses from various strata of Chinese society and establish itself as the leading political force. To implement this goal, the Party understood the necessity to create an army of its own to overcome the Kuomintang and warlords as main adversaries in the civil war as well as foreign aggressors from Japan and other countries. Thus, in 1927 the Party created an armed force of its own.

Former leader Deng Xiaoping launched the policy of reform and opening-up to the outside world in 1978. To reach this goal, he promulgated the "Four Modernizations," meaning the modernization of science and technology, agriculture, industry, and defense. It is significant that defense takes the last position. This matches perfectly the traditional notion of first enriching the state and only afterwards strengthening the army.

Let us turn again to the build-up of the Chinese People's Liberation Army (PLA). After the CPC assumed power, the Soviet Union carried the hope to exert control over the PLA and bind it into a Moscow-led collective defense system. The CPC never thought to comply with such an endeavor and successfully maintained its independence. No effort has been spared to implement and defend this policy. It was in 1970 when China successfully completed an important step toward military modernization. This was announced as "Two bombs and one satellite" hinting at the capability of handling the fission and fusion technology of nuclear warheads as well as the capability to produce missiles as carrier vehicles for these weapons by launching a satellite. Although China gradually increased its arsenal of these weapons, it solemnly declared it would never be first in applying them. The continued enormous progress in the development of China's economy has provided solid fundamentals for the comprehensive modernization of the armed forces.

In the process of opening up to the outside world, the PLA has engaged in United Nations peacekeeping operations for more than 30 years. It started with bridge building and other infrastructure projects in Cambodia and has meanwhile been extended to more than 20 countries, mainly in Africa. Chinese troops have participated in 25 UN peacekeeping missions so far, deploying 50,000 men and women of which 16 have sacrificed their lives. Currently there are 2,240 Chinese officers and troops serving in UN peacekeeping operations and at UNHQ. As regards the contribution of military personal, China is at the top among the five permanent members of the UN Security Council and takes rank 10th position among all UN member states. It is highly noteworthy that the participation in these international missions clearly has proven China's determination to contribute to the building of a more peaceful and safer world.

It must not be overlooked that the modernization of the PLA first and foremost is pursued to serve the needs of the country. When the PLA celebrated its 90th anniversary in 2017 it showed an overwhelming display of modern weaponry which might have left some foreign observers uneasy. However, China has clearly stated that the purpose of this arsenal is only to protect China's core interests and territorial integrity. China's rise is peaceful and poses no threat to any other country. If confrontation should occur, then it will not be caused by China, but by foreign countries, particularly by the US.

This is not a new phenomenon at all. After the US completed the occupation of its continental territory in the 19th century, Admiral Alfred Thayer Mahan expanded the "Go West" strategy to the sea and claimed the whole Pacific Ocean up to the coast of China belonged to US jurisdiction. Deriving from this imperialist legacy, the US assumed an obligation as a global maritime police force. Time and again the US has expressed worries that China might close shipping lines through the South China Sea and the Pacific Ocean. This is groundless and untrustworthy, because it would diametrically run against Chinese interests. The project of the Belt and Road Initiative, particularly its maritime component, shows clearly that China pays great attention to unimpeded international navigation at sea. While the US as a self-declared policeman pretends to implement the United Nations Convention on the Law of the Sea, it has itself never ratified the agreement. The US has used for decades the Philippines and other countries bordering the South China Sea to challenge the sovereignty of China over the South China Sea. Ancient Chinese maps dating from the Song Dynasty (960-1279), produce irrefutable evidence that the archipelagos in the South China Sea have been part of China.

Taiwan for a long time has been a target of dispute between China and the US. When former US president Richard Nixon visited China in 1972, he signed the Joint Communiqué with premier Zhou Enlai in Shanghai. The US thereby acknowledged that there is but one China in order to pave the way for mutual recognition according to international law and to open diplomatic relations. But this has not prevented the US Congress from unilaterally promulgating the Taiwan Relations Act permitting the US government to continue the conclusion of profitable arms deals with Taiwan. Simultaneously, the US has supported activists of "Taiwan independence" at times discretely, at other times loudly provoking, sowing discord between China and the US and turning the Taiwan question into a stumbling block in bilateral relations between the two countries. Apart from 50 years of Japanese colonial rule which ended in 1945, Taiwan has always belonged to China. Taiwan thus being part of China is longer than the existence of the US as a sovereign power.

Under the leadership of the CPC, China has become the second-largest economy in the world. Former US president Donald Trump said: "There are some people who wish I would not refer to China as our enemy. But that's exactly what they are." Whereas Trump made this statement at the beginning of an emerging trade war, his successor President Joe Biden increasingly refers to China as a political enemy. Former Australian prime minister and China expert Kevin Rudd goes even one step further and speaks of the inevitability of war between China and the US.

Under such circumstances it is understandable that China takes efficient measures to defend itself. General Secretary of the CPC Central Committee Xi Jinping is deeply committed to the Chinese Dream, to the rejuvenation of China, whereby the basic mission of the CPC currently consists of the preparation of means to protect the prosperity of the nation. So far, there has been no reason to doubt the peaceful character of China's rise or that it might turn into a threat. China has been respecting its borders and will not be crossing them. China is by nature a peace-loving country.

#### An increase of China and US tension is inevitable, but conflict is not inevitable

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U.S. competition with China is real, serious, and bound to increase. That is inevitable, both for economic reasons and because of the incompatibility between Chinese ambitions and the U.S. establishment’s determination to maintain U.S. global leadership. However**, it is not an existential struggle between two fundamentally opposed systems, nor is it a universal struggle that must be fought in every corner of the world.** A comparison with basic features of the Cold War should make the difference clear. China is not promoting communist revolution around the world. In fact there is no evidence at all that it is aiming at the overthrow of existing states. As a great capitalist trading power, it has a strong stake in the stability of markets and the safety of Chinese investments. If the Chinese government in principle prefers authoritarian states, it has as yet done nothing to foster such systems. Chinese influence operations in the West are real and should be resisted, but they are intended to influence Western policies toward China, not cause state collapse and revolution. And the United States has an old and tried arsenal of international influence operations of its own that it can deploy in response. As to the U.S. political system, the impact of Chinese (and Russian) covert propaganda on U.S. politics has been minimal compared to the impact of the United States’ own domestic problems. It was not China that killed George Floyd. As a capitalist trading state, China is dependent on the health and stability of the international capitalist system. Unlike the Soviet Union, it needs a degree of rules-based international order—though not if (as seen from China) this means a system in which the United States sets all the rules and then breaks them whenever it wishes. On the other hand, China has certainly sought with great determination to increase its international influence through international capitalism. Some of these efforts (like Huawei’s role in fifth-generation telecommunications technology) must be strongly resisted. They do not however as yet greatly exceed past U.S. patterns of international economic influence. The defense and strengthening of U.S. capitalism in competition with China is indeed essential, but needs to be seen not just in terms of tariffs on Chinese imports (as the Trump administration has seen it), but as requiring a massive program of U.S. domestic economic reform and investment in infrastructure and technology—in other words, the way the Chinese government conducts this competition.

### 2AC – Econ

#### China is an axial economy – it has interests in maintaining the global market order – prevents war from being inevitable

Mousseau ’19 [Michael; 08-05-2019; PhD in Political Science at Binghamton, Professor in the School of Politics, Security, and International Affairs at the University of Central Florida; “The End of War: How a Robust Marketplace and Liberal Hegemony Are Leading to Perpetual World Peace” in International Security 44(1), p. 160-196, doi.org/10.1162/ISEC\_a\_00352.] Accessed – 7/10/2022, WWIS

Why China Need Not Be Feared

The rise of China has sparked fear in some American thinkers and policymakers who believe that power equals threat and changes in relative power result in conflict and war.69 I argue, however, that such fear is unwarranted unless China has a status economy; status powers have an interest in sowing chaos wherever they lack control, which is diametrically opposed to the contractualist preference for order and self-determination. China, however, has neither a status nor a contractualist economy, but an axial economy (see table 1). As the world's largest exporter with considerable public and private trading sectors, China possesses an economy not unlike those of ancient Athens, the Italian city-states of the Renaissance, and the European kingdoms of the Enlightenment. The elites of those societies, like China's today, embraced long-distance commerce.

Axial states can wage wars over global markets. Historical examples include the Venetian-Genoese wars of the early Italian Renaissance, the Anglo-Dutch wars of the second half of the seventeenth century, and the Anglo-French wars of the eighteenth century. These wars were fought for control of markets and maritime trade routes, not global leadership. As discussed above, elites in axial economies perceive little interest in the welfare of strangers and thus non-discriminatory trade.

The last time a leading contractualist power dealt with an axial-capitalist peer competitor was in the nineteenth century. In the decades before World War I, axial Britain was in the process of transitioning toward a contractualist economy (see table 1). In the first decade of this century, axial China was moving rapidly toward becoming a contractualist economy.70 The parallels are uncanny: both countries wildly embraced trade, but with a mix of normal and mercantilist arrangements. Although both China today and Britain then had normal trade relations with many countries, both had, or continue to have, discriminatory relations in other spheres: just as British merchants had privileged access to the markets of many of Britain's colonies and Dominions and used military force to collect debts, China today seeks privileges for its state-owned enterprises in its internal market and abroad and imposes harsh terms on states that fail to pay their debts.71

Similarly, just like Britain a century ago, China today appears to be increasingly acting as if it has an interest in the global market order. Late-nineteenth-century Britain provided the world a trading currency by backing the pound sterling with gold, and British bankers financed projects all over the globe. Recently, China ceased undervaluing the yuan, indicating that it has an interest in the health of economies beyond its borders, and is now providing as much financing to developing countries as the World Bank.72

Just as the United States and Britain managed to avoid serious militarized conflict, so too can the United States and China. Negotiated solutions are possible because, like Britain, China has an interest in the global market order. Despite its rise, China has become far friendlier to its neighbors and others than it was as a status power, when it fomented revolution abroad under the leadership of Mao Zedong. China has resolved most of its territorial disputes.73 Largely, only its maritime disputes are ongoing, and these are not new, having originated in the pre-communist period.74 In recent years, China has established diplomatic relations with many countries it once treated as enemies, including Indonesia, Singapore, and South Korea.75

### 2AC – Not Revisionist

#### “Chinese revisionism” oversimplifies, prefer an analysis of all factors.

Rahul Jaybhay 20, Master's student in Politics and International Studies at School of International Studies, Jawaharlal Nehru University, New Delhi, “Why is China “still” not a revisionist power?” <https://thekootneeti.in/2020/04/24/why-is-china-stil-not-a-revisionist-power/> //lenox

The parameters to test whether China is altering the military order include – distribution of power and territorial disputes. Distribution of power measures whether China has “[extraordinary growth in military expenditures](https://doi.org/10.1080/10670564.2014.932160)” and whether such military expenditures affect the balance of power (BoP) in the South-East Asian region. Official estimates suggest that [Chinese military expenditures](https://doi.org/10.1080/10670564.2014.932160) “multiplied by almost 12 times in nominal terms between 1994 and 2012 – a double-digit annual growth rate”. But in sharp contrast, for nearly a decade (2009-2017) Chinese military expenditures [remained at](https://doi.org/10.1080/01402390.2018.1558056) “[1.9 percent of Chinese GDP](https://www.sipri.org/databases/milex)“. This suggests in recent times Chinese expenditure has relatively softened, but not absolutely. Moreover, China is financing much more defensive capabilities, rather than offensive capabilities. US “[offensive defence” strategy](https://doi.org/10.1080/0163660X.2019.1693103) has compelled China to invest heavily in A2/AD defensive capabilities to deter American aggression. In short, China is defensively balancing against American offence in the East Asian region. In response to China’s growth, most of the countries in the Southeast Asian region have [increased their defense budget](https://doi.org/10.1080/10670564.2014.932160). This suggests regional BoP is heavily skewed towards defence while measuring offence-defence balance. To conclude as [Michael Beckley puts it](https://doi.org/10.1162/ISEC_a_00294) “balance of power will remain stable for years to come” in the region. Regarding territorial disputes, we assess the issue of sovereignty of Taiwan, past disputes in the South China Sea and its outcome. China lacks actual control over Taiwan and won’t accept its formal independence. But the accusation that China is violating the [“norm of self-determination” is misconstrued](https://www.jstor.org/stable/pdf/4137603.pdf?casa_token=Yxbp6ra24hEAAAAA:1ZZEEMiBLDy27aP8CaI2lbSTFjyEoFPNKaR4CCzv8WgX8na6DUfa8fufCf0VRF4pkHNKCdgJ_tC1gqxuqiKpdhYq6eCMs4kfRRywpq1QjGsYpHAihiHipQ). UN documents on decolonization and national liberation in the 1960s acknowledged the right of oppressed people to set up their own sovereign state, but “it also attempted to protect newly independent, decolonized states from further dismemberment”. China’s case is similar to other countries like India, thus any conclusion based on this fact is incomplete. At this moment, China’s coercive diplomacy in the South China Sea is getting a lot of attention. But such coercive measures are evident in the past also (such behaviour is observed in any states involved in territorial disputes). In the 1970s to 1990s China used its naval power “ [to violently push other claimants off](https://doi.org/10.1162/isec_a_00360) ” the ” territorial features (Parcels 1974, Johnson South reef 1988) and established a new presence on “Mischief reef in 1990s”. China enhanced its military and naval presence in the South China sea in 2009 and 2010, as a response to more assertive “[proactive diplomacy](http://www.dragon-report.com/Dragon_Report/home/home_files/ISEC_a_00115.pdf) by other claimants to establish legal boundaries of their claims”. Similarly, in 2012 when Japan nationalized Senkaku islands (disputed territory between China and Japan), China responded with the coast guard to “[symbolically challenge Japan’s control](https://doi.org/10.1162/isec_a_00360)“. Moreover, when Japan [extended its ADIZ](https://doi.org/10.1080/01402390.2018.1558056) to monitor control over Senkaku, China responded with its own ADIZ move. Regionally, China has taken unilateral action to resolve the existing disputes, even though it neglected the judgement given by the international arbitration tribunal in 2016 challenging the UN Convention on the Law of Sea to resolve disputes. In short, since the past three decades China is actively present in the South China Sea, thus claims that China is “more assertive” in the region, at this moment, is simply exaggerated. Moreover, China in the above two cases responded to the actions of other claimants to establish control over disputed territory. Thus revisionist tendencies are seen only when China is provoked. Politico-economic order The parameters to test whether China is revising the politico-economic order include – first cooperation with the hegemon (US), second China’s approach to various international institutions. Cooperation with the hegemon measures cooperative actions over a range of issues and voting congruence in the UN. Cooperative actions and congruence in multiple issues between the US and China are measured with the help of the dataset provided by the Integrated Crisis Early Warning System (ICEWS – (Fig 1 below)). Contrary to the current narrative where China is projected as more assertive, Chinese statements and actions towards the US are “overwhelmingly cooperative“. The second measure is the degree of voting congruence between the US and China. This is measured through UNGA ideal point data (Fig 2 below) which captures China’s position vis-a-vis the US. The absolute distance between the US and China’s ideal points varied across time, but as compared to the 1990s, the gap in 2015 has narrowed. China’s approach to international institutions includes first, China’s participation rate in international institutions and second whether China challenges or breaks the rules and norms of such institutions. Between the 1960s and 1990s, Chinese membership to international organizations jumped from zero to 80 percent of compared states. Some international organizations like IMF, the World Bank, and the WTO are supported by both the US and China, while other institutions are more or less opposed by both including ICJ, ICC. Most importantly, the common method to check a state’s compliance with international organizations is to compare that state’s approach to the US. But the US has consistently opposed the rules and norms of international order. For instance, China’s rejection to comply with the decision of the International arbitration tribunal in 2016 concerning the South China Sea dispute is regarded as violative of an international norm, then why not the US invasion of Iraq in 2003 and its adventure in Afghanistan. As regards, institutions such as UNSC, China remains a staunch defender of it. China has contributed to the peacemaking mission at the behest of the UN. China is currently involved in major arms control institutions. But both China and the US remained outside of the Comprehensive Test Ban Treaty and opposed the Treaty of Prohibition of Nuclear Weapons. In short, as Steve Chan concluded, participation in IGO’s reflects national satisfaction with the world order, though the evidence regarding the breaking of rules and norms remains contested (should be analyzed relative to other states’ response to international institutions). Conclusion To sum up, the above pieces of evidence suggest that the “revisionist” narrative is much more exaggerated and overstated. In some domains, China’s assertiveness, to some degree, has increased, but in other domains, it remained satisfied with other liberal orders. In other words, the overall picture remains pretty complex and “revisionist characterization” is simply a conjecture.

#### It’s the US that’s revisionist, not China – their evidence is classic threat projection influenced by Yellow Peril narratives.

Xiang Lanxin 21, Director of China Policy Analysis at HEID. Xiang Lanxin held the Henry A. Kissinger Chair of Foreign Policy and International Affairs at the Library of Congress in Washington, DC, “Panic of Decline – Which Is the Revisionist Power, the US or China?”, <https://valdaiclub.com/a/highlights/panic-of-decline-which-is-the-revisionist-power/> //lenox

A central premise of the Biden foreign-policy team is that China is trying to challenge the status quo, which is defined as US primacy in the world system. China is seen as a rising power with a huge grudge against the existing international system. In short, it could be said that there are parallels between the second decade of the twenty-first century and the early twentieth century, when a democratic England struggled with a rising, economically powerful but authoritarian Germany. This analogy, however, that of a “Wilhelmine China”, is flawed: it is hardly obvious, in the year 2021, just who is defending the status quo. The irony is, at the very moment of China’s decision to integrate fully into the international system, the United States seems to have started the process of changing that system. It is abandoning the rules it established at the end of the Second World War, especially the liberal international economic order, which was based on free trade and the mechanism of market competition. After more than forty years of reform and opening, China is on the verge of becoming a lead player in the existing international economic system. Just as China aspires to become a “normal state” for the first time in its long and self-isolated history, the criterion for “normal” is changing. When China became multilateral in its foreign relations, America became unilateral under the Trump administration, and this policy has continued under Biden. There’s no question that the US, rather than China, is a leading revisionist power today, because the Washington establishment of both political parties is trapped in another wave of panic: the morbid fear of a US decline. How do good times happen? What makes the bad times come? Why do we fall, and who helps us come back, if anyone can? Declinism has the same fascination for historians that love has for romantic poets. The people who want to set up China as the new monster are obliged to explain why the US is declining. Ironically, they cannot do it convincingly, since the intellectual predecessors of the new declinist, Joe Biden, are all declinists, too. He has to face insurmountable logical absurdity by insisting that the previous era was actually a peak rather than the valley that the previous declinists thought were actually valleys. The popularity of declinism was established in 1918, in the book that gave decline a profitable name in publishing: the German historian Oswald Spengler’s best-selling work “The Decline of the West”. For many in Washington, Spengler was far-sighted in his pessimism and attempt to foretell the decline of liberalism in the face of the spread of totalitarianism. But this is not enough — they have also to revive Spenger’s racism to justify their animosity toward China. Hence, the Yellow Peril narrative came in handy for the Trump administration. Trumpism is stoking a fierce racial war in the United States and abroad; hostility towards the Yellow Peril has been kindled simultaneously. This is no accident. While Trump’s China policy was openly racist (phrases such as “Kung Flu” have certainly been responsible for current anti-Asian hate crimes), Biden’s China policy is more subtle. However, its Yellow Peril undertone is unmistakable. Since the political elite in Washington are horrified by a crumbling world order built on “unipolar fantasy”, it is not surprising that they are, subconsciously perhaps, seeking inspiration from Spengler, the guru of the racialist school of decline. The combination of declinism and the Yellow Peril narrative produces a perfect rhetorical tool for China-bashing today. Spengler, the original prophet of a declining West, left a horrible proposition for the Western people over a century ago: if the decline of the West is caused by its own doing, i.e., internecine wars, then you have no one to blame. But if the rise of the non-white peoples causes the West to decline, how should the white world deal with them? Either by eliminating them or simply retarding the advancement of their societies. The worst solution, according to Spengler, is to ‘integrate’ them. The America Firsters have peddled this message loud and clear. Nazi Germany chose to eliminate an entire ethnic group, while the US prefers to return to the idea of economic retardation and launch a military chokehold against the most advanced non-white country, China. Not by accident, Spengler also provided a handy theory for technological “decoupling” with China. He vehemently opposed technological advances in general, for fear of non-White people getting hold of them to destroy Western civilisation. More importantly, the China-bashing campaign is shrouded in a moralistic halo. Despite the volumes of Western books that have been written on Chinese foreign policy, a serious study of the conceptual history of China’s foreign relations has barely begun. The US administration fails to understand the fact that the meaning of Chinese foreign relations can only be grasped in a specific Chinese context of political legitimacy, not through some universal principles that allegedly guide the international behaviour of states. Confucian culture stresses that endogenous factors dictate the rise and decay of a state system, based on moral standards. Traditionally, Chinese do not believe that a regime’s legitimacy can be enhanced through the expansion of the Mandate of Heaven into an outer sphere beyond Chinese culture, either through the conquest of outlying territories, or legitimate states inhabited by non-Chinese. Foreign adventure and territorial expansion for resettlement purposes had never occurred to Chinese rulers as an effective medicine to cure immanent moral illnesses that inevitably give rise to political chaos at home. The non-expansionist attitude contrasts sharply with the persistent missionary zeal in the Christian West, which at least from the Crusades onwards, has been obsessed with “spiritual” promotion (today it is also called democratic promotion) in faraway foreign lands, often with military force. A traditional consensus is that, if a morally corrupt system (the US is no exception) does not undergo serious reforms, it will not be able to sustain itself for long. Jim Crowism is alive and strong in the US, but it is not the fault of the Chinese. Even though little morality has been demonstrated by the recent foreign policies of the United States, not many in Washington are willing to admit that the US, as a self-appointed moral leader, faces a major crisis, and that the existing global system, long characterised by benign US hegemonic control, is in need of fundamental reforms. If the current US-China tension continues, we are sleepwalking into 1914.

#### China’s obedience to the LIO is equivalent to the US’s – liberal norms would benefit Chinese interests AND reduce the pressure of a unipolar conflicts.

Stephen Walt 21, columnist at Foreign Policy and the Robert and Renée Belfer professor of international relations at Harvard University, 3/31/2021, "China Wants a ‘Rules-Based International Order,’ Too," https://foreignpolicy.com/2021/03/31/china-wants-a-rules-based-international-order-too/, sg

But the distinction between the United States’ supposed commitment to a system of rules and China’s alleged lack thereof is misleading in at least three ways. First, it overlooks the United States’ own willingness to ignore, evade, or rewrite the rules whenever they seem inconvenient. If we are honest with ourselves, we have to acknowledge that Washington sometimes thinks it is perfectly okay for might to make right and for winners to take all. The collapse of the Soviet Union, when the United States took full advantage of a weakened post-Soviet Russia, is a perfect example.

Second, as Harvard University’s Alastair Iain Johnston has shown, China accepts and even defends many principles of the existing order, although of course not all of them. That situation may change in the future, of course, but even a vastly more powerful China would undoubtedly seek to retain whatever features of the present order serve its interests.

Third, statements such as Blinken’s imply that abandoning today’s rules-based order would leave us in a lawless, rule-free world of naked power politics, unregulated by any norms or principles whatsoever. This is simply not the case: Scholars of widely varying views understand that all international orders—global, regional, liberal, realist, or whatever—require a set of rules to manage the various interactions that inevitably arise between different polities.

Examples can be found throughout the international relations literature: 44 years ago, theorist Hedley Bull defined an “international society” as “a group of states … bound by a set of common rules” and the University of Chicago professor John Mearsheimer recently referred to international orders as “an organized group of international institutions,” which he says “are effectively rules that the great powers devise and agree to follow.” The statesman Henry Kissinger argues that all world orders rest on a “set of commonly accepted rules” and the Princeton University professor G. John Ikenberry’s many works on the U.S.-led “liberal” order all emphasize its “rules-based character.” The political scientists Beth Simmons and Hein Goemans agree, writing, “any intergroup order must be defined by rules of group membership and … political authority.” Even skeptics of the liberal order, such as the scholar Patrick Porter, acknowledge the role that rules played within that system, while emphasizing how the United States has used its superior power to compel other states to comply with the rules it prefers.

In short, the issue is not the United States’ preference for a “rules-based” order and China’s alleged lack of interest in it; rather, the issue is who will determine which rules pertain where. Or as the Rand Corp.’s Michael Mazarr recently put it, “At its core, the United States and China are competing to shape the foundational global system—the essential ideas, habits, and expectations that govern international politics. It is ultimately a competition of norms, narratives, and legitimacy.”

The differences between the American and Chinese conceptions are relatively straightforward. The United States (generally) prefers a multilateral system (albeit one with special privileges for some states, especially itself) that is at least somewhat mindful of individual rights and certain core liberal values (democratic rule, individual freedom, rule of law, market-based economies, and so on). These ideals may be applied imperfectly at home and pursued inconsistently abroad, but the U.S. commitment to them is not just empty rhetoric. Among other things, it underpins U.S. efforts to persuade or compel other states to alter their own domestic arrangements. Not surprisingly, the United States also likes many existing institutions (the IMF, NATO, the World Bank, the reserve role of the dollar, to name a few) because they give the United States greater influence.

By contrast, China favors a more Westphalian conception of order, one where state sovereignty and noninterference are paramount and liberal notions of individual rights are downplayed if not entirely dismissed. This vision is no less “rules-based” than the United States’, insofar as it draws on parts of the United Nations charter, and it would not preclude many current forms of international cooperation, including extensive trade, investment, collaboration on vital transnational issues such as climate change. China is also a vocal defender of multilateralism, even if its actual behavior sometimes violates existing multilateral norms. Nonetheless, a world in which China’s preferences prevailed would be different than one in which the U.S. vision proved to be more influential.

I don’t know which of these two visions will win out in the years ahead, but a few observations are in order. First, if you think the United States and its closest allies are going to write all the rules themselves, think again. International orders inevitably reflect the underlying balance of power, and China’s rise means that its ability to shape some of the rules (or to refuse to go along with rules that it rejects) will be considerable.

Second, and following from the first point, no single power can write and enforce all the rules of an order. The United States got most of what it wanted during the creation of the Bretton Woods system and had enormous influence over the subsequent evolution of that order, but it still had to compromise on a number of issues, and it frequently failed to get everything it wanted. The United States and China are going to have a great deal of influence over the rules that emerge either globally or within whatever partial orders each might lead. But to gain others’ compliance, they will still have to give other states at least some of what they want, too.

If the United States Doesn’t Make The Rules, China Will

Progressives need to learn how to use American market power for good.

Third, China’s emergence (and, to a much lesser extent, Russia’s regional sway) gives other countries more options than they had during the unipolar era. Iran may be suffering mightily under U.S. sanctions, but its recent oil and investment deal with China reveals its ability to reduce the pressure somewhat without making additional concessions to the United States. Europe may be thrilled to see former U.S. President Donald Trump gone and delighted by President Joe Biden’s desire to repair trans-Atlantic ties, but that sense of relief hasn’t led Germany to cancel the Nord Stream 2 pipeline, didn’t stop the EU from signing its own investment deal with Beijing despite U.S. requests for a delay, and isn’t going to convince Prime Minister Viktor Orban to bring liberal values back to Hungary.

#### China is not attempting to undermine western governance AND doesn’t have the requisite capability.

Hugh White 21, Professor of Strategic Studies in the School of International, Political & Strategic Studies at the Australian National University, 8/1/2021, "China threatens the West’s primacy, not its democratic systems," https://www.lowyinstitute.org/the-interpreter/china-threatens-west-s-primacy-not-its-democratic-systems, sg

The first relates to China’s intentions. As former Department of Foreign Affairs and Trade secretary Peter Varghese among others has argued, there is no evidence that Beijing seeks to remodel the world in its image. China is not like the Soviet Union in its heyday, which really did aim to make the world communist. The CCP will do whatever it can to protect its own system from being undermined from without, but unlike the Soviet Union – and many in the West – it does not seem to believe that this requires the rest of the world to adopt its model.

But intentions can change, so the stronger reason to doubt the Cold War view of our contest with China relates to its capabilities. Even if Beijing does seek to undermine democracy around the world, is there any reason to think it might succeed? Here again, the contrast with the Soviet Union is instructive.

Take the contest of ideas. It is hard now to remember that during the early post-war decades, the Soviet Union offered a fully-developed and comprehensive vision of global order, national organisation and human life that many people, both in the West and in the decolonising “third world”, found compelling. Moscow-affiliated communist parties were significant players in the domestic politics of many countries, including key US allies such as France, Italy and Japan. It is now clear that the challenge this posed to liberal democracy was weaker than it seemed, but the challenge was nonetheless real.

Australian Prime Minister Scott Morrison’s recent keynote address at the Perth USAsia Centre, ahead of the G7 Summit, included a call for liberal democracies to be “stepping up with coordinated action” (Matt Jelonek/Getty Images)

There is no analogy with China today. In no western country does anyone advocate the adoption of China’s political system or the acceptance of a Chinese-led global order, and while many leaders in the developing world may long to copy the CCP’s political and economic achievements, few if any acknowledge it as an ideological model or would welcome its hegemony. Even countries that share China’s ideology – such as Vietnam – resist its influence. So even if China were trying to impose its brand of politics on others by persuasion, it has no evidence that it has the capacity to do so

The second reason China doesn’t pose the threat it appears to, relates to material power. At first glance, it may seem that China is much better placed materially than the Soviets were to “rule the world”. Throughout the Cold War, the Soviet Union had the world’s second-biggest economy, but it was never more than half the size of America’s. China’s GDP has already overtaken America’s in purchasing power parity (PPP) terms and is poised to do so in market exchange rate terms before long, and will most likely outstrip it in the decades ahead. Beijing might therefore seem to have the material basis for global hegemony that the Soviet Union lacked.

But the comparison with America isn’t what really counts anymore. In the Cold War, especially in its early stages, wealth and power were very unevenly distributed around the world, and America and the Soviet Union were overwhelmingly preponderant. They were the only two countries that counted strategically, which is why they were called superpowers.

Some people may think that it doesn’t matter much to exaggerate China’s threat if that helps mobilise support against it.

To see what this meant, consider the position of the Soviet Union across Eurasia 70 years ago in 1951, when the North Atlantic Treaty Organisation (NATO) had been recently founded. Eastern Europe was already under its control. Western Europe and Japan were still in ruins. India was only just independent, desperately poor and happy to lean Moscow’s way. China was a communist satellite, and Southeast Asia seemed set to follow. And the Soviets were the only Eurasian power with nuclear weapons. There was no serious barrier to Soviet hegemony over the whole of Eurasia, except America.

Compare China’s position today, when power is much more evenly distributed around the world. Russia, India and Europe are all substantial powers, and China has no chance of subjugating Eurasia by dominating them. And if China cannot dominate them, it certainly can’t challenge America in the Western hemisphere, or “rule the world”.

### 2AC – Relations

#### Low relations don’t cause war – mutually beneficial relationships AND low hostility disprove motivation for war.

Timothy Heath 17, senior international defense research analyst at the nonprofit, nonpartisan RAND Corporation and member of the Pardee RAND Graduate School faculty; William Thompson, Distinguished and Rogers Professor at Indiana University and an adjunct researcher at RAND, 5/1/2017, "U.S.-China Tensions Are Unlikely to Lead to War," https://www.rand.org/blog/2017/05/us-china-tensions-are-unlikely-to-lead-to-war.html, sg

Graham Allison's April 12 article, “How America and China Could Stumble to War,” explores how misperceptions and bureaucratic dysfunction could accelerate a militarized crisis involving the United States and China into an unwanted war. However, the article fails to persuade because it neglects the key political and geostrategic conditions that make war plausible in the first place. Without those conditions in place, the risk that a crisis could accidentally escalate into war becomes far lower. The U.S.-China relationship today may be trending towards greater tension, but the relative stability and overall low level of hostility make the prospect of an accidental escalation to war extremely unlikely.

In a series of scenarios centered around the South China Sea, Taiwan and the East China Sea, Allison explored how well-established flashpoints involving China and the United States and its allies could spiral into unwanted war. Allison's article argues that given the context of strategic rivalry between a rising power and a status-quo power, organizational and bureaucratic misjudgments increase the likelihood of unintended escalation. According to Allison, “the underlying stress created by China's disruptive rise creates conditions in which accidental, otherwise inconsequential events could trigger a large-scale conflict.” This argument appears persuasive on its surface, in no small part because it evokes insights from some of Allison's groundbreaking work on the organizational pathologies that made the Cuban Missile Crisis so dangerous.

However, Allison ultimately fails to persuade because he fails to specify the political and strategic conditions that make war plausible in the first place. Allison's analysis implies that the United States and China are in a situation analogous to that of the Soviet Union and the United States in the early 1960s. In the Cold War example, the two countries faced each other on a near-war footing and engaged in a bitter geostrategic and ideological struggle for supremacy. The two countries experienced a series of militarized crises and fought each other repeatedly through proxy wars. It was this broader context that made issues of misjudgment so dangerous in a crisis.

Neither Washington nor Beijing regards the other as its principal enemy.

By contrast, the U.S.-China relationship today operates at a much lower level of hostility and threat. China and the United States may be experiencing an increase in tensions, but the two countries remain far from the bitter, acrimonious rivalry that defined the U.S.-Soviet relationship in the early 1960s. Neither Washington nor Beijing regards the other as its principal enemy. Today's rivals may view each other warily as competitors and threats on some issues, but they also view each other as important trade partners and partners on some shared concerns, such as North Korea, as the recent summit between President Donald Trump and Chinese president Xi Jinping illustrated. The behavior of their respective militaries underscores the relatively restrained rivalry. The military competition between China and the United States may be growing, but it operates at a far lower level of intensity than the relentless arms racing that typified the U.S.-Soviet standoff. And unlike their Cold War counterparts, U.S. and Chinese militaries are not postured to fight each other in major wars. Moreover, polls show that the people of the two countries regard each other with mixed views—a considerable contrast from the hostile sentiment expressed by the U.S. and Soviet publics for each other. Lacking both preparations for major war and a constituency for conflict, leaders and bureaucracies in both countries have less incentive to misjudge crisis situations in favor of unwarranted escalation.

#### Trump’s sledgehammer approach to relations thumps – he destroyed trade connections AND killed international leadership.

Hui Feng 20, ARC Future Fellow and Senior Research Fellow, Griffith University, 10/19/2020, "Trump took a sledgehammer to US-China relations. This won't be an easy fix, even if Biden wins," https://theconversation.com/trump-took-a-sledgehammer-to-us-china-relations-this-wont-be-an-easy-fix-even-if-biden-wins-147098, sg

Trump takes a unilateral, transactional approach

Trump’s sledgehammer approach to the US-China relationship has been problematic at best.

For one, Trump viewed the relationship transactionally, hardly scratching the surface of the deeper structural issues — such as state subsidies and labour standards — that exist between the countries.

He believed he could reduce the massive US trade deficits with China through a “big, beautiful monster” of a trade deal and this would be a silver bullet for both the economy and his re-election prospects.

This explains all the flip-flops during the drawn-out trade negotiations, during which Beijing largely managed to use the deal as bait to keep larger strategic issues off the table.

China and the US signed a trade deal in January, but relations have only soured further since then.

### 2AC – Russia-China Alliance

#### No China-Russia alliance – identity and border disputes outweigh regional security concerns

Elizabeth Wishnick 22; PhD; Professor of Political Science at Montclair State University; “The Paradox of Sino-Russian Partnership: Global Normative Alignment and Regional Ontological Insecurity”. In: Yoder, B.K. (eds) The United States and Contemporary China-Russia Relations. Palgrave Macmillan, Cham. 2022 https://doi.org/10.1007/978-3-030-93982-3\_7

Lack of Regional Integration: Explanations and Examples If Chinese exhortations about “win–win” cooperation on the regional level fall flat, it is because China and Russia lack a shared sense of regional identity, leading to incompatible security interests, at least where identity issues are concerned. This means that even projects that provide mutual benefit may raise challenges to Russia’s identity, undermining its commitment to regional integration (Russo and Stoddard 2018, 34). Jennifer Mitzen argues that states seek identity security, not just physical security. In fact, Mitzen argues that states may be willing to forego cooperation and tolerate interstate conflict if the price is greater stability in their identity (Mitzen 2016, 342). Security dilemmas may emerge when a group’s action, taken to secure its identity, cause a reaction in another group, thereby resulting in the insecurity of both (Olesker 2011, 382).

The Sino-Russian Border Regions While Chinese officials and experts may be frustrated by what they call “China threat” views—regarding their country’s purported intentions to take over neighboring lands and encourage migration there, China, too, has its own identity concerns with respect to its neighbors on the Steppe. Historians explain how China’s identity was formed in opposition to these neighbors who are portrayed as starkly different, despite commonalities (MacKay 2016, 472–473). In the neighboring countries, narratives of history and memories of border displacements create dissonance with Chinese interpretations and underlie suspicions of China’s current intentions.

For Russia, identity is rooted in a geopolitical space, a conceptualization that has led to misunderstandings with the EU and its conception of borderless Europe (Akchurina and Della Sala 2018, 1651) as well as with China. Place names became flashpoints in relations with China, as residents of the Russian Far East see territorial ambitions in the persistence in China of Qing era names for Russian cities (Wishnick 2014, 54).5 Border demarcation agreements, which involved some give and take of territory, were negotiated and announced with little transparency in all involved countries, fueling suspicions, heightened by widespread corruption in China and its neighbors.

The changes in China’s borders with Kazakhstan and Russia in the nineteenth century reflect China’s declining fortunes in the Qing dynasty.The codification of these borders in twentieth-century border demarcation agreements, as China began its resurgence, represent a necessary but bitter pill for Chinese leaders. As S.C.M. Paine points out, the SinoRussian border represents for China “the failure to fend off the predations of European civilization” (Paine 1996, 9). Russians, in particular, question whether Chinese leaders have ever abandoned the hope of retrieving territories lost in the Qing era. Deng Xiaoping told Gorbachev in their historic meeting in 1989 that they must “close the past and open the future,” but in a less quoted passage, he went on to discuss the unequal treaties that support the relationship he just agreed to normalize.

Deng Xiaoping: Now I would like to express my thoughts on two issues: first, to touch on the question of the losses, inflicted on China by a number of powers, and, second, to say from where China was threatened in the last thirty years.

Then [Deng Xiaoping] named, among countries who inflicted damage on China, first and foremost Great Britain and Portugal, because they first occupied the Chinese territory, created concessions, captured Aomen (Macao). He spoke at length about the losses inflicted by Japan, tsarist Russia, which obtained the largest gain from China, and about the Soviet Union. With this he had in mind that Russia, up until the October revolution, had a sphere of influence in Northeastern China, centered on Harbin. And in general, [Deng Xiaoping] stressed, Russia, through unequal treaties, received more than 1.5 million square kilometers of Chinese territory. And already after the October revolution, in 1929, the Soviet Union captured the islands on the Amur and Ussuri rivers near Khabarovsk]... (www.wil soncenter.org n.d.)

In this statement, Deng highlights the importance of Chinese territorial integrity, which succession of Chinese leaders have since identified as a “core” nationalist interest. At the same time, over the past several decades, Chinese officials also have sought to promote various cross-border integration schemes, most recently under the framework of the Belt and Road Initiative (BRI). In this situation, China promotes a vision of borders as bridges (Foot 2016, 5). Instead of insisting on borders as fixed barriers, protecting the national interest, the BRI, for example, promotes a more fluid vision of a transnational space involving civilizational, rather than interstate, connections. (Summers 2020, 812; Grant 2018, 400). It is the latter that worries Russia.

COVID-19 and Sino-Russian Relations COVID-19 has highlighted the anemic state of Sino-Russian cross-border exchanges. (chinasresourcerisks.com 2021) Although Russia and China share a 4000 km shared border, there were relatively few cases of COVID19 in the Russian border regions in the first few months of the pandemic, attesting to the overall weakness of Sino-Russian regional relations, rather than to the effectiveness of Russian public health measures. Indeed, the virus appears to have traveled more circuitously to Russia from China to Europe and then to European regions within Russia (Zuenko 2020). The Russian government closed the land border with China on January 30th, 2020, followed by border crossing points (February 1) and rail traffic (February 3). As of September 2021, the Sino-Russian border is still only open to cargo.

In bilateral talks, Putin and Xi Jinping have expressed mutual support and pledged to cooperate against the pandemic (Weitz 2020) but reactions across Russia’s regions were mixed. Some Russian regions bemoaned the loss of Chinese visitors (meduza.io 2020) while others quarantined them or monitored them using facial recognition technology, prompting protests of ethnic profiling (Light 2020; Sixth Tone 2020). A February 2020 poll by Ipsos-MORI found that 37% of Russians polled said they would avoid individuals with a Chinese appearance (Beaver 2020). Once the pandemic was under control in China later in the spring of 2020, this time it was the Chinese government that shut down border crossing points on its own side of the border. This move ended up stranding Chinese nationals seeking to return home and created new health risks for the Russian Far East, where infected visitors faced 28-day quarantines (Shah 2020).

Although most experts argue that the pandemic was most likely transmitted by a bat to a wild animal sold in China (McKay et al. 2021) in an effort to raise questions about the pandemic’s origin in China, Chinese officials have claimed that the virus can be transmitted by frozen food, including fish from Russia (as well as Maine lobsters!) (Hernández 2021/Woodcock 2021). Since approximately 60% of Russian fish, mostly from the Russian Far East (Russian primamedia.ru 2021) is exported to China, this has crippled Russian fish exports. China has refused to accept imported Russian fish since COVID-19 traces were found on frozen fish imported from Russia to Jilin, China. This has forced Russian fish exporters to seek out other markets in Southeast Asia and even in Africa, as officials try to negotiate an end to the Chinese ban (Solovieva 2021). China’s eagerness to uncover a foreign origin for the pandemic has created a new irritant in Sino-Russian regional relations, always the weakest link in their partnership.

### 2AC – Taiwan

#### An invasion would be impossible – island chains AND favorable urban defenses mean Xi will prioritize peaceful diplomacy over war.

Alex Lo 22, post columnist covering major issues affecting Hong Kong and the rest of China. A journalist for 25 years, he has worked for various publications in Hong Kong and Toronto as a news reporter and editor, 4/26/2022, "For the umpteenth time, China will not invade Taiwan," https://www.scmp.com/comment/opinion/article/3175598/umpteenth-time-china-will-not-invade-taiwan, sg

Another day, another warning from the West about China’s upcoming invasion of Taiwan. That has been the pattern ever since Russia’s invasion of Ukraine in late February. It’s really not about China learning the right or wrong lesson from Russia’s invasion, but for Western pundits making this improbable warning to learn some military basics.

If you don’t like reading war books, at least watch the opening harrowing scenes of Saving Private Ryan. In general, there is a world of difference between a land invasion and one by sea. In particular, the island chains and the main island of Taiwan present formidable defences against an invasion force, as opposed to a land invasion across Ukraine borders.

There is a world of difference between a land invasion and one by sea

Here are some random samplings of Western paranoia. These two are recent op-eds from Bloomberg: “China May Be Learning the Wrong Lessons from Ukraine: Could Russia inspire its ally to launch an invasion of its own?” and “Putin’s Struggles in Ukraine May Embolden Xi on Taiwan”.

This is a full editorial from The Economist: “How to deter China from attacking Taiwan: What Taiwan can learn from Ukraine about resisting invasion”. Top United States officials have repeatedly warned China not to support Russia to breach sanctions and not to invade Taiwan, even though Beijing is doing neither. Here’s a recent one from Secretary of the Treasury Janet Yellen before the House Financial Services Committee, who said all sanctions tools would be used against China if Beijing moved aggressively against Taiwan.

All these specious warnings remind me of those same supercilious Western pundits who predicted Beijing would roll in the tanks in 2019 during the violent anti-government unrest in Hong Kong for Tiananmen 2.0.

Of course, China has made it clear that except for an outright declaration of independence by Taiwan, all other disputes or conflicts must be resolved peacefully. This has been both a promise and a threat; I see no reason to doubt Beijing’s sincerity. It really doesn’t want to fight Taiwan, but all bets are off when it comes to independence.

Vladimir Putin and his generals were lured into a false sense of security because of the ease with which their soldiers could cross into Ukraine. Chinese leaders and their generals know the cost of an invasion across the Taiwan Strait would be horrendous, even if successful.

Armchair pundits pontificate on grand strategies; real soldiers fret about logistics. It’s much more difficult to move a massive army and equipment across a body of water than across land. That’s what political scientist John Mearsheimer calls “the stopping power of water”. At its narrowest point, the Taiwan Strait is 128km between the mainland and the main island of Taiwan. But landing distances will be considerably greater as much of the invasion force would not be able to embark at that narrow point.

Again, think of Saving Private Ryan. The Taiwan Strait is four times wider than the English Channel, across which Operation Overlord on D-Day was launched. The entire world would be alerted weeks if not months ahead of time in the amassing of such a large Chinese army and equipment, especially after the experience with the Russian preparation for the war in Ukraine. There could be no element of surprise for mainland China.

It has been pointed out that at least two chains of more than 100 islands and islets offer ample opportunities for Taiwan forces to lay traps before the mainland forces even reach Taiwan proper. And of course, the main island offers formidable natural and urban terrains for defence against an invader. It would be no easy matter for invading forces to capture Taichung in the centre, Kaohsiung in the south and Taipei in the north, each of which could easily turn into another Stalingrad. In fact, the three main cities would each form a hub of defence, much like Kyiv whose success in repelling Russian forces has astonished the world.

But the real reason for Beijing’s reluctance to take Taiwan by force is not military, but geopolitical. While Taiwan may be the “prestige prize” for its national unification value, it is not the real prize. China’s future as a dominant regional power does not depend on the status of Taiwan, but rather dominance or at least greater control of the South China Sea. Attacking Taiwan would imperil the whole project that has been decades in the making for those waters.

Short of the unconditional imperative of reversing Taiwan’s outright independence, attacking the island would not only be fratricide, but suicide.

#### China lacks the logistical and naval capabilities for an invasion – prefer war college calculations.

Harlan Ullman 22, member of the Senior Advisory Group for Supreme Allied Commander Europe and is currently the senior adviser the Atlantic Council, 2/18/2022, "Reality Check #10: China will not invade Taiwan," https://www.atlanticcouncil.org/content-series/reality-check/reality-check-10-china-will-not-invade-taiwan/, sg

The definitive document on what size force would be required to seize Taiwan in a full-out landing was drafted by the US military in the late stages of World War II in the Pacific. In 1944, Operation Causeway was the US plan for retaking Formosa, as it was then called, from 30,000 starving Japanese soldiers. The planned invasion force was double the size of Operation Overlord, the Normandy landing: 400,000 soldiers and marines deployed on 4,000 ships. With a potential defending force of 450,000 Taiwanese today, using the traditional three-to-one ratio of attackers to defenders taught at war colleges, China would need to deploy over 1.2 million soldiers (out of a total active force of over 2 million). Many thousands of ships would be required to land all those forces, and doing so would take weeks. How many occupation forces would be required to pacify the Taiwanese? Surely the lessons of Afghanistan and Iraq are not lost on the PLA leadership.

China possesses a small fraction of the necessary ships to execute a landing of that size and lacks the capacity to do so for the foreseeable future. Nor are there any current plans suggesting China is intent on procuring such a force, though that could change.

Further, Taiwan is not conducive to any form of amphibious assault. A handful of landing sites on the west coast are blocked by proximate mountainous areas running the length of the 250-mile-long island, some approaching 10,000 feet in height. Defenders could fall back using this difficult terrain to wage a guerrilla war. Moreover, Taiwan lacks the infrastructure to support over a million invaders and their logistical needs, most of which would have to come from the mainland.

#### Ukraine proves nothing – US support deters invasion and China lacks military capability.

USIP 22, United States Institute of Peace, independent institution devoted to the nonviolent prevention and mitigation of deadly conflict abroad, 3/4/2022, "China Is Not Russia. Taiwan Is Not Ukraine.," https://www.usip.org/publications/2022/03/china-not-russia-taiwan-not-ukraine, sg

China Is Not Russia

Russia under Putin has repeatedly dispatched its armed forces for combat missions overseas to a range of countries, including Georgia, Syria and Ukraine, as well as conducted major military interventions against other states, most recently Kazakhstan (albeit at the invitation of that country’s president). Moscow has also actively supported armed groups and militias in some of these same countries and others.

Although China has also been active and assertive in the use of its armed forces beyond its borders in recent years, Beijing has eschewed large-scale combat operations. Around its periphery, China has engaged in provocations, confrontations and even violent clashes. But China, unlike Russia, has refrained from massive interventions, invasions or occupations of other countries since it invaded Vietnam in 1979. China’s largest deployments of troops overseas in the post-Cold War era have been on U.N. Peacekeeping missions. Whereas Russia has more than 20 military installations beyond its borders, to date, China has only one official military base on foreign soil — in Djibouti (established in 2017) — and a handful of other facilities it does not formally acknowledge.

Of course, Beijing has a history of using its potent armed forces and muscular coercive apparatus within China’s borders to repress vigorously peaceful protesters, political dissidents and disaffected ethnic minority peoples. The locations of these operations include Beijing, Tibet and Xinjiang, as well as Hong Kong. China has also not hesitated to employ armed force and a wide array of coercive instruments around its periphery. This includes building roads and bunkers in remote frontier areas of the high Himalayas along its contested border with India and constructing artificial islands and military installations in disputed waters of the South China Sea. In recent years, China’s armed forces have also engaged in deadly clashes and violent confrontations with Indian army units along the disputed Line of Actual Control and harassed and rammed the fishing boats and coast guard vessels of Vietnam, the Philippines and other countries.

Putin appears to relish projecting the image of a strongman who is routinely willing to thumb his nose at the rest of the world. By contrast, Xi — at least to date — has mainly sought to cultivate a statesmanlike image on the global stage. At times he has given speeches attempting to cast China as a more responsible, less meddlesome and values-free version of the United States. And Xi has invested a lot of time and resources in promoting a set of high-profile international efforts intended to demonstrate that China is a constructive and proactive great power. Employing positive rhetoric touting “win-win” solutions and aspirations to build a “community with a shared future for mankind,” China under Xi’s leadership has launched ambitious efforts such as the Belt and Road Initiative (BRI) and the Asian Infrastructure Investment Bank.

Putin, by contrast, has made no real effort to offer an alternative to U.S. global leadership beyond delivering vague grandiose declarations (often in tandem with Xi) and has offered the world little in the way of economic stimulus beyond the prospect of more energy exports and hype about the Eurasian Economic Union (EAEU). Despite consisting of only a handful of Soviet successor states, the EAEU is touted as Russia’s answer to China’s BRI. In terms of geostrategic activism, Russia’s major multilateralist initiatives have tended to involve China. These include the establishment of the Shanghai Cooperation Organization in 2001 and the formation of the BRICS grouping in 2010. The former is a security community with a Central Asian focus consisting of Russia, China and four Central and two South Asian states. The latter is a loose association of some of the world’s largest “emerging economies”: Brazil, Russia, India, China and South Africa.

However, Moscow’s most significant geostrategic maneuver under Putin has been to strengthen Russia’s strategic partnership with China. Both Beijing and Moscow insist that their relationship is not an alliance and their 2001 treaty of friendship — which was renewed in 2021 — does not commit either signatory to come to the defense of the other in case of military conflict. Yet, the Sino-Russian relationship is a clearly consequential alignment that has grown closer in recent years, particularly as their respective relationships with the United States have deteriorated.

Russia’s invasion of Ukraine has put China in a very uncomfortable position: Beijing does not want to antagonize Moscow but neither does it want to damage its relations with Washington and European capitals. Consequently, China has equivocated in its statements and actions. Chinese Foreign Minister Wang Yi has called for peace but has stopped short of condemning Russia or calling upon Moscow to withdraw its military. The lengthy joint statement of February 4, 2022, issued by Putin and Xi during the Russian leader’s visit to Beijing on the eve of the Winter Olympics, makes no mention at all of Ukraine — and China has pointedly abstained on all U.N. Security Council resolutions related to Russia’s invasion. Xi appears to have asked Putin to delay any military action against Ukraine until after the Olympics.

Russia’s invasion poses other difficulties for China both in terms of running counter to Beijing’s long espoused principles in foreign affairs and its adverse impact on China’s national interests in Ukraine. Russia’s actions clearly contradict China’s cornerstone foreign policy principles of noninterference in other countries’ affairs and respecting territorial integrity. Moreover, China has sizable economic investments in Ukraine and is a good customer of Ukraine’s armaments industry. In 2020, Ukraine signed the BRI cooperation agreement, which further bolstered the economic relationship between the two countries and marked Ukraine as an important partner in Beijing’s signature foreign policy and economic initiative.

Taiwan Is Not Ukraine

The fact that Ukraine is not a member of the North Atlantic Treaty Organization (NATO) was almost certainly a decisive factor in Putin’s calculus to invade Ukraine. Russia’s commander in chief knew that his invading forces would likely not have to contend with the militaries of any other countries. And if there were any lingering doubts in the Kremlin about the disposition of the most powerful member of NATO, U.S. President Joe Biden stated publicly that the United States would not send military forces to help defend Ukraine. Nevertheless, the Biden administration has taken strong steps to reinforce NATO allies in Eastern Europe and provide robust military assistance to Ukraine.

By contrast, Xi and his Politburo colleagues have long been convinced that Taiwan has the resolute support of the world’s most capable military. The People’s Liberation Army — as all branches of China’s armed forces are known — continues to assume that if it launches an invasion of Taiwan, the U.S. military will swiftly and decisively intervene. The U.S.-Taiwan relationship, while technically “unofficial” due to the One China policy, has strengthened in recent years. On February 28, the Biden administration sent an unofficial delegation of former U.S. defense and national security officials to Taiwan as a signal to China of that commitment. It remains true that the greatest deterrence to a massive Chinese military attack on the island is Beijing’s assumption that war with Taiwan also means a war with the United States.

However, there is no formal military alliance between the United States and Taiwan. The defense pact binding Washington to Taipei was formally abrogated in 1979. So why is Beijing convinced that Washington has an ironclad alliance-like relationship with Taiwan? There are at least two reasons. First, successive U.S. administrations have publicly committed themselves to support Taiwan against Chinese aggression and have regularly sold arms to the island’s armed forces. Second, although there is no language in the 1979 Taiwan Relations Act (TRA) that explicitly commits the United States to come to Taiwan’s defense in the event of an attack on the island by China, many in Washington believe that such a commitment exists. While there are different interpretations as to what the TRA means, the most significant fact is that the vast majority of U.S. political and military leaders are fully convinced that this legislation binds the United States to a de facto alliance with Taiwan.

### 2AC – Tech

#### No war from tech race – robust studies prove deterrence is credible – even when asymmetric

Kyungwon Suh 22; Syracuse University, PhD Student, BA in Political Science from Sungkyunkwan University and MA in Political Science from Yonsei University; “Nuclear balance and the initiation of nuclear crises: Does superiority matter?” Journal of Peace Research. May 2022. doi:10.1177/00223433211067899

Discussion and conclusion Does achieving nuclear superiority lead to a reduced risk of nuclear crisis? This article finds that there is no statistical evidence for this proposition: a favorable balance of nuclear forces fails to produce the predicted effect on the probability of the initiation of nuclear crises. These null results are not artifacts of using a particular measure of the nuclear balance and a specific model specification; even after using alternative model specifications and new indicators of nuclear superiority that capture important dimensions of nuclear capabilities that the total warhead count cannot capture, those results remain unaltered. Furthermore, more qualified hypotheses that posit the conditional effects of nuclear superiority also do not find empirical support. By directly testing a key prediction of the nuclear competition school in a new empirical context, this article attempts to shed new light on the theoretical debate over the political benefits of a superior nuclear arsenal. Although my article does not conclusively disconfirm the validity of the nuclear competition school as a whole, it encourages researchers to reconsider the benefit of maintaining a favorable nuclear balance of power, which has been argued by the nuclear competition school.

This article also engages with a broader discussion on quantitative studies on nuclear weapons by acknowledging the importance of improving empirical measures of important variables. While previous quantitative studies substantially advanced our knowledge on nuclear weapons, they are not free from criticisms. For instance, several authors note that statistical analysis on nuclear weapons must carefully code theoretically important variables and take into account important issues such as heterogeneity among cases and the small-N problem (Montgomery & Sagan, 2009; Gavin, 2014). Others also point out that several findings of quantitative research on nuclear weapons are not as reliable as originally believed, demonstrating the significant methodological challenges scholars on nuclear security are facing (Bell, 2016; Winter & Lenine, 2020). Improving our measures of key variables using various open-source data on nuclear weapons is one way of addressing those challenges. By employing multiple measures of the nuclear balance of power, this article attempts to minimize the effect of the imperfect nature of those measures on the validity of statistical inference.

With mixed evidence regarding the political impact of the nuclear balance, one of the potentially important questions that future study can explore is to find conditions under which the balance of nuclear forces meaningfully shapes the outcomes of the interaction between nuclear-armed states. Instead of simply asking whether the nuclear balance matters at all, we could enrich our knowledge about the dynamics of crises between nuclear-armed states by examining what factors could potentially influence the effect of military nuclear advantage on political outcomes.

Another area for future research is to develop a coherent theoretical explanation for how the nuclear balance of power affects different stages of nuclear crises. I have demonstrated that nuclear superiority does not significantly reduce the risk of nuclear crisis initiation. However, Kroenig (2013; 2018: 119) finds that nuclear superiority contributes to favorable settlement of nuclear crises, and that states possessing nuclear superiority have never been targets of MCTs by nuclear inferior opponents, while several MCTs have been issued against states having inferior nuclear capabilities. These empirical patterns raise the need for further research on theoretical mechanisms through which the nuclear balance influences state behavior at different stages of nuclear crises. When and how does the nuclear balance of power have an impact on states’ decisions to initiate a crisis, send escalatory threats, and make concessions against other nuclear-armed opponents? Answers to these questions would advance the literature on the merits of effective nuclear competition.

Does the United States need to maintain nuclear supremacy over its nuclear rivals, including Russia and China? Since 1945, US policymakers have continuously pursued meaningful military nuclear advantages over nuclear-armed competitors. Recently, the Trump administration made several decisions to pursue a more competitive nuclear policy. For instance, it announced the 2018 Nuclear Posture Review, in which it strongly argued for modernizing and adding new forms of delivery systems to the United States’ already massive nuclear arsenals to cope with the nuclear force modernization of Russia and China (US Department of Defense, 2018). It also declared a withdrawal from the INF Treaty. The Biden administration extended the New START Treaty for another five years, but at the time of writing it is too early to know which nuclear modernization programs from the Trump administration will be continued under Biden. From the perspective of the nuclear competition school, the Trump administration’s approach to nuclear issues reflects the continuous emphasis on maintaining US nuclear primacy and strengthening the deterrent power of US nuclear arsenal. Indeed, a leading advocate of the school claims that ‘the goal of US nuclear strategy should be to reduce US vulnerability to nuclear war to the greatest extent possible, while simultaneously maximizing adversary vulnerability’ (Kroenig, 2018: 199).

This article shows that empirical support for this claim is not as strong as argued by the nuclear competition school: the history of nuclear crises demonstrates that there is no strong evidence indicating a link between a favorable nuclear balance of power and the likelihood of nuclear crisis. Accordingly, the United States may not necessarily need to devote valuable resources to a nuclear arms race with other nuclear-armed major powers in order to deter potential challenges from them. Although the deterrent power of the superior US nuclear forces is not as strong as it is often expected to be, potential adversaries would not be emboldened even if their nuclear arsenals became superior to the US nuclear forces – putting aside the question of whether it is a realistic scenario that potential nuclear-armed rivals would gain nuclear supremacy over the United States. The nuclear balance of power between the United States and a potential aggressor would not play a significant role in determining whether Washington would be able to dissuade the aggressor from challenging its security interests. Unless a potential adversary can launch a successful nuclear disarming strike, which is almost impossible in the foreseeable future given the survivability and sheer size of the US strategic arsenal, the United States can have strong confidence in its ability to deter nuclear armed adversaries regardless of the nuclear balance of power. In the equation of deterrence between nuclear states, the balance of nuclear forces may play a far smaller role than many believe.

### 2AC – Thucydides Trap

#### China is declining now – asymmetric alliances and domestic crises.

Lawrence Freedman 22, emeritus professor of war studies at King's College London, 1/12/2022, "What the Thucydides Trap gets wrong about China," https://www.newstatesman.com/international-politics/geopolitics/2022/01/what-the-thucydides-trap-gets-wrong-about-china, sg

The alarming possibility of a major conflict between the US and China has been framed as a likely consequence of a pattern of great power behaviour first identified by the fifth-century BCE historian Thucydides. In his study of the Peloponnesian War, the Greek wrote: “It was the rise of Athens and the fear that this instilled in Sparta that made war inevitable.” This argument is now most associated with the Harvard academic Graham Allison, who claims to have identified 16 instances in which a dominant power has sought to suppress an emerging rival before they became too strong. He notes, disconcertingly, that 12 of these ended in war.

Allison first presented his thesis of the “Thucydides Trap” in the Atlantic in 2015, and developed it in a book, Destined for War, in 2017. Since then, Allison’s argument that the relationship between the US and China is growing increasingly volatile has gained even more credibility with tensions over trade, the South China Sea and Taiwan.

But Allison’s notion of the Thucydides Trap – the tendency towards war when a rising power threatens to displace an existing one – fails to address the risks involved in conflict and the reasons why wars occur. The story told by Thucydides is much more complicated than the “Trap” suggests. The notion of inevitable conflict between Athens and Sparta elides the fact that the Athenian leader Pericles made poor strategic calls. Different decisions would have avoided war.

These choices were largely about the cohesion of the respective Athenian and Spartan alliances, and the possibility of a smaller state defecting because it did not feel protected. A major difference now is that there are asymmetrical alliances: China is far more isolated geopolitically than the US.

If lessons are to be drawn from past power struggles the most relevant among them is the Cold War. The avoidance of armed conflict between the US and the Soviet Union was to a great extent owing to the presence of nuclear weapons. This is a threat that both Beijing and Washington must consider and in that respect, the Cold War is a better comparison than the rivalries between Portugal and Spain in the 15th century or those between England and the Dutch Republic in the 17th.

China is also involved in a complex set of power relationships. Russia was once China’s senior partner; now it is China that is the stronger. Fifty years ago they almost came to blows; now they enjoy an uneasy cordiality. Meanwhile, there has been tension on China’s border with India (another rising power?), while in 2014, the Japanese prime minister Shinzo Abe noted disturbing similarities between Europe in 1914 and his country’s dispute with China over the Senkaku Islands (claimed by China as the Diaoyu Islands). China must consider possible conflicts with all the major players in the region, and not just the US. To Beijing’s consternation new security pacts have emerged, such as the Quad, consisting of the US, Australia, Japan and India, and the Aukus agreement between Australia, the UK and the US.

As China has become more powerful it has grown more assertive, which is why its neighbours have become anxious about its intentions. But contrary to the logic of the Thucydides Trap, in the past China went to war –with Korea in 1950, India in 1962, and Vietnam in 1979 – when it was in a position of weakness, not strength. Its military and economic power is now second only to the US, but that also means China has much more to lose in any kind of protracted, multi-front conflict.

The “Trap” argument is also undermined when you consider the view held by many experts that China’s power may have already peaked. The nation is facing a series of system problems that may halt its rise, including an unbalanced economy, an ageing population, environmental degradation and political dysfunction resulting from President Xi Jinping’s authoritarian turn. Indeed, recent war scares start from the assumption that the leadership in Beijing might want to invade Taiwan before China’s power wanes.

#### War with China is not inevitable

* AT: Thucydides Trap
* AT: Other Graham Allison Cards

Allison ’18 [Graham; 3-5-2018; Douglas Dillon Professor of Government, Harvard Kennedy School, Member of the Board, Belfer Center, Former Director, Belfer Center, Faculty Affiliate, Future of Diplomacy Project, PhD in political science from Harvard; “War Between China and the United States Isn't Inevitable, But It's Likely: An Excerpt From Graham Allison's "Destined for War," <https://www.belfercenter.org/publication/war-between-china-and-united-states-isnt-inevitable-its-likely-excerpt-graham-allisons/>] Accessed – 7/5/2022, WWIS

This is not a book about China. It is about the impact of a rising China on the U.S. and the global order. For seven decades since the Second World War, a rules-based framework led by Washington has defined world order, producing an era without war among great powers. Most people now think of this as normal. Historians call it a rare “Long Peace.” Today, an increasingly powerful China is unraveling this order, throwing into question the peace generations have taken for granted.

In 2015, the Atlantic published “The Thucydides Trap: Are the U.S. and China headed for War?” In that essay I argued that this historical metaphor provides the best lens available for illuminating relations between China and the U.S. today. Since then, the concept has ignited considerable debate. Rather than face the evidence and reflect on the uncomfortable but necessary adjustments both sides might make, policy wonks and presidents alike have constructed a straw man around Thucydides’s claim about “inevitability.”

They have then put a torch to it — arguing that war between Washington and Beijing is not predetermined. At their 2015 summit, Presidents Barack Obama and Xi Jinping discussed the Trap at length. Obama emphasized that despite the structural stress created by China’s rise, “the two countries are capable of managing their disagreements.” At the same time, they acknowledged that, in Xi’s words, “should major countries time and again make the mistakes of strategic miscalculation, they might create such traps for themselves.”

I concur: war between the U.S. and China is not inevitable. Indeed, Thucydides would agree that neither was war between Athens and Sparta. Read in context, it is clear that he meant his claim about inevitability as hyperbole: exaggeration for the purpose of emphasis. The point of Thucydides’s Trap is neither fatalism nor pessimism. Instead, it points us beyond the headlines and regime rhetoric to recognize the tectonic structural stress that Beijing and Washington must master to construct a peaceful relationship.

# Neg

## War Inevitable

### 1NC – War Inevitable

#### China war is inevitable – it’s only a question of when

Brandon Yoder 19; Ph.D., Department of Politics, University of Virginia, Research Fellow at the National University of Singapore Lee Kuan Yew School of Public Policy Centre on Asia and Globalisation, January 28th, 2019, “Uncertainty, Shifting Power and Credible Signals in US-China Relations: Why the “Thucydides Trap” Is Real, but Limited”, Journal of Chinese Political Science, Volume 24, Issue 1, <https://link.springer.com/article/10.1007/s11366-019-09606-1>

This logic has not been well-recognized by either US foreign policymakers or scholars of US-China relations, however. On economic issues, the US adopted a strategy of unconditional cooperation for the first two decades of China’s rise. This strategy was not necessarily misguided. However, absent any degree of hedging by the US, China’s cooperation with the US-led economic order should have been seen as largely non-credible. A rising China had strong incentives to misrepresent any hypothetically-revisionist intentions it might have held, as long as doing so would elicit continued US accommodation that facilitated China’s rapid power gains. Yet many China experts took China’s cooperative behavior during this period at face value, ignoring its incentives to misrepresent and drawing overly optimistic conclusions that China truly shared American preferences for the international order [29, 32, 56, 61]. Even more troublingly, the Trump administration has recently expressed confident beliefs that China’s intentions are hostile, and consequently begun to implement policies of escalating economic containment toward China. Yet this conclusion is also unwarranted: China’s revisionist behavior has been generally limited to its territorial disputes in the South China Sea, whereas its economic and institutional actions are either ambiguous or supportive of the US-led liberal order [31]. Ironically, the Trump administration’s emerging strategy of economic containment, which has been adopted due to ill-formed pessimistic beliefs about China’s intentions, lends considerable (though incomplete) credibility to China’s cooperative signals on economic and institutional dimensions. To the extent that China continues to defend and advocate a rules-based liberal economic order in the face of Trump’s economic containment, this is a much more credible signal of China’s benign intentions than its previous cooperation under unconditional US accommodation. Thus, current US foreign policy turns the logic of hedging on its head: rather than hedging due to uncertainty and updating their beliefs in response to China’s subsequent behavior, policymakers have assumed China’s hostility and are initiating what appears to be a strategy of unconditional containment. Power Shifts, Uncertainty, and US-China Relations The Thucydides trap is not a new concept – it is fundamentally equivalent to what Jack Levy referred to more than three decades ago as the preventive motivation for war [9, 42]. When a declining state knows that its preferences conflict with those of a rising state, war can occur due to the well-known “commitment problem,” which refers to a rising state’s inability to commit to not use its future power gains to exploit the declining state [13, 54]. Under complete information, there is always a range of peaceful bargains that both the riser and decliner would prefer to war, if the bargain could be guaranteed to endure into the future. However, as the rising state gains power its bargaining leverage would increase, giving it an ex post incentive to revise the settlement in its own favor at the decliner’s expense. Thus, when the power shift is sufficiently large, the declining state prefers a winner-take-all war in the present to the eventual settlement the riser will impose in the future if the decliner were to acquiesce to the power shift. Note, however, that the commitment problem obtains only when the rising and declining states have sufficiently divergent preferences over the shape of the international order. If the rising and declining states have highly compatible preferences, the decliner sacrifices little by allowing the riser to gain power. This “benign” riser (from the decliner’s perspective) would simply use its power to maintain the same order that the decliner prefers. Conversely, however, if the riser’s preferences are highly incompatible with the decliner’s, then it will use its power gains to radically revise the international order in ways that are at odds with the decliner’s preferences. It is with this sort of “hostile” rising state that commitment problems obtain under complete information, yielding strong incentives for the decliner to initiate preventive war. Commitment problems do not obtain when the rising state is known to be benign ([36]:119; [67]). This raises the question of what the decliner should do when it is uncertain about the compatibility of the rising state’s preferences with its own. As discussed below, this is the situation that characterizes contemporary US-China relations. It is this sort of uncertainty that lies at the heart of the security dilemma, the phenomenon by which conflict can occur even between states with mutually-compatible preferences due to misplaced (but rational) distrust of the other’s intentions. Under the combination of shifting power and uncertainty, commitment problems potentially obtain if the rising state turns out to be hostile. In this case, the decliner may not be willing to risk accommodating the rising state if the consequences of exploitation by a hostile riser outweigh the benefits of cooperation with a benign one. Instead, the decliner would initiate preventive conflict. Yet because there is some probability that the rising state is actually benign, this opens up the possibility of “tragic” conflict between truly compatible states. If uncertainty about the riser’s intentions cannot be overcome, or at least mitigated, a sufficiently large power shift would produce war even between rational states whose interests do not conflict at all. A prominent subset of realist scholars has compellingly argued that this is often the case: large power shifts engender formidable barriers to the credibility of rising states’ cooperative signals, such that uncertainty about others’ intentions is intractable and declining states must make worst-case assumptions about rising states’ intentions [9, 12, 45, 53]. This is because hostile rising states have strong incentives to misrepresent their intentions while relatively weak, by mimicking the cooperative behaviors of benign risers and refraining from attempting to revise the international order. These realists argue that for hostile risers the costs of foregoing immediate revision are outweighed by the prospects of avoiding opposition from the decliner and attempting revision under a more favorable distribution of power in the future. As such, if cooperative signals are likely to be sent by both benign and hostile risers alike, such signals are non-credible, and declining states should remain highly uncertain about any rising state’s future intentions. This exacerbates the security dilemma, and gives declining states strong incentives to take preventive action even against risers that have exhibited cooperative behavior. This barrier to credible signaling during power shifts has also been applied to contemporary US-China relations. For many realists, it is entirely possible that “China is just practicing common sense and behaving itself until it is a more powerful and consolidated entity” ([33]:203), and “pursuing a peaceful policy today in order to strengthen itself to confront the United States tomorrow” ([40]:14). As such, a common conclusion has been that “we cannot tell much about China’s future behavior, because it [currently] has such limited capacity to act aggressively” ([46]:385).

### 2NC – Alliances

#### War inevitable – alliances

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Alliances

The United States extends nuclear deterrence to geographically distant allies both to protect them and to prevent them from seeking nuclear weapons of their own, while China’s nuclear weapons are only intended to deter attacks on the PRC. A US-China conflict is most likely to begin as a conflict between a US ally (or Taiwan) and China. Japan and the Philippines have maritime territorial disputes with China. China’s goal of reunification with Taiwan is inconsistent with the island’s survival as a de facto independent state. While South Korea has no direct conflict of interest with China, Beijing’s interest in the fate of North Korea could also trigger a US-China conflict.

This asymmetry in Chinese and American alliance commitments contributes to an asymmetry in stakes for the United States and China in any East Asian conflict. US interests in that conflict would be indirect and diffuse, to preserve its alliance system and the international rules it has created. China would have direct and specific interests in the contested territory.28 Any US nuclear threats to protect an ally in a conflict with China could therefore lack credibility to China or the ally.29 The United States has relied on superior capabilities—conventional military preponderance and a large, diverse nuclear arsenal that limits damage to the US homeland—to compensate for this credibility shortfall in its extended deterrence guarantees in the post-Cold War era. China has no extended deterrence commitments that would benefit from a nuclear damage limitation capability.

### 2NC – Econ

#### An anemic Chinese economy makes war inevitable.

Hal Brands 21, Henry A. Kissinger distinguished professor of global affairs at the Johns Hopkins School of Advanced International Studies; Michael Beckley, associate professor of political science at Tufts University and a Jeane Kirkpatrick visiting scholar at the American Enterprise Institute9/24/2021, "China Is a Declining Power—and That’s the Problem," https://foreignpolicy.com/2021/09/24/china-great-power-united-states/, sg

This is the real trap the United States should worry about regarding China today—the trap in which an aspiring superpower peaks and then refuses to bear the painful consequences of descent.

China’s rise is no mirage: Decades of growth have given Beijing the economic sinews of global power. Major investments in key technologies and communications infrastructure have yielded a strong position in the struggle for geoeconomic influence; China is using a multi-continent Belt and Road Initiative to bring other states into its orbit. Most alarming, think tank assessments and U.S. Defense Department reports show China’s increasingly formidable military now stands a real chance of winning a war against the United States in the Western Pacific.

It is unsurprising, therefore, that China has also developed the ambitions of a superpower: Xi has more or less announced that Beijing desires to assert its sovereignty over Taiwan, the South China Sea, and other disputed areas, becoming Asia’s preeminent power and challenging the United States for global leadership. Yet if China’s geopolitical window of opportunity is real, its future is already starting to look quite grim because it is quickly losing the advantages that propelled its rapid growth.

From the 1970s to the 2000s, China was nearly self-sufficient in food, water, and energy resources. It enjoyed the greatest demographic dividend in history, with 10 working-age adults for every senior citizen aged 65 or older. (For most major economies, the average is closer to 5 working-age adults for every senior citizen.) China had a secure geopolitical environment and easy access to foreign markets and technology, all underpinned by friendly relations with the United States. And China’s government skillfully harnessed these advantages by carrying out a process of economic reform and opening while also moving the regime from stifling totalitarianism under former Chinese leader Mao Zedong to a smarter—if still deeply repressive—form of authoritarianism under his successors. China had it all from the 1970s to the early 2010s—just the mix of endowments, environment, people, and policies needed to thrive.

Since the late 2000s, however, the drivers of China’s rise have either stalled or turned around entirely. For example, China is running out of resources: Water has become scarce, and the country is importing more energy and food than any other nation, having ravaged its own natural resources. Economic growth is therefore becoming costlier: According to data from DBS Bank, it takes three times as many inputs to produce a unit of growth today as it did in the early 2000s.

China is also approaching a demographic precipice: From 2020 to 2050, it will lose an astounding 200 million working-age adults—a population the size of Nigeria—and gain 200 million senior citizens. The fiscal and economic consequences will be devastating: Current projections suggest China’s medical and social security spending will have to triple as a share of GDP, from 10 percent to 30 percent, by 2050 just to prevent millions of seniors from dying of impoverishment and neglect.

To make matters worse, China is turning away from the package of policies that promoted rapid growth. Under Xi, Beijing has slid back toward totalitarianism. Xi has appointed himself “chairman of everything,” destroyed any semblance of collective rule, and made adherence to “Xi Jinping thought” the ideological core of an increasingly rigid regime. And he has relentlessly pursued the centralization of power at the expense of economic prosperity.

State zombie firms are being propped up while private firms are starved of capital. Objective economic analysis is being replaced by government propaganda. Innovation is becoming more difficult in a climate of stultifying ideological conformity. Meanwhile, Xi’s brutal anti-corruption campaign has deterred entrepreneurship, and a wave of politically driven regulations has erased more than $1 trillion from the market capitalization of China’s leading tech firms. Xi hasn’t simply stopped the process of economic liberalization that powered China’s development: He has thrown it hard into reverse.

The economic damage these trends are causing is starting to accumulate—and it is compounding the slowdown that would have occurred anyway as a fast-growing economy matures. The Chinese economy has been losing steam for more than a decade: The country’s official growth rate declined from 14 percent in 2007 to 6 percent in 2019, and rigorous studies suggest the true growth rate is now closer to 2 percent. Worse, most of that growth stems from government stimulus spending. According to data from the Conference Board, total factor productivity declined 1.3 percent every year on average between 2008 and 2019, meaning China is spending more to produce less each year. This has led, in turn, to massive debt: China’s total debt surged eight-fold between 2008 and 2019 and exceeded 300 percent of GDP prior to COVID-19. Any country that has accumulated debt or lost productivity at anything close to China’s current pace has subsequently suffered at least one “lost decade” of near-zero economic growth.

All of this is happening, moreover, as China confronts an increasingly hostile external environment. The combination of COVID-19, persistent human rights abuses, and aggressive policies have caused negative views of China to reach levels not seen since the Tiananmen Square massacre in 1989. Countries worried about Chinese competition have slapped thousands of new trade barriers on its goods since 2008. More than a dozen countries have dropped out of Xi’s Belt and Road Initiative while the United States wages a global campaign against key Chinese tech companies—notably, Huawei—and rich democracies across multiple continents throw up barriers to Beijing’s digital influence. The world is becoming less conducive to easy Chinese growth, and Xi’s regime increasingly faces the sort of strategic encirclement that once drove German and Japanese leaders to desperation.

Case in point is U.S. policy. Over the past five years, two U.S. presidential administrations have committed the United States to a policy of “competition”—really, neo-containment—vis-à-vis China. U.S. defense strategy is now focused squarely on defeating Chinese aggression in the Western Pacific; Washington is using an array of trade and technological sanctions to check Beijing’s influence and limit its prospects for economic primacy. “Once imperial America considers you as their ‘enemy,’ you’re in big trouble,” one senior People’s Liberation Army officer warned. Indeed, the United States has also committed to orchestrating greater global resistance to Chinese power, a campaign that is starting to show results as more and more countries respond to the threat from Beijing.

In maritime Asia, resistance to Chinese power is stiffening. Taiwan is boosting military spending and laying plans to turn itself into a strategic porcupine in the Western Pacific. Japan is carrying out its biggest military buildup since the end of the Cold War and has agreed to back the United States if China attacks Taiwan. The countries around the South China Sea, particularly Vietnam and Indonesia, are beefing up their air, naval, and coast guard forces to contest China’s expansive claims.

Other countries are pushing back against Beijing’s assertiveness as well. Australia is expanding northern bases to accommodate U.S. ships and aircraft and building long-range conventional missiles and nuclear-powered attack submarines. India is massing forces on its border with China while sending warships through the South China Sea. The European Union has labeled Beijing a “systemic rival,” and Europe’s three greatest powers—France, Germany, and the United Kingdom—have dispatched naval task forces to the South China Sea and Indian Ocean. A variety of multilateral anti-China initiatives—the Quadrilateral Security Dialogue; supply chain alliances; the new so-called AUKUS alliance with Washington, London, and Canberra; and others—are in the works. The United States’ “multilateral club strategy,” hawkish and well-connected scholar Yan Xuetong acknowledged in July, is “isolating China” and hurting its development.

No doubt, counter-China cooperation has remained imperfect. But the overall trend is clear: An array of actors is gradually joining forces to check Beijing’s power and put it in a strategic box. China, in other words, is not a forever-ascendant country. It is an already-strong, enormously ambitious, and deeply troubled power whose window of opportunity won’t stay open for long.

In some ways, all of this is welcome news for Washington: A China that is slowing economically and facing growing global resistance will find it exceedingly difficult to displace the United States as the world’s leading power—so long as the United States doesn’t tear itself apart or otherwise give the game away. In other ways, however, the news is more troubling. History warns the world should expect a peaking China to act more boldly, even erratically, over the coming decade—to lunge for long-sought strategic prizes before its fortunes fade.

What might this look like? We can make educated guesses based on what China is presently doing.

Beijing is already redoubling its efforts to establish a 21st century sphere of economic influence by dominating critical technologies—such as artificial intelligence, quantum computing, and 5G telecommunications—and using the resulting leverage to bend states to its will. It will also race to perfect a “digital authoritarianism” that can protect an insecure Chinese Communist Party’s rule at home while bolstering Beijing’s diplomatic position by exporting that model to autocratic allies around the world.

Most troubling of all, China will be sorely tempted to use force to resolve the Taiwan question on its terms in the next decade.

In military terms, the Chinese Communist Party may well become increasingly heavy-handed in securing long, vulnerable supply lines and protecting infrastructure projects in Central and Southwest Asia, Africa, and other regions, a role some hawks in the People’s Liberation Army are already eager to assume. Beijing could also become more assertive vis-à-vis Japan, the Philippines, and other countries that stand in the way of its claims to the South and East China Seas.

Most troubling of all, China will be sorely tempted to use force to resolve the Taiwan question on its terms in the next decade before Washington and Taipei can finish retooling their militaries to offer a stronger defense. The People’s Liberation Army is already stepping up its military exercises’ intensity in the Taiwan Strait. Xi has repeatedly declared Beijing cannot wait forever for its “renegade province” to return to the fold. When the military balance temporarily shifts further toward China’s favor in the late 2020s and as the Pentagon is forced to retire aging ships and aircraft, China may never have a better chance of seizing Taiwan and dealing Washington a humiliating defeat.

To be clear, China probably won’t undertake an all-out military rampage across Asia, as Japan did in the 1930s and early 1940s. But it will run greater risks and accept greater tensions as it tries to lock in key gains. Welcome to geopolitics in the age of a peaking China: a country that already has the ability to violently challenge the existing order and one that will probably run faster and push harder as it loses confidence that time is on its side.

### 2NC – General

#### War’s inevitable – excessive DoD expenditure, Taiwanese commitments, anti-Chinese sentiment.

Michael Klare 21, professor emeritus of peace and world-security studies at Hampshire College and senior visiting fellow at the Arms Control Association, 7/15/2021, "Is a War With China Inevitable?," https://www.thenation.com/article/politics/is-a-war-with-china-inevitable/, sg

It’s the summer of 2026, five years after the Biden administration identified the People’s Republic of China as the principal threat to US security and Congress passed a raft of laws mandating a society-wide mobilization to ensure permanent US domination of the Asia-Pacific region. Although major armed conflict between the United States and China has not yet broken out, numerous crises have erupted in the western Pacific and the two countries are constantly poised for war. International diplomacy has largely broken down, with talks over climate change, pandemic relief, and nuclear nonproliferation at a standstill. For most security analysts, it’s not a matter of if a US-China war will erupt, but when.

Does this sound fanciful? Not if you read the statements coming out of the Department of Defense (DoD) and the upper ranks of Congress these days.

“China poses the greatest long-term challenge to the United States and strengthening deterrence against China will require DoD to work in concert with other instruments of national power,” the Pentagon’s 2022 Defense Budget Overview asserts. “A combat-credible Joint Force will underpin a whole-of-nation approach to competition and ensure the Nation leads from a position of strength.”

On this basis, the Pentagon requested $715 billion in military expenditures for 2022, with a significant chunk of those funds to be spent on the procurement of advanced ships, planes, and missiles intended for a potential all-out, “high-intensity” war with China. An extra $38 billion was sought for the design and production of nuclear weapons, another key aspect of the drive to overpower China.

Democrats and Republicans in Congress, contending that even such sums were insufficient to ensure continued US superiority vis-à-vis that country, are pressing for further increases in the 2022 Pentagon budget. Many have also endorsed the EAGLE Act, short for Ensuring American Global Leadership and Engagement—a measure intended to provide hundreds of billions of dollars for increased military aid to America’s Asian allies and for research on advanced technologies deemed essential for any future high-tech arms race with China.

Imagine, then, that such trends only gain momentum over the next five years. What will this country be like in 2026? What can we expect from an intensifying new Cold War with China that, by then, could be on the verge of turning hot?

TAIWAN 2026: PERPETUALLY ON THE BRINK

Crises over Taiwan have erupted on a periodic basis since the start of the decade, but now, in 2026, they seem to be occurring every other week. With Chinese bombers and warships constantly probing Taiwan’s outer defenses and US naval vessels regularly maneuvering close to their Chinese counterparts in waters near the island, the two sides never seem far from a shooting incident that would have instantaneous escalatory implications. So far, no lives have been lost, but planes and ships from both sides have narrowly missed colliding again and again. On each occasion, forces on both sides have been placed on high alert, causing jitters around the world.

The tensions over that island have largely stemmed from incremental efforts by Taiwanese leaders, mostly officials of the Democratic Progressive Party (DPP), to move their country from autonomous status as part of China to full independence. Such a move is bound to provoke a harsh, possibly military response from Beijing, which considers the island a renegade province.

The island’s status has plagued US-China relations for decades. When, on January 1, 1979, Washington first recognized the People’s Republic of China, it agreed to withdraw diplomatic recognition from the Taiwanese government and cease formal relations with its officials. Under the Taiwan Relations Act of 1979, however, US officials were obligated to conduct informal relations with Taipei. The act stipulated as well that any move by Beijing to alter Taiwan’s status by force would be considered “a threat to the peace and security of the Western Pacific area and of grave concern to the United States”—a stance known as “strategic ambiguity,” as it neither guaranteed American intervention, nor ruled it out.

In the ensuing decades, the United States sought to avoid conflict in the region by persuading Taipei not to make any overt moves toward independence and by minimizing its ties to the island, thereby discouraging aggressive moves by China. By 2021, however, the situation had been remarkably transformed. Once under the exclusive control of the Nationalist Party that had been defeated by communist forces on the Chinese mainland in 1949, Taiwan became a multiparty democracy in 1987. It has since witnessed the steady rise of pro-independence forces, led by the DPP. At first, the mainland regime sought to woo the Taiwanese with abundant trade and tourism opportunities, but the excessive authoritarianism of its Communist Party alienated many island residents— especially younger ones —only adding momentum to the drive for independence. This, in turn, has prompted Beijing to switch tactics from courtship to coercion by constantly sending its combat planes and ships into Taiwanese air and sea space.

Trump administration officials, less concerned about alienating Beijing than their predecessors, sought to bolster ties with the Taiwanese government in a series of gestures that Beijing found threatening and that were only expanded in the early months of the Biden administration. At that time, growing hostility to China led many in Washington to call for an end to “strategic ambiguity” and the adoption of an unequivocal pledge to defend Taiwan if it were to come under attack from the mainland.

“I think the time has come to be clear,” Senator Tom Cotton of Arkansas declared in February 2021. “Replace strategic ambiguity with strategic clarity that the United States will come to the aid of Taiwan if China was to forcefully invade Taiwan.”

The Biden administration was initially reluctant to adopt such an inflammatory stance, since it meant that any conflict between China and Taiwan would automatically become a US-China war with nuclear ramifications. In April 2022, however, under intense congressional pressure, the Biden administration formally abandoned “strategic ambiguity” and vowed that a Chinese invasion of Taiwan would prompt an immediate American military response. “We will never allow Taiwan to be subjugated by military force,” President Biden declared at that time, a striking change in a long-standing American strategic position.

The DoD would soon announce the deployment of a permanent naval squadron to the waters surrounding Taiwan, including an aircraft carrier and a supporting flotilla of cruisers, destroyers, and submarines. Ely Ratner, President Biden’s top envoy for the Asia-Pacific region, first outlined plans for such a force in June 2021 during testimony before the Senate Armed Services Committee. A permanent US presence, he suggested, would serve to “deter, and, if necessary, deny a fait accompli scenario” in which Chinese forces quickly attempted to overwhelm Taiwan. Although described as tentative then, it would, in fact, become formal policy following President Biden’s April 2022 declaration on Taiwan and a brief exchange of warning shots between a Chinese destroyer and a US cruiser just south of the Taiwan Strait.

Today, in 2026, with a US naval squadron constantly sailing in waters near Taiwan and Chinese ships and planes constantly menacing the island’s outer defenses, a potential Sino-American military clash never seems far off. Should that occur, what would happen is impossible to predict, but most analysts now assume that both sides would immediately fire their advanced missiles—many of them hypersonic (that is, exceeding five times the speed of sound)—at their opponent’s key bases and facilities. This, in turn, would provoke further rounds of air and missile strikes, probably involving attacks on Chinese and Taiwanese cities as well as US bases in Japan, Okinawa, South Korea, and Guam. Whether such a conflict could be contained at the non-nuclear level remains anyone’s guess.

THE INCREMENTAL DRAFT

In the meantime, planning for a US-China war-to-come has dramatically reshaped American society and institutions. The “Forever Wars” of the first two decades of the 21st century had been fought entirely by an All-Volunteer Force (AVF) that typically endured multiple tours of duty, in particular in Iraq and Afghanistan. The United States was able to sustain such combat operations (while continuing to maintain a substantial troop presence in Europe, Japan, and South Korea) with 1.4 million service members because American forces enjoyed uncontested control of the airspace over its war zones, while China and Russia remained wary of engaging US forces in their own neighborhoods.

Today, in 2026, however, the picture looks radically different: China, with an active combat force of 2 million soldiers, and Russia, with another million—both militaries equipped with advanced weaponry not widely available to them in the early years of the century—pose a far more formidable threat to US forces. An AVF no longer looks particularly viable, so plans for its replacement with various forms of conscription are already being put into place.

Bear in mind, however, that in a future war with China and/or Russia, the Pentagon doesn’t envision large-scale ground battles reminiscent of World War II or the Iraq invasion of 2003. Instead, it expects a series of high-tech battles involving large numbers of ships, planes, and missiles. This, in turn, limits the need for vast conglomerations of ground troops, or “grunts,” as they were once labeled, but increases the need for sailors, pilots, missile launchers, and the kinds of technicians who can keep so many high-tech systems at top operational capacity.

As early as October 2020, during the final months of the Trump administration, Secretary of Defense Mark Esper was already calling for a doubling of the size of the US naval fleet, from approximately 250 to 500 combat vessels, to meet the rising threat from China. Clearly, however, there would be no way for a force geared to a 250-ship navy to sustain one double that size. Even if some of the additional ships were “uncrewed,” or robotic, the Navy would still have to recruit several hundred thousand more sailors and technicians to supplement the 330,000 then in the force. Much the same could be said of the US Air Force.

No surprise, then, that an incremental restoration of the draft, abandoned in 1973 as the Vietnam War was drawing to a close, has taken place in these years. In 2022, Congress passed the National Service Reconstitution Act (NSRA), which requires all men and women aged 18 to 25 to register with newly reconstituted National Service Centers and to provide them with information on their residence, employment status, and educational background—information they are required to update on an annual basis. In 2023, the NSRA was amended to require registrants to complete an additional questionnaire on their technical, computer, and language skills. Since 2024, all men and women enrolled in computer science and related programs at federally aided colleges and universities have been required to enroll in the National Digital Reserve Corps (NDRC) and spend their summers working on defense-related programs at selected military installations and headquarters. Members of that Digital Corps must also be available on short notice for deployment to such facilities, should a conflict of any sort threaten to break out.

The establishment of just such a corps, it should be noted, had been a recommendation of the National Security Commission on Artificial Intelligence, a federal agency established in 2019 to advise Congress and the White House on how to prepare the nation for a high-tech arms race with China. “We must win the AI competition that is intensifying strategic competition with China,” the commission avowed in March 2021, given that “the human talent deficit is the government’s most conspicuous AI deficit.” To overcome it, the commission suggested then, “We should establish a…civilian National Reserve to grow tech talent with the same seriousness of purpose that we grow military officers. The digital age demands a digital corps.”

Indeed, only five years later, with the prospect of a US-China conflict so obviously on the agenda, Congress is considering a host of bills aimed at supplementing the Digital Corps with other mandatory service requirements for men and women with technical skills, or simply for the reinstatement of conscription altogether and the full-scale mobilization of the nation. Needless to say, protests against such measures have been erupting at many colleges and universities, but with the mood of the country becoming increasingly bellicose, there has been little support for them among the general public. Clearly, the “volunteer” military is about to become an artifact of a previous epoch.

A NEW COLD WAR CULTURE OF REPRESSION

With the White House, Congress, and the Pentagon obsessively focused on preparations for what’s increasingly seen as an inevitable war with China, it’s hardly surprising that civil society in 2026 has similarly been swept up in an increasingly militaristic anti-China spirit. Popular culture is now saturated with nationalistic and jingoistic memes, regularly portraying China and the Chinese leadership in derogatory, often racist terms. Domestic manufacturers hype “Made in America” labels (even if they’re often inaccurate) and firms that once traded extensively with China loudly proclaim their withdrawal from that market, while the streaming superhero movie of the moment, The Beijing Conspiracy, on a foiled Chinese plot to disable the entire US electrical grid, is the leading candidate for the best film Oscar.

Domestically, by far the most conspicuous and pernicious result of all this has been a sharp rise in hate crimes against Asian Americans, especially those assumed to be Chinese, whatever their origin. This disturbing phenomenon, which began at the outset of the Covid crisis, when President Trump, in a transparent effort to deflect blame for his mishandling of the pandemic, started using terms like “Chinese Virus” and “Kung Flu” to describe the disease. Attacks on Asian Americans rose precipitously then and continued to climb after Joe Biden took office and began vilifying Beijing for its human rights abuses in Xinjiang and Hong Kong. According to the watchdog group Stop AAPI Hate, some 6,600 anti-Asian incidents were reported in the United States between March 2020 and March 2021, with almost 40 percent of those events occurring in February and March 2021.

For observers of such incidents back then, the connection between anti-China policy-making at the national level and anti-Asian violence at the neighborhood level was incontrovertible. “When America China-bashes, then Chinese get bashed, and so do those who ‘look Chinese,’” said Russell Jeung, a professor of Asian American Studies at San Francisco State University at that time. “American foreign policy in Asia is American domestic policy for Asians.”

By 2026, most Chinatowns in America have been boarded up and those that remain open are heavily guarded by armed police. Most stores owned by Asian Americans (of whatever background) were long ago closed due to boycotts and vandalism, and Asian Americans think twice before leaving their homes.

The hostility and distrust exhibited toward Asian Americans at the neighborhood level has been replicated at the workplace and on university campuses, where Chinese Americans and Chinese-born citizens are now prohibited from working at laboratories in any technical field with military applications. Meanwhile, scholars of any background working on China-related topics are subject to close scrutiny by their employers and government officials. Anyone expressing positive comments about China or its government is routinely subjected to harassment, at best, or at worst, dismissal and FBI investigation.

As with the incremental draft, such increasingly restrictive measures were first adopted in a series of laws in 2022. But the foundation for much of this was the United States Innovation and Competition Act of 2021, passed by the Senate in June of that year. Among other provisions, it barred federal funding to any college or university that hosted a Confucius Institute, a Chinese government program to promote that country’s language and culture in foreign countries. It also empowered federal agencies to coordinate with university officials to “promote protection of controlled information as appropriate and strengthen defense against foreign intelligence services,” especially Chinese ones.

DIVERGING FROM THE PATH OF WAR

Yes, in reality, we’re still in 2021, even if the Biden administration regularly cites China as our greatest threat. Naval incidents with that country’s vessels in the South China Sea and the Taiwan Strait are indeed on the rise, as are anti–Asian American sentiments domestically. Meanwhile, as the planet’s two greatest greenhouse-gas emitters squabble, our world is growing hotter by the year.

Without question, something like the developments described above (and possibly far worse) will lie in our future unless action is taken to alter the path we’re now on. All of those “2026” developments, after all, are rooted in trends and actions already under way that only appear to be gathering momentum at this moment. Bills like the Innovation and Competition Act enjoy near unanimous support among Democrats and Republicans, while strong majorities in both parties favor increased funding of Pentagon spending on China-oriented weaponry. With few exceptions—Senator Bernie Sanders among them—no one in the upper ranks of government is saying: Slow down. Don’t launch another Cold War that could easily go hot.

“It is distressing and dangerous,” as Sanders wrote recently in Foreign Affairs, “that a fast-growing consensus is emerging in Washington that views the US-Chinese relationship as a zero-sum economic and military struggle.” At a time when this planet faces ever more severe challenges from climate change, pandemics, and economic inequality, he added that “the prevalence of this view will create a political environment in which the cooperation that the world desperately needs will be increasingly difficult to achieve.”

In other words, we Americans face an existential choice: Do we stand aside and allow the “fast-growing consensus” Sanders speaks of to shape national policy, while abandoning any hope of genuine progress on climate change or those other perils? Alternately, do we begin trying to exert pressure on Washington to adopt a more balanced relationship with China, one that would place at least as much emphasis on cooperation as on confrontation? If we fail at this, be prepared in 2026 or soon thereafter for the imminent onset of a catastrophic (possibly even nuclear) US-China war.

### 2NC – Geography

#### War inevitable – geography

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Geography

If a US-China conventional conflict occurred, the United States would have to project power into East Asia from an ocean away to fight China in its backyard. China would have a “home court advantage” in a future conventional war in East Asia because of its large landmass and proximity to a conflict taking place in the Taiwan Straits, Korean Peninsula, South China Sea, or East China Sea. But China is also much more likely to suffer damage to its homeland. US conventional military concepts for operations against China tend to emphasize the need to neutralize its geographic advantages by attacking Chinese weapons, sensors, and their supporting infrastructure and logistics networks located on the mainland.34 The PLA has no equivalent conventional warfighting concept to disarm US conventional power projection capabilities with strikes on the continental United States.

Together with the alliance asymmetry described above, this geographical asymmetry also contributes to the asymmetrical stakes in China’s favor in the event of a future US-China conflict.35 China has more to lose than the United States in a future US-China war that remained conventional only, at least in terms of the damage that the PRC and US homelands would likely suffer. A large-scale conventional conflict could cause widespread civilian casualties in China and significant damage to its cities and infrastructure. The United States might suffer damage to its regional bases, navy, and air force, which would damage its great power status in the Western Pacific but not its homeland. The United States might therefore be perceived as less willing than China to accept high costs and risks to defend its aims in a US-China war.36 The United States has compensated for these asymmetrical stakes with a more capable nuclear arsenal and conventional military than China and a conventional military doctrine that accepts a higher risk of nuclear escalation.

### 2NC – Modernization

#### War inevitable – Modernization

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China and the United States are both in the midst of modernizing their nuclear arsenals and adding capabilities that concern the other. In the early 2010s, the United States embarked on a US$1.2 trillion nuclear modernization program over the next three decades. More recently, the United States has enhanced its non-strategic nuclear weapons, primarily to deter a perceived Russian willingness to use nuclear weapons first in a limited manner. The 2018 Nuclear Posture Review called for low-yield, submarine-launched “supplemental capabilities” to enhance US options for limited nuclear strikes.17 The United States has also enhanced its missile defense capabilities, primarily to counter North Korean nuclear missiles. It plans to increase the number of its ground-based mid-course interceptors for homeland missile defense from 44 to 64, indicated that it would study options for space-based missile defense, and tested its SM-3 Block IIA interceptors on an intercontinental ballistic missile (ICBM) for the first time.18 The US modernization plan, supplemental capabilities, and growing homeland missile defenses are frequently cited by Chinese experts as evidence of a destabilizing US pursuit of nuclear superiority.19

Five aspects of China’s nuclear modernization, coupled with a perception of more assertive Chinese behavior, generate concern in the United States. First, China has deployed two new ICBMs, the DF-41, China’s first road-mobile missile armed with a multiple independently targeted reentry vehicle (MIRV), and the DF-31AG, a delivery system with improved mobility that is believed to carry a single warhead. Second, China has fielded a new, more accurate and mobile intermediate-range ballistic missile (IRBM), the dual-use DF-26. The US government also worries that China is exploring the option of fielding low-yield nuclear warheads in the future.20 Third, China is moving toward a full nuclear triad for the first time, although its air and sea legs are much less survivable than its land-based missile force.21 Fourth, the Pentagon estimates that China’s current stockpile of 200–300 nuclear warheads will at least double as these new delivery systems are fielded. Fifth, China is acquiring capabilities that could enable it to shift to a launch-on-warning alert status in the future. It has received Russian assistance with its early warning system and is building out a space-based early warning architecture.22 US reports and officials indicate that China might already keep some portion of its nuclear force on day-to-day alert.23

Five aspects of China’s nuclear modernization generate concern in the US

These capabilities developments are fueling concerns that China is moving away from its nuclear no-first-use policy and retaliatory posture because they give Beijing better options to threaten nuclear first use. But many aspects of China’s arsenal modernization pre-date Beijing’s more ambitious foreign policy in recent years and reflect concerns about the adequacy of China’s retaliatory force five to ten years ago.24 Other developments, such as its intermediate-range DF-26 missile and nuclear-capable bombers have a range of applications, which include conventional and nuclear retaliatory strikes,25 as well as limited nuclear first use. Organizational efficiencies and inter-service competition also play a role in China’s pursuit of these new systems.26

#### TECH SHIFTS and CULTURAL PROMISES cause war.

John Dobson 21, prestigious British foreign policy diplomat under the Major administration, 4/3/2021, "Is a war between U.S. and China over Taiwan inevitable?," https://www.sundayguardianlive.com/world/war-u-s-china-taiwan-inevitable, sg

‘China considers establishing full control over Taiwan to be its number one priority”, said Admiral John Aquilno during a Congressional hearing in March confirming him as the next commander of US forces in the Pacific. “We ought to be prepared today as in my opinion this problem is much closer to us than most think.” Retired General H.R. McMaster agrees. “Taiwan is the most significant flashpoint now that could lead to a large scale war”, said the former US National Security Adviser last month.

For the past four decades, the United States has played a critical role in deterring China from using force against Taiwan, as Beijing cannot be sure that the US would stand aside in the face of Chinese aggression. Similarly, the US has deterred Taiwan from seeking formal independence, as Taipei cannot be certain that the US would come to its defence should it provoke a Chinese assault. Taiwan has long been the most volatile issue between the US and China and both sides have avoided war by leaving unsettled the question of who actually owns the island.

So, is this “constructive ambiguity”, as President Joe Biden likes to call it, finally coming to an end? Is an increasingly more assertive President Xi Jinping about to pursue his aim to retake what he views as his country’s lost territory? Standing in his way are the US Pacific Fleet and Taiwanese voters who have twice elected a leader who rejects the claim that both sides are part of “one China”.

But why is Taiwan so important to Beijing? You have to go back to 1895 and the humiliating defeat of China’s Qing dynasty in losing Taiwan to Japan to understand why reunification of the island with mainland China has been a rallying cry for generations of Chinese. The current tensions date back to the Chinese Civil War in 1949, when American ally Chiang Kai-shek and his Nationalists abandoned the mainland to Mao Zedong’s Communists and established the Republic of China (ROC) in Taiwan. Washington recognised Chiang as China’s rightful leader until former President Richard Nixon in 1979 established formal diplomatic relations with the communist government in Beijing. It was in the spirit of China “becoming one of us”, that Washington recognised the People’s Republic (PRC) as the sole legal government of China, without clarifying its position on Taiwan’s sovereignty. Constructive ambiguity was born and Taiwan gradually transformed itself into a de facto independent democracy without formally declaring independence.

Since then, Taiwan has become one of the world’s most successful societies. A flourishing democracy governed by the rule of law, it holds fair and free elections, protects the political and human rights of its citizens, has an unfettered and competitive media, endorses religious diversity, and is a responsible international actor. Compare all this with the autocratic and shameful PRC, and it will be obvious why the population of 23 million are so reluctant to back re-unification. The figures speak for themselves. Last year, following the presidential elections which recorded an impressive 75% voter turnout, a survey revealed that 79.7% of those polled said that democracy was the best system of government for Taiwan.

With a high-tech (Taiwan dominates the world’s market in microchip technology) and sophisticated business culture, Taiwan became Asia’s top-performing economy in 2020, outgrowing the PRC for the first time. It came as strong global demand for the island’s tech exports outweighed the modest hit from Covid-19 (911 confirmed infections and 8 deaths to date), producing a 2.98% growth, by comparison with PRC’s 2.58%.

So it’s not surprising that a vibrant and wealthy society, with a GDP per capita almost three times that of the PRC is unenthusiastic about re-joining the mainland. Until recently, the former ruling party, the Kuomintang favoured closer ties with Beijing and eventual reunification, but China’s recent brutal actions in Hong Kong gave the Taiwanese a glimpse of their possible future. In his 2019 New Year’s Day message, Xi Jinping demanded that Taiwan look to the “one country two systems” approach as a model for future relations, but after the recent brutal crackdown in Hong Kong and Xi’s ratting on its “two systems” treaty, the Taiwanese people gave a resounding “No thanks”. In any case, young people in Taiwan have no emotional attachment to the past and want to preserve the only way of life they have known.

Without any possibility of a willing Taiwan re-joining the mainland, the only option left for Beijing to achieve its aim is to take the island by military force. Even Deng Xiaoping, Xi’s less aggressive predecessor, said in 1984 “If the problem (of Taiwan) cannot be solved by peaceful means, then it must be solved by force.” So is Xi making preparations for military action?

You might think so from the amount of Chinese military activity in the region. Last year, 380 incursions by Chinese military aircraft into Taiwan’s airspace were recorded. Only last week, more than 20 Chinese military aircraft, some nuclear capable, conducted exercises simulating an operation against US warships off the island’s coast. Two months earlier, Chinese fighter jets and bombers had simulated missile attacks on the USS Theodore Roosevelt aircraft carrier, spending two days flying in and out of Taiwan’s air-defence zone, just days after Joe Biden was inaugurated as US President.

And it’s not just in the air. A year ago, China sailed one of its two aircraft carriers (two more, both nuclear powered, are being built) in a show of force through the Taiwan Straits, one of the world’s most heavily militarised areas. China’s naval forces have hugely increased over the past decade, even overtaking the US. For the past five years the country produced five times as many ships per year as the US Navy. The Chinese navy is now projected to have more than 550 ships and submarines by 2030, while the US navy struggles to figure out how to get 350. Many of the ships being built by Beijing are amphibious warfare vessels, which coupled with an expanding marine corps, would play a critical role in any possible invasion of Taiwan.

But would it actually be in Beijing’s interests to carry out a full invasion? Although possible, this option would involve enormous risks, not just to Taiwan but also to China, whose image around the world would suffer a catastrophic decline. The United States would also face the dilemma of whether to intervene, potentially sparking a war between two superpowers. China will probably judge that the costs of violent confrontation of this kind would be too high, compared to the benefits, leaving an invasion as a last resort.

A more likely scenario would be China’s use of military power to control access to the island by air and sea, effectively affirming sovereign control over Taiwan, while allowing the people to run their own affairs. With the US sending large amounts of weapon systems to Taiwan which theoretically could be used against China, Beijing could argue that this action is simply analogous to the United States’ action against Cuba in 1962. The groundwork for this “quarantine” scenario was laid in January this year when China passed a new law allowing its coastguard ships to use “all necessary means” against foreign vessels, and to board and inspect such vessels in waters claimed by Beijing.

A third scenario is that China demonstrates its power and intentions by invading one or more of the many offshore islands controlled by Taiwan—the “Crimea” option. This could be Taiping Island in the Spratly group, or the Pratas islands (also called Dongsha) closer to China and Taiwan, or perhaps the Penghu Islands (also called the Pescadores) nearer Taiwan. Right off-shore of mainland China are Kinmen and Matsu islands, both with significant populations of thousands of people, which would be the simplest to invade. Beijing could be tempted to gamble that the Taiwanese defenders of these islands would not fight and simply capitulate, making this option a low risk activity. But what would China have achieved in this scenario? Rather than settling the underlying issue of Taiwan’s sovereignty, they might have only aggravated it.

So how likely is it that China will use any of these scenarios against Taiwan? Many prominent analysts believe that a crisis over the island is brewing and that the chances of war are highly likely. The commander of the US Indo-Pacific Command, Admiral Philip Davidson, told a Senate committee this year that he expects action in the next six years or sooner. However, other experts believe that Beijing will only apply pressure on Taiwan just below the threshold of triggering military response from the US, but sufficient to convince the population of Taiwan that they have no choice but to be part of China.

### 2NC – Nuclear Treaty Failure

#### Competition, lack of nuclear restraint and the withdrawal and failure of treaties

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A Changing Landscape

A more contentious US-China political relationship has coincided with unrelated trends in nuclear politics to accentuate longstanding concerns about nuclear risks in that relationship. Intensifying US-China competition undermines both countries’ trust in each other’s assurances about their defensive nuclear intentions and encourages worst-case interpretations of each other’s behavior.6 US-China competition is playing out across all aspects of the bilateral relationship, from technology supply chains to international organizations and military capabilities. The 2017 US National Security Strategy proclaimed that “China seeks to displace the United States in the Indo-Pacific region, expand the reaches of its state-driven economic model, and reorder the region in its favor.”7 The 2019 Chinese defense white paper countered that the United States “is engaging in technological and institutional innovation in pursuit of absolute military superiority.”8 Both countries perceive each other’s nuclear postures and policies through this competitive lens.

The United States and China also view each other as more likely to jettison policies of nuclear restraint because of their recent willingness to abandon longstanding principles in other areas of foreign policy. The US government’s relaxation of rules on official communications with Taiwan in 2021 might add to Chinese expectations that self-imposed limits on the US missile defense architecture will be similarly relaxed.9 China’s about-face on its stance against the deployment of military forces abroad in 2017, when it established a military base in Djibouti, could give the United States additional reasons to anticipate that China’s nuclear no-first-use policy will suffer a similar fate.10

The US and China view each other as more likely to jettison policies of nuclear restraint

US-Russia arms control has unraveled in recent years, which increases China’s wariness of nuclear agreements with the United States and adds to anxieties about the adequacy of its nuclear arsenal.11 Pointing to Russian treaty violations and the lack of constraints on Chinese land-based theater-range missiles, the United States pulled out of the Intermediate Nuclear Forces Treaty (INF) in 2019.12 In 2020, the Trump administration withdrew from the Open Skies Treaty, which permitted the United States and Russia to fly over each other’s territory to verify that no military preparations for an attack are underway.13 It initially insisted on Chinese participation in strategic nuclear arms control as a pre-condition for extending the existing New START treaty until 2026 and negotiating a follow-on treaty to replace it. Given the lack of a concrete US proposal for trilateral arms control taking into account the discrepancy in arsenal sizes between China, the United States and Russia, the demand for Chinese participation seemed more like an excuse to weaken US-Russia arms control than a genuine effort to engage China.14

US interest in engaging China in arms control is likely to endure. The Biden administration extended the New START treaty in its first days in office without Chinese participation, but has also indicated its desire to “pursue arms control to reduce the dangers from China’s modern and growing nuclear arsenal.”15 Trust in the United States as an arms control partner will take time to rebuild, even with the Biden administration’s greater commitment to such agreements. In October 2020, the Director-General of the Arms Control Department at China’s Foreign Ministry, Fu Cong, remarked, “the fact that the US has withdrawn from all these arms control treaties and international agreements has seriously undermined the credibility of the United States as a negotiator.”16

### 2NC – Relations

#### DECLINING RELATIONS make war structurally inevitable.

Kevin Rudd 22, global president of the Asia Society and former prime minister of Australia, 4/4/2022, "A U.S.-China War Would Dwarf the Destruction in Ukraine. Both Sides Must Act Now to Avoid It," https://time.com/6164184/how-us-china-avoid-war/, sg

War between the United States and China is not inevitable. But U.S.-China relations continue to spiral downward, their strategic relationship adrift and buffeted by growing global crises. Muddling through will be wholly insufficient to avoid conflict. To avoid sleepwalking into a war, both countries must construct a joint strategic framework to maintain the peace—and quickly.

In my new book, The Avoidable War: the Dangers of a Catastrophic Conflict between the US and Xi Jinping’s China, I offer one such framework, which I call “managed strategic competition.” The idea is relatively simple.

First, the United States and China must have a clear, granular understanding of each other’s irreducible strategic redlines in order to help prevent conflict through miscalculation. Each side must be persuaded to conclude that enhancing strategic predictability advantages both countries, strategic deception is futile, and strategic surprise is just plain dangerous. This will require a focused, detailed diplomatic understanding on Taiwan.

Second, both countries must then embrace the reality of their competition—that is, to channel their strategic rivalry into a competitive race to enhance their military, economic, and technological capabilities. Properly constrained, such competition can deter armed conflict rather than tempt either side to risk everything by prosecuting a dangerous and bloody war with unpredictable results. Such strategic competition would also enable both sides to maximize their political, economic, and ideological appeal to the rest of the world. The strategic rationale would be that the most competitive national system would ultimately prevail by becoming (or remaining) the world’s foremost superpower and eventually shaping the world in its image. May the best system win. And I’m confident which one I’d bet on

Third, this framework would create the political space necessary for the two countries to continue to engage in strategic cooperation in the areas where their national interests align. These spheres include: climate change, preventing the next pandemic, and maintaining global financial stability

Finally, for this compartmentalization of the relationship to have any prospect for success, it would need to be carefully and continuously managed by a dedicated matching of cabinet-level senior officials on both sides. For the U.S., this also means any such framework would need bipartisan buy-in so it could withstand the turbulence of domestic politics. For a priority this important, this should by no means be impossible.

This approach will face criticism in both Washington and Beijing for not being sufficiently sensitive to each side’s national interests. To some in Washington, it will smack of appeasement. This is false: cold, realistic deterrence is at the core of any comprehensive strategy toward China. Meanwhile many in Beijing will argue it doesn’t sufficiently account for China’s core interests on Taiwan, and broader national pride. But as Moscow just learned in Ukraine, war and economic devastation would suit China’s interests far less.

Ultimately, my challenge to critics of managed strategic competition, and putting guardrails to the U.S.-China relationship, is simple: Come up with something better. There is little time to waste.

#### Relations are crashing now – military modernization, public consensus, tech restrictions.

Paul Haenle 22, Maurice R. Greenberg Director’s Chair at the Carnegie Endowment for International Peace and is a visiting senior research fellow at the East Asian Institute, National University of Singapore; Sam Bresnick, assistant editor and research assistant, 2/21/2022, "Why U.S.-China Relations Are Locked in a Stalemate," https://carnegieendowment.org/2022/02/21/why-u.s.-china-relations-are-locked-in-stalemate-pub-86478, sg

WHY ARE THE TWO SIDES STUCK?

Former U.S. President Donald Trump ushered in a more confrontational era in U.S.-China relations, and Biden has largely maintained his predecessor’s approach to Beijing, albeit with a more equanimous tone and embrace of multilateralism. The U.S. government has for decades been concerned by China’s mercantilism, rapid military modernization, and illiberal approach to human rights, but it had held out hope that China might liberalize through increasingly robust contact with the rest of the world. That has not happened, and the United States and others have lost patience with China’s state capitalist system, militarization of the South China Sea, and increasingly authoritarian governance.

But Beijing is not backing down. Despite facing pronounced international pushback during the pandemic, Xi has become even more confident in China’s economic system, governance model, and approach to international affairs. “Time and momentum are on China’s side,” he argued last year at a high-level meeting, though many analysts accuse the party of overconfidence. At the same time, Chinese officials are increasingly looking askance at their U.S. counterparts. Many appear to believe that the United States, though still a formidable power, is in the early stages of an inevitable decline. Just as China resumes its rightful place atop the hierarchy of Asian nations, Beijing’s thinking goes, the United States’ unresolved racial justice issues, income inequality, and political polarization will catalyze an irreversible diminution of U.S. power in Asia and across the globe.

Complicating matters further, the U.S. and Chinese publics are increasingly distrustful of each other. A whopping 89 percent of American respondents to a recent survey from the Pew Research Center consider China a competitor or enemy, while around two-thirds of Chinese respondents view the United States unfavorably or very unfavorably. Such negative mutual perceptions would likely hamper each side’s ability to recalibrate its approach to the other.

Finally, the two sides’ divergent framings of the relationship are contributing to the ongoing stalemate. Discussions with high-level Chinese scholars and former government officials have revealed that Beijing prefers to define the bilateral relationship as a peaceful coexistence guided, by shared principles consensus, and possible cooperation. China is frustrated that the United States is more focused on competing with and confronting Beijing. In Washington, however, great power rivalry, defined more by competition and confrontation than cooperation, has become the central framework for bilateral ties.

HOW HAVE THESE DIFFERING VIEWS AFFECTED POLICYMAKING?

The pronounced turn in U.S. policy toward China, beginning with the Trump administration, has not led to self-reflection on the part of Beijing. Chinese scholars and experts initially appeared somewhat surprised that many of the economic, security, and technology policies that Beijing has pursued for years have recently precipitated robust policy responses from the United States. The ruling party believes that it is merely continuing down the same path it established some years back, which has led to its attributing the downturn in the bilateral relationship solely to the United States.

Chinese government officials appear to believe the United States’ goal is to “suppress” China’s rise. They cite the Trump administration’s policies, as well as Biden’s AUKUS submarine pact and the Quad’s increasing coordination, as evidence of Washington’s desire to contain China and limit Beijing’s influence in the Indo-Pacific. Moreover, many Chinese scholars and experts view U.S. restrictions on sensitive technology exports to China as proof that the United States seeks to hamper its burgeoning tech sector. Finally, they see U.S. complaints about human rights violations in Xinjiang, Hong Kong, and Tibet as disingenuous, given the United States’ own problems with racial justice and homelessness, as well as its high levels of wealth and income inequality. In short, China sees the United States as a declining power that is attempting to keep a rising China from overtaking it.

The United States, as expected, has a very different view of bilateral dynamics. Washington blames the downturn in relations on China’s increasing assertiveness abroad and repressiveness at home. U.S. officials are concerned that China, through its support of authoritarian regimes, is chipping away at the liberal international order and trying to create “a world safe for autocracy”; that its continued military modernization and interest in building bases in Cambodia, Equatorial Guinea, and the United Arab Emirates will allow Beijing to challenge Washington’s security primacy; and that its state capitalist, mercantilist system threatens the rules-based economic order. Beijing’s incarceration of around 1 million Uighurs and other Muslim minorities in Xinjiang, increasingly strict online censorship, and prosecution of dissidents have further fueled Washington’s desire to enact more aggressive responses.

#### Relations collapse is inevitable – China and the US are locked in an ideological battle that prevents regime cooperation.

Jude Blanchette 21, Freeman Chair in China Studies at the Center for Strategic and International Studies, being interviewed by Isaac Chotiner, 11/20/2021, "The Fraying of U.S.-China Relations," https://www.newyorker.com/news/q-and-a/the-fraying-of-us-china-relations, sg

During the past several years, the U.S.-China relationship has reached its lowest point in decades. This week, after a virtual summit with Xi Jinping that lasted more than three hours, President Biden referred to “commonsense guardrails” that were needed to keep the relationship from spiralling further downward. But the summit did not end with any concrete agreements—or even a joint statement—on the issues affecting the relationship, which run from trade and technological development to human rights in Hong Kong and Xinjiang to the future of Taiwan. The lack of agreement underscored the reality that the problems between the two countries appear largely intractable, despite an urgent need for coöperation on issues such as climate change.

I recently spoke by phone with Jude Blanchette, the Freeman Chair in China Studies at the Center for Strategic and International Studies, in Washington, D.C., about his view of the summit. During our conversation, which has been edited for length and clarity, we discussed whether to think about the Chinese-American relationship as zero-sum, Xi Jinping’s refusal to leave China during the past twenty-one months, and why a conflict over Taiwan may be less imminent than many in Washington fear.

The fact that the expectations of the meeting were simply that they have the meeting shows how far the relationship has deteriorated over a relatively short period of time. And so, while undoubtedly it’s important that we are now seeing the senior-most-level dialogue, when we think about whether this marks an inflection point as the end of the cold war, the low expectations both sides were setting were actually a sign that the fault lines are quite deep and extensive, and that this is going to be a very long process of finding very limited areas of coöperation amid a deep sea of tensions in key areas of rivalry. So it marks in a more profound way that we are now deeply into—or officially into—an entirely new era of U.S.-China relations.

How would you characterize the era? You just used the phrase “cold war,” even if it doesn’t seem quite like the U.S.-Soviet relationship between 1945 and 1991.

We probably don’t want to spend the whole time talking about Cold War analogies, but I would just say that no historical analogy is perfect, and, like Churchill said of democracy, the Cold War is the worst possible historical analogy except for all the others. It’s not exactly a replay of Soviet-U.S. competition. But it is a multidimensional competition bordering on rivalry between two great powers that is likely to endure for some time, so the broad outlines of “cold war” at least help us begin thinking about some of the things we need to do to manage the relationship. My fear is that, by fighting off Cold War analogies, we are just leaving ourselves in more inchoate and vague territory, and what that leads to is issues like Taiwan continuing to spiral out of control without adopting some Cold War thinking about how to put in crisis-management mechanisms and confidence-building measures. It’s a muscle we haven’t flexed in some time. That’s the limited appeal of the analogy.

What are those measures to prevent things from spiralling out of control? It appeared that the American side seemed to be saying that, even though we have all these issues, this isn’t a zero-sum game. Do you see it that way?

I think actually that one of the outcomes of the meeting—making sure that Xi Jinping is as in person as we are going to get him for the time being—is to now begin to strap the direction of the relationship to his own personage. What had happened before is that he was relatively aloof. And that meant you had this “wolf warrior” army underneath him, and it felt like the relationship was spiralling without him putting his own name and legacy on the line. I think one of the smart moves about getting him to the table is he has a vested interest in managing this because it is strapped to his back.

I think it’s true that it is not zero-sum, but there are areas of both zero-sum and positive-sum. And one of the challenges we have is that we speak of it as “a competition,” but really it is multiple competitions. We are going to see areas, like in green technology, where we are vying against each other, but it could actually yield very positive benefits for both sides, because the pie may not get bigger, but it gets greener and better for everybody. There are areas in technological development where we do and probably should think about this in terms of zero-sum, where advances in some technology come at a stark cost to the other side.

Realist logic dictates that there are going to be key components about regional dominance that are not positive-sum. Either China is the hegemon in East Asia, or the United States is. But that is quite a constricted vision of the relationship between the two countries. There are others where they can be zero-sum, but we have to get them back on track. Trade is a good example of this. We have, since 2016, begun to think about trade more through a national-security lens, and as a matter of exacting leverage on the other side, which gets away from areas of economic integration, which have positive-sum, pie-expanding benefits to both populations. We want to make sure the rivalrous elements of the relationship don’t crowd out the coöperative elements.

What are some of those zero-sum areas which are most concerning?

At the most abstract level, and very starkly, and here I do see echoes of the Cold War, we have some version of ideological competition, but it is a really interesting, unique, updated one. Xi Jinping is now stating that China’s political system is demonstratively superior to Western democracies in its ability to deliver practical governance outcomes, and so the narrative is, “Our system is better than yours, and Western democracy is a path to infighting, polarization, and institutional atrophy.” That is an interesting new development. For a long time, we looked down our nose at the Chinese political system as being sort of a backwater holdout of twentieth-century Communism, and I think Beijing has taken that to heart and spent a concerted amount of time trying to upgrade and revitalize the governance system so much that it can outcompete the West. So, at a high discourse level, the United States and China are both, for their own reasons, in speaking to their own domestic and international audiences, framing this as a competition between, in Xi’s mind, effective vs. ineffective governance, and, in the U.S. mind, authoritarianism vs. democracy. It’s difficult to see how we find a new coexistence with those narratives, because both sides are tying this to basic legitimacy

More practically speaking, in terms of regional strategic dominance, China is fighting to end U.S. primacy in the region, and the U.S. is fighting to maintain its primacy in the region. And that includes an ability to shape outcomes right off China’s shore. This is an intolerable zero-sum situation, and China is working actively to change the status quo. That explains its island-building activities, and that explains the pace of its actions in the Taiwan Strait. And in some ways I think the United States is living as if it is 1993, as if we hold the same amount of global aggregate power that we did then, and we can still maintain a status quo that held for a good chunk of the post-1945 period, without recognizing a structural shift in power. We haven’t found a way to come to terms with that which is also politically satisfying domestically.

Other areas of zero-sum are in very specific areas of technology. Given that now almost all critical and emerging technologies are also dual use, we are in a really new world where it is hard to separate commercial and strategic technologies. We are going to be able to find areas where they don’t need to be seen as zero-sum, but right now any innovative advance in A.I. or semiconductors is seen by the other side as zero-sum, which is why there is such an intense skirmish over who can control them moving forward.

In terms of Taiwan, what types of markers would or wouldn’t be helpful?

Gosh. It’s a hard one. I don’t have a pithy answer for this. Right now, we are in a hysteria in the United States over what I think is the incorrect analytical judgment that Xi is on the precipice of invading Taiwan. If that is your base analytical judgment, it really makes it hard to be thinking calmly.

Why do you think the judgment is wrong?

Xi has been in power for about ten years, and we have gotten to see some key attributes of how he views the world and how he governs. And one thing I think we should all be able to agree on is that he is not suicidal. If you hold as a basic proposition that the Communist Party wants to stay in power, the next sentence cannot be, “And so Xi plans to invade Taiwan, ninety miles off its shore, potentially involving a nuclear superpower.” The quickest way for Xi to facilitate his exit from power, and to undermine nearly every other objective that he has for the Communist Party, which he has articulated over and over again, is to launch an invasion of uncertain outcome and uncertain duration.

On Monday, the Communist Party put out this big resolution on history. It is the third time it has done so since 1945. There is a really interesting line in there. When Beijing has talked about Taiwan, it has typically said, “Time and momentum are on our side.” In the history resolution, which is now one of the highest-ranking documents in the Party’s hierarchy, it changes the wording to say, “Time and momentum are always on our side.” That is not the sort of messaging you would make internally if you were hot to trot and saw a shrinking window of time on Taiwan. I think the more realistic assessment is that Xi doesn’t really have a good strategy on Taiwan. No doubt he wants to take the island, but right now the assessment of cost is too high. He is locked into a longtime nationalist narrative of not being able to back down from asserting authority over Taiwan, so you see escalating fights in the region and cyberwarfare, but, on the other hand, when he gives speeches, he basically messages not being in a big rush.

It seems like you are saying that neither side has good Taiwan options, and so, however imperfect the status quo, it could really be worse, and we may be here for a long time.

Well, in a way, I think we are in a better position, but that could lead to a fairly bad outcome. The trend lines in terms of public opinion in Taiwan are moving away from any desire for reunification with the mainland, and certainly after events in Hong Kong you can understand why. The United States continues to strengthen its relationship with Taiwan. Support for Taiwan is rising around the world as it comes under China’s bullying. The island’s Democratic Progressive Party continues to marginalize the K.M.T. [The Kuomintang, which ruled Taiwan for more than fifty years, adopted a friendlier posture toward the mainland after losing Taiwan’s second Presidential election, in 2000.] So one can imagine us becoming so successful that Xi feels like he needs to shift his assessment because the window is closing

What did you make of Xi not attending the Glasgow conference? And to what degree can the countries coöperate on climate change with these other things going on?

On the first one, I think that the question is, What do we read from the fact that Xi hasn’t left the country in two years? What does that say about his own assessment of his priorities? Although President Biden tried to call him out by saying it showed insufficient concern for the issue, I take it more as: this is still a Leninist party, which is fairly conservative in many ways in terms of how it assesses risk, and no senior leader, except for foreign-policy officials, has left the country. So, given the zero tolerance on covid, and his domestic political agenda, which is uniquely filled with important events between now and next fall, I don’t read too much into the fact that he didn’t show up.

On the issue of climate, I am not sure Beijing thinks about it in the way we do, in terms of seeing rivalry and coöperation as being two really distinct buckets, with one infringing on the other. I think Beijing is more fluid in terms of how it thinks about the issues. Fundamentally, it will work with the United States when it has determined that doing so is in its own interest, not as a gesture of good faith to the United States. So I think we probably gnash our teeth a little more over the conflict-vs.-coöperation dichotomy.

How much similarity do you see between the Biden and Trump approaches to China?

Actually, I think both Beijing and Washington are simultaneously rolling out a strategy on the other country, but also fundamentally we don’t have a master arc for what the relationship is. Ten years ago, it was easy to articulate what this was. It was about trade and economics and globalization. Obviously that plank of the relationship was delegitimized after 2016. And so now, if you were to ask the average person the state of the relationship with China, they might struggle to answer. I think even in Washington we are not entirely clear on what it is going forward.

In China, as well, there is a shift in thinking about the long-term relationship, and whether the United States can be trusted. Certainly the actions and rhetoric near the end of the Trump Administration—like Mike Pompeo’s speech at the Nixon Library, all but calling for fomenting regime change—well, we might know that was not a consensus, but these remarks are all attributable to the United States, and I think that has provoked a profound rethink of the relationship. That shows me that we are going to have a prolonged period of volatility until we can tell a new story about what the bilateral relationship is.

​​What’s your sense of how much the Chinese regime thinks it can continue its human-rights abuses in Xinjiang and elsewhere without much cost, and how much the Biden Administration is willing to make human rights an issue where it will try to draw real lines?

I actually think the two are not separate, but interrelated, because the willingness to draw lines assumes we have power to be able to fundamentally alter the domestic trajectory in China, which is becoming increasingly difficult, if not impossible. The past several years have shown how deeply entrenched the policies and approach that have led to human-rights abuses in Xinjiang and Tibet and other areas are in China’s view of maintaining political stability and national security. These run very, very deep. China is a confident power with significant resources. This is not the China of 1995 or even 2005. So we have to be circumspect in terms of what we can expect to accomplish in terms of outside pressure.

That being said, in 2017 Beijing denied there were any concentration facilities in Xinjiang. Then they said they were not concentration camps but vocational training. Then they said they shut them all down. That happened because the world began to watch. And, although they continue to this day, it showed that China cares about what the world thinks, and, when eyes are watching, it can have a constraining effect, or at the margin minimize the extent of the more horrific abuses, but not end all of them.

And the Biden Administration?

They clearly want to invest a lot in human rights. That’s not the issue. The heart is there. The question is really, What can you do about it? Are they going to go to war? Are they going to invade? Of course not. I am being a bit flippant, but, once you begin coming in from the absurd extremes, options begin to shrink pretty quickly. But top-line attention from Biden himself, along with concerted attention from the global community, can have an impact, undoubtedly. Pressure from the U.S. government is forcing companies to remove their operations and supply chains from Xinjiang. That is imposing a price on China. The question is: Is it enough of a price that China will walk away from this? No, and that goes back to my initial diagnosis. They think this is an issue of separatism and extremism that threatens the stability of China. It is going to be next to impossible to unseat that diagnosis from Beijing.

### 2NC – Semiconductors

#### War is coming by 2025 – semi-conductor restraints AND exclusive defense treaties cause jumps for Taiwan.

CJ Werleman 21, Global Correspondent for Byline Times, 10/8/2021, "A US-China War Over Taiwan Appears Not Only Inevitable, But Imminent – Byline Times," https://bylinetimes.com/2021/10/08/a-us-china-war-over-taiwan-appears-not-only-inevitable-but-imminent/, sg

Today, however, the territory that stands at the crossroads of geopolitical fixation and contestation, is the island state of Taiwan – according to recent Chinese and American behaviour.

Barely two weeks after the US, the UK and Australia announced the formation of AUKUS – a security alliance between the three Anglosphere countries to contain and deter Chinese military aggression in Indo Pacific – Taiwan’s defence ministry reported that a record 56 Chinese military aircraft entered Taiwanese airspace on multiple occasions on 4 October, which followed the previous record set on both Friday and then Saturday, with 38 and 39 aircraft reported, respectively.

This, according to Adam Ni, an Australian analyst of Chinese military policy, “sends a message about Beijing’s determination to claim Taiwan, by force, if necessary”, with the aim being “to assert Beijing’s power and show military muscle”.

Tensions over Taiwan have escalated so quickly that US President Joe Biden has reportedly deployed his top security advisor, Jack Sullivan, to meet with his Chinese counterpart, Yang Jiechi, in Switzerland next week.

But, even if the meeting successfully lowers the temperature, it will offer only a temporary respite – given that both superpowers are mobilising their forces and allies for an imminent shooting war over Taiwan within the next decade or two, that reunifying the breakaway island territory sits at the centre of Beijing’s desire to avenge its “century of humiliation”, and that it is at the centre of Washington DC’s objective to maintain primacy over Indo Pacific, a region that will soon account for the lion’s share of the global economy.

The second piece to this confrontation is Taiwan’s semi-conductor industry, accounting for roughly 75% of the world’s integrated circuit manufacturing capacity, with the US controlling 100% of the key chips required to build semi-conductors. This has led some analysts to draw parallels between China’s current and future need for the technology with Japan’s need for oil in the 1930s, which led it to launch military action across south-east Asia and the Pacific in 1941.

“In 2021, China is feeling similarly constricted for a critical resource (semi-conductors), and Beijing’s policy options for addressing this problem might seem to converge with its expansionary tendencies, and its long-term concerns over the status of Taiwan,” observed George Calhoun in a recent column for Forbes.

Two years ago, in what would be his first major speech on Taiwan, Chinese President Xi Jinping warned that Taiwan’s reunification was inevitable, saying that “we make no promise to renounce the use of force and reserve the option of taking all necessary means” and that “Taiwan’s independence goes against the trend of history and will lead to a dead end”.

Earlier this week, Taiwan’s Defence Minister, Chiu Kuo-cheng, said that military tensions between China and Taiwan are at their highest in four decades, warning that Beijing will be in a position to launch a full-scale invasion in 2025. “For the military, the current situation is the grimmest in the more than 40 years since I joined the service,” he told Parliament. “It is capable now, but it has to calculate what it would cost, and what kind of outcome it wishes to achieve.” He warned that even a single “miscalculation” or “slight carelessness” could spark a full-blown crisis.

While nearly the entire academic field of international relations has long predicted war between a rising China and a declining US is inevitable because great-power war typically occurs at the “intersection of one hegemon’s rise and another’s decline” – otherwise known as Thucydides Trap – a growing chorus of security elites are arguing an inverse of this theory.

### 2NC – AT: China Has NFU

#### China’s NFU is a sham – they are modernizing to bloody nose nuclear first strike the United States homeland

Peter Pry 20; Staffer of the Commission to Assess the Threat to the United States from Electromagnetic Pulse Attack, the U.S. House Armed Services Committee, and the Central Intelligence Agency; former director of the U.S. Nuclear Strategy Forum and president of EMPACT America., “China's 'no first use' nuclear fiction”, The Hill, 6/24/20, https://thehill.com/opinion/international/502503-chinas-no-first-use-nuclear-fiction

Many China experts in government and academia, and anti-nuclear activists such as the Union of Concerned Scientists and the Federation of American Scientists, appear not to be worried by China’s rapidly growing nuclear capabilities, because Beijing’s official policy promises that China will not be the first to employ nuclear weapons in a conflict. Beijing promises that its nuclear forces are for deterrence and retaliation only, not for aggression. Western analysts consistently fail to understand that, for both Beijing and Moscow, nuclear war plans are national security “crown jewels” that they try to protect and conceal behind a bodyguard of lies and disinformation. Trusting open sources and commentary — especially when they are intended to cast nuclear doctrine in the most benign possible way — is a big mistake. For example, during the Cold War the USSR went to extraordinary lengths to misinform Western policymakers and the public that Moscow had a nuclear “no first use” doctrine. This was intended to conceal its real nuclear war plans — that we now know entailed a massive nuclear first strike early in a conflict. The “no first use” disinformation campaign also was intended to mobilize Western anti-nuclear activists, in and out of government, to constrain U.S. nuclear programs and operational plans. China’s alleged nuclear “no first use” doctrine, like the USSR’s during the Cold War, is almost certainly disinformation. “No first use” for China does not withstand the test of common sense. No conservative military planner would adopt “no first use” when China lacks ballistic missile early warning system (BMEWS) radars and satellite early warning systems that would enable China to launch on tactical warning. “No first use” would doom China’s nuclear deterrent to certain destruction by a U.S. or Russian conventional or nuclear first strike, or to a nuclear first strike by India. China’s nuclear posture, especially the lack of early warning radars and satellites, is “use it or lose it,” which logically should drive Chinese military planners toward nuclear first use — indeed, toward surprise first use early in a crisis or conflict, based on strategic warning. Regardless of China’s “no first use” declaration, it strains credulity that Beijing’s political leaders would adhere to such a policy if confronted with compelling political and military intelligence of an imminent U.S. attack. Such strategic warning was the basis for the former USSR’s secret plans for a disarming nuclear first strike under their VRYAN (surprise nuclear missile attack) intelligence program, that nearly resulted in a nuclear apocalypse during NATO’s theater nuclear exercise Able Archer 83. Fortunately, at least some U.S. military leaders are not as naïve as academics about China’s “no first use” pledge. Adm. Charles Richard, chief of U.S. Strategic Command, testified to the Senate Armed Services Committee in February that he could “drive a truck through China’s ‘no first use’ policy.” China’s unprecedented rapid expansion of its nuclear and missile capabilities is not consistent with a belief in “minimum deterrence” and “no first use.” It looks imitative of Russia’s policy seeking escalation dominance for nuclear diplomacy and nuclear warfighting. Lt. Gen. Robert Ashley, director of the Defense Intelligence Agency, warned in May 2019: “China is likely to at least double the size of its nuclear stockpile in the course of implementing the most rapid expansion and diversification of its nuclear arsenal in China’s history. … China launched more ballistic missiles for testing and training than the rest of the world combined.” China’s political and military leaders often have threatened nuclear war. In 2011, columnist Gordon Chang reported: “Former Chinese general Xu Guangyu … suggested China was planning a surprise missile attack on the American homeland.” The People’s Liberation Army Second Artillery Corps — now the PLA Rocket Force, equivalent to U.S. Strategic Command — leaked a planning document, “Lowering the Threshold of Nuclear Threats,” that stipulated some conditions under which, in response to U.S. conventional attacks, China would launch a nuclear first strike. For example: “Targets that could draw such a response include any of China’s leading urban centers or its atomic or hydroelectric power facilities.” China’s military doctrine — including numerous examples of using nuclear EMP attack to win on the battlefield, defeat U.S. aircraft carriers, and achieve against the U.S. homeland a surprise “Pearl Harbor” writ large — is replete with technical and operational planning consistent with a nuclear first strike. Indeed, China’s classification of nuclear EMP attack in military doctrine as “electronic warfare” or “information warfare” indicates that EMP is not even considered a form of nuclear attack, but would be equivalent to non-nuclear EMP weapons and cyber warfare. In March, a panel of China’s military experts threatened to punish U.S. Navy ships for challenging China’s illegal annexation of the South China Sea by making an EMP attack — one of the options they considered least provocative because the crew would be unharmed, but most effective because the ship would be disabled. Like other evidence, this, too, suggests Beijing considers EMP attack as something short of nuclear or even kinetic conflict, akin to “gray zone” threats such as electronic and cyber warfare.

## Yes Counterforce

### 1NC – Generic

#### We’d respond with a devastating counterforce attack that would crush China

David J. Lonsdale 19; Director of the Centre for Security Studies at the University of Hull, UK. 5/17/2019. “The 2018 Nuclear Posture Review: A return to nuclear warfighting?” Comparative Strategy Volume 38, 2019 Pages 98-117

The important question is: what objectives would the U.S. pursue within a nuclear conflict, and how would they be achieved? It appears that the primary objectives sought would be damage limitation (an important component of warfighting) and the reestablishment of deterrence. This fits with the preliminary qualifying statement to this section of the review, in which it is stated that the U.S. would use nuclear weapons in compliance with the law of armed conflict.86 Indeed, the NPR is at pains to note that nuclear forces would only be used for defensive purposes. One assumes that this rules out counter-value targeting (deliberate attacks against enemy population centers). This leaves counterforce operations as the only option. Strikes against enemy nuclear forces and their command and control, in conjunction with active ballistic missile defenses (BMD), would help ensure damage limitation for the U.S. and its allies.87 A focus on counterforce options is reminiscent of later Cold War strategy, when the U.S. increasingly procured weapon systems with increased accuracy and penetrative capability designed for warfighting. Indeed, Lieber and Press argue that increases in accuracy and remote sensing have enhanced the potency of counterforce options, to the point that low-casualty counterforce options are possible for the first time.88 One can reasonably assume, although it is not explicitly noted in the review, that the restoration of deterrence would be achieved through a combination of intra-war deterrence by denial (as noted above in relation to counter-escalation strategies) and punishment for coercive purposes. Inclusion of the latter is premised on references to “unacceptable consequences” resulting from nuclear attack elsewhere in the NPR. 89 However, in the face of no counter-value targeting, it is reasonable to question how these costs would be inflicted. There are three possible answers, although none of them is discussed in the NPR. First, it may be that the enemy values highly their nuclear forces; so that the loss of them would inflict unacceptable costs. Alternatively, there may be an unwritten assumption that counterforce strikes would inevitably produce “bonus” counter-value damage. Much of the nuclear force infrastructure (including command and control, airbases, etc.) is within or near population centers. Thus, even a limited counterforce strike is likely to have a significant detrimental effect on counter-value targets. This assumption, however, is somewhat thrown into question by the stated desire to procure accurate limited-yield weapons and to operate within the norms of the war convention. Low-yield accurate weapons would be ideal for counterforce missions and would minimize damage to counter-value target sets. Thus, bonus damage is likely to be limited. Finally, although again not explicitly noted in the NPR, perhaps there is a return to the notion of attacking targets associated with political control. Yet again, though, concerns over collateral damage would likely restrict a campaign aimed at the means of political control. We are, thus, left with many questions concerning how the coercive effects of nuclear weapons would be administered. This is problematic, for as Thomas C. Schelling eloquently noted, “The power to hurt can be counted among the most impressive attributes of military force.” 90 It has to be concluded that the uncertainties in this area of strategy reflect either a paradox or incomplete strategic thinking in the NPR. Clarity on these matters would be welcome, especially as it would enhance deterrence credibility still further. Although countervailing is back on the agenda in the 2018 NPR, there is no mention of prevailing in a nuclear conflict. Indeed, the review quotes Defense Secretary Mattis, echoing the early thoughts of Brodie, that nuclear war can never be won, and thus must never be fought.91 This is both curious and disappointing from a warfighting perspective, and speaks to the need for the further development of strategic thinking in U.S. nuclear strategy under Trump. Damage limitation and the reestablishment of deterrence are perfectly admirable goals within the context of nuclear conflict. However, if the U.S. is to achieve its objectives in a post-deterrence environment, it must have a comprehensive theory of victory. Damage limitation and the reestablishment of deterrence are limited negative objectives. They do not provide a positive driving force for the use of nuclear weapons. To reiterate, victory refers to a policy objective that must be achieved in the face of the enemy. And, as Clausewitz reminds us, the will of the enemy must be broken by destroying his ability to resist, or putting him in such a position as his defeat is inevitable.92 If we consider the conditions under which U.S. nuclear weapons could be used, as stipulated by the 2018 NPR, then we can assume that an enemy power (likely Russia, China, North Korea, or a state-sponsored terror group) has launched a substantial attack on either the U.S. or one of its allies. We can think in terms of a Russian assault on the Baltic States, a North Korean attack on South Korea, or perhaps a Chinese invasion of Taiwan. Alternatively, the U.S. may have been subjected to a substantial strategic attack, involving either weapons of mass destruction (including biological or chemical) or a crippling cyberattack. In any of these scenarios, more expansive objectives would be required. As Lieber and Press note, “In some cases, wars may be triggered by events that compel U.S. leaders to pursue decisive victory, conquest, and/or regime change.” 93 Thus, in order to achieve its objectives, the U.S. would variously need to: punish an aggressor to reinstate deterrence; defeat enemy forces for damage limitation or to reclaim lost territory; and, in the North Korean case, presumably overthrow a communist regime. In some of these cases, damage limitation and the reestablishment of deterrence would not be enough. Enemy forces would have to be defeated, removed, destroyed, or coerced (to withdraw from allied territory). Any operations in pursuit of these goals would need a theory of victory built on a detailed understanding of the use of nuclear weapons in the service of military objectives; i.e., nuclear warfighting. This could include defeating enemy nuclear forces for force protection of U.S. and allied conventional forces. Alternatively, U.S. nuclear forces may be required to defeat regionally superior enemy conventional forces. And yet, as previously noted, the NPR rules out a return to nuclear warfighting. This is a significant disjuncture in U.S. nuclear strategy. It is even more curious when one considers the range of modern forces the Trump administration seeks to acquire under the 2018 NPR.

### 2NC – China Knows

#### American counterforce is a threat to Chinese strategists – new installations and American warheads prove.

Seitz, 6-27 (Samuel M. Seitz, 6-27-22, doctoral candidate in the Department of Politics and International Relations at the University of Oxford, “How to Prevent a US-China Nuclear Confrontation,” <https://uscnpm.org/2022/06/27/how-to-prevent-us-china-nuclear-confrontation/>)

The Drivers of Force Structure and Problems of Mistrust

If China’s efforts are not part of a broader shift in posture, what explains the significant recent expansion of the Chinese nuclear arsenal? The primary impetus is Beijing’s continued fears over America’s intentions and perceived technological edge. In particular, Chinese strategists seem increasingly concerned about American counterforce and ballistic missile defense (BMD) systems, which they allege to represent an American attempt to achieve “absolute security” by eliminating China’s ability to assure retaliation. The American nuclear modernization program is an important element in China’s calculus because, although it does not quantitatively grow the size of the American arsenal, it develops new delivery systems such as a new stealthy, [penetrating cruise missile and strategic bomber](https://warontherocks.com/2013/11/a-new-nuclear-air-launched-cruise-missile/) that could enhance America’s already significant counterforce capabilities. These improvements to America’s nuclear delivery systems complement further improvements in accuracy [afforded by the installation of new fuses onto American warheads](https://www.washingtonpost.com/national-security/us-nuclear-weapons-electronic-sensors-accuracy/2021/10/28/79533ff0-34cc-11ec-9bc4-86107e7b0ab1_story.html), increasing their kill probability against hard targets such as missile silos.

### 2NC – Empirics

#### Counterforce can thwart nuclear superiority, empirics prove – the US dismantled Soviet command and control systems.

Lieber and Press, 20 (Keir A. Liber and Daryl G. Press, 2020, Associate Professor of Political Science, Faculty Fellow at the Joan B. Kroc Institute for International Peace Studies, and Faculty Fellow at the Nanovic Institute for European Studies at the University of Notre Dame, associate professor of government at Dartmouth, “The Myth of the Nuclear Revolution,” https://www.google.com/books/edition/The\_Myth\_of\_the\_Nuclear\_Revolution/2gK0DwAAQBAJ?hl=en&gbpv=0//mahimahi)

One might think that only weak countries need to worry about an adversary “escaping stalemate”; surely, powerful countries have the resources to thwart any adversary’s efforts to attain nuclear superiority. But history is not reassuring. In the Cold War, once the Soviet Union had built robust nuclear retaliatory forces, many observers assumed that stalemate could not be undermined and that U.S. leaders would recognize and respect the “objective” reality that mutual assured destruction was a permanent fact. Instead, American officials constantly sought counterforce weapons and technologies to gain a disarming first-strike or significant damage-limitation capability—such as more accurate missiles, missiles with multiple independently targetable reentry vehicles (MIRV), sensors for hunting mobile missiles at sea and on land, and a variety of weapons and innovations designed to undermine Soviet command and control and early warning systems. By the end of the Cold War, Soviet leaders had little faith in their own retaliatory capabilities.

### 2NC – Nuclear Triad

#### They’re three years away from the nuclear triad BUT counterforcing now works.

CACNP 20, Center for Arms Control and Non-Proliferation, “China’s Nuclear Inventory,” <https://armscontrolcenter.org/wp-content/uploads/2020/04/China.pdf>, cy

How Many?

It is estimated that China has a stockpile of around 350 nuclear warheads. These weapons can be delivered by air, sea and land – completing a nuclear triad once China’s strategic bombers are deployed. While Beijing has long focused on maintaining a minimum deterrent, it is likely that its nuclear stockpile will increase in the next few decades. Additionally, if the United States continues to expand and strengthen its missile defense program, China may modify its nuclear posture to include a significantly larger nuclear force with the potential to strike the United States.

Air

Historically, the air-based component of the Chinese triad has been a low priority for the nation. China currently possesses a small number of air-based platforms for nuclear weapon delivery, but is expected to bring a new strategic bomber and air-launched ballistic missiles into operation. That may include the development of a new nuclear-capable subsonic strategic stealth bomber, the Xian H-20, which could enter service as early as 2025. This will be very similar to the U.S. B-2 bomber.

Sea

China has four Jin-class nuclear powered ballistic missile submarines (SSBN), with two more under construction. Each SSBN can carry up to 12 submarine-launched ballistic missiles (SLBMs) known as JL-2. These missiles are believed to have a range of 7,200 kilometers, which gives China the ability to target Alaska, Guam, Hawaii, India and Russia from Chinese waters. The only way for China to target the continental United States would be if the Jin-class submarines traveled deep into the Pacific Ocean, but they would most likely be noticed by U.S. Maritime Patrol Aircrafts.

### 2NC – Subs

#### China’s subs fail miserably at second strike.

Robert Farley 19, professor at the Patterson School of Diplomacy and International Commerce, "Why China’s SSBN Force Will Fall Short for the Foreseeable Future," <https://thediplomat.com/2019/01/why-chinas-ssbn-force-will-fall-short-for-the-foreseeable-future/>, cy

Title: Why China’s SSBN Force Will Fall Short for the Foreseeable Future

China simply cannot rely on its SSBN force to act as a reliable second-strike deterrent against the United States.

Not all ballistic missiles submarines are built equal, and neither is all maritime geography. In a recent article at the Bulletin for Atomic Scientists, Owen Cote examines the boomer balance between China and the United States in light of the long-running competition between the United States and the USSR during the Cold War. Cote suggests that for the foreseeable future the United States can rely on technological and geographic advantages that will keep its own deterrent secure, while putting China’s at risk.

Cote offers a history of the undersea nuclear competition during the Cold War. The United States Navy, first to deploy operational SSBNs, soon became aware that its new submarines were detectable at long range with the appropriate passive sonar technology. Having ascertained the problem, the U.S. Navy first took steps to make its SSBNs quieter (and thus nearly immune to Soviet detection), and second expanded its listening capabilities such that it could more fully monitor Soviet SSBNs. In consequence of technology, and because of certain geographic advantages, U.S. boomers could hide effectively while Soviet boomers were under perpetual threat from U.S. Navy attack boats.

The Soviets were aware of these problems, and did their best to resolve them. As is well-known, the Soviets eventually decided on a “bastion” strategy, using a large chunk of their fleet to protect SSBN patrol areas. As Cote points out, the Soviet solution to the problem was immensely costly in resources. The inability of Soviet boomers to reliably hide meant that the Soviet Navy needed to use substantial surface, air, and subsurface assets to keep the boomers protected. With respect to detecting NATO boats, the Soviets lacked the geographic reach to develop equally capable monitoring capabilities of their own.

Fast forward to today, and the technological gap between U.S. and Chinese submarines is as large or larger than the gap between the U.S. and the USSR. More importantly, the United States has huge advantages in terms of its ability to monitor Chinese entry into the Pacific. Although the technical details are complex, Chinese submarines cannot reliably reach patrol areas in range of the larger part of the United States without being detected and tracked by the United States. Moreover, the U.S. likely has the political and diplomatic heft to maintain its access to the chokepoints that hem the PLAN in. Finally, and perhaps most importantly, China does not now and will not in the projectable future have a way of similarly monitoring the ingress and egress of U.S. subs.

This leaves the Chinese in a position very similar to that of the Soviet Union, with perhaps an even greater degree of geographic constraint. China could adopt a bastion strategy, but as of yet there’s no indication that the PLAN wants to think of itself primarily as a defensive force. Indeed, its fleet construction does not suggest ASW as the dominant mission.

And this means that for the foreseeable future, China simply cannot rely on its SSBN force to act as a reliable second-strike deterrent against the United States. To be sure, as Cote points out the SSBNs will remain an effective deterrent against India and other nuclear powers. But even if China extends the range of the missiles on its boats, it will still suffer severe disadvantages in terms of basing and patrol ranges. The U.S.SR could not dent the U.S. advantage, and it does not appear that China will be able to balance the equation, either.

#### Counterforcing through US ASW efforts has been key to regain undersea superiority.

Lieber and Press, 20 (Keir A. Liber and Daryl G. Press, 2016, Associate Professor of Political Science, Faculty Fellow at the Joan B. Kroc Institute for International Peace Studies, and Faculty Fellow at the Nanovic Institute for European Studies at the University of Notre Dame, associate professor of government at Dartmouth, “The Myth of the Nuclear Revolution,” https://www.google.com/books/edition/The\_Myth\_of\_the\_Nuclear\_Revolution/2gK0DwAAQBAJ?hl=en&gbpv=0//mahimahi)

During the Cold War, the competition between submariners and antisubmarine warfare operators was shrouded in secrecy, but that history is finally being revealed. We now know that the United States was able to locate, and even track, Soviet SSBNs during extended periods of the Cold War.67 The core of U.S. ASW efforts against the Soviet Union lay in a series of breakthroughs in passive sonar and signals processing, as well as doctrine and tactics to exploit those advances. Starting in the 1950s, the United States deployed an expanding network of underwater hydrophones designed to identify and locate adversary submarines. Data from the hydrophones were transmitted across undersea cables to onshore computing facilities, where powerful computers discerned the faint sounds of submarines from ocean noise. Potential targets were then passed along to aircraft and attack submarines (SSNs) for further location and tracking. U.S. capabilities to track Soviet submarines leapt forward in the late 1960s and 1970s, as the United States deployed new attack submarines, which were equipped with powerful sonars in their bows, towed sonar arrays, and improved on-ship computing power, giving U.S. SSNs an unprecedented combination of acoustic gathering and data processing capabilities.68 The competition between Soviet SSBNs and the pack of U.S. submarines, aircraft, and surface ships hunting them varied throughout the Cold War. There were periods in which U.S. forces were winning, trailing every Soviet SSBN on patrol, from port to sea and back. In later periods, after discovering their vulnerability, the Russians pulled their forces into protected “bastions” near Soviet territory to counter the U.S. ASW strategy. The United States did not give up, and worked until the end of the Cold War (and beyond) to regain undersea superiority.

#### Deterrence against China submarines is successful—ASW forces prove

Carnegie Endowment, 18 (Carnegie endowment for International peace, 10-24-18, “US Anti-submarine Warfare and Its Impact,” <https://carnegieendowment.org/2018/10/24/u.s.-anti-submarine-warfare-and-its-impact-pub-77495>)

Geography lends various advantages to the United States’ and its allies’ efforts to block Chinese SSBNs from patrolling in the Pacific Ocean. The biggest roadblock is the existence of major chokepoints separating China’s coastal waters from the Pacific Ocean. Along the First Island Chain, there are only a limited number of waterways—including the Miyako Strait and the Bashi Channel (in the Luzon Strait near the Philippines)—through which Chinese SSBNs can transit. All of these waterways are adjacent to land features possessed or controlled by U.S. allies, so the passages are under close surveillance by U.S. or U.S.-friendly ASW forces.

In fact, some Japanese defense officials used to boast that Chinese submarines would not be able to slip into the Pacific through the Ryukyus, a chain of islands scattered along the north and south of Taiwan, or through the Bashi Channel without being detected by U.S. and Japanese ASW systems.1 Indeed, there have been cases when foreign countries have reportedly detected Chinese SSNs in transit. In 2004, for example, a Chinese 091-class nuclear attack submarine was reportedly detected by Japanese, Taiwanese, and U.S. ASW platforms as the submarine sailed from the Western Pacific back to China, passing through Japanese waters.2 Similarly, in January 2018, a Chinese 093-class SSN—which is believed to be considerably quieter than the 091-class SSN, and which may have a noise level similar to that of the 094-class SSBN—was reportedly detected by Japan while it was submerged near the Diaoyu/Senkaku Islands.3 Notably, Chinese SSBNs face greater geographical constraints today than Soviet SSBNs did during the Cold War. The barrier formed by Greenland, Iceland, and the UK that Soviet SSBNs needed to pass through to reach the North Atlantic Ocean is much wider than the waterways in the First Island Chain.

To compound the geographical advantages that China’s rivals enjoy, the United States and its allies have significantly augmented their sound surveillance networks in and around the Pacific in recent decades, in the face of increasing Chinese submarine activity.4 The United States even has reportedly extended its underwater hydrophone systems to the south of the Philippines to connect with islands belonging to Indonesia and, from there, north to India’s Andaman Islands.5 This all-encompassing, seamless network—known as the U.S. Navy’s Fish Hook Undersea Defense Line—has the potential to seriously undermine Chinese SSBNs’ ability to leave China’s coastal waters and sail into the Pacific or Indian Oceans.

Beyond Chinese concerns about detection, the United States could undermine the efficacy of China’s sea-based nuclear deterrent by interfering with its command, control, and communications (C3) system. Foreign analysts have long raised doubts about China’s ability to maintain reliable communication channels with SSBNs operating in distant oceans.6 Conducting long distance communications with a submerged SSBN is challenging, though Beijing has been seeking to improve in this area. Open-source research indicates that China is now capable of communicating with submarines at super low frequencies (SLF) of 30–300 hertz.7 In 2009, China reportedly completed construction on its first military SLF transmission station and conducted several tests. One year later, a Chinese nuclear submarine successfully received messages from the SLF transmission station, as China became the third country in the world to establish a comparable submarine communications system.

### 2NC – Tech

#### Growing transparency over military operations has increased counterforce effectiveness – especially over remote-sensing

Lieber and Press, 20 (Keir A. Liber and Daryl G. Press, 2020, Associate Professor of Political Science, Faculty Fellow at the Joan B. Kroc Institute for International Peace Studies, and Faculty Fellow at the Nanovic Institute for European Studies at the University of Notre Dame, associate professor of government at Dartmouth, “The Myth of the Nuclear Revolution,” https://www.google.com/books/edition/The\_Myth\_of\_the\_Nuclear\_Revolution/2gK0DwAAQBAJ?hl=en&gbpv=0//mahimahi)

Five trends are ushering in an age of unprecedented transparency. First sensor platforms have become more diverse. The mainstays of Cold War tech- nical intelligence—satellites, submarines, and piloted aircraft—continue to play a vital role, and they are being supplemented by new platforms. For example, remotely piloted aircraft and underwater drones now gather in- telligence during peacetime and war. Autonomous sensors, hidden on the ground or tethered to the seabed, monitor adversary facilities, forces, and operations. Additionally, the past two decades have witnessed the development of a new “virtual” sensing platform: cyberspying. Second, sensors are collecting a widening array of signals for analysis using a growing list of techniques. Early Cold War strategic intelligence relied heavily on photoreconnaissance, underwater acoustics, and the col- lection of adversary communications, all of which remain important. Now, modern sensors gather data from across the entire electromagnetic spec- trum; they employ seismic and acoustic sensors in tandem; and they emit radar at various frequencies depending on their purpose—for example, to maximize resolution or to penetrate foliage. Modern remote sensing exploits an increasing number of analytic techniques, including spectroscopy to identify the vapors leaking from faraway facilities, interferometry to discover underground structures, and signals-processing techniques (such as those underpinning synthetic aperture radars) that allow radars to perform better than their antenna size would seem to permit. Third, remote-sensing platforms increasingly provide persistent observation. At the beginning of the Cold War, strategic intelligence was hobbled by sensors that collected snapshots rather than streams of data. Spy planes sprinted past targets, and satellites passed overhead and then disappeared over the horizon. Over time those sensors were supplemented with plat- forms that remained in place and soaked up data, such as signals-intelligence antennas, undersea hydrophones, and geostationary satellites. The trend toward persistence is continuing. Today, remotely piloted vehicles can loiter near enemy targets and autonomous sensors can monitor critical road junctures for months or years. Persistent observation is essential if the goal is not merely to count enemy weapons but also to track their movement. The fourth factor in the ongoing remote sensing revolution is the steady improvement in sensor resolution. In every field that employs remote-sensing technology, including medicine, geology, and astronomy, improved sensors and advanced data processing are permitting more accurate measures and fainter signals to be discerned from background noise. The leap in satellite image resolution is but one example. The first U.S. reconnaissance satellite (Corona) could detect objects as small as 25 feet wide; today, commercial sat- ellites (e.g., DigitalGlobe’s WorldView-3 and WorldView-4) can collect im- ages with 1-foot resolution and U.S. spy satellites are reportedly capable of resolutions of less than 4 inches. Advances in resolution are not merely transforming optical remote-sensing systems; they are extending what can be seen by infrared sensors, advanced radars, interferometers and spectro- graphs, and many other sensors. The fifth key trend is the huge increase in data transmission speed. During the first decades of the Cold War, it took days or longer to transmit information from sensors to analysts. At least a full day passed before the photographs snapped by U-2 aircraft were developed and analyzed. Early satellites were slower: the satellite had to finish its roll of film and then eject the canister, which would be caught midair and flown to a facility for development and analysis; all told, it might take weeks before images collected at the begin- ning of a satellite mission arrived at an analyst’s desk. Today, by contrast, intelligence gathered by aircraft, satellites, and drones can be transmitted in nearly real time. The data can be transmitted to intelligence analysts, to politi- cal leaders, and in some cases directly to military commanders conducting operations.

## Impact

### 1NC – ! – AI

#### China is racing toward developing general AI.

Maximilian Schreiner 22, A studied philosopher who writes about artificial intelligence and virtual reality, 3-27-2022, "Artificial Intelligence: China researches "brain-scale" AI," <https://mixed-news.com/en/artificial-intelligence-china-researches-brain-scale-ai/>, cy

In China, the state and companies are researching AI models with trillions of parameters. They want to prove that they can develop “brain-scale” AI.

In the race to build ever-larger AI models, China is showing that cooperation between the state, universities and the private sector holds the potential for gigantic AI models. The researchers are talking about “brain-scale” AI: according to their definition, these are AI models with parameters beyond the 100-trillion mark.

Currently, the largest AI models include Nvidia Megatron NGL with 530 billion parameters, Google’s Switch Transformer with 1.6 trillion and WuDao 2.0 with 1.75 trillion parameters.

Such models and others are often developed exclusively by companies in the West. There are individual exceptions, such as Open GPT-X, a language model being developed as part of the Gaia-X initiative, or the BigScience project of the AI start-up HuggingFace, which is training a language model on a French supercomputer. The Eleuther AI research collective is also developing open-source models such as GPT-NeoX.

Small record on the way to the big 100 trillion model

In a new paper, researchers from Tsinghua University, Alibaba Group, Zhejiang Lab and Beijing Academy of Artificial Intelligence present BaGuaLu, a framework that enables the training of large AI models using the Mixture-of-Experts (MoE) architecture.

Like OpenAI’s GPT-3, it relies on Transformer models, but in AI training it forms individual expert networks that take on specific queries while conserving the resources of the rest of the network. The huge MoE models only ever activate the part of the network that is currently needed, rather than the entire network, as many other AI architectures do.

In an initial test, the researchers trained a 1.93 trillion model with their framework, outperforming Google’s Switch Transformer. They also demonstrate that their framework enables models with 14.5 trillion and a full 174 trillion parameters.

The researchers conducted their experiments on the Chinese supercomputer “New Generation Sunway” and also showed which hurdles supercomputer technology still has to overcome for the planned gigantic models.

Brain-sized AI models could bring major advances

The team expects that giant multimodal AI models could have far-reaching implications for numerous AI applications. Multimodal means that an AI is trained with different related data, such as photos, texts, and videos.

The researchers cite image and video annotation, image and video generation, multimodal search, answering visual questions, visual reasoning, object referencing, multimodal dialog systems, and multimodal translation as application scenarios. Moreover, the experience gained in these fields could be transferred to other areas, such as AI in biology or chemistry.

#### Worse than extinction.

Di Minardi 20, MA Political Science at Boston College, 10-15-20,   
“The grim fate that could be ‘worse than extinction’,” https://www.bbc.com/future/article/20201014-totalitarian-world-in-chains-artificial-intelligence

What would totalitarian governments of the past have looked like if they were never defeated? The Nazis operated with 20th Century technology and it still took a world war to stop them. How much more powerful – and permanent – could the Nazis have been if they had beat the US to the atomic bomb? Controlling the most advanced technology of the time could have solidified Nazi power and changed the course of history.

When we think of existential risks, events like nuclear war or asteroid impacts often come to mind. Yet there’s one future threat that is less well known – and while it doesn’t involve the extinction of our species, it could be just as bad.

It’s called the “world in chains” scenario, where, like the preceding thought experiment, a global totalitarian government uses a novel technology to lock a majority of the world into perpetual suffering. If it sounds grim, you’d be right. But is it likely? Researchers and philosophers are beginning to ponder how it might come about – and, more importantly, what we can do to avoid it.

Existential risks (x-risks) are disastrous because they lock humanity into a single fate, like the permanent collapse of civilisation or the extinction of our species. These catastrophes can have natural causes, like an asteroid impact or a supervolcano, or be human-made from sources like nuclear war or climate change. Allowing one to happen would be “an abject end to the human story" and would let down the hundreds of generations that came before us, says Haydn Belfield, academic project manager at the Centre for the Study of Existential Risk at the University of Cambridge.

Toby Ord, a senior research fellow at the Future of Humanity Institute (FHI) at Oxford University, believes that the odds of an existential catastrophe happening this century from natural causes are less than one in 2,000, because humans have survived for 2,000 centuries without one. However, when he adds the probability of human-made disasters, Ord believes the chances increase to a startling one in six. He refers to this century as “the precipice” because the risk of losing our future has never been so high.

Researchers at the Center on Long-Term Risk, a non-profit research institute in London, have expanded upon x-risks with the even-more-chilling prospect of suffering risks. These “s-risks” are defined as “suffering on an astronomical scale, vastly exceeding all suffering that has existed on Earth so far.” In these scenarios, life continues for billions of people, but the quality is so low and the outlook so bleak that dying out would be preferable. In short: a future with negative value is worse than one with no value at all.

This is where the “world in chains” scenario comes in. If a malevolent group or government suddenly gained world-dominating power through technology, and there was nothing to stand in its way, it could lead to an extended period of abject suffering and subjugation. A 2017 report on existential risks from the Global Priorities Project, in conjunction with FHI and the Ministry for Foreign Affairs of Finland, warned that “a long future under a particularly brutal global totalitarian state could arguably be worse than complete extinction”.

Singleton hypothesis

Though global totalitarianism is still a niche topic of study, researchers in the field of existential risk are increasingly turning their attention to its most likely cause: artificial intelligence.

In his “singleton hypothesis”, Nick Bostrom, director at Oxford’s FHI, has explained how a global government could form with AI or other powerful technologies – and why it might be impossible to overthrow. He writes that a world with “a single decision-making agency at the highest level” could occur if that agency “obtains a decisive lead through a technological breakthrough in artificial intelligence or molecular nanotechnology”. Once in charge, it would control advances in technology that prevent internal challenges, like surveillance or autonomous weapons, and, with this monopoly, remain perpetually stable.

If the singleton is totalitarian, life would be bleak. Even in the countries with the strictest regimes, news leaks in and out from other countries and people can escape. A global totalitarian rule would eliminate even these small seeds of hope. To be worse than extinction, “that would mean we feel absolutely no freedom, no privacy, no hope of escaping, no agency to control our lives at all", says Tucker Davey, a writer at the Future of Life Institute in Massachusetts, which focuses on existential risk research.

“In totalitarian regimes of the past, [there was] so much paranoia and psychological suffering because you just have no idea if you're going to get killed for saying the wrong thing,” he continues. “And now imagine that there's not even a question, every single thing you say is being reported and being analysed.”

“We may not yet have the technologies to do this,” Ord said in a recent interview, “but it looks like the kinds of technologies we’re developing make that easier and easier. And it seems plausible that this may become possible at some time in the next 100 years.”

AI and authoritarianism

Though life under a global totalitarian government is still an unlikely and far-future scenario, AI is already enabling authoritarianism in some countries and strengthening infrastructure that could be seized by an opportunistic despot in others.

“We've seen sort of a reckoning with the shift from very utopian visions of what technology might bring to much more sobering realities that are, in some respects, already quite dystopian,” says Elsa Kania, an adjunct senior fellow at the Center for New American Security, a bipartisan non-profit that develops national security and defence policies.

In the past, surveillance required hundreds of thousands of people – one in every 100 citizens in East Germany was an informant – but now it can be done by technology. In the United States, the National Security Agency (NSA) collected hundreds of millions of American call and text records before they stopped domestic surveillance in 2019, and there are an estimated four to six million CCTV cameras across the United Kingdom. Eighteen of the 20 most surveilled cities in the world are in China, but London is the third. The difference between them lies less in the tech that the countries employ and more in how they use it.

What if the definition of what is illegal in the US and the UK expanded to include criticising the government or practising certain religions? The infrastructure is already in place to enforce it, and AI – which the NSA has already begun experimenting with – would enable agencies to search through our data faster than ever before.

In addition to enhancing surveillance, AI also underpins the growth of online misinformation, which is another tool of the authoritarian. AI-powered deep fakes, which can spread fabricated political messages, and algorithmic micro-targeting on social media are making propaganda more persuasive. This undermines our epistemic security – the ability to determine what is true and act on it – that democracies depend on.

“Over the last few years, we've seen the rise of filter bubbles and people getting shunted by various algorithms into believing various conspiracy theories, or even if they’re not conspiracy theories, into believing only parts of the truth,” says Belfield. “You can imagine things getting much worse, especially with deep fakes and things like that, until it's increasingly harder for us to, as a society, decide these are the facts of the matter, this is what we have to do about it, and then take collective action.”

### 2NC – ! – AI

#### Chinese lead encourages the worst misuses of AI – extinction

James Johnson 19 {Dr. Johnson holds a Ph.D. in Politics & International Relations from the University of Leicester, an M.A. in Asia-Pacific Studies from the University of Leeds. 4-24-2019. “Artificial intelligence & future warfare: implications for international security.” https://www-tandfonline-com.proxy.lib.umich.edu/doi/full/10.1080/14751798.2019.1600800}//JM

China’s initial approach to AI has been heavily influenced by its assessment of U.S. military initiatives; in particular, those associated with the DoD’s Third Offset Strategy, and more recently, “Project Maven” (e.g. human-machine collaboration; convolutional neural networks; big-data analytics; machine-learning; human-assisted operations; combat-teaming; and autonomous weapons).108 108. China’s long-standing approach to military innovation has been based on a “leap-frogging” strategy; designed to encourage civil-military collaboration in the development of dual-use asymmetric capabilities. View all notes As China’s approach to AI matures, however, it will more likely align closer with the People’s Liberation Army’s (PLA’s) unique organisational, command and control, and strategic cultural traditions.109 109. Johnson, The US-China Military and Defense Relationship during the Obama Presidency, chap. 4. View all notes Beijing, like the U.S., has yet to formally articulate a coherent strategic framework, operational concepts, or the establishment of institutions and mechanisms to support the use of AI for warfighting.110 110. For a recent study on Chinese approaches to weapon system-related operational concepts see, Jeffrey Engstrom, Systems confrontation and system destruction warfare (Santa Monica: RAND Corporation, 2018). View all notes That said, the intensity of discussion and research within the PLA surrounding military-use AI is indicative of the high-level importance attached to this ubiquitous dual-use technology.111 111. ‘National People’s Congress Representative Liu Guozhi: Artificial Intelligence Will Accelerate the Process of Military Transformation’, PLA Daily, March 7, 2017, http://jz.chinamil.com.cn/zhuanti/content/2017-03/07/content\_7517615.htm/. View all notes As China and the U.S. internalise these emerging technological trends, it is likely that each side will conceptualise them very differently. Scholarship on military innovation has demonstrated that – with the possible exception of nuclear weapons – technological innovation alone rarely causes the military balance to shift; rather how militaries employ a technology usually proves critical.112 112. See, Barry R. Posen, The sources of military doctrine: France, Britain, and Germany between the world wars (Ithaca: Cornell Studies in Security Affairs, 1986). View all notes A major cause for concern is that if the many national, cultural, and normative differences that separate Sino-American approaches to military innovation are reflected in the software used to teach AI programmes, the resultant prejudices and preferences might become baked into the weapon systems they support. 113 113. For example, Microsoft’s racist “Chatbot Tay” is the most infamous example of this kind of prejudice displayed based on the data and parameters used by developers. View all notes As a corollary, even if AI systems are designed to produce bias-free analysis, human bias inherent in data sampling, sensor types, and other uncontrollable factors, might nonetheless result in subjective decision-making.114 114. However, if future AI is able to collect and categorise its own data via sensors, then the susceptibility of machines to human biases will likely decrease. For a history of AI and the military see, Ayoub and Payne, ‘Strategy in the Age of Artificial Intelligence’, 793–819. View all notes Under crisis and conflict conditions, these kinds of cognitive biases might exacerbate underlying U.S.-China mutual mistrust, suspicion, and misperceptions. In the race to innovate in AI, uncertainties surrounding U.S and China progress (and setbacks) will have profound and potentially destabilising implications for the strategic balance.115 115. China and the United have developed the capability to leverage AI to achieve asymmetric combat advantages, but its employment will also introduce certain vulnerabilities. Moreover, there will likely be continued obstacles to the effective sharing, acquisition, and fielding of AI systems for military applications. View all notes For now, at least, the U.S. retains the upper-hand in AI innovation,116 116. The U.S. leads China in the number of AI patent applications, the number of AI-related organisations, the amount of funding provided, but China is quickly closing this gap. View all notes but in this emerging innovation arms-race, China is no longer the inferior party. Instead, China is fast becoming a true peer-competitor in AI and is expected to soon overtake the U.S. in this emerging strategic domain.117 117. International Institute for Strategic Studies (IISS), The Military Balance, 2018 (London: IISS, 2018), 10–3. View all notes By its own estimates, Beijing has set 2020 as a target to achieve “major breakthroughs in a series of landmark AI products”, and to establish an “international competitive advantage” in the development of dual-use technologies and applications – especially those which target the United States.118 118. From 2014, China has surpassed the United States in the output of published research papers on deep learning - by circa 20 per cent in 2016 alone. While increases in the quantity of AI-related publications do not necessarily correspond to advances in quality, this trajectory nonetheless, clearly demonstrates that China is resolutely committed to its AI development agenda. View all notes To be sure, China’s innovation ambitions could be expedited by a fundamental mismatch (even dissonance) analysts have identified between the rapid pace of commercial innovation and academic research into AI and the lagging timescales and assumptions that underpin the Pentagon’s existing procurement processes and practices.119 119. Andrew Ilachinski, AI, Robots, and Swarms - Issues, Questions, and Recommended Studies (Washington: CNA Analysis and Solutions, 2017), xiv. View all notes Chinese centralised planning, socialist market economy, and in particular, a vast pool of data-sets, could offer Beijing significant scope to leverage China’s market forces and human capital to realise its “civil-military fusion” objective in AI.120 120. Beijing’s approach to AI is, however, far from perfect. Chinese state-led resource management characterised as inefficient and intrinsically corrupt (with government-favoured research institutions receiving a disproportionate share of state-funding) might cause the government to misallocate resources, over-invest in non-productive and poorly conceptualised AI projects. View all notes While vast data is clearly an advantage, however, it remains an open question whether China’s national strategic planning, and socialist market economy will prove advantageous in the development of AI. According to a recent report, China is on track to possess twenty per cent of the world’s entire data by 2020 – and thirty per cent by 2030.121 121. In contrast, between 2012–2017 U.S. DoD expenditure on AI-related contracts was relatively flat. Govini, ‘Department of Defense Artificial Intelligence, Big Data, and Cloud Taxonomy’, December 3, 2017, 9, http://www.govini/home/insights/. View all notes The head of the U.S. DoD’s Strategic Capabilities Office, William Roper, highlighted the pivotal role the accumulation of, and competition for, information for machine learning will play in future warfare. Roper stated: “It’s wealth and fuel. Your data keeps working for you. You stockpile the most data that you can and train that to teach and train autonomous systems”.122 122. Patrick Tucker, ‘The Next Big War Will Turn on AI, Says US Secret-Weapons Czar’, Defense One, 28, March 2017, https://www.defenseone.com/technology/2017/03/next-big-war-will-turn-ai-says-pentagons-secret-weapons-czar/136537/. View all notes In contrast to the nuclear arms race that defined the Cold War-era, states competing in the AI arms race will be less concerned with sustaining the qualitative and quantitative lead in warheads, but instead will be more concerned with maintaining information superiority – to feed machine-learning algorithms.123 123. Sharikov, ‘Artificial intelligence, cyberattack, and nuclear weapons - A dangerous combination’, 370. View all notes Chinese President Xi Jinping recently stated that AI, “big data”, cloud storage, cyberspace, and quantum communications were amongst the “liveliest and most promising areas for civil-military fusion”, and towards this end, he pledged additional state support and resources.124 124. For example, in collaboration with Baidu, Beijing established a “National Engineering Laboratory of Deep Learning Technology” initiative. Robin Li, ‘China brain project seeks military funding as Baidu makes artificial intelligence plans’, South China Morning Post, 3 March, 2015, https://www.scmp.com/lifestyle/article/1728422/china-brain-project-seeks-military-funding-baidu-makes-artificial. View all notes In contrast, the increasingly strained relationship between the Trump administration and Silicon Valley will likely pose additional challenges to this critical partnership in the development of AI technologies for the U.S. military.125 125. For example, when Google acquired DeepMind it specifically prohibited the use of its research for military purposes. Loren DeJonge Schulman, Alexandra Sander, and Madeline Christian, ‘The Rocky Relationship Between Washington & Silicon Valley: Clearing the Path to Improved Collaboration’, (Washington: CNAS, July 2015). View all notes Following a recent high-profile backlash from employees at Google, the company recently announced that it would discontinue its work with the Pentagon on Project Maven.126 126. Jeremy White, ‘Google Pledges not to work on weapons after Project Maven backlash’, The Independent, 7 June, 2018, https://www.independent.co.uk/life-style/gadgets-and-tech/news/google-ai-weapons-military-project-maven-sundar-pichai-blog-post-a8388731.html. View all notes As a first mover AI-power, therefore, China will likely chart a course to be at the vanguard in the development of technical standards, mechanisms, and governance of AI that will likely strengthen the competitiveness and quality of China’s military capabilities.127 127. Given the lack of empirical open-sources that relates to Chinese view on military applications of AI, this paper highlights some of the key observable trends, and proffers areas for future research that relates to these issues. View all notes China’s early approach to AI suggests a wide-reaching conceptualisation that the PLA will synthesise into its entire force structure; to support future “intelligentised” operations, and seise the “commanding heights” of future strategic competition.128 128. ‘National People’s Congress Representative Liu Guozhi: Artificial Intelligence Will Accelerate the Process of Military Transformation’, PLA Daily, March, http://jz.chinamil.com.cn/zhuanti/content/2017-03/07/content\_7517615.htm/. View all notes Specifically, Chinese researchers have focused on AI applications for war-gaming, training, command and control, intelligence analysis, and augmenting autonomous weapons systems.129 129. Shou Xiaosong, ed., The Science of Military Strategy, 3rd ed. (Beijing: Military Science Press, 2013). View all notes President Xi’s “One Belt One Road”, and the virtual dimension the “digital Silk Road”, are high-level efforts designed to ensure that the mechanisms, co-ordination, and support for this agenda will become increasingly normalised.130 130. China’s recent five-year plan reportedly committed over USD$100 billion to AI. Moreover, as China moves forward with its One Belt One Road related projects that extend to potentially more than eighty countries AI would become an integral part of these international infrastructure projects. Wenyuan Wu, ‘China’s Digital Silk Road: Pitfalls Among High Hopes’, The Diplomat, 3 November, 2017, https://thediplomat.com/2017/11/chinas-digital-silk-road-pitfalls-among-high-hopes/. View all notes Moreover, in 2017 Xi explicitly called for the acceleration of the military “intelligentisation” agenda, to better prepare China for future warfare against a near-peer adversary like the United States.131 131. ‘Xi Jinping’s Report at the 19th Chinese Communist Party National Congress’, Xinhua, October 27, 2017, http://www.china.com.cn/19da/2017-10/27/content\_41805113\_3.htm. View all notes China’s pursuit of AI (especially dual-use capabilities) will fuel the perception (accurate or otherwise) in Washington that Beijing is intent on exploiting this strategically critical technology to fulfil its broader revisionist goals. Despite a brief pause in the development of the U.S.’s AI strategic roadmap, the White House recently announced the creation of a new committee of AI experts to advise it on policy choices.132 132. Aaron Boyd, ‘White House Announces Select Committee of Federal AI Experts’, Nextgov, May 10, 2018, https://www.nextgov.com/emerging-tech/2018/05/white-house-announces-select-committee-federal-ai-experts/148123/. View all notes In 2017, following the recommendation of the Committee on Foreign Investment in the U.S., President Trump blocked a Chinese firm from acquiring Lattice Semiconductor; a company that manufactures chips critical in the operation of AI applications.133 133. Ana Swanson, ‘Trump Blocks China-Backed Bid to Buy U.S. Chip Maker’, The New York Times, September 13, 2017, https://www.nytimes.com/2017/09/13/business/trump-lattice-semiconductor-china.html. View all notes This action typifies a broader concern that synergies created by China’s civil-military fusion strategy could allow the technology, expertise, and intellectual property shared between American and Chinese commercial entities to be transferred to the PLA.134 134. Bartholomew and Shea, U.S.-China Economic and Security Review Commission - 2017 Annual Report, 507. View all notes Though Chinese strategic writings have emphasised the importance of human-machine collaboration and teaming (or keeping humans “in the loop”),135 135. “Keeping humans in the loop” refers to maintaining human control of autonomous weapons; both in the design of the rules that govern these systems, and the execution of those rules when firing. That said, human decision-making and automation are not necessarily mutually exclusive. For example, the human-machine teaming cognitive design envisaged by the Pentagon, in theory at least, could leverage the predictability, reliability, and speed of full-automation while retaining the robustness and flexibility of human intelligence. View all notes the PLA’s historical resistance to command and control decentralisation, and general mistrust of human personnel could prompt military leaders to gravitate more quickly towards full-battlefield autonomy.136 136. For a recent comprehensive examination of the PLA’s shortcomings see, Michael S. Chase, Jeffrey Engstorm, Tai Ming Cheung, Kirsten A. Gunness, Scott W. Harold, Susan Puska, and Samuel K. Berkowitz, China's incomplete military transformation- assessing the weaknesses of the people's liberation army (PLA) (Santa Monica: RAND Corporation, 2015). View all notes The opposite conclusion could also be drawn, however: if Chinese commanders were unwilling to give up centralised control to junior officers, why would they give such control to machines? Recent reports indicate China’s navy is contemplating fitting its nuclear-powered submarines (and possibly nuclear-armed ones) with a so-called “AI-augmented brainpower”.137 137. Stephen Chen, ‘China’s plan to use artificial intelligence to boost the thinking skills of nuclear submarine commanders’, South China Morning Post, 4 February, 2018, https://www.scmp.com/news/china/society/article/2131127/chinas-plan-use-artificial-intelligence-boost-thinking-skills. View all notes This capacity could, in theory, synthesise and interpret large quantities of data generated by sonar signals and sound pulses, to detect submerged objects, and support a broad range of maritime operations. To be sure, the kinds of operations and the level of autonomy afforded to AI-augmented systems to support China’s strategic underwater forces will have profound implications for future crisis and conflict in the increasingly contested undersea domain. In extremis, if military command and control systems came under attack (possibly from AI-augmented cyber-weapons), military commanders may decide to pre-delegate decision-making to machine-learning systems. Russia, for example, operates a so-called “dead hand” designed to automatically launch its nuclear missiles at hyper-speed, if its pressure sensors were to detect an imminent nuclear attack.138 138. Fontaine and Miller, A new era in U.S.-Russian strategic stability, 26. View all notes The evidence suggests that China (and Russia) has relatively few moral, legal or ethical qualms in deploying lethal autonomous weapons.139 139. To date, there have been few publications on the legal and ethical implications for military-use AI, which have dominated the discourse in the West. Bendett, ‘Get Ready, NATO.’ View all notes Moreover, and in contrast to the U.S., discussion on the potential limitations and risks associated with AI, autonomy and cyber-warfare appears largely absent from Chinese open-sources.140 140. For example, Johnson, The US-China Military and Defense Relationship during the Obama Presidency, chap. 4. View all notes Reports suggest that China has already begun to incorporate AI into its next-generation conventional missiles and missile-defense intelligence gathering systems, to enhance their precision and lethality.141 141. Kania, Battlefield singularity. View all notes By contrast, the U.S. will likely be much more constrained in the development of these technologies. Resistance within the U.S. military to incorporate AI stems in large part from the prevailing liberal-democratic norms governing the use of military force, and the growing concerns surrounding the many “black box” aspects of AI-machine learning, and in particular, to avoid the so-called “Terminator Conundrum” – the implications of weapons that could operate independently and beyond the control of their developers.142 142. Colin Clark, ‘“The Terminator Conundrum:” VCJCS Selva On Thinking Weapons’, Breaking Defense, January 21 2016, https://breakingdefense.com/2016/01/the-terminator-conundrum-vcjcs-selva-on-thinking-weapons/. View all notes Chinese analysts, by overlooking the potential shortcomings, uncertainties, and vulnerabilities associated with AI, and overstating (even overdramatising) the utility of AI and autonomy (or taking humans “out of the loop”), could under crisis and conflict conditions complicate escalation management,143 143. For example, whilst much has been written by Chinese analysts on the Pentagon’s Third Offset Strategy programmes (including AI) there has been very little discussion on the potential limitations of these advanced systems - including those associated with reducing human control. View all notes and worsen strategic stability in future warfare.144 144. Geist and Lohn, How might artificial intelligence affect the risk of nuclear war? (Santa Monica: RAND Corporation, 2018), 5. View all notes That said, given the aggressive pursuit of military-use AI by its strategic rivals, America’s current commitment to having humans in charge might waver.145 145. It remains unclear, however, what operational contexts and applications, and to what degree China and Russian might pursue fully autonomous weapon systems. View all notes Moreover, international law remains unclear and indeterminate on lethal autonomy, and in its absence, militaries (including the U.S.) will continue to develop weapon systems with varying degrees of autonomy.146 146. Kelsey Atherton, ‘3 big takeaways from the Navy’s new robot road map’, C4ISRnet, 30 May, 2018, https://www.c4isrnet.com/unmanned/2018/05/30/three-big-takeaways-from-the-navys-new-robot-roadmap/. View all notes Ultimately, militaries will need to consider the trade-off between the risks associated with autonomous weapons, with the possibility of affording an adversary using fully autonomous weapons the asymmetric upper hand. At this early stage, it is impossible to know for certain when, whether, and under what circumstances greater degrees of autonomy in human-machine collaboration will provide a distinct strategic battlefield advantage.

### 1NC – ! – Autonomous Nukes

#### China is developing autonomous nuclear weapons that will upend strategic stability.

Jamey Keaten 21, AP chief correspondent in Geneva, 7/8/2021, "US envoy warns China 'looking at' new nuclear technologies," https://apnews.com/article/europe-china-technology-government-and-politics-39029491f5863f10809dbbfc40862693, sg

GENEVA (AP) — A U.S. diplomat focusing on disarmament said Thursday that China is “looking at” developing naval and aerial autonomous nuclear weapons systems, warning any such development could disrupt strategic stability.

Ambassador Robert Wood, the U.S. envoy to the Conference on Disarmament in Geneva, said China hasn’t developed or been able to weaponize the technology yet. But his comments suggested that China is interested in such so-called “exotic nukes” like nuclear-powered underwater drones and nuclear-powered cruise missiles being developed by Russia.

“This is something they are looking at,” Wood said. “If they were to develop ... these kinds of weapons and aerial systems, this has the potential to change the strategic stability environment in a dynamic way.”

The United States doesn’t have either type of system.

“This is not where China was 10 years ago,” Wood added, noting the “upward trajectory” that China has been on in the quantity and quality of its weapons systems. “They’re pursuing weapons similar to some of the nuclear-powered delivery systems that the Russians have been pursuing.”

Russia has said its development of such weaponry is aimed at countering the United States’ defenses against ballistic missiles. Moscow has expressed concern that such defenses could eventually undermine the viability of its strategic offensive nuclear forces, although Washington insists that its defensive system is designed to protect the U.S. homeland from North Korean missiles, not Russia’s or China’s.

#### AI-controlled nuclear weapons auto-launch at the slightest provocation.

John Allen 21, president of the Brookings Institution, distinguished fellow in the Foreign Policy Program at Brookings; Darrell West, vice president and director of Governance Studies and holds the Douglas Dillon Chair in Governmental Studies, 3/24/2021, "It is time to negotiate global treaties on artificial intelligence," https://www.brookings.edu/blog/techtank/2021/03/24/it-is-time-to-negotiate-global-treaties-on-artificial-intelligence/, sg

With the rise of artificial intelligence, supercomputing, and data analytics, the world today is at a crucial turning point in the national security and the conduct of war. Sometimes known as the AI triad, these characteristics and other weapons systems, such as hypersonics, are accelerating both the speed with which warfare is waged, and the speed with which warfare can escalate. Called “hyperwar” by Amir Husain and one of us (John R. Allen), this new form of warfare will feature levels of autonomy, including the potential for lethal autonomous weapons without humans being in the loop on decision-making.

How artificial intelligence is transforming the world

Assessing ethical AI principles in defense

It will affect both the nature and character of war and usher in new risks for humanity. As noted in our recent AI book “Turning Point,” this emerging reality could feature swarms of drones that may overwhelm aircraft carriers, cyberattacks on critical infrastructure, AI-guided nuclear weapons, and hypersonic missiles that automatically launch when satellite sensors detect ominous actions by adversaries. It may seem to be a dystopian future, but some of these capabilities are with us now. And to be clear, both of us, and more broadly the world’s liberal democracies, are struggling with the moral and ethical implications of fully autonomous, lethal weapon systems.

In this high-risk era, it is now time to negotiate global agreements governing the conduct of war during the early adoption and adaptation of AI and emerging technologies to the waging of war and to specific systems and weapons. It will be much easier to do this before AI capabilities are fully fielded and embedded in military planning. Similar to earlier treaties on nuclear, biological, and chemical weapons in the post-war period, these agreements should focus on several key principles:

Incorporate ethical principles such as human rights, accountability, and civilian protection in AI-based military decisions. Policymakers should ensure there is no race to the bottom that allows technology to dictate military applications as opposed to basic human values.

Keep humans in the loop with autonomous weapons systems. It is vital that people make the ultimate decisions on missile launches, drone attacks, and large-scale military actions. Good judgment and wisdom cannot be automated and AI cannot incorporate necessary ethical principles into its assessments.

Adopt a norm of not having AI algorithms within nuclear operational command and control systems. The risk of global destruction is high with AI-based launch on warning systems. Since we do not know, and may never know, exactly how AI learns from training data, it is important not to deploy systems that could create an existential threat to humanity.

#### AI risks accidental launches AND hair-trigger readiness posture – extinction.

Yonah Bob 19, Jerusalem Post's intelligence, terrorism and legal analyst and Literary Editor, 12/25/2019, "Scientists warn AI control of nukes could lead to ‘Terminator-style’ war," https://www.jpost.com/international/nuke-scientists-warn-ai-control-could-lead-to-terminator-style-nuke-war-612123, sg

The world may be inching closer to an era where a Terminator-style apocalyptic nuclear war could be possible due to yielding control over nuclear weapons to artificial intelligence (AI), according to publications by nuclear scientists and defense experts.

While numerous AI experts have told the Jerusalem Post over the years that people worried about AI turning on humanity as in the famous “Terminator” movies simply misunderstand the technology, the likelihood of AI making a catastrophic mistake with nuclear weapons is no fairytale.

A recent article in the Bulletin of the Atomic Scientists, a top group of nuclear scientists, as well as other recent publications by defense experts have said that Russia may already be integrating AI into a new nuclear torpedo it is developing known as the Poseidon, to make it autonomous.

According to the Atomic Scientists report, the US and China are also considering injecting AI deeper into their nuclear weapons’ programs as they modernize and overhaul their nuclear inventory.

There have been no express reports about Israel integrating AI into, what according to foreign reports, is an apparatus of between 80-200 nuclear weapons. But there have been reports of the IDF integrating AI into conventional weapons, such as its spice bomb carried by F-16s.

Part of the concern in the report was that integrating AI into nuclear weapons’ systems could become culturally inevitable once non-conventional weapons become more dominated by AI.

The nuclear holocaust risks that scientists and experts are writing about are not a hostile takeover by AI, but by AI getting hacked, slipping out of control by a technical error or badly misjudging a situation.

Such risks could be magnified by unmanned vehicles carrying nuclear weapons where there is no one on board and responsible for making the final decision to deploy a nuclear weapon.

As a secondary but still serious risk, AI integration into early warning systems could overwhelm human decision-makers who could be faster on the nuclear trigger finger to yield to the technology despite any human judgment doubts they might have.

Some studies have shown that AI and automated evidence in general can reinforce bubble-style thinking and make it more difficult for analysts to entertain alternate narratives about what might be occurring in murky and hi-stress situations.

An example that the article gives of human judgment’s importance was a 1983 incident when a Soviet officer named Stanislav Petrov disregarded automated audible and visual warnings that US nuclear missiles were inbound.

The systems were wrong and had Petrov trusted technology over his own instincts, the world might have gone to nuclear war over a technological malfunction.

The article also points out potential valuable aspects of AI in the nuclear weapons arena, such as gathering more accurate and comprehensive data so that decision-makers are guessing in the dark less often.

In addition, AI can get such key information to decision-makers much faster whereas in the past key information might be stuck in the collection process without getting to leaders in time before they had to make a decision.

Moreover, the article noted that AI has been integrated into aspects of countries’ nuclear programs for some time.

Even in earlier decades of the Cold War, both the US and Russia had certain capabilities programmed into some nuclear weapons to be able to quickly switch to targeting each other, as opposed to landing harmlessly at sea, should certain scenarios occur.

Overall, the greatest concern about AI in nuclear weapons is with the weaker side in a potential standoff.

A country like China, with much more limited nuclear or conventional weapons capabilities, might seek to integrate AI into its nuclear weapons program with the hope of accelerating deployment speed so that the US would be unable to knock it out of a war with a preemptive “first strike.”

### 1NC – ! – Biotech

#### China is developing groundbreaking biotechnology, results in the most dangerous versions of CRISPR, nanotech, super soldiers, and cognitive warfare.

Ken Dilanian 20, intelligence and national security correspondent for NBC News, based in Washington, “China has done human testing to create biologically enhanced super soldiers, says top U.S. official”, <https://www.nbcnews.com/politics/national-security/china-has-done-human-testing-create-biologically-enhanced-super-soldiers-n1249914>, //lenox

WASHINGTON — U.S. intelligence shows that China has conducted "human testing" on members of the People's Liberation Army in hope of developing soldiers with "biologically enhanced capabilities," the top U.S. intelligence official said Friday.

John Ratcliffe, the director of national intelligence, included the explosive claim in a long Wall Street Journal op-ed in which he made the case that China poses the pre-eminent national security threat to the U.S.

"There are no ethical boundaries to Beijing's pursuit of power," wrote Ratcliffe, a Republican former member of Congress from Texas.

His office and the CIA did not immediately respond to requests to elaborate on the notion that China sought to create "super soldiers" of the sort depicted in Hollywood films like "Captain America," "Bloodshot" and "Universal Soldier."

Last year, two American scholars wrote a paper examining China's ambitions to apply biotechnology to the battlefield, including what they said were signs that China was interested in using gene-editing technology to enhance human — and perhaps soldier — performance.

Specifically, the scholars explored Chinese research using the gene-editing tool CRISPR, short for "clusters of regularly interspaced short palindromic repeats." CRISPR has been used to treat genetic diseases and modify plants, but Western scientists consider it unethical to seek to manipulate genes to boost the performance of healthy people.

"While the potential leveraging of CRISPR to increase human capabilities on the future battlefield remains only a hypothetical possibility at the present, there are indications that Chinese military researchers are starting to explore its potential," wrote the scholars, Elsa Kania, an expert on Chinese defense technology at the Center for a New American Security, and Wilson VornDick, a consultant on China matters and former Navy officer.

"Chinese military scientists and strategists have consistently emphasized that biotechnology could become a 'new strategic commanding heights of the future Revolution in Military Affairs,'" the scholars wrote, quoting a 2015 article in a military newspaper.

One prominent Chinese general, they noted, said in 2017 that "modern biotechnology and its integration with information, nano(technology), and the cognitive, etc. domains will have revolutionary influences upon weapons and equipment, the combat spaces, the forms of warfare, and military theories."

VornDick said in a phone interview that he is less concerned about the battlefield advantage such research might provide than he is about the consequences of tampering with human genes.

"When we start playing around with genetic organisms, there could be unforeseen consequences," he said.

Representatives of the Chinese government did not immediately respond to a request for comment.

The overall message of Ratcliffe's opinion piece is that China is a dangerous adversary that threatens American economic and national security.

"The People's Republic of China poses the greatest threat to America today, and the greatest threat to democracy and freedom world-wide since World War II," he wrote. "The intelligence is clear: Beijing intends to dominate the U.S. and the rest of the planet economically, militarily and technologically."

In an interview with Fox News, Ratcliffe urged President-elect Joe Biden to "be honest" about China.

As NBC News has reported, Biden and his foreign policy advisers agree that China poses a major threat, but they say they believe the Trump administration offered more bluster than substance in response.

#### Extinction

Achim Rosemannn et al 17, University of Warwick, Coventry, UK; Li Jiang, Soochow University, Suzhou, China; Xinqing Zhang, Peking Union Medical College / Chinese Academy of Medical Sciences, Beijing, China“The regulatory and legal situation of human embryo, gamete and germ line gene editing research and clinical applications in the People’s Republic of China” May 2017, Nuffield Council on Bioethics https://www.nuffieldbioethics.org/assets/pdfs/GEHR-background-paper-gene-editing-in-China.pdf

3. Still others thought that human germ line research will be difficult to stop: Chen Guoqiang, a professor of biology at the School of Life Sciences at Tsinghua University states: ‘If this technology is used in people in the future, the first mature [genetically modified] individual will be a much-desired breakthrough. While this step may probably bring about some problematic effects and repercussions, every technology undergoes a period from premature to mature. Currently, many heritable diseases do not have well-developed treatments. This [embryo gene editing] is a possibility of exploration. But [at present] used embryos should not be allowed to grow beyond the embryonic stage. Scientific research is always risky. If it is forbidden, for fear of risks, then it is difficult for science to progress’.131

Professor Zhao Shimin, a biologist at Fudan University in Shanghai, stated that the advent of human germ line gene editing is inevitable: ‘This technology has already been used on plants and animals. The next will be human beings’. But he also cautioned that there are limitations and risks: ‘Changing the sequence of genes can lead to unexpected problems that could spread from generation to generation and cause other defects or illnesses. […] While such studies should be allowed, they must be strictly controlled in the laboratory. […] A large number of uncontrolled editing of DNA can potentially lead to human extinction’.132

### 2NC – ! – Biotech

#### Ensures a China war fought by bio-engineered soldiers which outweighs nuclear use

David Malet 15, Ph.D. is a Visiting Associate Professor of International Affairs; Director, Security Policy Studies Program at George Washington University, and served as a defense and foreign policy aide to US Senate Majority Leader Tom Daschle 2000-2003. He previously worked or interned for organizations including the National Democratic Institute for International Affairs, US Senator John Kerry, and the Attorney General of New South Wales, Australia. Prior to joining the Elliott School he served as director of the Center for the Study of Homeland Security at Colorado State University and as Associate Director of the School of Government at the University of Melbourne. “Captain America in International Relations: the Biotech Revolution in Military Affairs”, Defense Studies, 2015, http://www.tandfonline.com/doi/abs/10.1080/14702436.2015.1113665?journalCode=fdef20

The conventional wisdom on biotechnology has held that coming decades will see Western nations increasingly vulnerable to ever-more sophisticated biological weapons attacks by non-state actors and rogue states. As recombinant genetic technology proliferates, a greater number of actors will possess genetic engineering capabilities that will enhance the lethality and durability of their biological weapons. Proponents of this perspective note that the overwhelming technological advantage in conventional forces enjoyed by the United States creates the incentive for competitors to develop effective asymmetric responses, and that the affordability, accessibility, and relatively easy preparation of biological weapons make them a likely means of doing so. In this view, the superior conventional capabilities of the US military not only fail to deter the proliferation of biological weapons, but encourage their development. Western states will face an increasing number of biologically armed opponents, and will remain on the defensive. The priority for military biotech research is therefore the development of protective equipment and vaccines, antibiotics and antivirals (Department of Defense 1998). However, this scenario requires the presumption that military applications of biotechnology will simply be a secular progression from the bacteriological warfare that has existed throughout history. Even when analysts have factored in the vast possibilities of genetic engineering, it has usually only been to the extent that they can breed deadlier pathogens, and that the growing availability of technology means that it may be used by a broader spectrum of actors. Conventional wisdom therefore predicts an unstable future for the international system, a Hobbesian world in which the weakest have power to kill the strongest. Rather than rogue states and non-state terrorists, it is the most powerful and resource-laden actors in the international system that will enjoy the advantages of “biological warfare” in the twenty-first century as they continuously integrate emergent biotechnologies into their military and national defense infrastructures and extend their dominance. This process will closely resemble the Revolution in Military Affairs (RMA) that occurred during the last 30 years of the twentieth century as the United States adapted its forces to exploit advances in new information technologies. The RMA, first described by the Soviet military intelligence in the 1970s and then witnessed by the world during the unexpectedly uneven 1991 Gulf War, occurred because the United States employed its competitive advantage in integrated computer systems. Rather than a single transformative device, like the atomic bomb, the steady accretion of advanced technologies augmenting existing equipment came to inform doctrine and strategies. The term asymmetric warfare is meant to describe efforts by weaker participants in military confrontations to frustrate the advantages of the stronger power by guerilla tactics or other unconventional methods not envisioned in force planning (Mack 1975). However, high technology also offers asymmetric advantages to the best-equipped actors, and American military planners sought to use the advances of the RMA to field forces that no state competitor could match. Their goals included “dominant maneuver” capability on the battlefield in bringing dispersed resources to bear against targets, “precision engagement” capability delivered by smart weapons, and “full dimension force protection” against all anticipated threats (Rizwan 2000). The ultimate expression of this vision would be a fighter comparable to a “Jedi knight” from the Star Wars films: a super-empowered solider, dressed in a protective stealth cloak and commanding an armed companion drone, able to perform solo missions and to transmit data back to headquarters (Hundley and Gritton 1994). Coincidentally or not, this is precisely how Darth Maul was depicted in 1999’s The Phantom Menace. Military planners likewise foresee similar advantages conferred by developments across the various biotech fields. In coming decades, biotechnology is forecast to bring advances such as “rugged computers” made from biological components that will provide situational awareness to individual soldiers on the battlefield, camouflaged materials and lightweight armor incorporating the properties of living organisms, and ingested biological markers to distinguish friendlies, which would be of particular use in counterinsurgency (Purdue University 2001). From the perspective of those involved in force planning, the anticipated future is not one of vulnerability but unassailability. Defense R&D While some military (or potentially military) applications of biotechnology are indeed products of the private sector, it is no state secret that militaries actively sponsor their own biotech research and development programs. The United States Department of Defense in particular is open about the large number of such projects that it oversees. And while most of these are described as intended for troop protection, many are clearly intended to enhance combat operations. As with pathogen stockpiles maintained ostensibly for defensive research, it is only the intent of the wielder that determines whether or not they are offensive. And as the 2001 anthrax case illustrates, even projects officially intended for defensive purposes may be misapplied. Much of the biotech research is conducted under the auspices of the Pentagon’s DARPA rather than legacy programs remaining from the era of bacteriological weapons stockpiles. Established in 1958 as a response to the launch of the first Sputnik satellite by the Soviet Union the year before, DARPA was intended to promote “high-risk – high-payoff” R&D in areas beyond the immediate envisioned needs of military planners. The Agency’s singular most influential project has undoubtedly been a communications system that came to be known as DARPANET before penetrating – and transforming – the commercial sector as the internet (Van Atta 2008, pp. 20, 23, 27). While a reported 90% of its projects fail to come to fruition, high-profile DARPA research that has had a significant impact on United States military capability includes Saturn rockets, ground radar, stealth fighters, Predator missiles, and drones. The agency’s budget of $3 billion is small compared to intelligence agencies, but it supports an “open culture” promoting “radical innovation” praised by participant scientists, most of whom are university researchers (Moreno 2006, pp. 12–13, Basken 2013). In 2014, DARPA announced the creation of a new Biological Technologies Division, built from existing research units and new programs, intended to ensure that biotechnology is not merely an aspect of various research programs, but that “biology takes its place among the core sciences that represent the future of defense technology.” The new division’s primary goals include to “restore and maintain warfighter abilities,” and “to enhance global-scale stability” (DARPA 2014). Similarly, the Pentagon Office of Net Assessment (ONA), which envisions potential future strategic environments and challenges, has also promoted biotech R&D as a defense priority. In 2002, the ONA recommended revising Federal regulations to allow experimental biotechnologies to be brought to the battlefield more readily. It also called for facilitating a greater partnership with private sector researchers by restricting anti-trust laws to permit quicker product development (Armstrong and Warner 2003). In biotech in particular, the military has an advantage over the private sector because it does not have to go through the lengthy and rigorous clinical testing and approval process for medical devices and treatments (Wheelis, in Pearson et al. 2007, p. 4). The future is now: from lab to battlefield Whether in collaboration with the private sector or directly from their own research facilities, leading state military programs are implementing biotech innovations that have already had significant impacts beyond the realistic aspirations of non-state actors. The lives of thousands of Coalition troops have been saved by biotechnologies deployed in Iraq and Afghanistan, and other projects being implemented will enable soldiers to fight more effectively under more adverse conditions than previously possible. In short, rather than being curtailed by asymmetric defenses, the power projection capabilities of the strongest actors in the international system will increase markedly during the twenty-first century. Troop health and survivability Despite the mechanization and increased destructive power of warfare in the midnineteenth century, it was not until World War II that wartime combat deaths exceeded those off the battlefield. This shift, due to advances in combat medicine, permitted American and British forces to conduct forward operations with reduced fatalities. Advances in biotechnology are responsible for the continuation of this trend into more current conflicts with similar results (Frank 2007). When the United States invaded Iraq in 2003, many of its soldiers and Marines were treated with $90 HemCon bandages. The military ordered 26,000 of these dressings, made from a shrimp shell extract called chitosan, which stopped arterial bleeding within a minute of application to wounds. Another bandage, developed by the American Red Cross but with limited use because of its $1000 price tag, was made of clotting proteins extracted from human blood. By contrast, a powdered coagulant manufactured by Z-Medica called QuikClot that could be poured directly onto wounds was issued in first-aid kits, initially to Marines and then across service branches. QuikClot is a granular substance that can be poured directly onto a wound, almost instantly forming a clot that stops bleeding. A hemostatic agent in QuikClot draws water molecules out of blood and promotes accelerated clotting (Allen 2003). By 2010, both the United States Army and Marines had switched to providing QuikClot Combat Gauze in first aid kits instead (Cavallaro 2010). Other options are available as well: DARPA has tasked partner company Arsenal Medical with developing its hemostatic foam into a product that could be used to stop internal bleeding even without direct access to the combat wound (DARPA, “Wound Stasis System” 2013). The use of biotechnologically advanced coagulants to treat severe combat injuries had a substantial effect on the first wars of the twenty-first century: “The ratio of [American] combat-zone deaths to those wounded has dropped from 24% in Vietnam to 13% in Iraq and Afghanistan. In other words, the numbers of those killed as a percentage of overall casualties is lower” (Knickerbocker 2006). By the time of the War on Terror, 55% of battlefield deaths were due to excessive blood loss (Armstrong and Warner 2003). But the development of rapid coagulants sharply reduced the rate of combat deaths and may have sustained the American public’s tolerance for the Iraq and Afghanistan missions. The potential implication is that democracies may become more willing to engage in future wars if the human costs of doing so are minimized. Biotech is being employed along these lines across a variety of projects: “Technologies are under investigation to fully restore complex tissues (muscle, nerves, skin, etc.) after traumatic injury, and most dramatically, to develop neural-controlled upper extremity prostheses that fully recapitulate the motor and sensory functions of a natural limb” (DARPA, “Restorative Biomedical Technologies” 2010). In the area of combat medicine, DARPA is moving beyond coagulants. Its projects involve blood “pharming” that will produce engineered red blood cells (DARPA, “Blood Pharm” 2010) that can be preserved for delivery to the front lines to enable transfusions for wounded troops, despite the “austere conditions of forward deployment” (DARPA, “Long-Term Storage of Blood Products” 2010). A related program would use hormone therapy to extend the survivability of combatants losing critical amounts of blood before fluids and transfusions can reach them: “Achieving this goal will allow increased time – perhaps many hours or even days – for evacuation, triage, and initiation of supportive therapies” (DARPA, “Surviving Blood Loss” 2010). To better treat other battlefield wounds and reduce rehabilitation needs, “DARPA seeks to create a dynamic putty-like material which, when packed in/around a compound bone fracture, provides full load-bearing capabilities within days, creates an osteoconductive bone-like internal structure, and degrades over time to harmless resorbable by-products as normal bone regenerates” (DARPA, “Fracture Putty” 2010). In vivo biomaterials, or compounds directly incorporated by a living organism, would regenerate tissue and then be fully absorbed (Armstrong and Warner 2003). An additional development that could reduce infection and mortality among burn victims is a “self-medicating” bandage. “Laced with nanoparticles, it detects harmful bacteria in a wound and responds by secreting antibiotics” (De Lange 2010). A fully functional prosthetics program termed HAND: is developing the fundamental research that will enable the use of neural activity to … restore natural function through assistive devices. By directly harnessing the ability of neural pathways to operate natural systems, the HAND program seeks to provide means of restoring the lives of injured warfighters. (DARPA, “Human-Assisted Neural Devices” 2010, DARPA, “Reliable Neural Interface Technology” 2013). Clinical trials are underway on accompanying neural-controlled prosthetic devices “almost identical to a natural limb in terms of motor control and dexterity, sensory feedback … weight, and environmental resilience” (DARPA, “Revolutionizing Prosthetics” 2010). And in 2013, DARPA-funded research enabled amputees to experience partial sensations of touch through prosthetic limbs via neural interfaces (DARPA, “New Nerve and Muscle Interfaces and Wounded Warrior Amputees” 2013). That such research is being conducted by the Pentagon speaks to its perceived strategic value. This line of research connects with the 2003 DARPA Strategic Plan, coinciding with Director Goldblatt’s speech, which also called for creating “U.S. warfighters that only need use of the power of their thoughts to do things at great distances.” Enabling the human brain to directly control a peripheral device such as an artificial limb also means that it could control robots on the battlefield that could fight without risk to soldiers Moreno (2006, pp. 9, 39). Such avatars would be the infantry equivalent of drone aircraft and would profoundly change the nature of soldiering more than UAVs are now doing with piloting. Other developments in preventing or restoring injuries to troops are more overtly related to battlefield performance. DARPA, in noting that “the negative impact that stress has on the cognitive, emotional, and physical well-being of warfighters is irrefutable,” proposes that “Novel molecular biological techniques, coupled with in-vivo measurement technologies, can allow for management of the stress pathways and behavioral analysis in real time” (DARPA, “Enabling Stress Resistance” 2010). Already, studies conducted with trauma victims have demonstrated that Propranolol administered shortly after the incident can mitigate the occurrence of PTSD (Dando, in Pearson et al. 2007, pp. 133–134) 138–139). In the treatment of injuries, human stem cells that can regenerate and replace otherwise irreparably damaged cells could be used to potentially replace impaired organs (Committee on Opportunities in Biotechnology for Future Army Applications [hereafter Committee] 2001, p. 37). Another option is using engineered viruses for delivery of genes. In 2005, researchers were able to restore enough damaged cochlear hair cells in deafened guinea pigs to recover 50–80% of their hearing levels. The therapy was delivered by adenoviruses engineered both to render them harmless and to produce a hair growth stimulant (Coghlan 2005). Some analysts expect that advances in somatic genetics will render even therapeutic implants unnecessary because “gene therapy agents could be transfected into cells by bombarding a patch of skin with DNA-coated pellets from a gene gun” (Committee 2001, p. 70). Another possibility is neural or cortical implants such as prosthetic retinas, both to treat injuries and to offer enhanced abilities. “As the risks and costs associated with neural implants are reduced, they may be used to increase the visual and hearing acuity of unimpaired individuals to levels well above average. Soldiers possessing these extraordinary faculties would be well suited to gathering intelligence and performing long range reconnaissance missions” (Committee 2001, p. 38). Human enhancement Efforts to field augmented troops represent new approaches to the use of biotechnology in warfare, a qualitative shift away from traditional but uncertain bacteriological weapons to entirely new strategies for assuring battlefield dominance. As proponents of this biotech approach envision it, “futuristic, ‘superhuman’ capabilities of individual soldiers could enable small units to operate for extended periods of time, carry the fight to remote locales, and endure harsh extremes of climate” (Committee 2001, p. 7). Moreno (2006, p. 114) argues that “The first state (or nonstate) actor to build a better soldier will have taken an enormous leap in the arms race.” Although seemingly fantastic, billions of dollars have already been spent on several programs directed toward fielding various types of “Augments.” As with biotechnologies to increase survivability, introducing mechanically or biologically augmented living soldiers offers multiple benefits for states with the capacity to do so. It also raises a host of political and ethical questions without clear answers. Certainly, there would be tactical advantages for militaries whose personnel are able to operate more effectively than their adversaries under difficult conditions. And the boon of losing fewer servicemen to injury, and being able to return those who are injured to the front lines more quickly, is evident. But there are also broader potential national and international political impacts. Democratic governments, which endeavor to avoid costly or risky wars, (Gartner and Segura 1998, Reiter and Stamm 2002) might be tempted to exert their power as their conventional force advantages grow, and as the costs of providing for disabled veterans diminish. Duncan (2012) writes about the ethics of augmentation when everyone else is doing it. Parents might balk initially at the idea of using technology to increase their children’s cognitive performances, but not if it means that they fall behind their augmented classmates. Citizens might hesitate to vote for presidential candidates with neural implants to enhance their reflexes and decision-making capabilities during a crisis. But at some point, the question becomes “Would you vote for a commander in chief who wasn’t equipped with such a device?” This hypothetical involving heads of state is about as far as most of the ethicist approaches make toward questions of international security. But it raises the question, and particularly if rival hegemons are dispatching Augments with advanced bioweapons and biomedicines to the battlefield, what country with the capability to do so could justify sending its soldiers into harm’s way without the best advantages possible? The edited volume Human Enhancement presents opposing arguments over biopolitics between enthusiastic “transhumanists” and skeptical “bioconservatives” (Bostrom and Savulescu in Savulescu and Bostrom 2009, p. 1). Yet, for all of the discussion about practical issues and debates over social and ethical considerations ranging over hundreds of pages, there is no consideration that enhanced soldiers are at least as likely as enhanced athletes, and national security is not cited among the social obligations that transhumanists claim justify even heritable germline modifications. Fukuyama (2004, pp. 42–43) noted that because “The new procedures and technologies emerging from research laboratories and hospitals … can as easily be used to ‘enhance’ the species as to ease or ameliorate illness…. The first victim of transhumanism might be equality,” an implication even more troubling at the international level when considering what this might do to the already yawning resource gap between the richest and poorest countries. George Annas contended that: Ultimately it almost seems inevitable that genetic engineering would move homo sapiens into two separable species: the standard-issue human beings would be seen by the new, genetically enhanced neo-humans as heathens who can properly be slaughtered and subjugated. It is this genocidal potential that makes species-altering genetic engineering a potential weapon of mass destruction and the unaccountable genetic engineer a potential bioterrorist. (Juengst, in Savulescu and Bostrom 2009, p. 48) Major powers with both conventional and asymmetric biotechnological edges over rivals may similarly be open to the use of force to maintain their positions if they are secure in the knowledge that they are well beyond the capabilities of opponents to match them. The advent of nuclear weapons is credited with reducing the number of interstate wars, with the effect of entrenching the hegemony of the technologically advanced states that wield them. RMA advances gave the United States a lopsided advantage in its early post-Cold War interventions (zero combat deaths during nearly three months of NATO missions during the Kosovo War), and its initial easy success in toppling Saddam Hussein from power in Iraq led, temporarily, to rapprochement efforts by “rogue” regimes Iran and Libya to avoid the same fate. While advanced equipment is responsible for these successes, biotech now offers the opportunity to enhance the performance of the combatants themselves. [DARPA] is engaged in the development of designer drugs that will increase cognitive functioning, including attention span and alertness after periods of sleep deprivation. Another area for future research is “neural prostheses” that will enable commanders to monitor the vital signs of soldiers in the field or even to permit the control of UAVs directly by pilots in remote locations. (Huang and Kosal 2008) “In 2002, DARPA launched the Augmented Cognition (or AugCog) initiative, a project dedicated to developing a headband that monitors brain activity.” With sensory input controlled remotely, subjects doubled their recall and improved working memory by 500% (The Economist 2010). Research on reducing the amount of sleep that soldiers and pilots require to function effectively has become a global enterprise, with countries including France, Canada, Singapore, and Taiwan establishing military research units in this area. In the language of these projects, fatigue and even sleep are described as operational weaknesses preventing humans from taking full advantage of their equipment, weaknesses that intervention can ameliorate. Some major powers have already begun the attempt: during the Iraq War, the British Ministry of Defense had purchased 24,000 tablets of one of the most promising drugs, modafinil, and the United States and France both began to routinely supply it to pilots. The use of stimulants by militaries is so widely entrenched, with amphetamines in regular prescribed use for decades (Saletan 2013), that Bostrom and Savulescu (in Savulescu and Bostrom 2009, p. 2) question whether the use of modafinil is qualitatively different from “a good cup of tea.” But the premise of reducing or eliminating the need for sleep as a component of troop health is a recent development. Additionally, DARPA has provided congressional testimony about its Continuous Assistance Program that would “make the individual warfighter stronger, more alert, more endurant, and better able to heal … prevent fatigue and enable soldiers to stay awake, alert, and effective for up to seven days straight without suffering any deleterious mental or physical effects and without using any of the current generation of stimulants.” Potential approaches include the use of transcranial magnetic and electrical stimulation to activate brain pathways and to enhance learning (Moreno 2006, pp. 11, 118). Lab mice that have been altered as embryos with extra copies of a memory-related gene “learn more quickly and remember things longer than normal mice … and the improvement was passed on to offspring” (Sandel, in Savulescu and Bostrom 2009, p. 74). In the meantime, the military relies on more conventional stimulants, and the results might give pause to planners considering more radical medical interventions. B-1 bomber pilots who operate 19-h flights between the Persian Gulf and United States take Dexedrine, an amphetamine known as speed or “go pills.” One such pilot, who subsequently went drinking with buddies before attacking them in a fit of paranoid delusions in which he seemed to believe he was in the television series 24, was acquitted by a court-martial after military psychiatrists concluded that he suffered from a “substanceinduced delirium” (Murphy 2012). American pilots who killed Canadian soldiers in a 2003 friendly fire incident in Afghanistan had also been on Dexedrine during 30-h missions (Moreno 2006, p. 115). Another DARPA neural program with battlefield applications is Silent Talk, which would develop the capability to communicate without speaking by recognizing the neural signals for specific words. Linked devices would permit troops in the field to recognize the signals for the “intended speech” of at least 100 words commonly used by troops in combat operations (Warwick 2009). Beyond the advantages of silent communication and preventing hostile forces from intercepting messages, such technology would effectively produce electronic telepathy and have a tremendous commercial sector potential for hands-free communication. While Augments would be able to receive more situational information on the battlefield through neural devices, processing it effectively is another matter. Technologies developed through the AugCog and Enabling Stress Resistance projects might alert commanders that individuals are suffering mental or physical exhaustion. Another approach would be to “develop quantitative and integrative neuroscience-based approaches for measuring, tracking, and accelerating skill acquisition and learning while producing a twofold increase in progression in an individual’s progress through stages of task learning.” Reminiscent of the neural training uploads for particular weapons systems and martial arts in the science fiction Matrix films, results would be achieved through the “development of neurally based techniques for maintenance of acquired skills [and on] preferential brain network activation” (DARPA, “Accelerated Learning” 2010). Another program with the goal of “enhancing combat performance” studies the influences of biological clocks on soldier health (DARPA, “Biochronicity” 2013). Other biotechnologies would provide physical enhancements to Augments. The field of biomimetics seeks to mimic useful naturally occurring characteristics in living organisms. For example, ants and spiders can lift loads dozens of times their own weight, and horses can withstand freezing temperatures without thick hair. “Understanding how horses and other animals overcome drastic changes in their environment would be extremely useful. As a measure of the importance of biomimesis, the Army has declared biomimetics one of its Strategic Research Objectives (primary focus areas for basic research)” (Committee 2001, pp.14–15). Already, researchers have developed synthetic genes that repair damaged muscles and improve healthy ones in mice (Sandel, in Savulescu and Bostrom 2009, p. 73). Another project at least at the prototype stage for humans utilizes an electrically charged under suit “focusing on the soft tissues that connect and interface with the skeletal system.” The goal of Warrior Web is “augmenting the work of Soldiers’ own muscles to significantly boost endurance, carrying capacity, and warfighter effectiveness” (DARPA, “Warrior Web” 2013, DARPA, “Warrior Web Prototype Takes Its First Steps” 2013). Power projection Unless the R&D invested in these projects proves futile, the United States Department of Defense is indeed on its way to developing not just super-soldiers, but essentially comic book super-heroes. Mentally and physically enhanced soldiers with access to regenerative medical treatments not available to their enemies will be far from the full extent of the impact of the biotech RMA. One $3 billion program, begun in 2002, is intended to create a “metabolically dominant soldier” who will be enabled by gene therapy to lift up to 800lbs, block pain receptors for days, and “run at Olympic sprint speeds for 15 minutes on one breath of air” (Sokolove 2007). And if neural or cybernetic prostheses and gene therapy do not eventually produce a Captain America, the contributions of other research programs may still permit the fielding of a biomimetic Spiderman: The Z-Man program will develop biologically inspired climbing aids that will enable an individual soldier to scale vertical walls constructed of typical building materials without the need for ropes or ladders. The inspiration for these climbing aids is the way geckos, spiders, and small animals scale vertical surfaces…. The overall goal of the program is to enable an individual soldier using Z-Man technologies to scale a vertical surface while carrying a full combat load. (DARPA, “Z-Man” 2010) DARPA has offered “a proof-of-concept demonstration of a 16-square-inch sheet of Geckskin adhering to a vertical glass wall while supporting a static load of up to 660 pounds” (DARPA, “Z-Man” 2013). This is perhaps the most outlandish example of how biotechnologies are being developed to aid in military power projection capabilities, but it is by no means the only one. Another, completed biomimetic project increased the efficiency of human swimmers by 80% and more than doubled their speed by giving them oscillating foils based on the propulsion mechanisms used by some fish and sea birds (DARPA, “PowerSwim” 2010). And a project to achieve Rapid Altitude and Hypoxia Acclimatization would permit the fielding of troops (perhaps in potential battle zones such as the Hindu Kush or the Himalayas) with “novel pharmacological, biological, and technological approaches to adapt to high altitudes (4000–6000 meters)” (DARPA, “RAHA” 2010). The adoption of biotechnology to enable force projection began during the colonial era, when Europeans discovered that quinine could prevent malaria, thus opening the door for the Scramble for Africa. Shortages of anti-malarial drugs during World War II caused such high morbidity rates among American personnel serving in the Pacific that General Douglas MacArthur remarked that the campaign would be a slow one unless additional measures were taken (Marble 2010). In the twenty-first century, anti-malarial drugs remain a challenge to force projection. Mefloquine, a comparatively affordable anti-malarial also marketed as Lariam, has severe psychiatric side effects, first noted in the Vietnam War. Problems include psychotic behavior, paranoia, and hallucinations. A 2003 report indicated that “Mefloquine use was a factor in half of the suicides among troops in Iraq in 2003 – and how suicides dropped by 50% after the Army stopped handing out the drug.” Its use was also linked to murders and suicides by Special Forces personnel in Afghanistan 2002–2004 (Benjamin 2012). In 2012, Roche Pharmaceuticals, the maker of Lariam, notified the Food and Drug Administration (FDA) that it had been alerted by a physician that a patient with traumatic brain injury taking the drug, presumed to be a serviceman charged in a high-profile massacre of civilians, had committed a homicide involving 17 victims (Ritchie 2013). When difficulties with malaria mounted during the Vietnam War, including transmission back to America, the United States Navy utilized recombinant technology to develop a DNA vaccine to prevent malaria infections. When the program began in the 1990s, the majority of troop deployments, aside from Bosnia, were to malarial regions, and the Plasmodium parasites were the top cause of casualties in Somalia. In tests announced in 1998, research teams were immunized with Plasmodium DNA, with the majority of participants developing T-cells that function as antibodies when confronted with malarial parasites. This development involved the creation of malaria vectors that functioned like common vaccines, potentially opening the way to safer deployments for American Marines (Gillert 1998). The advent of DNA vaccines of this type theoretically allows scientists to develop vaccinations against all known diseases. The Naval Medical Research Institute therefore created a “phage library” for the purposes of developing antibodies to all possible strains of infectious agents (Wang 1998). As the technology is further developed, the militaries of advanced states will increasingly turn to active biotech solutions to biological threats, rather than pharmaceutical prophylactics. However, with defense planners concerned by the possibility of the use of genetically modified bioweapons by rogue and non-state actors, they will also conduct further research into countering genetically engineered vectors that might be created to replace the naturally occurring agents against which American forces are already protected (Department of Defense 1998). DARPA’s (2013) “7 Day Biodefense” program seeks to develop persistent and transient immunities to unspecified pathogens out of the recognition that unfamiliar agents would likely be employed in a major biowarfare attack. Benign uses of Frankenfoods The apparent arrival of the end of germ warfare for military biotech purposes does not portend the resolution of the dual-use dilemma. As the planners of the AMP project note, it is still necessary to work with deadly pathogens if one is to find treatments for them. Another commercial sector field that is experiencing securitization, and is already highly controversial in its own right, is genetically modified food. Called “Frankenfoods” by their vocal detractors and genetically modified organisms (GMOs) by agribusiness, they represent a growing number of plant and animal products that have been the recipients of recombinant engineering to, among other results, increase their yield, improve their flavor, or lengthen their shelf lives. GMOs potentially hold a number of possibilities for military purposes. As far back as 1960, the United States Air Force and Navy funded studies to determine whether ions accelerated plant growth and could thereby feed troops on forward deployments (Krueger et al. 1962). More recently, the Army has initiated programs to develop crops with enhanced levels of nutritional components, built-in vaccines, or edible factors that impart resistance to spoilage (Committee 2001, p. 53). In particular, “functional foods” are expected to reduce logistical demands, which would enable more efficient power projection. Such foods have been modified to provide more than their normal nutritional value. Instead, they can contain nutraceuticals “such as naturally occurring antimicrobials that inhibit certain pathogens known to exist in a given operational area. Or foods could be designed with vaccines in them, and an army could be vaccinated quickly and efficiently by distributing genetically engineered food” (Armstrong and Warner 2003). Genetically modified food is also being developed to be highly digestible to reduce the quantity of rations that require transportation, and with biomarkers to distinguish the ingestor as friendly under battlefield or peacekeeping scans (Egudo 2004, p. 14). Future plans call for each soldier to be outfitted with [such] a wearable computer system to provide situational awareness displays, analysis of sensor and targeting data, and communications. [The prototype] is capable of withstanding virtually any environmental abuse, including extended submersion in water … Such devices take an input data block and scan it against stored images. One practical military application is for the rapid battlefield identification of friend or foe. (Armstrong and Warner 2003) The Army Land Warrior Program is scheduled to provide each combat soldier with a wearable computer to assist with the processing of sensor and targeting data, situational awareness displays, and communications. As the use of graphical formats to facilitate the assimilation of information in real time increases, the Army will have a growing need for computer memory capacity on the battlefield. In principle, an optical 3-D memory based on bacteria polymers can store roughly three orders of magnitude more information in the same size enclosure than a two-dimensional optical disk. (Committee 2001, pp. 27–28) These advancements were followed by the use of a single gram of synthetic DNA to store 700 terabytes of data – or the equivalent of 70,000 movies – indefinitely in a transportable freeze-dried form (Ingham 2013). While new biomaterials (incorporating biological organisms or their outputs) must be reviewed and approved by the Federal FDA for safety and efficacy, substances that are merely biomimetic (or “bioinspired”) do not face this hurdle. One such example, developed by the United States National Aeronautics and Space Administration, is the fastener Velcro. In addition to augmenting soldiers by giving them the proportional strength of insects, military planners also hope to endow them with lightweight body armor that absorbs impacts as efficiently as the exoskeletons of mollusks (Armstrong and Warner 2003). “On a strength-to-weight basis, the abalone shell has armor protection capabilities equal to or greater than those of existing materials … When laminated hierarchical structures of biological systems (e.g. the nacre of abalone shell) are mimicked … significant improvements in the composite mechanical properties have been observed” (Committee 2001, p. 43). Imaging and surveillance Enzyme research also entails the development of “bioreceptors” comprised of thin films with photoelectronic properties. Processes recently developed include integrating lightsensitive proteins into optical devices, particularly for laser eye protection, polymerbased batteries, and electromagnetic shielding. Bioreceptors can also detect the presence of selected DNA, which makes them useful in identifying infectious agents (United States Army: New Materials Development Using Biotechnology Process 1998). “A network of biosensors could considerably improve a commander’s view of the battlefield. Some researchers envision soldiers wearing wristwatch-style biosensors that are sensitive to a variety of target molecules. In effect, each solider would become a detection device and warn of a possible biological or chemical attack. Also, such sensors could be used to monitor the health and well-being of entire units” (Armstrong and Warner 2003). But still other efforts have made tremendous progress in reducing the role of humans in collecting data and replacing them with other agents: insects. Although the United States Army may have experimented with mosquitoes as bioweapon delivery systems in the 1960s (Maurer, in Maurer 2009, p. 96); in 2009, DARPA-funded engineers at the University of California, Berkeley, announced that they had developed cyborg beetles that they could direct by remote control. The researchers implanted electrodes into the brains and muscles of two species of beetle, which could then be made to fly and maneuver on command, for use in recover and spying missions (Callaway 2009). DARPA describes its Hybrid Insect MEMS Program as follows: The animal world has provided mankind with locomotion over millennia…. The HI-MEMS program is aimed to develop technology that provides more control over insect locomotion, just as saddles and horseshoes are needed for horse locomotion control … The realization of cyborgs with most of the machine component inside the insect body will provide stealthy robots that use muscle actuators which have been developed over millions of years of evolution. (DARPA, “HI-MEMS” 2010) Prior to the insect agents, DARPA had already created a “roborat,” a rodent controlled by a neural prosthesis via a laptop keyboard so that it could climb stairs and navigate mazes, which Director Goldblatt compared to a child’s remote-controlled car. Further developments included mounted cameras for visual data collection, and prostheses implanted along the rat’s belly so that it would not be observed. The neural prostheses stimulated the rats’ pleasure centers, motivating them on in their tasks, and Moreno (2006, pp. 43–44) notes that there are obvious implications for how such prostheses could be adapted to human subjects as well. Exotic weaponry Whether commanding a fleet of drone bees along with drone aircraft, or a company of super-soldier Augments with the abilities of insects, the United States and its technologically advanced allies and competitors are assuming the capacity to wage conventional warfare and espionage in a manner that will not soon be available to internal or regional adversaries or to non-state antagonists. But it is in the area of novel bioweapons where hegemonic actors stand poised to offer attacks against which their adversaries could mount no possible defense. Currently, many potential lines of research are banned under the terms of the BWC, but even if state actors abide by its terms, private sector breakthroughs will continue to have dual-use capabilities that can be studied. Indeed, some of them have already caused outbursts of political violence internationally. Genetic weapons Until the end of the twentieth century, bioweapons meant pathogens (and possibly animal delivery systems). The biotech revolution, and particularly the ability to sequence and translate entire genomes, has altered that equation. Some state militaries, notably China’s, are already publicly expressing an interest in attacking targets by reordering their bodily functions through what is known in more benign applications as gene therapy. Planners in the United States also note that: The long term implications of genomics will present the Army with opportunities and challenges even in the next decade … The Army can, however, promote development of new products and processes that will be consistent with or specific to its missions and needs. This will require that the Army be fully aware of the synergistic effects of biological tools. (Committee 2001, p. 15) “The goal of gene therapy is to effect a change in the genetic makeup of an individual by introducing new information designed to replace or repair a faulty gene.” This is accomplished by using the same principle employed since the first smallpox vaccination: the use of a harnessed, crippled virus to serve as a “Trojan horse” vector, in this case bearing replacement or supplemental genes to alter cell functioning. Somatic cell therapy affects only the cells of the individual receiving it, and for reasons of ethics and technical feasibility, most therapeutic research has been of this type. But there is also the technique of germline cell therapy, which might “lead to a heritable change that could repair problems for all future generations” (Block, in Drell et al. 1999, pp. 60–62). Although American military planners are bullish on the potential for gene therapy to improve the lots of wounded servicemen in the near future, the technologies are not yet universally acclaimed nor even accepted. The United States Department of Energy (2009) noted that the FDA “has not yet [as of 2014] approved any human gene therapy product for sale. Current gene therapy is experimental and has not proven very successful in clinical trials. Little progress has been made since the first gene therapy clinical trial began in 1990.” This reaction stems in part from the death and illness of several children who had received gene therapies to treat life-threatening chronic conditions. At the same time, however, researchers elsewhere announced that gene therapy safely and successfully restored partial sight to congenitally blind test subjects. The results were accomplished by inserting healthy copies of a missing gene into patient retina cells via a vector manufactured by a private American company called Targeted Genetics (University College of London 2008). Vector-delivered gene therapies remain an emerging biotechnology, but cases such as these demonstrate both that vectors can be used to create significant physical alterations in targets, and that these changes can be deadly. The discovery that viruses can be carried airborne for considerable distances even after the droplets of fluid constituting their transmission media have fallen to the ground provides further evidence that vectors might soon be used to deliver genetic therapies – or maladies – to wide target populations (The Medical News 2007). With the genetic maps of entire organisms now available – the full genome for the plague bacterium was decoded in 2001 – it is inevitable that researchers will develop the means to rewrite specified segments of targeted genes (Preston 2009, p. 296). Direct effect weapons The United States military is currently developing “a set of design and synthesis processes that will enable the specification of a desired function, and be able to rapidly synthesize a protein that performs the function.” Rather than modifying existing proteins, this biotechnology would allow the creation of new proteins based on specific performance objectives (DARPA, “Protein Design Processes” 1998). The field of genetic protein decoding and engineering of this kind is known as proteomics (Committee 2001, p. 15). Understanding the functions of proteins is key to opening entirely new frontiers in medicine – and warfare. Already, researchers have destroyed targeted cancer cells by using engineered nanoparticles to deliver genes only to the tumor and not to healthy neighboring tissue. Once the genes were inserted, they stimulated the production of a protein that selectively destroys the cancer (BBC News 2009). However, proteomics also opens a different avenue of potential development in biotechnological attacks in shifting away from infectious agents to targeting human bioregulators, natural substances in the body that control automatic processes such as blood pressure and immune responses. Alibek (1999) claimed that the Soviet Union pursued this research into “direct effect weapons” in the 1980s to circumvent the BWC. The result would not actually be an illness, but the turning of the body against itself through disruption, and projects along these lines have at least been considered (Huang and Kosal 2008, p. 9, Preston 2009, pp. 313–314). Interfering with some of the body’s neurotransmitters, for example, could cause memory loss, panic disorder, or depression (Dando, in Pearson et al. 2007, pp. 133–134). NATO has listed “chemical technologies that could act on the central nervous system” as “technologies of interest” (Pearson, in Pearson et al. 2007, p. 89). Chinese researchers Guo and Yang (2005) directly addressed the security applications of such efforts in proteomics, arguing: Direct-effect weapons … can cause destruction that is both more powerful and more civilized than that caused by conventional killing methods like gunpowder or nuclear weapons … A military attack, therefore, might wound an enemy’s genes, proteins, cells, tissues, and organs, causing more damage than conventional weapons could. However, such devastating, nonlethal effects will require us to pacify the enemy through postwar reconstruction efforts and hatred control … [W]e could create a microbullet out of a 1 micron tungsten or gold ion, on whose surface plasmid DNA or naked DNA could be precipitated, and deliver the bullet via a gunpowder explosion, electron transmission, or high-pressured gas to penetrate the body surface. We could then release DNA molecules to integrate with the host’s cells through blood circulation and cause disease or injury by controlling genes. Around the same time, an American biodefense expert added that: If one can disrupt unit loyalty through fear or another emotion, the army would cease to exist as a fighting force. Claustrophobia would make soldiers tear off their protective face mask. Fear, thirst, accelerated heart rate, hypermotility of the gut – these would be the desired peptide effects. Delivery would be accomplished using engineered pathogens, and their primary role in biowarfare would be as delivery systems for direct effect weapons rather than the transmission of infectious disease (Moreno 2006, pp. 178–179). The international balance of power With the emergence of advanced biotechnologies, many of which already exist or are being developed for expressly military purposes, the United States holds the potential for achieving a decisive advantage in power projection capabilities beyond the reach of its current adversaries and most of its likely potential competitors. Besides the United States, other actors are expanding their biotech R&D sectors, notably the emerging great powers China and India, where force planners must consider the usage of bioweapons in Asian theaters of combat in both classical and modern times (Clunan et al. 2008). China is developing its military capabilities to become a regional power at the least, and advanced biotechnologies could play a role in this effort. “As the Chinese military expands its power projection capabilities, it will concentrate on creating asymmetrical advantages in the face of superior US conventional technology” (NTI 2003). Chinese military medical researchers have written a number of articles proposing the use of proteomic weapons to engage in non-lethal “precision injury” attacks that could be healed upon enemy surrender as evidence of hegemonic “mercifulness.” Despite the evident offensive strategic potential of such research – one such article is titled “The Command of Biotechnology and Merciful Conquest” – there is still evidence of the constraints of international norms against biowarfare. Indeed, the author claims that biotech warfare approaches “abide by the Biological and Toxin Weapons Convention more effectively, and strike a blow on the traditional bioweapons, therefore welcoming new military progresses and reforms, and changing the notions and civilization level of war” (Guo 2006, pp. 1152–1154). India, with its reliance on the Green revolution to attempt to achieve food sufficiency, has spent the last two decades encouraging the development of agricultural biotechnologies. Many of these advances were facilitated using extensive knowledge of genetic engineering, which in turn provided information on the de novo synthesis of biological agents. Whether such synthesis has actually been done is uncertain. India has made substantial efforts to prepare its military force for a biological attack. In December of 1998, India began to train its medical personnel to deal with the eventualities of such an attack. (NTI 2009) India’s equivalent of DARPA, the Defense Research & Development Organization operates a network of 52 laboratories whose research includes life sciences for military purposes. These include the Defense Institute of High-Altitude Research and the Defense Food Research Laboratory (Department of Biotechnology, Government of India 2013, p. 20). Its reported products parallel those investigated by its American counterparts, including treatments to combat altitude sickness, transgenic crops, and protective polymers for uniforms, although products are frequently described in terms of their commercial rather than strategic potentials (Defense Research & Development Organization 2015). One widely cited potential threat to international security from biotechnology is that, as more actors become involved in research into militarized biotechnology, the threat of dissemination to non-state actors increases through the increased availability of production equipment and available data. Maurer (in Maurer 2009, p. 86) notes that commercially available micronizers are sold that can produce 1–10 μm particles, and in their advertising material, the “companies boast that they can be operated by ‘anyone … in their garage.’” And non-state actors with interests in such technologies have been quite busy utilizing such machinery in the past decade, with individuals referred to as “garage hackers” operating autonomously with small pieces of equipment and biological material that can be purchased from suppliers over the internet (United States House of Representatives 2005, p. 30). Still, because such proliferation occurs over time, and because research by defense establishments will continue during this period, including in biodefense, the most sophisticated uses of biotech will remain in the arsenals of advanced state actors just as they do with conventional armaments today, despite the proliferation of surplus conventional arms. Rather than being the “poor man’s nuclear weapon,” twenty-first-century biotechnology will actually provide a decided asymmetrical advantage to major powers that will complement their superiority in conventional forces. Technologically advanced states will be far more likely to be able to counter classical “germ warfare” like anthrax attacks by rogue states and non-state groups than will be actors bereft of a biotech industry to mount defenses against vectors that introduce engineered viruses, or proteomic weapons that disrupt human bioregulators. Re-evaluating Human Security after the Biotech RMA It might be asked whether, for all the novelty of the particular technologies described, there is anything genuinely qualitatively different from any other technological developments that improved the effectiveness and reach of fighters, going back to clubs and spears. In describing efforts to enhance cognitive functioning, Bostrom and Savulescu (cited in Savulescu and Bostrom 2009, p. 2) ask “How is taking modafinil fundamentally different from imbibing a good cup of tea? How is either morally different from getting a good night’s sleep?” They note that even simple shoes can arguably be called a technological human enhancement over bare feet. Sandel (in Savulescu and Bostrom 2009, pp. 73–74) adds that it is otherness rather than fairness that is the objection to human enhancement in sports because different athletes have different physical capabilities to begin with. Certainly this distinction would apply to states as well. Wheelis (in Pearson et al. 2007, p. 4) argues that there is no real incentive for states to spend billions of dollars in a bid to develop lethal neurotransmitter disruptors when they have effective conventional armaments. He does, however, note the potential power of such technology for purposes of incapacitation. A natural extension would be the use of coercion against the incapacitated (e.g. Tell us where the rebels are hiding and your blood pressure will return to normal). Perhaps the greatest threat to international stability in the genomic age is the international emergence of two classes of humankind, separated by disparities in living conditions far wider than those between the developed and developing worlds today. Described by biologist Lee Silver, this would be “a two-class system with rich, genetically enhanced ‘GenRich’ types lording it over poorer, inferior ‘Naturals,’” on a global scale (Armstrong and Warner 2003). Ultimately, the perception of injustice by the multitude of the have-nots would render such a system unstable (Carr 1964, Bull 2002). What these biotechnologies do not disrupt is order within the international system. In the past, advances in weapons technology have been condemned as immoral in part because the most powerful actors, whether states or rulers, viewed them as challenges to their hegemony. Today, terrorists and rogue states are imputed to have a desire to use bioweapons, meaning to release pathogens against civilian targets, but few outcries have been heard over the legitimacy of the advantages conferred by other biotechnologies upon what are already the strongest actors. In this sense, the biotech RMA is more akin to the development of status quo-reinforcing asymmetric weapons technologies like machine guns, which were not condemned by hegemonic powers, than by potentially status quo-disruptive asymmetric technologies such as chemical warfare (Price 1997, pp. 2–6). While matching advanced technology is a challenge to would-be competitors, it is not an insurmountable one (Quille, in Lewer 2002, p. 45). And it might actually inspire new forms of lower cost asymmetric counter-attacks, as attempts to use model airplanes as drones to attack American targets by would-be terrorists demonstrates. But for now, as with the nuclear club, with their overwhelming edge in both offensive and defensive capabilities, the United States and other advanced industrial nations can rest assured that their military and economic dominance of the international system is in no jeopardy. Biotechnology, often cited as an asymmetric threat to conventional power projection capabilities, is being harnessed by those very militaries as a force multiplier, and their R&D and production capabilities far outstrip those of any possible combination of rogue states and terrorist groups. The biotech RMA is well underway, and states are free to shift their attention from international to internal biological threats. Many of these developments are already occurring without an informed public debate and, indeed, many of the biotechnologies outlined in this paper doubtless seem too fantastical to warrant serious consideration. But just as most of the public and decision- makers would have dismissed the plausibility of atomic weapons before Hiroshima, and were unaware before the invasion of Afghanistan that drones were already in existence, so too are the seemingly far-fetched qualities of advanced biotechnology already manifesting themselves in super-solider planning and budgeting in the United States and elsewhere.

#### Nanotech and cognitive warfare causes dangerous arms racing and machinic warfare.

Stephen Bryen 20, served as a deputy undersecretary of Defense and as the director of the Defense Technology Security Administration, senior fellow at the American Center for Democracy, “Line between warrior and machine blurs as China and U.S. military use artificial intelligence”, <https://www.washingtontimes.com/news/2020/mar/9/line-between-warrior-and-machine-blurs-as-china-an/> //lenox

The arrest of Harvard Professor Charles Lieber for failing to reveal his work for the Chinese is more than alarming. One of the world’s leading experts in nanotechnology, Mr. Lieber contributed to China’s Thousand Talents Program and assisted China in its military arms race with the United States, whether knowingly or not. Americans should be concerned that China is pursuing military nanotechnology solutions, including linking soldiers’ brains directly to computers.

Since at least 2000, when President Clinton proclaimed his National Nanotechnology Initiative, U.S. government agencies have been heavily engaged in nanotechnology research. A significant part of the work has been funded by the Defense Department, and the long-term goal is to create a new kind of warrior linking the human brain to machines, to millions of sensors and to the computer cloud. If successful, the capability of the human brain would be expanded exponentially. For the warfighter, the complete integration of sensors to shooters and near-perfect situational awareness would create a formidable soldier, and if in the hands of an enemy, a highly dangerous adversary.

The American military, especially since the microelectronics revolution, has based its superiority on technology as a force multiplier, permitting the United States to field smaller but much more lethal forces. China is rapidly catching up with the U.S. military, a source of deep worry in Washington.

As more and more military operations begin to rely on artificial intelligence, a field actively pursued by the Pentagon and by the People’s Liberation Army of China, the line between the warrior and machines starts to blur. Connect the human brain directly to the computers and systems making critical calculation, and the character of the war fighter is forever changed, assuming it is possible.

The Defense Department in 2018 published a major study called “Cyborg Soldier 2050, Human/Machine fusion and the Implications for the Future of the DoD.” The study proclaimed :

“… neural implants for brain–computer interfacing would allow for seamless interaction between individuals and secondary assets (machines). This control could be exerted upon drones, weapon systems, and other remote systems operated by an enhanced individual. The enhancement would not simply entail user control of equipment (brain to machine) but also transmission to operator (machine to brain) and human to human (command and control dynamics) to enhance situational awareness as drone, computational analytical, and human information is relayed to the operator.”

While the Defense Department is aiming at 2050, inventor and futurologist Ray Kurzweil sees the mind-machine interface happening by 2030, where he says the 300 million or so “very general” pattern “recognizers” in the brain can be expanded by creating a synthetic neo-cortex linking the brain to the cloud and merging artificial and human intelligence together. This will be achieved by nano-scale brain implants.

Mr. Lieber and his partners were working on exactly this type of technology and received substantial funding from the Department of Defense and many of its agencies. Mr. Lieber and his colleagues were awarded a number of patents, but the most important one appears to be a 2015 patent award called “Systems and Methods for [nano-scale] Injectable Devices.” The idea of the 2015 patent was to inject a nano-scale matrix into the brain and creating a brain interface that could be linked to machines.

Research for this patent was funded by the Defense Department and the National Institutes of Health. The government has certain rights to the invention, according to the patent application.

Mr. Lieber has been accused by the U.S. government of concealing information about the work he was doing in China. In 2015, Mr. Lieber was elected as a foreign member of the Chinese Academy of Sciences.

In 2015, the same year that Mr. Lieber was awarded a patent enabling nanotechnology implants for the human brain, Pentagon officials sounded the alarm about China working on their own cyborg project. Then-Deputy Defense Secretary Robert Work said: “Now our adversaries, quite frankly, are pursuing enhanced human operations, and it scares the crap out of us.”

Cyborg technology is also being commercialized. Elon Musk’s company Neuralink is now entering the animal-testing phase and states that it will start experiments on humans in 2020. Mr. Lieber is one of the consulting scientists at Neuralink. Mr. Musk has invested $100 million of his money in this startup and is raising additional funds.

Whether 2050 or 2030 or in the next few years the first Cyborg Warrior may actually appear. Will it be an American Cyborg or from China? No one knows.

### 1NC – ! – Bioweapons

#### China is sprinting towards development of bioweapons.

Javin Aryan 21, Researcher for the Observer Research Foundation’s Strategic Studies Programme, 6-2-2021, "A look at China’s biowarfare ambitions," <https://www.orfonline.org/expert-speak/a-look-at-chinas-biowarfare-ambitions/>, cy

China’s BW capabilities

In 1999, the US Department of Defense (DoD) assessed China to have, in addition to ballistic and cruise missiles, “a variety of fighters, bombers, helicopters, artillery, rockets, mortars, and sprayers available as potential means of delivery for NBC [nuclear, biological, and chemical] weapons.” In a 2001 report, DoD added that “China possesses an advanced biotechnology infrastructure as well as the requisite munitions production capabilities necessary to develop, produce, and weaponise biological agents.”

Over the years, China is said to have researched potential BW agents—such as the causative agents of tularemia, Q fever, plague, anthrax, eastern equine encephalitis, and psittacosis—and possess the technology to mass-produce most traditional BW agents—including the causative agents of anthrax, tularemia, and botulism. There is also the possibility that China has weaponised ricin, botulinum toxins, and the causative agents of anthrax, cholera, plague, and tularemia. Highly virulent viruses such as SARS, influenza H5N1, Japanese encephalitis, and dengue have been studied at the now infamous Wuhan Institute of Virology as well.

Over the years, China is said to have researched potential BW agents—such as the causative agents of tularemia, Q fever, plague, anthrax, eastern equine encephalitis, and psittacosis—and possess the technology to mass-produce most traditional BW agents

China also seems to be interested in aerobiology. Laboratory-scale aerosolisation experiments with microorganisms have reportedly been conducted, and China itself, in its voluntary confidence-building declarations under the BWC, has listed its research on biological aerosols. Li Yimin, a Chinese biological weapons specialist, has praised BW agent aerosols for their effectiveness over very large areas as well.

Interestingly, in 1993, Beijing declared eight research facilities as having a “national defencive biological warfare R&D programme.” These included vaccine-producing facilities, such as the Wuhan Institute of Biological Products that is used by Sinopharm. Since then, a 2015 study has found 12 facilities affiliated with the governmental defense establishment and 30 facilities affiliated with the PLA to be involved in the research, development, production, testing, or storage of biological weapons. The Wuhan Institute of Virology was not amongst these facilities, though the US has recently determined it to have “collaborated on publications and secret projects with China’s military” and “engaged in classified research, including laboratory animal experiments, on behalf of the Chinese military since at least 2017.”

Even though assessing China’s military capabilities is notoriously difficult due to the level of secrecy and opacity its institutions maintain, a combination of historical records, assessments, and studies provide a view behind the Great Wall. When it comes to China’s BW programme, this view is unsettling. The way forward, however, should not be the proliferation of biological weapons. Instead, it should be their global destruction. Just as it is unwise to interfere with nature, so is weaponising and fighting wars with it. The consequences could be even more disastrous than the ongoing pandemic.

#### Guarantees extinction – defense doesn’t assume cascading effects.

Nura A. Abboud 21, Founder of the Jordanian Society for Microbial Biodiversity, 9-21-2021, "Catastrophic Impacts of Biological Warfare on Biodiversity," <https://www.ecomena.org/impacts-of-biological-warfare-on-biodiversity/>, cy

Biological weapons are considered the most dangerous of all known weapons of mass destruction. They are used to deliberately cause epidemics among humans; destroy the environmental components, including water, air, and soil; and target crops and livestock. Examples of diseases used in biological warfare include anthrax, smallpox, plague, cholera, and avian flu. In addition to the catastrophic effects of biological warfare on the biodiversity and the environment, their danger lies in their low cost and rapid spread, as well as their easy preparation, transport, and use.

Unlike nuclear and chemical bombs, biological bombs are without odor or color and therefore cannot be detected. Additionally, bioweapons are dangerous because of their effects on untargeted organisms in a military attack, and the clinical symptoms they create may be difficult to distinguish from normal diseases. Bioweapon pathogens remain in nature for several years and are able to survive in harsh environmental conditions.

Threat to Natural Resources

Bioweapons spread germs that contaminate air, food, water, and the environment, causing epidemiological diseases for different living organisms.

Air: A wide variety of germs can contaminate air and are used in biological warfare. Fungi are the most common, and they travel by air over long distances to infect healthy plants.

Food: Food contamination is also one of the most powerful methods used to carry out biological warfare attacks. Disease is transmitted either directly to humans through contaminated food or drink or indirectly by hosts.

Water: Water can spread a number of lethal infectious agents as well. For example, one gram of Clostridium tetani poison is able to kill eight million people within six hours.

Threats to Biodiversity

Diseases are one of the main drivers of extinction in endangered species; therefore, disease control is fundamental to preserve biodiversity. Despite the presence of vaccines and drugs for most bioweapons, they may not be available in adequate quantities to cope with an epidemiological disease outbreak.

Biological attacks pose a threat to naturally rare wild plants and animals and to species whose natural habitats have been degraded by human activities. Furthermore, diseases that humans, domestic animals, and domestic plants have been able to develop immunity to can be fatal in wild animals and plants. Bioweapons are not only having direct effects on the genetic biodiversity of indigenous species but also are having direct and indirect catastrophic effects on vital plant and animal communities.

Threats to Animal Biodiversity

Conservation of livestock breeds is essential to maintaining genetic diversity, which in turn is vital to increasing the ability of living organisms to adapt to environmental changes. The danger of bioweapons regarding animal biodiversity is summarized in three main points:

1. The direct impact of diseases on wild species

Some deadly diseases in humans or domestic animals can infect wild animals. For instance, an epidemic destructive impact on endangered species is reflected in the effects of Canine distemper, a natural viral disease that infects wild dogs and wild animals belonging to the same group. Canine distemper was also developed in bioweapon laboratories.

Over the past decade, the spread of this disease has resulted in habitat loss and in the extinction of a large number of wild species in North America. Additionally, it led to the elimination of about one-third of the lion population in Tanzania and had serious impacts on the endangered leopard population.

2. Invasive species

The history of rinderpest in Africa provides a model for predicting the potential effects of lethal diseases on wild species and livestock. In 1887, European colonial armies introduced the rinderpest virus to Africa through imported cattle, which led to a rinderpest outbreak among domestic cattle breeds and wild species, killing an estimated 90–95% of African cattle and buffaloes within three years.

To control the epidemic, African herds and buffaloes have been destroyed in most parts of Africa. Despite efforts to combat rinderpest over the past century, the disease is still strong, and its outbreak in the region occurs frequently.

3. Elimination of animal species, hosts, and vectors

Threatened species may be destroyed in areas that have been subjected to biological attacks with the aim of eradicating the disease. For example, in the United States, programs to control brucellosis in livestock have resulted in killing large numbers of wild animals, including the Bison and the white tailed deer.

Threats to Plant Biodiversity

Microbes can be used in crop destruction. For instance, “Rice blast” is a disease affecting rice and therefore leads to crop destruction and genetic changes in the plant.

Conclusion

The discussion about controlling destructive bioweapons is growing, as they pose a vast danger to both humanity and the environment alike. Any failure to prevent biological attacks can lead to the deterioration of genetic diversity in animals and plants, the extinction of endangered species, and the destruction of human livelihoods and traditional cultures.

## War Now > War Better

### 1NC – Emerging Tech

#### Must act now – new tech developments will undermine second strike

Andrew Futter and Benjamin Zala 21 – Professor of International Politics at the University of Leicester, Honorary Fellow at the Institute for Conflict, Cooperation, and Security at the University of Birmingham, member of the Cyber-Nuclear Threats Task Force run by the US-based Nuclear Threat Initiative; Research Fellow in the Department of International Relations at the Australian National University, tanton Junior Faculty Nuclear Security Fellow at the Belfer Center for Science and International Affairs in the Kennedy School at Harvard University; “Strategic non-nuclear weapons and the onset of a Third Nuclear Age;” February 2021, European Journal of International Security, 6(3), 257-277. doi:10.1017/eis.2021.2

The combined effects of SNNW and the implications for the Third Nuclear Age The move towards a Third Nuclear Age has four significant technological developments, each facilitated by the latest information technology revolution and by enormous shifts in computing, processing, and sensing power. Taken together, these dynamics are continuing to push the policy focus away from nuclear punishment towards non-nuclear denial, blurring the distinction between offence and defence, and creating a more fluid, complex, and potentially dangerous nuclear order.

The first key component of the Third Nuclear Age is the growing perception that strategic forces and population centres could be protected against nuclear attacks with missile defences. While the pursuit of missile defences can be traced back to the 1940s, it has only really been in the last twenty years that the technology has matured to a point whereby interception by conventional hit-to-kill technologies might credibly be deployed against certain types of threats, and that the political debate that surrounds the use of anti-missile defences has become normalised.36 The US, Russia, China and India have all deployed or are in the process of deploying ballistic missile defences.37

The second set of dynamics is the maturation and spread of non-nuclear weapons that might be used to threaten an adversary’s nuclear and associated systems. Historically this was a mission that could only be carried out – or at least was most efficiently carried out – through the use of nuclear weapons. But major advances in precision, tracking, sensing, and processing power has meant that these tasks can now potentially be undertaken with non-nuclear weaponry. In the short term, this raises the possibility of a state conducting, threatening (or at least being misperceived as threatening), a non-nuclear disarming first strike against another, especially against states with smaller and less sophisticated nuclear arsenals (for example, North Korea). It also creates greater chances for states to misperceive that such an attack is imminent. In the medium to long term, it could include all nuclear-armed states. These systems include: various conventional precision/prompt strike weapons, including cruise and boost-glide hypersonic weapons,38 some of which might be capable of targeting mobile missiles;39 new methods of tracking and attacking nuclear-armed submarines,40 long seen as one of the least vulnerable nuclear delivery systems due to their ability to hide in the ocean and remain undetected41 (whereas silo-based missiles and aircraft can normally be located); and counter-space and kinetic and non-kinetic anti-satellite (ASAT) technologies42 (while ASAT are not direct counterforce weapon they pose an indirect threat to nuclear relations, particularly given the reliance of leading nuclear powers on space for early warning, communications, and intelligence surveillance and reconnaissance).43

The third technological driver of the Third Nuclear Age is the emergence of unconventional capabilities that provide new means of defending against or attacking an adversary’s nuclear systems. These include various types of computer network operations (CNOs), or what are often loosely refer to as ‘cyber-attacks’. The challenges posed by CNOs are diverse, and include compromising sensitive nuclear secrets, exaggerating the risks associated with disruption of the nuclear-supply chain, the possibility of interfering with early warning and communications, and the danger that hackers might break into nuclear command and control systems directly.44 But while much of the more popular concern about cyber-attacks and nuclear weapons focus on those that would seek to enable nuclear systems – that is, cause a launch/ explosion – of primary interest to us here are those which seek to disable them – that is, prevent nuclear weapons from being used or reduce confidence that these systems will work as intended when required. These attacks might be carried out directly against nuclear systems – through hacking into command-and-control apparatus and preventing launch orders – or indirectly by interfering with or spoofing early warning systems so that they either see nothing or are bombarded with false attack information. While nuclear weapons systems have always been vulnerable to attackers, as well as open to computer-induced mistakes, these challenges are expanding in the current digital age. In fact, the US has begun planning for the use of cyber-attack capabilities against enemy missile and nuclear systems as part of a full spectrum missile defence or ‘left of launch’ programme.45 Given the intangible nature of these capabilities, they are a grave concern for all nuclear-armed states. In particular, the belief that some systems may not work when needed severely undermines the notion of a secure, second-strike capability.

The fourth element is a new real-time digitised environment in which global nuclear politics will play out, characterised by improvements in the ability to target, track, and monitor an adversary’s nuclear capabilities, increasingly driven by artificial intelligence (AI). Essentially, the latest information technology revolution is changing both the methods and the context within which nuclear operations are managed, and a greater reliance on sophisticated technologies is creating more challenges and risks that must be understood and addressed. The major change here is in the technology available to support non-nuclear operations against nuclear weapons.46 Perhaps most notably the potential to incorporate AI into both weapons platforms and remote sensing for reconnaissance and tracking of enemy nuclear forces or in managing more autonomous weapons systems.47 While AI remains in its infancy, it could be used to help track, locate, and target enemy forces in a way not possible before, and to facilitate greater autonomy in nuclear/SNNW systems and provide better situational awareness.48 More broadly, an ever more pervasive and complex digital context-or ecosystem49-within which nuclear operations are carried out also increases the chances of accidents, miscalculation, and possible inadvertent escalation in the Third Nuclear Age.50 This in turn means that current moves towards nuclear modernisation and greater incorporation of AI are likely to create more problems in the years ahead,51 albeit that the challenge will be different for different actors and systems.

### 1NC – Modernization

#### China’s rapidly modernizing, making escalation inevitable – only striking now avoids extinction.

Tong Zhao 21, senior fellow in Carnegie’s Nuclear Policy, 8-5-2021, "What’s Driving China’s Nuclear Buildup?," <https://carnegieendowment.org/2021/08/05/what-s-driving-china-s-nuclear-buildup-pub-85106>, cy

China’s nuclear arsenal appears to be expanding substantially for the first time in years. Over the past few decades, China had maintained only about twenty silo-based intercontinental ballistic missiles (ICBMs). But recent evidence from independent U.S. experts shows that the country is likely constructing more than 200 new missile silos. China’s current program to modernize and update its nuclear weapons is moving at an unprecedented speed and scale.

This expansion is poised to change China’s traditionally small and mostly land-based arsenal across the board. Besides silo-based ICBMs, China also is building more road-mobile ICBMs and strategic nuclear submarines, even as it introduces air-based nuclear capabilities. The possibility that China could use fissile material produced in civil nuclear facilities to build up its nuclear warhead stockpile has raised further concerns because this would eliminate the biggest constraint on China’s warhead stockpiling capacity. The open-ended nature of this expansion, the abrupt departure from China’s long-standing minimalist nuclear policy, and the lack of any official Chinese confirmation or explanation have all contributed to confusion and suspicions about Beijing’s intentions.

GEOPOLITICS DRIVES CHINA’S MODERNIZATION

For decades, China has worried about how U.S. military capabilities—like missile defense and conventional precision strike weapons—could undermine the credibility of China’s capacity to retaliate against a nuclear attack. New improvements to U.S. capabilities constantly remind Chinese nuclear experts of their nuclear deterrent’s potential vulnerability.

As a result, Chinese experts have consistently agreed that Beijing needs to continue gradually modernizing its nuclear forces. For decades, it appeared that China was not investing in a massive nuclear buildup because its top political leaders believed that the country had other more important priorities—especially at a time when China perceived no immediate external threat. But that era is gone now.

THE CHANGED CALCULUS OF CHINESE LEADERS

Under its current leadership, China’s continued rise is coupled with growing disputes with Western countries over issues like human rights, democratic values, rule of law, and international norms. These developments have led Chinese leadership to conclude that China faces a new geopolitical reality in which Western countries are deliberately creating trouble and making up excuses to demonize and contain China, fearing that the country’s rise could challenge the West’s dominance in the international system. Believing that Western hostility is a result of bigger structural changes in the international system, Beijing feels the only solution is to further consolidate its own power until Western countries acknowledge the new reality—that China’s success and strength are beyond doubt.

Fearing that any weakness would embolden Western countries to destabilize China and threaten its regime’s security, Chinese thought leaders like Hu Xijin (the editor-in-chief of a major state-owned tabloid) stress that it is critical for China to quickly build a much larger nuclear arsenal. Hu argues that a bigger arsenal would make the country’s rivals respect China and exercise more self-restraint when dealing with Beijing.

Hu by no means always represents official Chinese positions on specific policy issues, but his reasoning seems to be striking a chord with the general public. Much more importantly, this line of thinking may also resonate with China’s paramount leader, who has long stressed that China should stand up against perceived Western aggression by showing unequivocal strength and firm determination.

Indeed, shortly after coming to power in 2012, Chinese President Xi Jinping emphasized the importance of the Second Artillery—the Chinese military’s missile branch, which was later upgraded to a full military service and renamed the Rocket Force—as “a strategic pillar of China’s great power status.” During an important national political meeting in March 2021, he directed the military to “accelerate the construction of advanced strategic deterrent” capabilities, which was the strongest and most explicit public instruction on the topic to come from China’s highest-ranking leader. With the country’s national decisionmaking power increasingly concentrated in one person, the current paramount leader’s support for greater nuclear capabilities could go a long way to steer China’s nuclear development policy away from its traditional moderate trajectory.

WHY BEIJING CARES ABOUT THE SIZE OF ITS ARSENAL

During the Cold War, the Soviet Union felt that keeping up with the United States’ nuclear arsenal was necessary for it to achieve real political equality with Washington. Today, similar reasoning seems to be behind China’s nuclear buildup—a belief that the United States won’t drop its hostility against China unless its hand is forced by robust Chinese strategic power. So it seems likely that Beijing is building up its permanent capabilities rather than planning to trade them away as a bargaining chip anytime soon in future arms control negotiations with Washington.

China’s changing perceptions about its geopolitical environment come at a time when decades of fast economic development are giving Chinese leadership the ability to make vast investments in the country’s nuclear forces. For example, China in recent years procured a large number of strategic nuclear submarines of its existing model, the 094 class, instead of building a smaller number of them while the more advanced 096 class is still being developed.

This indicates that China has become more willing to invest in quantity, in addition to its traditional focus on quality. Perhaps this is why China wants to use its unique advantages in large-scale infrastructure and industrial manufacturing to build up its silo-based nuclear capabilities.

THE FUTURE OF U.S.-CHINA ARMS CONTROL

It appears less and less hopeful that the two countries can avoid a nuclear arms race unless they can face and jointly examine their fundamental disagreements—such as their severe geopolitical perception gap. As Washington and Beijing talk past each other, they risk harboring wrong assumptions about how the other party would use nuclear weapons in future conflicts. If so, that will generate new tensions and threat perceptions, risking a downward spiral in overall bilateral security relations.

Unfortunately, these risks are not being adequately examined or understood at all. The recent revelations of new Chinese missile silos are rarely reported by Chinese media. Instead, the country’s most authoritative official media platforms—such as the People’s Daily and China Central Television—have dismissed the revelations by suggesting that the United States is demonizing China and that the so-called missile silos are actually windmills on a wind farm.

There has also been very little discussion about these new developments among Chinese citizens, and more importantly, policy experts. Chinese nuclear experts—who are supposed to contribute to policy debates and deliberations—have so far remained almost completely silent. Most experts do not seem to know what is going on and find it too sensitive to even talk about or debate the new revelations. In fact, a number of Chinese security experts have privately asked me whether the rumored silos are actually windmills—and have seemed rather surprised to hear my personal view that, perhaps, they are not. If facts are scarce and ambiguous, experts in any country will struggle to give the best-informed and most sound policy advice to their political leaders.

The scariest part of this great power competition is that in some places it has led to stricter internal security regulations that greatly discourage even domestic academic discussions on basic factual issues. Direct, candid, and substantive exchanges between U.S. and Chinese experts have also become much harder. As the two societies diverge, they will face even greater challenges to building shared views on factual issues, let alone policy matters.

MORE ESCALATION AHEAD

At a recent public conference panel in China, a senior Chinese nuclear expert made the following observation: when it comes to the nuclear race, the United States and China today are somewhat like the United States and the Soviet Union in the early 1960s. This observation implies that the two countries may be in the early stages of a long, intense nuclear arms race. This expert judged that it might take a major crisis—something of similar severity to the Cuban Missile Crisis—to sober up political leaders enough to make them reflect on the dangers of the current course.

The international community was lucky that the 1962 Cuban Missile Crisis did not become a massive nuclear exchange, which could have destroyed humanity. But luck is never guaranteed. We should not wait to see whether another major missile crisis will save us or destroy us.

### 2NC – Hypersonics

#### Chinese hypersonic development ensures World War 3.

Brandon J Weichert 21, author of Winning Space: How America Remains a Superpower, 10-18-2021, "China’s high-tech weapons out-fly America’s alliances," <https://asiatimes.com/2021/10/chinas-high-tech-weapons-out-fly-americas-alliances/>, cy

Beijing, meanwhile, has been undeterred by these Western machinations.

Contrary to what Washington thinks, China’s primary threat is economic and technological. Its military is starting to achieve parity with the West in key areas. Yet the focus in China for challenging the West continues to be all measures short of war.

While Washington spins its geopolitical wheels enhancing military cooperation with Indo-Pacific powers, Beijing continues to make real investments in technological innovation that will ensure the future belongs to China and not the United States.

Do you want a robust fifth-generation (5G) Internet architecture? Check out Shenzhen. Interested in quantum Internet? Forget Silicon Valley; go to Shanghai. Do you still think the US Defense Advanced Research Projects Agency (DARPA) is leading the world in exotic weapons technology research and development? Well, in the case of hypersonic weapons, you’ll have to turn to Beijing rather than Washington.

In August, it was proved that China, not the United States, has a hypersonic glide vehicle against which the American homeland has no known defenses.

Scorpius was right: Showing strength is useless. Technological advances give a great power strength.

Beijing has cracked the code to American greatness. China, after making oodles of cash by being the world’s sweatshop, has taken that money and judiciously reinvested it into its high-tech R&D sectors. Like the Americans of yesteryear, who told the world they’d get to the moon in a decade with the purportedly limiting technologies of the late 1950s and 1960s, Red China has the guts to try new things.

None of America’s desperate alliance building will mean much if China enjoys a considerable lead in developing an arsenal of hypersonic weapons against which the US military has no viable defense.

Imbalances such as the one that China has displayed against the Americans in hypersonic technology are how world wars start.

What is America’s answer to the next-generation weaponry that China’s high-tech revolution is affording the People’s Liberation Army (PLA)? The controversial, hugely expensive F-35 Joint Strike Fighter? What a joke! Or the boondoggle Zumwalt-class “stealth” warship that, after decades of being in Development Hell, is finally being mothballed? What a waste!

Besides, China has not been deterred by America’s alliance-building in the Indo-Pacific. Instead, Beijing has only gotten more frenetic in its investments in next-generation high-tech R&D. And while China’s economy is slowing, its growth rates are far better than those of the US.

### 2NC – Lasers

#### China is on the brink of developing super lasers – they’ll break the quantum vacuum literally next year.

Dave Makichuk 21, veteran writer and copy-editor with 35 years' media experience, 5-12-2021, "China on brink of laser-matter breakthrough," <https://asiatimes.com/2021/05/china-on-brink-of-laser-matter-breakthrough/>, cy

Nuclear weapons have already shown that it is possible to convert matter into large amounts of heat and light, but doing it the other way around, converting heat and light into matter, is much more difficult — but this is exactly what laboratories in China and the UK hope to achieve.

If the intended objective is reached, it could open up a whole a new branch of physics, called nuclear photonics, full of technological potentialities still unimaginable.

According to a report by Explica.co, The Station of Extreme Light, which China has been developing in Shanghai since 2018, has made significant progress in its goal of manufacturing lasers so powerful by 2023 that they could break through empty space and create matter.

The Extreme Light Station (SEL) is a laser installation designed to produce a laser with 100 petawatts (PW) of maximum power (one petawatt equals one thousand trillion watts), a goal that is expected to be achieved within two years.

Once completed, the laser will be the most powerful on Earth, with a power 10,000 times greater than that of all the electrical networks in the world combined and with an intensity 10 trillion times greater than that of sunlight, the report said.

The laser will be powerful enough to produce matter and antimatter directly from the vacuum of space, allowing us to observe in a terrestrial laboratory the same process that supposedly gave rise to the universe.

This technology is based on the fact that a vacuum is never really empty: it is like a pond filled with pairs of electrons and positrons (particles of matter and antimatter) that occasionally emerge to the surface (existence), although they annihilate each other as soon as they are formed.

A laser could intervene in that process and separate the matter and antimatter particles before they collide, the report said.

You can then get both of them to emit gamma rays and generate more electrons and positrons. That barrage of new particles and radiation could be detected when it acquires sufficient density.

The laser would have thus succeeded in creating particles and antiparticles as if they had arisen out of nowhere: it would demonstrate that light can pull particles of matter and antimatter out of empty space, a phenomenon known as “breaking the vacuum.”

#### That erases all hope for life in the universe.

Sebastian Kettley 21, 6-29-2021, "'Bubble of doom' Cosmologist explains vacuum decay," <https://www.express.co.uk/news/science/1455722/vacuum-decay-of-universe-katie-mack-end-of-the-world-cosmic-death-bubble-evg>, cy

The Universe is going to end one day, that much is certain, though scientists still argue over how it will happen. One theory suggests the world will end in "heat death" - a state in which the Universe becomes too cold to sustain life. Other hypothetical models predict the Universe will literally tear itself apart at the subatomic level in the "Big Rip", driven by dark energy and the expansion of space.

Another interesting theory about the end of the world has been given some credence in recent years after physicists discovered the elementary Higgs Boson particle at the Large Hadron Collider (LHC) at CERN in 2012.

This new model is known as the "vacuum decay" of the Universe, although it is also sometimes called the "Cosmic Death Bubble".

According to this hypothetical scenario, there is an instability in the so-called Higgs Field, which stretches across the entire Universe.

Scientists believe the Higgs Field together with the Higgs Boson interacts with other particles, like electrons or quarks, to give them mass.

And if something were to go wrong with this field, some scientists predict the results would be absolutely catastrophic for the Universe.

Cosmologist Katie Mack described this hypothetical scenario on the FQXi podcast last week where she appeared to promote her book, The End of Everything (Astrophysically speaking).

The book covers all the different ways in which scientists today believe the Universe could end.

Dr Mack said: "Vacuum decay is in some sense the most humane of the ways that the Universe could go out because you would not see it coming so you don't have to be scared of it, you wouldn't feel it happen to you and there would be no tragic aftermath. Everything would just be done.

"The idea behind vacuum decay is that it seems that there's some possibility that the Higgs Field - this kind of energy field that pervades all of space, that's connected to the Higgs Boson to this set up of rules of particle physics - it's possible that this Higgs Field is not entirely stable."

If the Higgs Field truly is unstable, then the field's value could change in some part of the Universe.

If this ever happened, the change would propagate outwards at the speed of light in what Dr Mack described as a "bubble of doom".

This bubble would completely change and rearrange the Universe as we know it, spelling certain doom for all life.

The expert explained: "As it propagates outward and as it collides with things it would put everything into a kind of space where the laws of physics are different, particles don't hold together anymore, maybe everything inside of the bubble collapses into a black hole.

"It's a real big mess and so it's an idea that's been around for a while, that there's a possibility our Higgs vacuum is not stable. It's so-called metastable.

"The idea is that there are different vacuum states possible, where a vacuum state is just the term for, like, the rules of physics in our Universe and those are kind of determined by the Higgs Field.

"And so, if the Higgs Field has a different value in a different vacuum state, we have different rules of the Universe."

If we are living inside of what is called a false vacuum, where it's not the Universe's prefered energy state, then scientists speculate this could occur.

You would see a transition into a "true vacuum" where Dr Mack said "the laws of physics are all different and we all die".

Dr Mack added: "Technically speaking, if it's going to happen, it could happen at any time and that's one of the things that make it an interesting thing to think about.

"It could be this sort of bubble of doom that forms somewhere in space and destroys us all."

But the good news is the chances of this ever happening, if at all, are so slim they are virtually nonexistent.

Some scientists estimate it would take another 20 to 30 billion years for this to happen - about two times more than the present age of the Universe.

### 2NC – Strategic Stability

#### They’re on the *cusp* of second-strike capabilities – it’s now or never!

John A. Tirpak 21, Editorial Director of Air Force Magazine, 11-3-2021, "China’s Nuclear Development Outstrips Predictions; 1,000 Warheads by 2030," <https://www.airforcemag.com/chinas-nuclear-development-outstrips-predictions-1000-warheads-by-2030/>, cy

China is building new nuclear weapons much faster than previously predicted, already has a “nascent nuclear triad,” and will field more than 1,000 nuclear warheads by 2030, according to the Pentagon’s 2021 report on China’s military power, released Nov. 3.

According to a Pentagon briefing paper highlighting changes from the 2020 edition of the report, “the accelerating pace of the [People’s Republic of China’s] nuclear expansion may enable [it] to have up to 700 deliverable nuclear warheads by 2027, … [and] at least 1,000 warheads by 2030, exceeding the pace and size” that the Defense Department previously projected. China is also shifting to a “launch on warning” posture for its nuclear weapons.

In its last report, the Pentagon said China had 200 nuclear warheads and was expected to double that number by the end of the decade, indicating nearly a trebling of its deployment pace in the coming years. Moreover, the new document only captures developments up to December 2020, and its 2021 release was about two months late, the Pentagon said. The pace may have accelerated even further since.

Air Force Secretary Frank Kendall, speaking at AFA’s Air, Space & Cyber Conference in September, foreshadowed the report, saying that, in his view, China is “developing a first-strike capability.”

The Pentagon was not as alarming, saying China’s plan for now is to develop a “credible second-strike” capacity with nuclear weapons, meaning enough could survive a first strike by the U.S. to retaliate with “multiple rounds of counterstrike, deterring an adversary with the threat of unacceptable damage.”

Even at 1,000 nuclear weapons, though, China will not have achieved parity with the U.S. in terms of warheads, according to a senior defense official who briefed reporters ahead of the report’s release.

According to a State Department disclosure in early October, the U.S. has 3,750 nuclear warheads, down from 3,805 a year earlier and 3,822 in 2018. The U.S. inventory has declined due to the decay of the warheads’ plutonium cores and a replacement pace that doesn’t keep up with retirements.

The Pentagon said the People’s Liberation Army Rocket Forces are developing new intercontinental ballistic missiles that will “significantly improve” their overall force, and they will be equipped with multiple independently targeted warheads, necessitating an increase in warhead production.

China is expanding its “capacity to produce and separate plutonium by constructing faster breeder reactors and reprocessing facilities,” the report said.

The PLARF “has commenced building at least three new solid-fueled ICBM silo fields, which will cumulatively contain hundreds of new ICBM silos,” the report noted. Concurrently, China is expanding its inventory of road-mobile DF-26 intermediate-range ballistic missiles, which can strike ground or maritime targets, and in 2020, fielded “its first hypersonic weapons system, the DF-17 hypersonic glide vehicle-capable medium-range ballistic missile.”

In August, China tested a globe-circling hypersonic weapon, which may have been the DF-17.

China has also built up its H-8 bomber force, adding a “nuclear air-launched ballistic missile,” effectively establishing China’s own version of a triad, along with intercontinental ballistic missiles and submarine-launched ballistic missiles.

The PRC also plans to “increase the peacetime readiness of its nuclear forces by moving to a launch-on-warning (LOW) posture with an expanded silo-based force,” the paper said.

There “clearly has been a change” in China’s approach to nuclear weapons, the defense official said. Besides diversifying its nuclear arsenal, China is also expanding the underlying infrastructure needed to make warheads and connect its weapons with a command and control network, he said.

“The nuclear expansion the PRC is undertaking is certainly very concerning to us,” the official asserted. It “raises some questions … They haven’t really explained why they’re doing it, [and] … we’d like to have more insight into their intentions.”

Compared to China’s historic stockpiles, “they’re moving in a direction that substantially exceeds where they’ve been before in numbers and capabilities,” the official said. This “reinforces the importance of pursuing some practical measures for risk reduction.” While China has a “no first use” of nuclear weapons policy, it is “suggesting in some of their professional military writings that maybe that wouldn’t apply” in all circumstances, the official said. Given that, and the shift to a launch-on-warning posture, “That just makes it more important that responsible powers that seek those capabilities … need to have discussions with each other,” he said.

The official declined to say more because the Nuclear Posture Review is ongoing, and the issue of China’s growing nuclear force will be dealt with in the resulting document.

The U.S. has urged China in recent years to participate in joint strategic arms talks with the U.S. and Russia, but China has declined, saying it is not interested. China is signatory to no nuclear arms agreements or protocols.

The report said China fields about 100 ICBMs in different basing modes, including roll-out and road-mobile missiles. It “appears to be doubling the numbers of launchers in some ICBM units.” The PLA is developing a “DF-5C and may be developing a DF-32 ICBM.”

China’s nuclear missile submarine fleet includes six boats, each of which can carry 12 CSS-N-14 (JL-2) sea-launched ballistic missiles. The next generation of SSBN submarine likely goes into production “in the early 2020s.” The new model will likely also have upgraded missiles.

The People’s Liberation Army Air Forces have operationally fielded the H-6N bomber—a derivative of Russia’s Tu-16 Badger bomber—“providing a platform for the air component” of China’s nascent triad. The H-6N force is developing tactics and the aircraft is equipped with an air-refueling probe. It also has a recessed space in the fuselage likely meant “for external carriage of an ALBM believed to be nuclear capable.”

The H-6N can carry six land-attack cruise missiles with a range allowing it to hit targets “in the second island chain” from airfields in the mainland. The H-6K is being equipped with YJ-12 anti-ship cruise missiles to hit targets in the same range, “significantly extending” the Chinese Navy’s reach.

The PLAAF “is also developing new medium- and long-range stealth bombers to strike regional and global targets,” the report said. While this was publicly announced in 2016, “it may take more than a decade to develop this type of advanced bomber,” the Pentagon said.

#### Waiting causes a Chinese race to parity – that collapses strategic stability and east Asian alliances

Bradley A. Thayer 20 (Thayer is professor of political science at the University of Texas, San Antonio, and co-author of “How China Sees the World: Han-Centrism and the Balance of Power in International Politics.” “Get Ready For a New Arms Race: Why Nuclear Strategic Stability Won’t Work With China”, The National Interest, may 21, 2020, https://nationalinterest.org/feature/get-ready-new-arms-race-why-nuclear-strategic-stability-won%E2%80%99t-work-china-156676)

First, while the common estimate of China’s nuclear weapons is approximately three hundred, due to China’s lack of transparency, it is possible that China has significantly more than this estimate. This month, there have been calls within China for expanding its nuclear arsenal to one thousand strategic warheads, to say nothing of nuclear weapons on intermediate-range or other forces. While the United States has taken a “strategic holiday,” the People’s Republic of China (PRC) has used the opportunity to expand their arsenals, as well as cyber and conventional capabilities. When one reflects upon the considerable effort to create strategic systems, as well as cyber and conventional capabilities, inescapable conclusions are, first, that the causes of their expansion is rooted in their own grand strategic objectives of achieving hegemony and, second, the decision to expand their forces was sown long ago. China has used our strategic passivity to expand.  What Reagan’s Secretary of Defense Casper Weinberger said in the Soviet context remains true today: "When we build, they build, when we stop, they build.”  The growth of Chinese arsenals cannot be divorced from other evidence of China’s expansion. They are expanding their bases, for example, in Djibouti and Gwadar, and alliance networks including through the Belt and Road Initiative and “debt diplomacy,” the creation of new international institutions to supplant extant ones, and aggressive intelligence operations.  These measures indicate that China is a non-status quo great power but is a revisionist—and one that seeks change immediately. This bodes ill for strategic stability. Most concerning is that China’s build-up might allow it to race to parity or superiority with the United States, which would result in an intense arms race. China’s actions make it a threat to strategic stability. To maintain strategic stability requires modernizing U.S. strategic systems, including missile defenses, and conventional capabilities.  Not to do so invites a direct and existential strategic challenge to the security of our allies and ourselves. Second, the form of China’s build-up is notable. Always secretive, the Chinese have occluded their nuclear expansion as they do not want to provoke a premature reaction from the United States or its allies. More damning is that the Chinese are secretly “preparing the battlefield” to ensure that they have the ability to damage the United States through other, nonnuclear, means. These nonnuclear avenues of attack include cyber, control of space, supply chain dominance, economic influence, technological mastery of 5G and increasingly artificial intelligence, soft power, and the continued legal and illegal access to America’s knowledge, intellectual property, finance, and technology to facilitate Beijing’s growth. This would ensure the United States could be damaged sufficiently—in effect, a near equivalent of a major nuclear attack—to cause U.S. political leaders to yield in a crisis or limited war without the employment of nuclear weapons. China might launch one or more cyber attacks on the electrical grid and on the ability of the United States to recover and rebuild its electrical grid after a significant cyber attack. This is likely to be a direct attack in the cyber realm but the damage might also be inadvertent due to the unintended consequences of an attack against another target. Moreover, the risks of electromagnetic pulse (EMP) to the U.S. electrical grid is also a possibility. The vulnerability of America electricity to EMP—whether from deliberate EMP attack, cyber attack, or solar activity—and the ability to recover the electrical grid in the wake of an event is an issue that must be solved now.  Third, China rejects arms control in practice and in principle. Thus far, Beijing will not unilaterally reduce or limit its arsenal or enter into arms control talks. That is a worrisome sign and suggests that U.S. assumptions about the causes of stability in a great power relationship are only its own, and not shared by China. A major objective of arms control is that it can promote stability in the relations between states. The state willingly abandons or limits a class of weapons to demonstrate to other actors that its ambitions are limited and it supports strategic stability. By entering an arms control regime, China could show that it accepts the value of arms control and seeks confidence-building measures, which aids stability while demonstrating that China is a status quo power. Fundamentally, it would allow China to signal its peaceful intentions, and, in turn, have an important stabilizing effect on states concerned with China’s increasing power. The fact that China rejects arms control is troubling and suggests, first, it is a revisionist power, and second, that it wants to be unfettered as it expands its arsenal. These developments mean that strategic stability is unlikely to obtain. China is likely to race for superiority, and that is destabilizing, and the United States must ensure this never occurs and must prepare itself for the return of an arms race. Given the PRC’s unprecedented expansion, the United States must respond by modernizing its capabilities to deter them from threatening the homeland, U.S. military, and its alliance commitments. These are critical steps to deter them from the temptation to race to parity or superiority, which could result in the collapse of U.S. credibility and alliances. Lastly, the United States must ensure that its vulnerability to non-nuclear forms of major economic and societal damage to the U.S. homeland is addressed.

#### Nuclear war – East Asia is uniquely escalatory

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Similarly, US alliance guarantees in the Asia-Pacific were designed, in part, to create a climate of security in which Japan could be revived economically without threatening its neighbors, just as the expansion of NATO after the Cold War helped prevent incipient rivalries and territorial irredentism among former members of the Warsaw Pact.41 US alliances keep things quiet in regions Washington cannot ignore, thereby fostering a climate of peace in which America and its partners can flourish. Fourth, US alliances impede dangerous geostrategic phenomena such as nuclear proliferation. As scholars such as Francis Gavin have emphasized, US security guarantees and forward deployments have played a critical role in convincing historically insecure, technologically advanced countries—Germany, Japan**,** Taiwan**,** South Korea, among others—to forego possession of the world’s absolute weapon. In several of these cases, moreover, the United States has used the security leverage provided by alliance guarantees to dissuade allies from pursuing the bomb after they had given indications of their intent to start down that path.42 If, as seems likely, a world with more nuclear powers is likely to be a more dangerous world in which crises more frequently take on a nuclear dimension and the risk of nuclear conflict is higher, then the value of American alliances looms large indeed. In sum, as the framers of the post-World War II order understood, phenomena such as massive instability**,** arms racing, and violence in key regions would eventually imperil the United States itself.

## China Revisionist

### 2NC – Generic

#### China undermines every aspect of the LIO – economic liberalism, multilateral governance, religious freedom.

Jessica Weiss 21, Assistant Professor of Political Science at Yale University and Research Fellow at the MacMillan Center for International and Area Studies; Jeremy Wallace, associate professor of Government at Cornell University with a focus on China and authoritarianism, 2/9/2021, "Domestic Politics, China's Rise, and the Future of the Liberal International Order," https://www.cambridge.org/core/journals/international-organization/article/domestic-politics-chinas-rise-and-the-future-of-the-liberal-international-order/9EBC39D04A8B21FECB2BC7BD4D415C43/share/974fa5ba7c48312e052cb62cbbc3f003279c762e, sg

China’s Persistent Illiberalism and Tensions with the LIO

How do the domestic politics of an authoritarian state such as the PRC affect whether it seeks to engage or reshape the international order as it grows in power and influence? Do the CCP’s ambitions extend beyond changing “the distribution of authority and rights” to challenging the “underlying principles of liberal order,” as Ikenberry asks?28 At a basic level, the PRC is likely to follow the United States in privileging its own domestic interests and relative power within the global hierarchy.29 Yet the PRC is undeniably different from the United States in a number of ways that put it at odds with core principles of the LIO.30 On the one hand, the PRC has been a staunch defender of Westphalian principles of respect for territorial sovereignty as well as the UN charter, the principle of non-intervention, and the present configuration of the UN Security Council (UNSC). The PRC also helped shape, and ultimately signed on to, a more narrow conception of the “Responsibility To Protect” (R2P) principle authorizing international intervention to prevent genocide and crimes against humanity.31 On the other hand, four characteristics of contemporary CCP rule are at odds with the LIO as a rules-based order that privileges democracy, free enterprise, and individual political freedoms.

First, the CCP has emphasized the role of the state over private enterprise, even though it was the introduction of markets and economic liberalization after Mao’s death that unleashed China’s economic miracle. China’s brand of state capitalism —including subsidies, nonmarket barriers, and other preferential policies that have curtailed reciprocal market access—has been responsible for much of the international backlash against China’s trade practices and participation in the WTO. China has also made financial, technical, and infrastructural assistance available to governments that do not meet the liberal political and economic conditions set by traditional lenders.32

Second, the CCP has opposed the elevation of individual political rights and has regarded civil society organizations and transnational nongovernmental organizations (NGOs) and activists with suspicion, fearing that they might challenge the CCP’s domestic rule. In opposing the 1997 Ottawa Treaty banning land mines, for example, the Chinese government viewed the involvement of NGOs in the negotiation of a key document with distrust.33 In the development arena, Chinese loans and grants have also sought to enhance state capacity. As one study of China’s information and communications technology (ICT) investments in Africa noted, other donors typically select the most appropriate actors to advance a particular development objective, “be it a local NGO, a private company, or a specific ministry,” whereas China “has preferred an actor-based approach, seeking to increase the capacity of the state”—including the installation of AI-powered surveillance systems.34

Third, the CCP has demonstrated a clear preference for “rule by law rule of law.” Laws” over “in China have proliferated, but the CCP has redoubled its commitment to using the law to carry out its objectives rather than allowing the law to constrain its discretion.35 On 30 June 2020, following a months-long standoff with a broadly popular movement for the defense of Hong Kong’s freedoms, the PRC National People’s Congress passed a national security law penalizing secession, subversion, organization and perpetration of terrorist activities, and collusion with foreign actors, including acts committed by anyone, anywhere in the world. By operating above the Basic Law, Hong Kong’s mini-constitution, the National Security Law has been widely regarded as ending the “one country, two systems” model that was expected to provide Hong Kong with a “high degree of autonomy” until 2047.36 In response to British accusations that China had violated its commitments under the 1984 Joint Declaration, Chinese Ambassador Liu Xiaoming insisted that China has always upheld its international obligations and that “the copyright of ‘one country, two systems’ belongs to Chinese former leader Deng Xiaoping, not the Sino-British Joint Declaration.”37 As developments in Hong Kong show, the CCP’s willingness to refine and reinterpret its legal commitments indicates that it is unlikely that the CCP will rely heavily on rule-based restraints to legitimize its international leadership.

Fourth, the CCP has promoted a more ethno-nationalist vision of its rule: suppressing expressions of ethnic and religious identity with foreign ties, particularly Islam and Christianity, and appealing to foreign citizens of Chinese descent to love the motherland. This turn toward ethnic nativism rather than civic nationalism raises concerns about the CCP’s willingness to tolerate individual differences and identities38 and respect foreign governments’ sovereignty over their putative citizens. And it feeds doubts that a hegemonic China will want to preserve an interconnected world in which international actors and ideas have opportunities to “penetrate” the leading state and shape its choices in ways that render them more acceptable to other states.39

These attributes suggest that the CCP’s interests fundamentally conflict with the more demanding components of political liberalism, particularly the elevation of individual political rights above state sovereignty. That said, the leaders of post-Mao China have not sought to export a universal ideology or form of government, avoiding an irreconcilable conflict between China’s rise and the defense of democracy.40 As for economic liberalism, there are greater tensions between China’s state-led mode of authoritarian capitalism and the first form of economic liberalism, premised on unfettered domestic markets, free trade between countries, and few constraints on international capital and foreign investment. But a form of re-“embedded” liberalism in which states have discretion to cushion the impacts of free trade could be more compatible with the CCP’s desire for a stronger state role in the economy.41 Finally, with regard to liberal institutionalism—governance via principled multilateralism—China has had a mixed record, working within some institutions to advance its interests (the World Bank, International Monetary Fund [IMF], UNSC, WTO, for example) while flouting others (including the rejection of the International Tribunal for the Law of the Sea [ITLOS] ruling on the South China Sea).42 The CCP’s preference for bilateral negotiations over multilateralism suggests that although China may become an increasingly ambitious stakeholder within existing institutions, its major new international initiatives, such as the Belt and Road Initiative, are unlikely to take the form of self-binding multilateral agreements that limit sovereign discretion.43

#### China is joining international initiatives to destroy the order them from the inside.

Malcolm Jorgensen 20, Research Associate and Lecturer at Leuphana University of Lüneburg and a Non-Resident Fellow of the Kolleg-Forschergruppe, 8/1/2020, "China is overturning the rules-based order from within," https://www.lowyinstitute.org/the-interpreter/china-overturning-rules-based-order-within, sg

Persistent debates over the meaning of the “liberal” or “rules-based” international order demonstrate a point of agreement among scholars and policymakers: the real power of the concept when employed as a metaphor for a disrupted global order.

Less well understood in comparison is the architecture of the order as a hierarchy of rules, with the most authoritative and determinate being the rules of international law at its foundation. That structure demonstrates the flaw in frequent reassurances that China’s contestation of basic rules of international law shows a commitment to work within rather than “overturn” the order. By subverting the meaning of the most foundational rules on which the order is based, China may already be overturning the order from within.

In a recent Lowy Institute analysis, Bobo Lo argues that the “concept of a ‘rules-based international order’ has become increasingly devoid of substance”. The lack of precision as a term of art is unsurprising, with the concept emerging from a forensic construction of hegemonic and therefore previously unstated understandings of global rules, institutions and conventions.

There was little need to name and categorise what was distinctive about global order in the immediate post–Cold War years, when the singularity and longevity of the US-led order seemed to be among its defining features. Moreover, competing formulations of the rules-based order replicate the real forces of shifting geopolitical power and contested liberal values that necessitate interrogation of global and legal order in the first place.

A point of agreement among policymakers is nevertheless evident in recurrent descriptions of “the rules-based international order, including international law and non-binding norms of state of behaviour”. Yet these accounts rarely if ever explain the significance of distinguishing between legal and merely political norms.

The principles expressed by China would refashion law as a tool for imperial power that is inconsistent with any notion of the rules-based order.

The structure of the rules-based order should be thought of as concentric circles of increasingly more authoritative and determinate rules. On the outside are political statements of intent, such as the proposed Code of Conduct between China and members of the Association of Southeast Asian Nations to manage disputes in the South China Sea. The explicitly non-legal character of the agreement facilitates cooperation among parties by lowering the political stakes, but thereby also has neither the binding force of a treaty, nor remedies for a “breach” beyond mere diplomatic protests.

At the core of the rule-based order, in contrast, are treaties and customary rules of international law that meet the stringent criteria states have agreed on to demonstrate consent to be legally bound. These most authoritative rules create a range of state responsibilities, which often include submitting disputes to international courts and tribunals. The Philippines did so successfully in the South China Sea Arbitration by exercising rights enshrined in the United Nations Convention on the Law of the Sea.

More significantly, these rules anchor the entire rules-based order by defining the keystone of state sovereignty and associated powers of rule creation. There are thus real consequences to knowing what are core legal rules properly so-called and what are dependent political norms.

It is here that we can understand the danger in reading China’s challenge to the interpretation and meaning of fundamental principles of international law as support for the order. Lo repeats the claim that there is no evidence of China’s intent “to overturn the global order and impose in its place a Chinese Brave New World”. Ben Scott, Director of the Lowy Institute’s “Australia’s Security and the Rules-Based Order” project, appears to agree that China’s goal is “to refashion rather than overturn the old order”. Finally, John Ikenberry argues that, due in part to the burden of creating new rules and institutions, even if China aspires to “undermine and replace the existing liberal international order, the constraints on doing so are overwhelming”.

Certainly China is not driven by any design to conspicuously rebrand in its own image the global architecture of the UN system, World Trade Organisation rules, or international law itself. Moreover, there is significant agreement among commentators that a rising China’s desire for a commensurately greater role in global governance should, in many cases, be accommodated within existing rules and institutions.

Yet, the distinction between overtly overthrowing the order and upholding the formal structure of global institutions, while divesting them of underlying values and constraints on power, is largely one without a difference.

Nationalistic Chinese interpretations of the UN Convention on the Law of the Sea – the “constitution of the oceans” – are now so incompatible with any recognised understanding of the law that they pose a threat to the very meaning of state sovereignty and thus to the order itself. Self-judging edicts extend not only to specific UNCLOS rules, but to the attempted subordination of multilateral treaties to unilateral declarations of “historic rights” in the South China Sea that are unknown to the law. The principles expressed by China would refashion law as a tool for imperial power that is inconsistent with any notion of the rules-based order. The systemic implications are perhaps finally being recognised, with the US recently announcing the reversal of “eight years of cheek-turning with respect to international law in the South China Sea”.

China’s rhetorical deference to international law masks the more subversive consequence of its actions: redrawing the boundaries between law and politics in a way that overturns foundational parts of the global order from within. The future viability of international law’s authority will lie with the fate of the rules-based order, which will set the structure of power within which legally binding rules can operate.

#### Beijing is actively repositioning economic and governmental priorities towards a new Chinese led order.

TarıK OğUzlu 19, Associate Professor in the Department of International Relations at Bilkent University with a Ph.D. degree in IR, 7/23/2019, "Understanding China's challenge to the international order," https://www.dailysabah.com/op-ed/2019/07/23/understanding-chinas-challenge-to-the-international-order, sg

The liberal world order, which came into being at the end of World War II under American leadership, has been going through a radical transformation in recent years mostly owing to China's spectacular rise. In parallel to its increasing material power capability, China is also posing fundamental challenges to the normative fabric of the liberal world order.

What are the key characteristics of China's challenge to the liberal world order and whether the growing confrontation between the established hegemon, the United States, and the aspiring hegemon, China, will result in the global Armageddon requires serious attention.

For long, U.S.-led international organizations have not only enabled Western actors to materialize their interests across the globe but also perpetuate the core liberal assumption that there is only one route to modernity and development, i.e., the Western way.

Acting as the gatekeepers to the Western international community, such international organizations have long played key roles in the socialization of erstwhile non-Western states into constitutive norms, rules and values of the Western world.

The hope for transformation

Since its opening up to the world economy in the late 1970s, Western powers hoped that China would gradually transform into a responsible stakeholder of the liberal international order and adopt its core values, such as consolidation and promotion of the principles of individual entrepreneurship, democratic way of government, minimum state involvement in the economy, rule of law, free trade, the secularization of societal relations and respect for multiculturalism.

The main reason of such optimism was that China benefited from becoming a part of the capitalist world economy and its double-digit economic development was long made possible by its economic interaction with the U.S.

However, it is now the case that China's adoption of capitalist practices has not paved the way for its liberal democratic transformation and the U.S., under the Obama and Trump administrations, have begun defining China as a strategic rival that needs to be contained. Looking from the American perspective, the "strategy of engagement" has now given way to a "strategy of containment."

At stake now is whether China's evolving approach to liberal international order justifies a radical change in the American approach toward China, away from engagement to containment. At closer inspection, it seems that the maintenance of regional and global stability is still in China's national interests. As of today, particularly given the protectionist trade war that President Trump has waged on China and China's galloping internal challenges, Beijing is not in a position to risk the gains of its ongoing development process by adopting a hardline approach toward the United States and its neighbors.

China has the largest reserves in U.S. dollars and its access to the American market, technology and foreign direct investment is still important for its economic modernization. China does not have the luxury of postponing its transformation into an economy in which Chinese companies produce mainly technology-intensive high value-added goods and domestic consumption increases to such an extent that China's economic development is not negatively affected by recessions and contractions in developed Western economies.

The Chinese economy cannot survive long on the principles of export-led growth and high domestic savings. Besides, an aggressive stance against its neighbors will likely push them further closer to the arms of the United States, thereby tarnishing Chinese attempts at manufacturing soft power.

How to gain a role

China owes its meteoric rise in global politics to its efforts to become a part of the capitalist world economy. Its influence in global politics arises from the intense economic relationships it has developed with many other countries.

China has now become the number one trading-partner of not only its neighbors to the south and east but also many developed countries in the West. China is still the global factory of merchandise goods and it needs to import many raw materials from abroad because it is a resource-poor country.

If China wants to benefit from its growing economic relations with other countries, such as through the Belt and Road Imitative (BRI), the message that Chinese leaders have long been giving should continue to resonate: China's rise also means the rise of others. For China's "no-strings-attached" development aid policy not to be seen imperial, China's economic rise should continue benefiting others as well. The improvement of infrastructural capacities of the countries on which China is dependent on for raw materials and to which China exports goods are in the final analysis in China's national economic interests.

An important characteristic of China's rise also relates to its continental size and huge population. Because size matters in international politics, every small increase in Chinese per capita income will lift many Chinese people out of poverty and increase China's share in the global economy.

Despite the fact the per capita income in China is still less than $10,000, China will likely overtake the United States as the largest economy by no later than the mid-century. Any war with the United States will certainly postpone this to much later.

Challenge to liberal order

China's challenge to the liberal world order closely varies with its civilizational state identity and core values of Chinese society, such as a father-like status of the state in the eyes of people, unitary state identity, territorial integrity, realpolitik security culture, societal cohesion, primacy of family bonds over individuality, primacy of state sovereignty over popular sovereignty, state's unquestioned involvement in economics and social life, primacy of responsible and ethical statesmanship over electoral legitimacy, resolving conflicts through societal mechanisms and trust relationships rather than legal instruments, primacy of hierarchical relations within the society over egalitarianism and primacy of shame culture over guilt culture.

Another key characteristic of China's rise is that despite all counter allegations that Chinese foreign policy has turned out to become more assertive and aggressive over the last decade Chinese leaders seem to have been following a low key foreign policy orientation by avoiding rigid positions on global issues unless core national interests are at stake, such as the status of Taiwan, Tibet, the Uighur region, the South China Sea and the East China Sea.

Chinese leaders also avoid taking global responsibilities. This is a challenge mainly because the costs of maintaining global stability and providing global commons will dramatically increase absent the Chinese contribution. On the other hand, such a reluctant approach to global governance might suggest that China is not resolved to replace the United States as the global hegemon.

China is not openly questioning the established Western liberal order by either forming anti-Western coalitions of states or doing its best to make sure that Western-led international organizations do not operate smoothly.

It is for sure that China, along with many other rising powers, wants to see that its growing ascendance in global politics be accommodated institutionally and peacefully. However, should Western powers decline to accommodate China, the latter will not hesitate to help establish alternative institutional platforms under its guidance, such as the Asia Infrastructure and Investment Bank and the Regional Comprehensive Economic Partnership. China values external democratization of global politics rather than internal democratization of national politics.

The project goal

Today's China is not pursuing a strategy of global hegemony. Defining their empire-state as the Middle Kingdom, Chinese rulers have never adopted an imperial mission whose essential logic was to help transform others in China's image. Despite that they believed in the superiority of their civilization, Chinese rulers have never engaged in an empire-building project whose goal was to bring civilization to barbarians.

The expectation was that others would at some time in the future accept and respect the legitimacy of China's primacy and pay their tributes to Beijing in return for Chinese benevolence and rewarding economic relations. Embracing a benign imperial mindset, today's rulers of China want to make sure that a decentralized imperial order take place, first in East and Southeast Asia, in which China sits at the center and other states respect the superiority of Chinese values as well as China's centrality in their development.

China is against the idea of a universal civilization as well as the practices of setting global standards of human rights. From the Chinese perspective, rules, values and norms are relative and products of different time and space configurations. Similar to other great powers, China hopes that its values and norms are shared by others. However, it does not construct its foreign relations on the basis of a normative understating in that it is China's historical and civilizational mission to project its values abroad.

On the contrary, Chinese leaders appear to believe that the main features of Chinese civilizations have already shaped the dynamics of interstate and transnational relations in East and Southeast Asia and that the more interdependent economic and strategic relations China builds with its neighbors, within the framework of realist Westphalian order, the more leverage Beijing will have over other capitals.

### 2NC - Navy

#### Institutional hijacking, covert influence projects, maritime claims.

Michael Schuman 21, contributing writer at The Atlantic, and the author of *Superpower Interrupted: The Chinese History of the World and The Miracle: The Epic Story of Asia’s Quest for Wealth*, 12/9/2021, "China Wants to Rule the World by Controlling the Rules," https://www.theatlantic.com/international/archive/2021/12/china-wants-rule-world-controlling-rules/620890/, sg

In the U.S. and much of the liberal West, the concept of the “rule of law” is vital to a properly functioning society—the idea (at least in theory) that the law is impartial, independent, and applied evenly and consistently to all, and that it serves to protect the innocent, including from the state. China’s leaders, however, follow the concept of the “rule by law,” in which the legal system is a tool used to assure Communist Party dominance; courts are forums for imposing the government’s will. The state can do just about anything it wants, and then find some helpful language in the “laws” to justify it.

To see these differing perspectives in action, consider the case of Meng Wanzhou, the chief financial officer of the Chinese telecom giant Huawei Technologies, who was arrested in Vancouver in late 2018 on behalf of the U.S. Justice Department, which indicted her for bank fraud. From the American point of view, the case was a matter of law enforcement: The Justice Department accused Meng of lying to a major international bank about Huawei’s business in Iran, causing financial transactions that violated Washington’s sanctions on that country. Prosecutors were vindicated when Meng confirmed the substance of the case in an agreement reached in September that allowed her to avoid a U.S. trial and return to China.

In Beijing, however, the case was never perceived as anything but political. China’s Foreign Ministry deemed Meng’s indictment “a political frame-up … designed to hobble Chinese high-tech.” Thus for Beijing, the case demanded a political solution. In July, when U.S. Deputy Secretary of State Wendy Sherman met with her Chinese counterparts, they handed her two lists of demands that included dropping the case against Meng. Her eventual release was heralded within China as a diplomatic triumph. (Huawei, in a comment attributed to Meng’s lawyer, William W. Taylor, noted that she did not plead guilty, and asserted that “we fully expect the indictment will be dismissed.”)

In a narrow sense, the episode illustrates rival superpowers seeking to pressure each other, just one part of a wider global conflagration. Yet this view misses the larger lesson of the case. Meng’s arrest and subsequent release point to something far deeper and longer-lasting, with the potential to reshape how the modern world works.

For 75 years, the United States has been the world’s self-anointed rule writer and enforcer. Intent on preventing another global bloodletting on the scale of World War II, Washington attempted to craft a world order cemented in shared norms, with international institutions to enshrine and uphold them. Backing it all up was the might of the American military. That order has been imperfect, subject to abuse by an array of countries—America included—but it has kept a lid on big-power conflict, while spreading economic prosperity and democratic principles across much of the globe. It’s an order that, though somewhat tattered, the Biden administration is striving to maintain with, for instance, today’s Summit for Democracy.

But the American monopoly on rule writing is now facing its stiffest challenge since the fall of the Soviet Union. As China rises in stature, Beijing is promoting its own concepts about global governance, development, and international relations, grasping influence at institutions such as the United Nations to infuse these concepts into global discourse, and using its growing wealth and military might to contest the existing norms of the American world system.

Ultimately, this is what the Meng dispute is really about: a widening confrontation between the U.S. and China over who sets the rules on trade and technology, climate change, and public health. Fundamentally, it is about the principles and precepts that guide how countries, companies, and individuals interact on a global scale, a competition over whether the world will be one of the “rule of law” or the “rule by law.”

The main purpose of the West’s original policy of engagement with China was to avoid this very situation. By integrating Beijing into the U.S.-led system, the thinking went, the Chinese leadership would see its benefits and come to support it. On a certain level, the plan succeeded. China has been a major beneficiary of the American order—perhaps the biggest of all. The security, trade, and cross-border investment fostered by the U.S. order propelled China’s rise from poverty, while Beijing eagerly immersed itself in U.S.-backed institutions such as the World Trade Organization.

Yet today, China’s paramount leader, Xi Jinping, appears to consider the U.S. system a constraint on Chinese power. For a proud autocracy, the American order can seem an unfriendly, even threatening place, one where liberal political values reign supreme, and the Chinese form of government is perceived as illegitimate, while Chinese companies and officials are vulnerable to foreign sanction and Chinese ambitions are hemmed in. From Xi’s perspective, it is critical that Beijing rewrite the rules to better suit its interests and, more broadly, those of authoritarian states. Simply, Xi intends to flip the global hierarchy, placing illiberal governments and ideals at its apex.

Xi “wants to dominate the rule of law,” Jerome Cohen, a longtime expert in Chinese law, told me. Xi believes that “you have to have rules that suit the interest of the majority of countries,” and “he sees the Anglo-Americans as being a minority now,” Cohen continued. “That minority should be governed by the autocracies of the world who are amenable to the Chinese point of view.”

The U.S. has faced a similar challenge before, from the Soviet Union during the Cold War. But because China is more integrated into the American order, especially economically, than the Soviets ever were, it presents a more dangerous threat. Beijing is attacking the world order in a pincer movement. From the outside, it markets its ideas, governance, and development model as superior to the West’s; from the inside, it works within the very institutions and networks that bind the U.S. order together.

Take, for instance, the Belt and Road Initiative, Xi’s pet program that finances and builds railways, power stations, and other infrastructure in developing nations. This undertaking is an effort to change the way international development is done by offering an alternative to the established practices of the Western powers and their institutions, such as the World Bank. Beijing’s state banks generally don’t follow the norms on lending to poor nations designed (after much trial and error) by other major creditor countries, nor has China participated in processes to manage that debt, such as the Paris Club. Instead, Chinese lending is based on China’s rules, often with less transparent terms and weaker standards on labor practices, corruption, and environmental protection. Kristen Cordell, a development policy expert, wrote in a 2020 report on Belt and Road that “the willingness of China to abide by international rules and processes for these investments has been secondary to its interest of shaping norms for its favor.”

Meanwhile, China’s inroads at the United Nations show how the country is eating away at the American order from its very core. Beijing is using its influence to promote Belt and Road. It also employs its growing clout to infuse the institution with its own ideological principles on issues such as human rights and state sovereignty. Last year, at the UN’s Human Rights Council, 53 countries sided with China on its controversial imposition of a national-security law on Hong Kong, which allowed authorities to crack down on the city’s prodemocracy movement; at this year’s UN General Assembly, more than 60 members trumpeted China’s position on human rights—essentially, that a nation’s rights violations are none of the world’s business. Taken together, these efforts, a 2019 report by the Center for a New American Security contended, “will hasten the export of some of the most harmful aspects of China’s political system, including corruption, mass surveillance, and the repression of individual and collective rights.”

Elsewhere, Beijing has ignored an international ruling and the protestations of its neighbors over its expansion in the South China Sea, a vital waterway for global trade that it claims is mostly China’s sovereign territory. There, Beijing is effectively attempting to rewrite the standard norms on territorial waters and free navigation, basing its position on China’s purported historical role in the area going back more than 2,000 years to the Han dynasty, and other dubious assertions. To solidify its grip, China has also utilized bullying and threats: Its coast guard harasses other nations’ ships, and its fishing vessels crowd into waters other governments contend they have the right to exploit. Beijing also built man-made islands in the region and stacked them with military installations. The nations that share the South China Sea, all smaller and in some cases poorer, have struggled to hold their own.

And then there is the Meng case. She was ostensibly a private citizen working for an ostensibly private company, but China used the full might of its government apparatus to defend her. Along with raising her case in the meeting with Deputy Secretary of State Sherman and through other channels, Beijing also held two Canadian citizens, the former diplomat Michael Kovrig and the businessman Michael Spavor, who were arrested in China only days after Meng was detained in Canada. The move was widely seen as an attempt to pressure authorities in Ottawa to intervene and short-circuit the extradition process, and the differing treatment of Meng and “the two Michaels” illustrates the gulf in the differing perceptions of the rule of law between the U.S. (and other democracies) and China. While Meng defended herself in public hearings, Kovrig and Spavor faced undefined spying charges in closed-door trials. As the process dragged on, the pair rotted in Chinese prisons while Meng cooled her heels in a Vancouver mansion and indulged in fancy dinners and lavish shopping sprees.

Beijing authorities pretended the affairs weren’t connected, but the truth that the two Canadians were no more than human bargaining chips was laid bare when the pair were immediately released upon Meng’s settlement with the Justice Department. In a postmortem of the affair, Scott Kennedy, senior adviser at the Center for Strategic and International Studies, wrote that “Beijing’s actions reconfirmed the international community’s conclusion that China has no regard for rule of law.

What xi’s world order might look like isn’t clear. He hasn’t elucidated a complete vision for a replacement system. On the surface, the language he proffers to describe the workings of a new order sounds innocuous enough. He talks of a “community of common destiny,” with diplomacy based on “win-win cooperation” and “mutual respect,” in which different social and political systems are accepted. But this is code for a downgrading of democracy. Unlike the current order, in which liberal democracy is held up as the sole legitimate form of governance, Xi’s version would raise authoritarianism to equal, or even superior, status. This would likely result in a world where Washington and its allies can’t decide which states deserve to be sanctioned for the global good, as they define it, one where Chinese executives such as Meng cannot end up in foreign courtrooms for allegedly violating the law. Such a system would suit Beijing’s preference to do business with anybody who wants to buy and trade.

Xi wants to usurp the U.S. role as arbiter of global rights and wrongs, based on an entirely different set of criteria, such as who does and does not support Chinese interests and power. Beijing regularly imposes sanctions of its own on countries it views as a threat to its interests. Australia, for example, has faced severe economic coercion, including effective bans on key exports, for supporting an independent investigation into the origins of the coronavirus pandemic, which Beijing considers an attempt to undermine Communist rule. When Lithuania recently cozied up to Taiwan, Beijing downgraded its diplomatic relations and blocked imports from the country.

“It’s really about replacing a rule-of-law, equality-between-states system with a hierarchical sensibility that privileges authoritarianism,” Matt Pottinger, chair of the China program at the Foundation for Defense of Democracies and deputy national security adviser in the Trump administration, told me. If Beijing succeeds, he added, “the international order would be far more Machiavellian, and the UN system would reward the most Mafia-like players.”

That’s bad enough for the U.S., but it’s downright dangerous for countries that aren’t superpowers—which means most of them. These countries seek protection in a rules-based order, one where they can (at least in theory) stand up to bullying from more powerful states by utilizing the rule of law. One reason the government of Australia has taken a hard line on aspects of Chinese foreign policy is its commitment to defending the current order. Former Australian Prime Minister Malcolm Turnbull wrote last year that “it was manifestly in our interests to maintain respect for the rule of law in our region because that was the only way we, and other smaller states, could be sure of preserving our own freedom and sovereignty.”

Confronted by this opposing set of global rules, Washington continues to try to uphold its own. Huawei is still facing Justice Department lawsuits, for theft of trade secrets and racketeering, among other charges. (A Huawei spokesperson said the company “will continue to defend itself” in the latter case but had no comment on the former.) The U.S. Navy routinely sends squadrons through the South China Sea to maintain freedom of navigation, shrugging off apoplectic tirades from Beijing. President Joe Biden has proposed an alternative to China’s Belt and Road Initiative that would strengthen standards of development and lending for needy nations. Washington also looks set to initiate a new regional economic partnership in Asia.

The United States might also consider joining and bolstering agreements such as the Trans-Pacific Partnership. Though considered a trade pact, TPP is, in fact, packed with standards on labor and environmental protections, as well as other key issues for the global economy.

In the end, the U.S. and China will likely never agree on what the global order should be, and they’re never likely to abide by the other’s rules. Ultimately, neither power can fully enforce its version of the rules, either. To a certain extent, they both prefer it that way. “The big powers don’t want impartial independent adjudication of their behavior under prevailing international norms,” Cohen pointed out. “They want to settle things themselves.”

The battle over rules is really about power—which country has it, and which country can project it. The U.S. has held this power for decades; the Chinese now want it for themselves.

### 2NC – Surveillance

#### China will never be incorporated into the LIO – surveillance, censorship, human rights violations

Dan Negrea 22, senior fellow at the Atlantic Council’s Scowcroft Center for Strategy and Security, 1/1/2022, "China is the new evil empire," https://spectatorworld.com/topic/china-new-evil-empire/, sg

History does not repeat itself, but it does rhyme. In the 1980s, the gravest threat to America’s freedoms came from the Soviet Union, which President Ronald Reagan called the Evil Empire. That rhymes with today’s equally serious threat from Communist China, the New Evil Empire.

Xi Jinping rules China with absolute power, like an emperor. He has complete control over China’s sole political party, the CCP, the government, the economy, the military, the police, the judiciary, and the media. Even over religion: Christian churches must display Xi quotes instead of the Ten Commandments.

The CCP has an abhorrent domestic policy rooted in the belief that people’s lives are subordinate to state interests — after all, it still venerates Mao and Stalin, dictators who killed millions of people. Its disregard for human life is apparent in its genocide against the Uyghurs and its coverup of the Covid pandemic’s origin.

Chinese citizens live in an Orwellian techno-surveillance state with police cameras everywhere and complete government censorship of the internet. They must use their mobile phones to study and take exams on the thought of Xi Jinping. They have to follow CCP rules to maintain their social credit scores so that they can be allowed to travel by plane or own pets. Dissidents are persecuted, imprisoned, or killed.

The CCP’s foreign policy is just as reprehensible. Its imperialist, might-is-right ideology was summarized in July 2010 by its then-foreign minister when he demanded that dignitaries at a conference of Asian nations obey China because “China is a big country and other countries are small countries, and that’s just a fact.”

Under this worldview, Xi’s China feels justified to coerce its neighbors. It has had conflicts with almost all of them, and has used its military, economic, and diplomatic power to force compliance.

And Beijing’s aim is to have the entire world do its bidding. Countries as far away as Germany and Sweden have been threatened when they’ve stood up for human rights in China. American companies and individuals, afraid to lose business in China, have had to offer abject apologies for not toeing the CCP line.

There is a disturbing global trend of self-censorship of support for freedom in China so as to not to become a target of the Xi regime’s reprisals.

In global commerce, Xi’s China gives its companies unfair government support and a free hand to use shady practices. Too often, Chinese companies lie, cheat, and steal to win business.

These lawless actions are not mistakes or accidents. They are part of a CCP worldview under which people obey the government, small countries obey big countries, and the whole world obeys the Beijing emperor.

The CCP worldview stands in sharp contrast to the rules-based system that America and the West created at the end of World War II. This system has at its core the inalienable rights of all people to life, liberty and security of person as codified in the Universal Declaration of Human Rights and the sovereign equality of all nations enshrined in the UN Charter.

Communist China’s policies are an existential challenge to the United States and the free world. This is different from the challenge posed by 1980s Japan, which was then trying to become a major economic power. Or the European Union’s more recent challenge to be recognized as an independent power center in a multipolar world.

### 2NC – Ukraine Proves

#### Ukraine proves China is the core threat to the international order.

Tom McTague 22, staff writer at The Atlantic based in London, 4/4/2022, "The Weakness of the Despot," https://www.newyorker.com/news/q-and-a/stephen-kotkin-putin-russia-ukraine-stalin, sg

Defenders of the west have a tendency to gaze wistfully at the past, lamenting how far today’s leaders have fallen. Where America and its allies used to build things, create institutions, and win wars, now they seek only to hold ground, conserve what they have, and escape conflicts.

Such nostalgic longing isn’t hard to understand. Immediately after World War II, Europe was in ruins, its industries and infrastructure destroyed. Without American intervention, much more of Europe could well have fallen under Soviet control. But in the space of a few years, the United States financed Europe’s recovery, committed to its defense, and pushed the continent toward ever-closer union. It was an extraordinary age.

These enormous changes were not simply the result of the leaders of the time coming together. “Men make history, but they do not make it as they please,” wrote Karl Marx. They make it, instead, under the circumstances given to them. At the end of the war, circumstances changed, global power shifted, allowing leaders to do great things. Today, a similar change may be under way—though it’s hard to see anything great resulting from it.

After World War II, the principal security threat to democracy shifted, almost overnight, from Germany to the Soviet Union. And this changed everything. To deal with the new reality, the U.S. realized, Germany—or at least the bit of Germany under Allied control—would need to be rebuilt as a bulwark against the Soviet Union. The prospect of German reindustrialization and rearmament, however, reignited age-old French fears. Traditionally, to address this problem, France would ally itself with Britain. But in 1950, France took a historic leap in the dark, announcing the first step toward economic integration with Germany, laying the foundation for today’s European Union. Now that the U.S. had guaranteed European security, France could transfer its insurance policy from Britain and join with Germany in ways previously thought impossible.

The Soviet threat kept the U.S. in Europe. And the U.S. presence in Europe created the conditions for Europe to unite. Since 1950, the basic tenets of this security order have not changed. American power has guaranteed the security of the West, allowing Europe’s democracies to band closer together. In 1990, when the Soviet threat collapsed, the U.S. did not withdraw this security guarantee, but expanded it eastward, entrenching its hegemony.

In one sense, Russia’s invasion of Ukraine in February appears to have reinforced the foundations of this American order—NATO seems more united, the democracies of Europe and North America are working together to oppose Moscow’s expansionism, and many are ramping up their defense capabilities. Looking at the world more broadly, however, the underlying reality has changed, just as it did after World War II. Today, even as Russia stalks NATO’s border, a new, far larger threat to the American-led order looms farther to the east: China.

Beijing may not seek a world revolution, as the Soviet Union did, but it seeks regional dominance, control of global trade routes, and Taiwan. Its autocratic state-capitalism model offers inspiration to opponents of democracy, and as it has grown in power, it has begun to see Washington and its allies as seeking to constrain its strength.

Indeed, fully understanding the invasion of Ukraine is impossible without considering the geopolitical environment in which it is taking place. Russia is emboldened in its quest to recapture lost influence in Europe partly because of its alliance with China and the calculation that American power is giving way.

In fact, China’s rise challenges the notion of the West itself. Where the Soviet Union posed a direct threat to Western Europe, China threatens America’s liberal democratic protectorates on the other side of the world: Japan, South Korea, Australia, New Zealand, Taiwan, and others. Suddenly to think of the West comprising only the two sides of the North Atlantic no longer makes much sense. If there is a “West” today—a free world allied to the U.S.—it stretches from Western Europe to the Far East and Australasia.

## AT: No China Rise

### 2NC – China First Strike

#### China’s getting ready to first strike us!

David Sanger and William Broad 22, David E. Sanger is a White House and national security correspondent; William J. Broad is a science journalist and senior writer at The New York Times, “As China Speeds Up Nuclear Arms Race, the U.S. Wants to Talk,” <https://www.nytimes.com/2021/11/28/us/politics/china-nuclear-arms-race.html>, cy

The Pentagon thinks Beijing may build 1,000 or more weapons by 2030. But it’s the new technologies that worry strategists.

The United States has no nuclear hotline to Beijing. The two countries have never had an in-depth, serious conversation about American missile defenses in the Pacific, or China’s experiments to blind U.S. satellites in time of conflict.

And Chinese officials have consistently rejected the idea of entering arms control talks, shutting down such suggestions by noting — accurately — that the United States and Russia each have deployed five times more nuclear warheads than Beijing possesses.

President Biden is seeking to change all that.

For the first time, the United States is trying to nudge China’s leadership into a conversation about its nuclear capability. U.S. officials, describing the American strategy, say Mr. Biden and his top aides plan to move slowly — focusing the talks first on avoiding accidental conflict, then on each nation’s nuclear strategy and the related instability that could come from attacks in cyberspace and outer space.

Finally — maybe years from now — the two nations could begin discussing arms control, perhaps a treaty or something politically less complex, such as an agreement on common norms of behavior.

In Washington, the issue has taken on more urgency than officials are acknowledging publicly, according to officials who are involved. Mr. Biden’s aides are driven by concern that a new arms race is heating up over hypersonic weapons, space arms and cyberweapons, all of which could unleash a costly and destabilizing spiral of move and countermove. The fear is that an attack that blinded space satellites or command-and-control systems could quickly escalate, in ways that were not imaginable in the nuclear competitions of the Cold War. China’s capabilities could also pose a threat to President Biden’s hopes of reducing the role of nuclear weapons in American defenses.

In some ways, Washington is focused on the progress of China’s nuclear capability in a way that it has not been since Mao first tested a weapon in 1964.

In his virtual summit meeting earlier this month with Xi Jinping, China’s president, who clearly has sought to present himself as a epoch-defining leader alongside Mao, Mr. Biden raised what the White House has euphemistically called “strategic stability talks.”

In interviews, Mr. Biden’s aides have said the effort is a tentative first step toward a far larger agenda, akin to the initial conversations about nuclear weapons that Russia and the United States held in the 1950s. The starting goal, they insist, is to simply avoid miscommunication and accidental war — even if it never rises to the level of a nuclear threat.

“You will see at multiple levels an intensification of the engagement to ensure that there are guardrails around this competition,” Jake Sullivan, Mr. Biden’s national security adviser, said in a presentation at the Brookings Institution the day after the virtual summit.

The nuclear relationship with Russia, he noted, is “far more mature, has a much deeper history to it.” After the summit meeting between Mr. Biden and Mr. Xi, he added, it is time to begin such conversations with China. “It is now incumbent on us to think about the most productive way to carry it forward,” he said.

In a sense, this is the revival of an old fear in Washington: In 1964, Lyndon Johnson was so worried about the rise of another nuclear rival that he considered, but ultimately rejected, plans to conduct a pre-emptive strike or covert sabotage on China’s main nuclear testing site at Lop Nor.

But China’s decision to maintain a “minimum deterrent” for the past six decades — a nuclear force large enough to assure that it could respond to a nuclear attack, but not nearly the size of America’s or Russia’s — largely knocked its nuclear program off the Pentagon’s list of top threats. Now, its recent moves, from building new missile silo fields to testing new types of advanced weapons, come just as Mr. Biden’s aides are deep into an examination of American nuclear strategy that will be published in coming months.

The review, which every new administration is required to undertake in its first year or so, will contain key decisions — including whether to go ahead with a modernization plan that by the last comprehensive estimate, four years ago, looked likely to cost 1.2 trillion dollars over the next 30 years. The future of those plans has been the subject of furious lobbying campaigns, especially among the nation’s top defense contractors.

Earlier this month the Pentagon concluded that the size of the Chinese nuclear arsenal may triple by 2030, to upward of 1,000 warheads. But the administration’s concern is not just the number of weapons — it is the new technology, and particularly how Chinese nuclear strategists are thinking about nontraditional arms.

When the Chinese launched a hypersonic missile in July, circling the globe once and then deploying a maneuverable glide vehicle that could zig and zag on an unpredictable path and deliver a weapon anywhere on earth, Gen. Mark A. Milley, the chairman of the Joint Chiefs of Staff, declared that the U.S. was “very close” to a “Sputnik moment.” But in the weeks since, American officials have been reluctant to say what, exactly, about that experiment so rattled them — beyond the fact that it revealed a technological sophistication that they did not know the Chinese had achieved.

The hypersonic nature of the missile — meaning it can move at more than five times the speed of sound — was the least interesting element of the test. All nuclear missiles go at least that fast. But the stubby glider it released — which could hold a nuclear warhead — was designed to evade the United States’ primary missile interceptors, which can operate only in outer space. (In recent weeks, the Pentagon issued a contract for design work on technology to intercept the gliders, but that would be years away.)

It’s unclear whether China plans to deploy a hypersonic weapon in the future, and, even if it does, whether they would be armed with nuclear warheads. But General Milley’s deputy, Gen. John Hyten, who is retiring as the vice chairman of the Joint Chiefs, told reporters in October that the Chinese military had conducted “hundreds” of hypersonic tests, compared with nine by the United States.

General Hyten said the test, combined with Beijing’s other moves, such as digging hundreds of new silos for long-range missiles, suggest the Chinese government may now be interested in developing a nuclear first-strike capability, not just the minimum deterrent.

“Why are they building all of this capability?” he asked on CBS News. While it is not clear what Chinese strategists intend, he said, the hypersonic glide vehicle appears to be “a first-use weapon.”

Inside the White House and the Pentagon, there is no unanimity on that point. Mr. Biden has long been wary of assessments that could be intended to drive up the Pentagon’s budget — and certainly American defense contractors, their executive offices jammed with former senior military officers, have a vested interest in describing a new threat that could lead to billions of dollars in new investments.

But even some skeptics agree that the Chinese hypersonic test, along with antisatellite technologies that could blind American early-warning and command-and-control systems, suggest a major rethinking of American nuclear strategy and plans is overdue.

Gen. John Raymond, who commands the newly created United States Space Force, recently told New York Times reporters and editorial writers that in the case of a crisis, he has no direct channel for communicating with his Chinese counterpart — a dangerous situation if, for instance, an accidental collision with a Chinese spacecraft were to be misperceived as an act of aggression.

That appeared to be at the core of Mr. Sullivan’s first concern: establishing lines of communication between the two militaries, of the kind the United States and Russia have had for decades. (He avoided the use of the word “nuclear” in his talk, a reflection of how space, cyberweapons and other high technologies need to be part of the conversation, Mr. Biden’s senior aides say.)

On Capitol Hill, the conversation so far is largely about matching the Chinese investment, rather than rethinking the nature of the arms race.

### 2NC – Economy

#### China is in the process of replacing US as the global economic hegemon

**Corbiscello 21**- (Nick Corbiscello- Graduate from William Paterson University- The National Political Science Honor Society William Paterson. “THE RISE OF CHINA: THE NEW GLOBAL SUPERPOWER” William Patterson University, June 2021, https://www.proquest.com/openview/a3f8e997e50e56eb0ff2695a5f8678da/1?cbl=18750&diss=y&pq-origsite=gscholar)//mishelle

One factor that gives evidence of China’s establishment of economic hegemony is their goal of surpassing the United States as the largest economy in terms of nominal gross domestic product (GDP). I believe that China will surpass the nominal GDP of the U.S. GDP refers to the total value of everything produced in a country, regardless of if its citizens or foreigners produced it (Amadeo 2020, Par. 1). It can be calculated 2 ways: nominal or PPP. China has already surpassed the GDP of the U.S. in terms of purchasing power parity (PPP). PPP refers to the comparison of currencies of different countries through a ‘basket of goods’ approach (Hall 2020, Par. 1). According to the concept, 2 currencies are in equilibrium-when a basket of goods is priced the same in both countries, taking into account the exchange rates (Hall 2020, Par. 1). China is on course to be the world’s largest economy by 2030 (Kennedy 2018, Par. 1). According to U.K. based financial services firm, Standard Chartered, the U.S. will drop to 3rd place in the global ranking of the world’s largest economies, falling behind China and India (Paton 2019, Par. 1). The projections suggest China’s GDP will stand at $26 trillion in 2030, up from $14.1 trillion today (Kennedy 2018, Par. 1). The U.S. will see its GDP rise more slowly to $25.2 trillion from $20.4 trillion (Kennedy 2018, Par. 1). China is in the process of replacing the U.S. as the engine of the global economy, providing by far the largest contribution to growth in recent years and pulling along the world’s smaller economies in its train (Kemp 2019, Par. 1). China accounted for 28% of all growth worldwide in the 5 years between 2013 to 2018 (Kemp 2019, Par. 1). This was more than twice the share of the U.S., according to the International Monetary Fund (Kemp 2019, Par. 1). The IMF predicts China will account for a similar share of growth over the next 5 years between 2019 and 2024 (Kemp 2019, Par. 1). China, India, Indonesia, Russia, and Brazil collectively will account for more than half of all global growth through 2024 (Kemp 2019, Par. 2). There is no scenario where the global economy can achieve healthy growth unless these 5 economies, especially China, see their output and incomes rise strongly (Kemp 2019, Par. 2). Between the 1970s and 1990s, it was common to characterize the U.S. as the locomotive of the world economy (Kemp 2019, Par. 3). U.S. fiscal and economic policy usually played a decisive role in the development of the global economic cycle via trade and financial links to smaller countries (Kemp 2019, Par. 3). The U.S. is still important, and the Federal Reserve still remains at the center of global markets (Kemp 2019, Par. 4). Despite this, the U.S. economy is no longer large enough or growing fast enough to act as the sole locomotive for the world economic train (Kemp 2019, Par. 4). China on its own, and the other major emerging markets collectively, are now more important drivers of the global economy (Kemp 2019, Par. 4). China and the other major emerging markets are themselves increasingly interdependent since China is both a major importer of raw materials and supplier of manufactured products and onward investment (Kemp 2019, Par. 4). China’s cyclical position is also important because its rapidly growing middle class is at the stage of economic development where demand for oil, cars, air travel, tourism and other industries is booming (Kemp 2019, Par. 5).

#### China is growing its economic and military power to exceed the US

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China’s growing economy, growing political influence in the developing world, growing human rights violations, and growing military might show it is a truly rising power meant to compete with the U.S. The United States must face the music that it is not the sole economic, political, and military hegemon of the world anymore. We have re-entered a bipolar world with two competing global powers. Instead of the Soviet Union during the Cold War, it is now China as the main competitor to the U.S. The difference now is that China possesses more resources that the U.S.S.R never had. This competition is quite different and more complex than the U.S. faced during the Cold War. The U.S. must realize this to prevent itself from falling behind. During the Cold War, if a country instituted a political or economic change contrary to American or Soviet interests, the U.S or U.S.S.R would use political/military intervention to reverse it. For China, they are utilizing their economic influence to force political changes in other countries favorable to Chinese interests. To successfully compete with China, the U.S. must use its existing advancements and improve upon them if it wants to successfully compete with the Chinese. In order to compete with China’s broadening economic and geopolitical ambitions, the U.S. needs to articulate a clearer end game for this competition and a corresponding strategy for arriving there (Kroenig 2020, Par. 2)

### 2NC – Modernization

#### US is unprepared for military buildup in China- China’s economic leadership allows them to spend more on military

**Corbiscello 21**- (Nick Corbiscello- Graduate from William Paterson University- The National Political Science Honor Society William Paterson. “THE RISE OF CHINA: THE NEW GLOBAL SUPERPOWER” William Patterson University, June 2021, https://www.proquest.com/openview/a3f8e997e50e56eb0ff2695a5f8678da/1?cbl=18750&diss=y&pq-origsite=gscholar)//mishelle

China also notoriously uses artificial intelligence to track and control its population (Ioanes 2019, Par. 6). It is also betting that AI (artificial intelligence) like autonomous unmanned systems and intelligent robotics are the future both of economic advancement and warfighting (Ioanes 2019, Par. 6). China’s tactic of military and civil fusion also works here, as advancements in the civilian sector will be easily adapted to military capabilities (Ioanes 2019, Par. 6). As China’s economy is the 2nd largest in the world and on the path to overtake the U.S. by 2030, it gives them the ability to spend far more resources on its military than in previous decades (Ioanes 2019, Par. 7). Between 1996 and 2015, China increased its military spending by 620% (Ioanes 2019, Par. 7). China’s Ministry of Finance said the 2019 defense budget was $177 billion (Maizland 2020, Par. 4). However, analysts’ estimates are often higher than what Beijing reports (Maizland 2020, Par. 4). Defense spending increase more than sevenfold, from $31 billion in 1998 to $239 billion in 2018 (Maizland 2020, Par. 4). For much of its history, the PLA relied on foreign military equipment, especially from Russia (Maizland 2020, Par. 5). But in recent decades, the Chinese government invested heavily in state-owned and private-sector defense companies (Maizland 2020, Par. 5). Xi has pushed to reduce barriers between the two, emphasizing what he calls military-civil fusion (Maizland 2020, Par. 5). Much of the PLA’s equipment is now built domestically (Maizland 2020, Par. 5). China is estimated to be the world’s second-largest arms producer, trailing the U.S. and ahead of Russia (Maizland 2020, Par. 5). After decades of primacy and focusing on conflicts in the Middle East, the U.S. is unprepared for the kind of military power China is building (Ioanes 2019, Par. 8). To counter this, the U.S. should study and exploit weaknesses in China’s military strategy (Ioanes 2019, Par. 8). We should also weaken China’s confidence in their own ability to drive the narrative of conflict and weapons developments by showing our own military prowess and understanding of the Chinese strategy (Ioanes 2019, Par. 8). We must also ensure that U.S. technology, strategy, doctrine, and organizations fit together seamlessly to achieve the American desired end state (Ioanes 2019, Par. 8). Despite China’s military buildup, I believe the U.S. will remain on top in terms of military might. The U.S. has historically devoted a larger share of its economy than many of its allies (“U.S. Defense Spending...” 2020, Par. 1). The U.S spends more on national defense than China, India, Russia, Saudi Arabia, France, Germany, U.K, Japan, South Korea, and Brazil— combined (“U.S. Defense Spending...” 2020, Par. 1). Defense spending accounts for 15% of all federal spending and roughly half of discretionary spending (“U.S. Defense Spending...” 2020, Par. 1). China is still in a distant 2nd place when it comes to defense spending. This still does not mean that the U.S. should let their guard down when it comes to military strength. Total discretionary spending—for both defense and nondefense purposes—represents only about 1/3 of the annual federal budget (“U.S. Defense Spending...” 2020, Par. 2). It is currently below its historical average as a share of GDP and is projected to decline further (“U.S. Defense Spending...” 2020, Par. 2).

#### China is increasing its emerging tech to advance its military capabilities

Sameer Patil 22 – (Sameer Patil- Associate Professor, School of Computing, University of Utah. Verified email at utah.edu. Human Computer Interaction (HCI)Usable Privacy, "China’s Military Modernization – Analysis", 7-17-2022, Eurasia Review, <https://www.eurasiareview.com/03042022-chinas-military-modernization-analysis/)//mishelle>

Cyber and space capabilities: China has used the newly established SSF to build advanced space and offensive cyber capabilities. The SSF’s Space Systems Department has consolidated military space functions, including rocket launch, telemetry, tracking, control, satellite communications, space intelligence, surveillance, and reconnaissance.[57] The Network Systems Department has integrated and strengthened signals intelligence, cyber espionage, computer attack, electromagnetic warfare, and psychological operations, making the SSF a formidable offensive force.[58] According to the U.S. intelligence community, China’s cyber espionage operations have included compromising telecommunications firms like Huawei and ZTE, which have provided opportunities for intelligence collection abroad.[59] For instance, in April 2019, telecommunications company Vodafone Group revealed that it had found security vulnerabilities with Huawei equipment deployed for its fixed-line phone network in Italy. These vulnerabilities probably gave Huawei unauthorized access to the carrier’s internet traffic and call data.[60] Likewise, in August 2020, a report from the Australian government and Papua New Guinea’s National Cyber Security Centre noted that the latter’s National Data Centre, built by Huawei in 2018, was marred by weak cybersecurity which exposed confidential government data to theft.[61] Drones and unmanned aerial and underwater capabilities: China has pursued the research and development of drones and unmanned aerial and underwater capabilities with an eye on its benefits during combat and reconnaissance. It has had some notable successes: the PLAAF recently unveiled its largest drone, the WZ-7 “Soaring Dragon” high-altitude, long-range drone.[62] It has also developed and deployed a fleet of underwater Sea Wing drones in the Indian Ocean for naval intelligence purposes.[63] Currently, China is developing a supersonic drone WZ-8 as well as swarming drone capability. Research initiatives like these funded by China’s tech ecosystem that’s blended with the military system ensure that the PLA has the edge over the other militaries in the region and beyond. Software-first dual-use technologies: In similar vein, through fair means and subterfuge, China has made great strides in software-first dual-use technologies like artificial intelligence, deep learning, and facial recognition. Besides, its own laboratories, the PLA has also utilised its domestic technology giants like Alibaba, SenseTime, and Megvii for developing the needed algorithms.[64] The CCP has deployed these technologies for external defence as well as internal security purposes. For instance, many of these companies have been used for targeted facial recognition, artificial intelligence, big data, and genetic testing against its Uighur population in Xinjiang.

## AT: Counterforce Fails

### 2NC – Subs

#### Simple physics proves sub detection.

Katherine Wright 6-14-22, Deputy Editor of Physics Magazine, “Tracking Nuclear Material Aboard Submarines,” Physics Magazine, https://physics.aps.org/articles/v15/s79

Last year, the United Kingdom and the United States agreed to transfer some of their nuclear-powered submarines to Australia, a country that, at that time, possessed none. On hearing the announcement, Bernadette Cogswell and Patrick Huber of Virginia Tech in Blacksburg say that they were immediately concerned as there is currently no easy way to safeguard a nuclear reactor aboard a submarine. Now, the duo has come up with a technique that could solve that problem [1]. They say that the method could be used to confirm the presence of a submarine’s nuclear core without the need for onboard monitoring.

Most naval nuclear reactors employ uranium that is highly enriched fissile uranium-235 ( 235U), a material also used to make nuclear weapons. For land-based reactors, inspectors keep track of 235U using neutrino detectors placed close to an operating core (see Feature: Neutrino Detectors for National Security). But this technique doesn’t work for the water-submerged cores in submarines at sea. It also fails for the weak signals from powered-down cores, allowing operators to subvert checks of docked submarines.

Cogswell and Huber’s technique solves this issue. Even when turned off, nuclear reactors emit antineutrinos due to the decay of 235U fission by-products such as radioactive isotopes of cerium and ruthenium. Cogswell and Huber predict that these antineutrinos, which have lower energies than those emitted by an operating reactor, should be detectable using current technologies from a docked, submerged submarine.

#### New Quantum technology ensures detection.

#### 1. Magnetometers.

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Magnetometers detect anomalies in magnetic fields, such as those caused by a massive piece of metal. Militaries have been using conventional magnetometers to detect magnetic signatures of submarines for decades. Despite continuous efforts towards miniaturization and costeffectiveness,32 however, these remain heavy, expensive and effective only at a relatively short range of less than 10 kilometres. As such, militaries usually pair them with other sensors, like sonars, which “offer longer detection ranges”.33 Magnetic anomaly detection also requires environmental mapping of the Earth’s magnetic field, especially where “variations in seabed magnetism and the presence of sunken ships generate many false alarms.”34 A quantum magnetometer promises an increase in sensitivity over traditional devices by several orders of magnitude.35 Sensitivity defines the detection range. The higher the sensitivity of the quantum magnetometer, the further it can reach into the ocean or the larger its search area can be.36 Among the many quantum magnetometers,37 the so called superconducting quantum interference device (SQUID) is most advanced and matured, and promises groundbreaking ultra-sensitivity.

#### 2. Gravity gradiometers.

Katarzyna Kubiak 20, a Senior Policy Fellow on nuclear and arms control policy. Previously, she was a Transatlantic Post-Doc Fellow for International Relations and Security at the Norwegian Institute for Defence Studies (IFS), an associate at the German Institute for International and Security Affairs (SWP), a research assistant at the Institute for Peace Research and Security Policy (IFSH), a field researcher for the National Consortium for the Study of Terrorism and Responses to Terrorism (START) and a fellow in the German Bundestag. December 2020, “Quantum Technology and Submarine Near-Invulnerability,” European Leadership Network.

Gravity gradiometers can detect anything with a mass that distorts gravitational fields specific to any location on Earth. Taking several minutes to filter out local vibrations, existing tools make surveys extremely slow and expensive. However, future quantum gravity gradiometers have the potential to “cut down the impact of vibration, enabling quicker measurements – potentially in no more than a second.”44 This would allow stability under dynamic conditions and enable scanning the ground from a moving vehicle, a very limited capability by existing technology standards.45

### 2NC – AT: Missed Nukes

#### Even if some nukes survive BMD systems mop up the excess

Erik Slavin 14; Reporting on Japan, Asia-Pacific, US Navy for Stars and Stripes. “On Land and Sea, China’s Nuclear Capability Growing” 8-26-2014, http://www.stripes.com/news/on-land-and-sea-china-s-nuclear-capability-growing-1.299381

Chinese military leaders have contended they are so far behind the United States that their current nuclear posture isn’t an effective deterrent to being attacked. Maj. Gen. Yao Yunzhu, China’s director of the Center of America-China Defense Relations for the Academy of Military Science, explained that position in a letter last year to the Pacific Forum of the Center for Strategic and International Studies, a think tank. “The Ballistic Missile Defense systems that the United States and its allies have deployed, or are planning to deploy, are capable of intercepting residue Chinese nuclear weapons launched for retaliation after it has already been attacked, thus potentially negating the deterrence effect of the Chinese nuclear arsenal,” Yun wrote. Furthermore, U.S. conventional missile strike systems in development could strike China’s nuclear arsenal, “which, if adopted as an official doctrine, would discredit China’s No First Use policy,” Yun wrote. China’s nuclear arsenal is thought to total about 250 warheads, compared with 2,104 operational U.S. warheads and thousands in reserve, according to Federation of American Scientists figures. If Chinese leaders think their stockpile is in danger of being wiped out by U.S. aircraft, missiles and other conventional means during a hypothetical war, it leaves them with two broad options to protect their nuclear capability: strengthen their potential attack, or abandon the no first-use policy in favor of something more threatening. For now, they appear to have chosen the former option. China has built three Jin-class nuclear submarines capable of carrying the JL-2 missile, which has an estimated range of 4,600 miles. “This will give the China its first credible sea-based nuclear deterrent, probably before the end of 2014,” Pacific Command chief Adm. Samuel Locklear said during congressional testimony in March. Although the deterrent is considered credible, its survivability is debatable. Jin-class subs are noisy — noisier than the Russian Delta II-class submarines built 30 years ago, according to an Office of Naval Intelligence report published in 2009. Noise is a submarine killer, and the U.S. has several ways of listening for them. Although China could develop a noise solution, multiple U.S. analysts think that design flaws in the missile compartments and hatches have left the Jin-class fundamentally flawed. China also has no experience with commanding and controlling nuclear-equipped submarines. However, it does have extensive experience with land-based missiles, which are also the only option capable of striking the continental United States after being launched from somewhere near China. “So from that perspective, modernizing the land-based missiles makes some sense,” said Vipin Narang, an associate professor at MIT and author of a recently published book on nuclear strategy. Besides any conventional strikes, a Chinese nuclear response in a hypothetical war would have to overcome three major U.S. defenses: the Aegis ballistic missile defense, significant parts of which are maintained on ships based in Japan and patrolling the Western Pacific; the ground-based midcourse defense; and a high-altitude area defense. The U.S. missile defense has destroyed 65 of 81 targets in tests conducted since 2001, according to the U.S. Missile Defense Agency.

## AT: Draw In

### 2NC – Russia – Overstretch

#### Russia won’t get drawn in

#### 1. OVERSTRETCH. Ukraine will leave Moscow in shambles – even if they do pivot, they’ll be insignificant.

Philip Wasielewski 22, Fellow at the Foreign Policy Research Institute, “The Evolving Political-Military aims in the War in Ukraine After Ukraine,” <https://www.fpri.org/article/2022/06/the-evolving-political-military-aims-in-the-war-in-ukraine-after-100-days/>, cy

Russian war aims have contracted from conquering Ukraine to simply expanding the territory of the statelets it supposedly went to war to protect. By contrast, Ukraine’s war aims have grown from survival to the recovery of all territory lost to Russia since 2014. These uncompromising objectives lock Russia and Ukraine into a war of attrition with little hope of a negotiated settlement. The ongoing battle in Donbas could provide Russia with some tactical successes and a propaganda victory but probably not a strategic one. In fact, further losses could weaken the Russian army to the point that it enables later Ukrainian counterattacks or even causes the Russian army to fracture. Leaders in Moscow may find that a depleted army leaves them few options for victory and that even their superiority in nuclear weapons may not be as useful as supposed.

Introduction

Russia and Ukraine are locked in a bloody war that is hemorrhaging men and materiel at a rate unseen in Europe for over 75 years.[1] The Kremlin’s dreams of quick victories have ended, and the conclusion to the conflict may not come soon. Whenever it’s over, this 2022 war will likely lead to changes on the continent as consequential as those of 1989 or 1945.

This article will attempt to provide the reader an understanding of the war’s current state and a sense of what strategic direction it may take in the near future. Since war is essentially a political action conducted through organized violence, this report will first examine the political objectives of both parties and how changes on the battlefield have morphed into changes of war aims. It will next examine the battle in Donbas and how the tactical fight affects the strategic situation. Two possible radical changes to the strategic situation will be considered: The disintegration of the Russian army and the Russian use of nuclear weapons. This article will conclude with a summary of the war’s possible strategic direction and its growing strategic meaning.

Russia’s Shrinking War Aims

President Vladimir Putin’s personal view of Ukrainian independence has been known publicly for decades. In 2007 he told President George W. Bush that Ukraine was not a real country.[2] Russia’s desire to maintain Ukraine within its sphere of influence led it to pressure then–Ukrainian President Viktor Yanukovych in 2013 to reject an association agreement with the European Union. The agreement was unacceptable to Moscow because it could have led to Ukraine’s eventual integration into the European Union and other institutions of the Western liberal democratic community.[3] When this pressure backfired and led to the Maidan Revolution in 2014, Moscow illegally annexed Crimea and supported armed insurrections in two breakaway Ukrainian oblasts that later renamed themselves the Donetsk People’s Republic and the Luhansk People’s Republic

Eight years of conflict between Ukraine and the separatist republics was paralleled by a Russian propaganda campaign that portrayed Ukraine as a neo-Nazi fascist state and a puppet of NATO; this provided the ideological justification for the war. In July 2021, Putin asserted in a personally written article that Russians, Ukrainians, and Belarusians were one nation. Later, former Russian president and current security council deputy Dmitry Medvedev disparaged Ukraine’s government as illegitimate and claimed that it was senseless for Moscow to negotiate with Kyiv.[4] By the end of 2021, official Russian policy mirrored Putin’s informal remark that Ukraine was not a real country and therefore had no right to exist.

When he started what was euphemistically named a “special military operation” on February 24, 2022, Putin proclaimed Russia’s objectives as the “denazification and demilitarization” of Ukraine. Using templates from Czechoslovakia in 1968 and Afghanistan in 1979, he apparently expected his armed forces and intelligence services to accomplish a coup de main by seizing Kyiv and installing a compliant government of Russian collaborators. Putin presented Russia as an aggrieved party forced into war by a West seeking global dominance and a criminal Ukrainian regime attempting genocide in the breakaway republics, which had just declared independence. He insisted that Russia had no territorial ambitions and that his policy in Ukraine was to free the people of Ukraine who were kidnapped by their own government.[5][6]

However, the Russian offensive quickly stalled and was unable to seize either Kyiv or Kharkiv. By early April, Russian forces were withdrawing from near Kyiv and redeploying to the Donetsk People’s Republic and Luhansk People’s Republic. Once it became clear that Moscow could not achieve its initial war aims, political objectives shrank in proportion to the diminished capabilities of the Russian military. The new course was announced by security council chief Nikolai Patrushev in an April 26 interview with Rossiyskaya Gazeta, the official Russian government newspaper, when he stated that Ukraine’s hatred of Russia would cause it to disintegrate into several states.[7]

To accomplish this, Russia launched an offensive to fully occupy the Donetsk and Luhansk oblasts in eastern Ukraine and began institutionalizing Russian rule in occupied southern Ukraine. Economically, Russian occupation authorities are replacing the Ukrainian currency, the hryvnia, with the ruble; they are replacing Ukrainian textbooks and even teachers with Russian ones; and road signs in Ukrainian are being replaced with Russian signs.[8] Putin has approved a law to provide Russian passports to Ukrainians in occupied territories, the same tactic used to justify making Russian protectorates out of the Donetsk People’s Republic, Luhansk People’s Republic, South Ossetia, and Abkhazia.[9]

Russia is using even more odious methods. Local Ukrainian officials have been arrested by Russian authorities and have disappeared. Tens if not hundreds of thousands of residents have been forcefully removed from their homes, sent to “filtration camps” (first made infamous in the Chechen Wars), and relocated inside Russia. A small number of collaborators provide a domestic face for sham procedures to codify Russian rule, such as “referenda” or “requests” to establish Russian bases on Ukrainian soil.[10]

Tactics such as the arrest and disappearance of indigenous leaders, mass deportations, corruption of the educational and legal systems, replacing identity documents, and magnifying the calls of a few collaborators as examples of “the people’s will” were first used by the Soviets in eastern Poland after September 17, 1939, and then in 1940 to forcibly annex the independent Baltic states into the Soviet Union. These same tactics were perfected between 1944 and 1948 to subjugate Eastern European states under Soviet control.[11] They were revived and adjusted after the fall of the Soviet Union to allow Moscow to support breakaway republics in Nagorno-Karabakh, South Ossetia, Abkhazia, and Transdniestria as means of maintaining leverage over Azerbaijan, Armenia, Georgia, and Moldova. Support to Donetsk People’s Republic and Luhansk People’s Republic separatists in 2014 followed this pattern as well.

These tactics are accompanied by subtle appeals to nostalgia for Russian imperial greatness by reviving terms like “Novorossiya” or reestablishing the Tsarist coat of arms for Kherson oblast.[12] The Kremlin probably hopes that nostalgia for imperial greatness will resonate with the Russian public, as happened after Crimea was seized, so that revised war aims will be seen as worth the costs involved.

What was proclaimed as a quick punitive expedition has been revised into a war to annex as much of Ukrainian territory as possible and, within that territory, to destroy any concept of Ukrainian national identity. This may have been Putin’s real objective for all of Ukraine until resistance made that impossible. Putin’s not-so-subtle remark about Ukraine’s fate before the war, to French President Macron—“like it or not, my beauty, you have to put up with it”—was not just a crude joke about rape, but also a clear insight into his thinking.[13] That type of thinking was foreshadowed almost two millennia ago when the Roman historian Tacitus wrote, “Ubi Solitudinem Faciunt, Pacem Appellant” (Here they have created a desolation, and called it peace).

Ukraine’s Expanding War Aims

Ukraine’s initial war aims were simple: Defend itself, protect the capital and major cities, and survive until Western support arrived. Due to battlefield successes and Russian war crimes, Ukrainian war aims now concern the recovery of territory, both from 2014 and 2022, and the application of justice.

On May 10, Foreign Minister Dmytro Kuleba stated that “In the first months of the war the victory for us looked like the withdrawal of Russian forces to the positions they occupied before February 24 and payment for inflicted damage. Now if we are strong enough on the military front and we win the battle for the Donbas . . . the victory for us in this war will be the liberation of the rest of our territories.”

Kuleba also said only Russia’s defeat would allow Ukraine to reopen its Black Sea ports and revive its export economy. But he also acknowledged that the bloodshed could be too great and that Ukraine might ultimately have to negotiate a settlement. In that event, Kyiv would want to “approach the unavoidable moment with the strongest cards possible.”[14]

A secondary war aim is justice. Russian war crimes have been widespread. Murder, rape, looting, and the deliberate military targeting of civilians have hardened the average Ukrainian against compromise and motivated a strong desire for justice. The widespread nature of these offenses and the Russian government’s unwillingness to enforce military discipline—and worse, awarding a brigade accused of war crimes in the Bucha massacre with a distinguished unit designation of “Guards” for “protecting Russia’s sovereignty”—indicate that these actions are not the result of individual criminality, but an official policy of punishment directed at the Ukrainian people.[15]

With Russia’s objectives to seize as much territory as possible and destroy within it any concept of Ukrainian national identity, and Ukraine’s objectives to restore full territorial integrity and achieve justice for war crimes, there is no current possibility for a negotiated peace. The war will continue until the correlation of military power causes one or the other parties to again adjust their war aims. With a firm understanding of what each side wants to achieve, this article will now examine the fight to achieve it.

The Donbas Cauldron

Terrain and Troops

As of early June 2022, the cockpit of the war is in Donbas (the name comes from the term Donets Basin—the watershed of the Donets River—and consists of the Donetsk and Luhansk oblasts). Specifically, the main fighting is taking place in a rough rectangle formed by the cities of Izium, Barvinkove, Severodonetsk and Lysychansk, and Horlivka. The distance from Izium to Severodonetsk is approximately 50 miles, and from Lysychansk to Horlivka is approximately 35 miles. The front between Russian and Ukrainian forces in this general vicinity is much longer, as it is not a straight line but meanders along rivers, over hills, across fields, and through numerous villages. Within these confines, tens of thousands of Russian and Ukrainian soldiers are conducting the most high-intensity battle in Europe since the fall of Berlin in 1945.

The gentle, rolling, open fields of the Donbas are considered favorable for tank warfare. When the battle began, some predicted that Russia would be able to make quick, deep armored penetrations of Ukrainian lines.[16] Instead, the sides have fought a grinding battle because of the local terrain, the skill of Ukrainian forces to use it to their advantage, and unimaginative Russian tactics. The Donbas has large open areas, but running through the battlefield is the Donets River—also known as Siverskyi Donets—which has proven to be a challenging obstacle to bridge and cross under fire, and the Oskil River, which runs north-south between Izium and Severodonetsk. In addition to these rivers, numerous lakes and reservoirs create natural obstacles to movement. In the central part of the battlefield is the Holy Mountains National Park, containing forested cliffs, bogs, and river valleys. This is part of a northwest-to-southeast-running forest belt between Kharkiv and Severodonetsk. Numerous crossroads towns and villages are found in the region, and urban combat in them has proven difficult, time consuming, and deadly.

The Ukrainian army’s familiarity with the Donbas terrain has helped it stop Russian advances. Ukrainian forces along the line of control with the Donetsk People’s Republic and Luhansk People’s Republic—known as the Joint Force Organization Group—have been dug in for years, know the terrain well, and are Ukraine’s most experienced combat units.

Facing them is the Russian army—or, more precisely, three different groups of Russian forces.

The first group is the elite of the Russian army: paratroopers, naval infantry, Spetsnaz, and private military companies. These all-volunteer formations are Russia’s most effective fighters and still demonstrate the will to advance toward and attack Ukrainian forces. They have also suffered the heaviest casualties. Since all Russian elite forces have been committed, and it takes years to train them, the possibility of regenerating additional elite forces soon is nil.

The regular Russian army, consisting of contract soldiers and conscripts, is the second group. They are plagued with poor morale, leadership, and logistics. Artillery units are demonstrating high professional standards and are the most effective combat arm against Ukrainian units. However, the effectiveness of other combat arms (e.g., tank and infantry) is uneven at best. Many units have been amalgamated into field-expedient combat formations due to high casualties of their predecessors. Their advantage over the Ukrainian army in Donbas is not quality but quantity.

The final group of the Russian army facing their Ukrainian counterparts consists of “auxiliaries” who use Russian arms, uniforms, and equipment but are separate from the Russian military. They include Donetsk People’s Republic and Luhansk People’s Republic militias and Chechen forces loyal to Ramzan Kadyrov. Soldiers from the breakaway republics are true cannon fodder, used to the maximum extent possible in Donbas to minimize Russian casualties. They are often pressed into service, given minimal (if any) training, and are sometimes armed with World War II–era bolt-action rifles. Unmotivated and ill supplied, their offensive capability is questionable. But they may fight well to defend their homes if Ukrainian counterattacks ever enter Donetsk People’s Republic and Luhansk People’s Republic territory. The Chechens, despite their fearsome reputation—or maybe because of it—seem to be used more in the rear as blocking forces to prevent retreats—a similar mission to Soviet secret police (known as the NKVD) units in World War II.

The Tactical Situation

The Battle of the Donbas has been a meat grinder for both sides. Each army is losing several hundred soldiers killed or wounded daily.[17] While the Ukrainian army has conducted a stubborn defense, the Russian army has advanced on the flanks of the exposed Ukrainian salient in Donbas. The easternmost edge of the salient is at the cities of Severodonetsk and Lysychansk, and its flanks are near the towns of Popasna and Dronivka. Russian advances taking Popasna and spreading out across the base of this salient threaten Joint Force Organization units along the Siverskyi Donets River. There has also been Russian progress to the west of this salient in the vicinity of Lyman.

The Kremlin would likely consider further advances requiring the evacuation of this salient and the surrender of Severdonetsk and Lysychansk a major step forward in achieving its political goal of “liberating” all of Donetsk and Luhansk. However, this accomplishes little strategically unless Russian forces encircle and capture tens of thousands of Ukrainian troops. Based on previous Russian rates of advance, the Ukrainians should be able to withdraw in good order if a decision to conduct a tactical retreat is made in a timely manner. Occupying all of Donetsk and Luhansk oblasts up to their administrative borders accomplishes nothing strategically, beyond a short-term propaganda victory, if it does not destroy the Joint Force Organization Group. Furthermore, it does nothing to prevent the flow of Western arms and ammunition into Ukraine to increase the size and capabilities of the Ukrainian army. Therefore, a tactical defeat in Donbas is not a strategic defeat for Ukraine if it is able to preserve a large part of its army or if the ongoing efforts to enlarge and equip its army are successful. It is not a strategic victory for Russia if it ends up destroying its army through high casualties, which cannot be replaced anytime soon, and crushed morale.

The Strategic Situation

The Russian military is expending thousands of lives in Donbas to make incremental, almost World War I–style, advances over terrain that has no real strategic value. Russia is fighting a war of attrition. In the past, Russia and the Soviet Union had the manpower to make this an effective strategy. However, Russia today no longer has the mechanisms to recruit, train, equip, officer, and deploy substantial new military formations.

In early April, I estimated Russia had suffered approximately 10,000 soldiers killed in action (KIA) and a total of 35,000–38,000 casualties. It is still hard to estimate losses, but if Russian killed-in-action figures are now, per British intelligence estimates, roughly 15,000, then total casualties by early June could be approximately 50,000 men.[18]

Who will replace them? The 130,000 Russian conscripts called up on April 1, 2022, are not supposed to go to a war zone (but many will). Putin, probably fearing social unrest, passed up the opportunity on Victory Day on May 9 to declare war and announce a general mobilization of Russian manpower.

Without a general mobilization, how can the Russian army meet wartime requirements and replace its losses? As word of horrible combat conditions reaches the population, recruiting of contract soldiers will suffer. It probably already has, based on the extreme decision to allow up to 50-year-old men to volunteer.[19] Many contract soldiers are already announcing their intention to leave the army or refuse to serve in the “special military operation” that Moscow claims is not a war. Increased conscription cannot make up for recruiting shortfalls in a country where evading military service is practically a national sport.

If enough soldiers are found, who will lead them? Even before the war, Russia was having a difficult time retaining junior officers.[20] In this war, officers of all levels have borne an extraordinary brunt of casualties. Many officer cadets have graduated early to participate in the war. Furthermore, who will train the new soldiers? Basic and advanced training in Russia’s army is done at the individual unit level, but many training officers and noncommissioned officers have already deployed with their units to Ukraine. This leaves limited cadres at home to instruct new conscripts.[21] Metaphorically speaking, the Russian army is eating its seed corn.

If enough enlisted men and junior officers can be found to serve as replacements for the tens of thousands of casualties, can Russia equip them with modern weapons? Equipment losses are catastrophic. The Oryx website, using conservative, thoroughly documented confirmation techniques, estimates that as of the end of May 2022, Russia had lost 741 tanks, 1,342 armored/infantry fighting vehicles, and 27 fixed-wing combat aircraft.[22] Actual losses are likely higher.

Besides these losses, vehicles, airplanes, and helicopters involved in three months of nonstop fighting require major refitting, which is unlikely to happen while combat operations are underway. War can exhaust machines as well as men, and without proper maintenance, existing hardware will become incapable of supporting operations. New replacements for destroyed equipment will not be coming. Russia’s main tank factories have shut down due to sanctions, which have also hobbled its aircraft industry.[23] T-62 tanks have been pulled out of reserve, but half-century-old tanks are no answer to modern anti-tank weapons.[24] Decades of munitions production have been used up in three months, and the decline in the use of guided and cruise missiles indicates that precision-guided weapons are in short supply.[25]

Ukraine is also facing serious military difficulties. It has not concentrated enough forces in Donbas to match Russia’s current quantitative edge, and it too is suffering high casualties. The previous article in early April estimated that Ukraine had suffered approximately 3,100 killed in action and 16,000–18,000 casualties of all types. On April 16, President Zelensky announced that Ukraine had suffered between 2,500 and 3,000 killed in action and an additional 10,000 wounded. Extrapolating from these figures to the present, Ukrainian military KIA figures could be approaching 6,000 men and approximately 25,000 total casualties due to the high intensity of the battles of the Donbas and Mariupol.[26] Per Oryx, Ukraine has lost 186 tanks, 276 armored/infantry fighting vehicles, and 22 fixed-wing combat aircraft, but these again are conservative figures.[27] Attrition warfare is cutting both ways. The winner may be the side that lasts just a moment longer than the other.

There are strategic differences between Russian and Ukrainian losses. Ukraine is in a better position to replenish its losses of men and materiel. It can afford to trade some territory for time to assimilate Western supplies. With incoming weapons from the West and the training of new volunteers, the Ukrainian army will grow in numbers and capabilities, while the Russian army is unlikely to. When ready, Ukraine will have the forces to counterattack. The Croatian army did the same after losing territory in 1992 to Serbian forces. By 1995, with Western tutoring and supplies, Croatia had rebuilt its army and counterattacked, forcing the Serbs out of the Krajina region within a week. Ukraine could play a similar “long game.”

Morale and the Future of the Russian Army

The Russian army will find it hard to replace personnel loses and harder to replace materiel losses. Weapons drawn from dormant Soviet stockpiles will have limited utility against a modern-equipped enemy. Unlike the Ukrainian army, the Russian army is unlikely to increase in size or improve capabilities such as logistics and leadership anytime soon.

Therefore, its morale is unlikely to improve. In April, I examined morale by comparing today’s Russian army against historical indicators for unit cohesion. None of those indicators were positive then, and none are now. Russian army morale issues are now expressed freely in Russian social media. While combat refusals, murdering officers, self-inflicted wounds to avoid combat, etc., happen in every war, there is a point where low morale, combined with ill-discipline, leads to either mutiny or disintegration.

The Russian military has mutinied several times before in its history, from the 1825 Decemberist uprising to the battleship Potemkin, to the events of 1917. Could it realistically happen again?

A few small-sized units have refused to deploy to or fight in Ukraine.[28] Soldiers argue that since the fighting in Ukraine is a “special military operation” and not a war, they are not legally obligated to participate. However, beneath the surface of these complaints are not legal concerns but human ones: high casualties being suffered for a cause that is unjust and strategically unsound. Men in combat have breaking points; militaries as social organizations have breaking points. A Russian commentator has noted that revolts are most prevalent in conscript armies that have a low level of training and have experienced defeat in a protracted war.[29]

This raises the question, How long can the Russian army sustain major losses for minimum gains and still function? There are different ways an army can disintegrate. The Tsarist army mutinied twice in 1917—first in late February, in protest of continuing the war and monarchy, and again later that summer after the ill-fated Kerensky offensive. Soldiers, demoralized by previous defeats, Bolshevik propaganda, and horrible living conditions, revolted against their officers and either deserted or formed revolutionary committees to overthrow the Provisional Government. On the other side of the war, half the French army also mutinied in 1917 after the heavy losses in the Neville Offensive. However, their combat refusals were a sit-down strike and not an insurrection. They would not go on the offensive but would defend France. Sympathetic French leadership, furloughs, and changes to suicidal tactics restored morale.

Since there are three distinct Russian military groups fighting in Ukraine, each could react differently to the same situation. The elites may never revolt or could lead a revolt based on their high casualties. Auxiliaries could emulate the Tsarist army in 1917, while the regular Russian army might react like the French army in 1917. Only time will tell.

Another way an ill-disciplined army with poor morale can fall apart is when attempting to retreat under fire—the most difficult of military actions. If faced with a situation in which the enemy has penetrated deeply into the rear and cut off supplies and avenues of retreat, units can panic and descend into every-man-for-himself anarchy. This could happen if Ukrainian forces were to launch a surprise counteroffensive that quickly reached deep into the rear of Russian-occupied territories. This is a risk on an operational level if Ukrainian forces near Kharkiv counterattacked to seize Kupyansk and destroyed two bridges over the Oskil River, thereby trapping Russian forces in a pocket around Izium. At the strategic level, if Ukrainian forces were able to quickly retake Kherson, cross the Dnepr River, and reach Crimea’s Perekop Isthmus, this would have a stunning effect—similar to the Inchon landings during the Korean War. Seizing the Perekop Isthmus and dissolving Russia’s land bridge to Crimea would make Russian gains along the Sea of Azov for naught and would create a devastating psychological effect by threatening the peninsula.

This is just one possible scenario. After months of heavy casualties, limited successes, and poor logistics, leadership, and morale, any type of strong, sudden, psychological shock to the Russian army could be devastating. This would also have obvious domestic political consequences in Russia. The conventional wisdom behind sanctions has been that by collapsing the Russian economy, popular unrest will force Putin to withdraw his army to save his regime. The Russian economy is ailing, but it is a long way from failing. However, in less time than it takes the economy to collapse, the Russian army may do so. An army that is either unambiguously defeated on the battlefield and disintegrates or mutinies is likely to cause popular and elite unrest over the conduct of the war that will force Putin from power. Social revolt may not be caused by economic deprivation, but rather from outrage at seeing the Russian army defeated.

#### 2. NO MOTIVE. Putin doesn’t care about China and knows he’d get bodied.

Sam Ashworth-Hayes 3/9, former director of studies at the Henry Jackson Society, “In defence of mutually assured destruction,” <https://www.spectator.co.uk/article/in-defence-of-mutually-assured-destruction>, cy

The slow return of the 1980s has reached its logical conclusion. The prospect of nuclear annihilation is haunting our nightmares once again. Vladimir Putin’s invasion of Ukraine has been marked by a willingness to engage in blatant nuclear sabre-rattling of a sort not seen since the end of the Cold War.

From his statement that anyone 'interfering from outside' would 'face consequences greater than any you have faced in history' to his placing Russia’s nuclear forces on 'a special combat duty regime', Putin’s strategy has been to threaten nuclear war to keep the West out of what he sees as his business.

But these threats don't mean that Putin is about to send missiles soaring over Europe at any moment. Nuclear analyst Pavel Podvig believes that the ‘special combat duty’ is nothing more than an elevated state of vigilance rather than an instruction to make Russia’s system ‘ready to fire’. Putin’s words are instead an attempt to disincentivise certain western behaviours.

The question of whether he would actually use these weapons is in some senses irrelevant; what matters is that we can’t be sure he wouldn’t. In much the same way that a bank teller faced with an armed robber is unlikely to push the issue of whether he’s willing to pull the trigger, Nato is unwilling to initiate a potential military conflict.

To carry the analogy forward, two men with loaded weapons would be careful to interact politely and predictably, rather than making aggressive and unexpected motions.

Mutually assured destruction works because both sides believe that the use of nuclear weapons on their part would be met in kind, with any conflict entering an irreversible escalation. Because the rational response to a nuclear launch is a nuclear launch, there is no incentive to engage in one. And because conventional conflict raises the risk of nuclear war if the parties are unbalanced, there is a strong incentive to avoid that too.

In other words, so long as both of our men are sitting with their weapons drawn and loaded, neither wants to fire. Putin himself has observed that nuclear war 'would be a global disaster for humanity' and a thing to avoid, but that if provoked 'I must ask myself: why would we want a world without Russia?'.

Rather than signalling imminent conflict, Putin’s rhetoric is a reminder that we should be aware of this balance. Those concerned about his sabre-rattling can find some comfort in the Russian statement on its nuclear doctrine, which lists the circumstances under which the state would consider using its nuclear weapons: the launch of ballistic missiles targeting Russia, the use of weapons of mass destruction within its territory, conventional forces threatening the existence of the Russian state, or an attempt to ‘decapitate’ Russia’s nuclear forces.

Of course, a degree of ambiguity over when and why these weapons would be used gives the threat of their deployment greater weight, and the existence of a doctrine hasn’t stopped speculation over other circumstances when they might see use. Some analysts – and the 2018 US Nuclear Posture Review – have speculated that Russia could use a strategy of ‘escalate-to-de-escalate’, deploying nuclear weapons or their threat to cement battlefield advantage or terminate a conflict. This is not contained within the Russian strategy document, although suspicious readers could find things to dislike in the phrase 'preventing the escalation of hostilities and their termination on terms acceptable'.

It is the existence of this ambiguity, though, and a desire to avoid accidental escalation that has led Nato to firmly commit to avoiding direct conflict with Russia in Ukraine. And for all the talk, neither Russia nor America has put its forces on standby for imminent use. America has more command and control aircraft making flights, ensuring that its command chains would survive an attempt at a pre-emptive strike. Russia is making sure that its facilities are staffed.

### 2NC – Russia – Military

#### Even if Putin wants to rumble, the military won’t comply.

F24 22, France 24 News, an independent news agency, “Russia's nuclear force, the world's biggest,” <https://www.france24.com/en/live-news/20220228-russia-s-nuclear-force-the-world-s-biggest>, cy

The Russian constitution gives the president control over nuclear weapons, but the transmission of any order to use them, and the authentification of that order, also involve the defence minister and the armed forces' chief-of-staff.

How such a scenario would play out exactly "we don't know", said Pavel Podvig, a Russian independent military expert.

The two subordinates have "no right to veto, but there is still some kind of deliberation process," he said, adding: "It's not like there is a button on the president's table, there is a procedure."

Even if a nuclear strike order should come down, there is still the question of whether the armed forces would comply.

"They are not mad and they are not sectarians," said Pavel Luzin, a Russian military expert based in Moscow at Riddle, a think tank.

Many Russian government officials may well agree with western analysts who say that Russia would have much more to lose than to gain if it unleashed nuclear war.

## AT: Nuclear Winter

### 2NC – No Winter

#### Best scientific models concluded even worst-case scenarios do not produce anything close to a nuclear winter.

Jon Reisner et al 18, scientist at Los Alamos National Laboratory, with Gennaro D'Angelo, Eunmo Koo, Wesley Even, Matthew Hecht, Elizabeth Hunke, Darin Comeau, Randall Bos, James Cooley, February 13, 2018, “Climate Impact of a Regional Nuclear Weapons Exchange: An Improved Assessment Based On Detailed Source Calculations,” JGR Atmospheres Volume 123, Issue 5, https://agupubs.onlinelibrary.wiley.com/doi/full/10.1002/2017JD027331

There have recently been new simulations of a limited nuclear exchange in the India-Pakistan region using modern climate models (e.g., Mills et al., 2014; Stenke et al., 2013) that suggest devastating impacts on climate over a decadal time scale, although somewhat less extreme consequences have also been suggested (Pausata et al., 2016). Our team has taken a careful look at some of the assumptions that were used in those studies, using an end-to-end modeling sequence. Our series of simulations started with a nuclear weapon explosion followed by a simulation of the fireball and cloud rise. The key improvement in this study is our simulation of fire spread and soot transport in the environment that results from fires initiated by the fireball.

Due to the heat of the fire and of the BC particles that are produced, some of the particles are lofted into the stratosphere. However, our comprehensive urban fire simulations indicate that the bulk of the carbon mass remains in the troposphere, where it is quickly removed from the atmosphere. In most previous work, for example, that of Stenke et al. (2013) and Mills et al. (2014), all of the soot produced by the urban fires is directly injected near the top of the troposphere, and therefore much of it rises into the stratosphere, where it shades and cools the Earth. In contrast, if we use a realistic vertical profile for the BC aerosols as input to the climate model, the long-term global impacts on climate are much less severe than predicted by previous studies. This was true even with conservative, worst case assumptions regarding BC production.

To assess the significance of differences between a limited nuclear exchange scenario and the control climate, we created an ensemble of forced (BC-loaded) simulations using a range of realistic vertical emission profiles, all consistent with our detailed fire simulation. A similar ensemble generated using small atmospheric temperature perturbations allows a robust statistical comparison of our simulated results with and without the carbon forcing. This analysis demonstrates that while modest, statistically significant differences occur during the first few years, longer-term impacts are unlikely, regional in scope, and limited in scale. None of the simulations produced a nuclear winter effect.

We also completed a thorough nuclear weapon simulation, determining that it was not necessary for this study and that the impact on climate of the fireball and cloud rise is negligible. There are other, worse effects than those on climate, however, such as nuclear fallout in the region. Such consequences will be the focus of our future work using both xRage and HIGRAD-FIRETEC. Likewise, we will conduct a more comprehensive investigation of regional effects, such as potential consequences for the Asian monsoon during the first few years after the nuclear exchange in follow-on work. Additionally, although this study examines a possible exchange between India and Pakistan via the injection of soot over this region, our modeling system could be used to examine potential impacts of other regional exchange scenarios.

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### 2NC – No Radiation

#### Radiation not existential- fallout patterns are uneven, and fallout dissipates

**Ladish, 20** – (Jeffrey Ladish- Cybersecurity and biosecurity consultant assisting Dr. Megan Palmer's group in research on the management of dual use technologies "Nuclear war is unlikely to cause human extinction", 11-7-2020, Leswrong, <https://www.lesswrong.com/posts/sT6NxFxso6Z9xjS7o/nuclear-war-is-unlikely-to-cause-human-extinction)//mishelle>

Radiation won't kill everyone because there aren't enough weapons, and radiation from them would be concentrated in some areas and wholly absent from other areas. Even in the worst affected areas, lethal radiation from fallout would drop to survivable levels within weeks. Here it's worth noting that there is an inherent tradeoff between length of halflife and energy released by radionuclides. The shorter the half life the more energy will be released, and the longer the half life the less energy. The fallout products from modern nuclear weapons are very lethal, but only for days to several weeks. Let's try the same calculation we used with kinetic damage, and see if an attack aimed at optimizing fallout for killing everyone could succeed. Using Nukemap again, I'll go with the fallout contour for 100 rads per hour. 400 rads is thought too be enough to kill 50% of people, so 100 rads per hour is likely to kill most all people not in some kind of shelter. We need to switch to using a groundburst detonation rather than an airburst detonation, because groundbursts create far more fallout. A 1mt ground burst would create an area of about 8,000 km² of >100 rads per hour. Okay, multiple that by 14,000 warheads, and we get 112 million km². That's a lot! It's still less than the 510.1 million km² of earth's land mass, but it's a lot more than the ~10.2 million km² of urban space. Presumably this is enough to cover every human habitation, so in principle, it might be possible to kill everyone with radiation from existing nuclear weapons. n practice, it would be almost impossible to kill every human via radiation with the existing nuclear arsenals, even if they were targeted explicitly for this purpose. The first reason is that fallout patterns are very uneven. After a ground burst, fallout is carried by the wind. Some areas will be hit bad and some areas will be hardly affected by fallout. Even if most human population centers were covered, a few areas would almost certainly escape. Two other things make extinction by radiation unlikely. Many countries, especially in the southern hemisphere, are unlikely to be affected by fallout much at all. Since most of these countries are likely to be neutral in a conflict, and not near combatant countries, they should be relatively safe from fallout. While fallout might travel hundreds of kms, it still won't reach places separated by greater distances. Fallout that reaches the upper atmosphere will eventually fall back down, but usually after the period of lethal radioactivity. The other mitigating factor is that in typical nuclear war plans, ground bursts are usually restricted to hardened targets, and air bursts are favored for population and industry centers. This is because air bursts maximize the size of the destructive pressure wave. Air burst detonations result in little lethal fallout reaching the ground, so populations not downwind of military targets would likely be safe from the worst of the radiological effects in a war scenario.