# Advantage CPs

## Net Assessment Office

#### The USFG should work with the North Atlantic Treaty Organization to… - creates a new net assessment office in full consultation with allies - develops practice to ensure that strategic insights are linked to North Atlantic Council discussions

### Solvency – Cohesion

#### The CP solves best for cohesion – 1AC author

de Maizière and Mitchell, 2020 - Former German Defense Minister and former U.S. Assistant Secretary of State [Thomas and Wess, November 25, “NATO 2030: United for a New Era Analysis and Recommendations of the Reflection Group Appointed by the NATO Secretary General” https://www.nato.int/nato\_static\_fl2014/assets/pdf/2020/12/pdf/201201-Reflection-Group-Final-Report-Uni.pdf Acc. 4/12/22 TA] GH-PJ

NATO should consider creating a new net assessment office, composed of both military and civilian staff and reporting directly to the Secretary General, with the mission of examining NATO’s strategic environment on the basis of agreed threats and challenges across the whole spectrum of military and non-military tools. Such a capacity would be differentiated from, and augment, the tools that NATO has developed in recent years; including the Joint Intelligence and Security Division (JISD), Policy Planning Unit (PPU), and the routine meetings of the senior staff policy board for purposes of horizon scanning and strategic anticipation. A net assessment function, in constant and full consultation with all Allies, would bring a systematic methodology distinct from horizon scanning. It would exist to analyse the organisation’s strengths and options for consideration by Allies on the basis of a holistic assessment of perspectives and tools, and contribute directly to mitigating differentials in Allies’ threat assessments that form a foremost impediment to political cohesion. NATO should develop a practice to ensure that the insights developed by its suite of strategic tools—the JISD, PPU, senior staff policy board, and any new net assessment capability—are better linked to the political discussions in the NAC. This would be to continue the process of adaption to a new strategic environment in which political and non-political tools must be coherently used. NATO needs to be as politically ready as it is militarily. As such, it should institute a practice of periodic wargaming, net assessment presentations, and threat scenarios in the NAC and/or Military Committee (MC), incorporating new data techniques and technologies in visualisation. These should include presentations of scenarios that assess the consequences of NATO’s potential political inaction in a crisis.

#### The US has a net assessment office – expertise can increase effectiveness

US Department of Defense, No Date "Office of Net Assessment," United States Federal Government, <https://www.defense.gov/About/office-of-the-secretary-of-defense/office-of-net-assessment/> GH-PJ

Since its founding in 1973, the Office of Net Assessment (ONA) has continually provided long-term comparative assessments of trends, key competitions, risks, opportunities, and future prospects of U.S. military capability to the Secretary of Defense and Deputy Secretary of Defense. ONA’s work is conducted in accordance with written guidance by the Secretary of Defense, as well as DOD Directive 5111.1. ONA’s mission and worldview have remained largely unchanged in its 40+ year history. ONA products include internally-produced assessments which represent years of detailed analysis. These assessments are highly classified, tightly controlled in distribution, and provide strategic-level management insights for the Secretary of Defense and other senior DOD leaders. Several such assessments have been completed since 2017. The office also produces and commissions shorter studies, less formal assessments, and topical memos, to support its research or in response to requests from the Secretary or senior DOD or Congressional leadership. These studies include historical analysis, alternative futures, and more speculative work about the possible character of military conflict in the future. ONA research on the character of future warfare since 2000 formed the diagnostic basis of the most recent National Defense Strategy. An ONA-sponsored study helped inform Congress’ decision to reverse the Budget Control Act in 2017. On several occasions since 2016, ONA work has been used in briefings to the President. Though the Department does not publicly disclose the entire scope and nature of ONA's research, the office has produced and distributed hundreds of unique works to individuals across the U.S. government since 2015. ONA products, both externally commissioned and internally written, are read by or briefed to the Secretary, Deputy Secretary, and Under Secretaries of Defense, the Chairman and Joint Chiefs of Staff, and the Combatant Commanders. ONA work is also shared widely with other government agencies, including with the National Security Council staff, the National Intelligence Council, the Central Intelligence Agency, and the State Department.

### Solvency – China

#### Net Assessment key to deter Chinese aggression and win great power competition

Bryan Clark, Dan Patt, and Timothy A. Walton, 11-19-2020, "The Department of Defense Needs to Relearn the (Almost) Lost Art of Net Assessment," <https://thestrategybridge.org/the-bridge/2020/11/19/the-department-of-defense-needs-to-relearn-the-almost-lost-art-of-net-assessment> GH-PJ

The art of net assessment helped the United States win the Cold War when insightful analysts including [Andrew Marshall](https://www.rand.org/pubs/reports/R862.html) and [Eliot Cohen](https://www.inss.org.il/publication/net-assessment-an-american-approach/) used it to identify points of leverage for U.S. strategy. In the Cold War’s aftermath, [Andrew Krepinevich’s](https://issues.org/krepinevich/) outstanding net assessments revealed the emerging Revolution in Military Affairs and its precision-guided weapons regime. But in the years since, net assessment has largely fallen into disuse as a tool to publicly guide defense planning. As an approach that looks for potential opportunities by holistically exploring a competition, net assessment would seem well-suited to the combination of capable adversaries and looming budget constraints facing the United States. Yet, outside a few [external](https://csbaonline.org/uploads/documents/Winning_the_Invisible_War_WEB.pdf) and internal Department of Defense [studies](https://www.defense.gov/Our-Story/Office-of-the-Secretary-of-Defense/Office-of-Net-Assessment/), net assessments are not helping shape the debate about how to affordably advance U.S. and allied security interests. The most important of these interests, as [described](https://www.cnn.com/2019/07/11/politics/mark-milley-us-military-china-intl-hnk/index.html) by defense leaders, is deterring aggression by China and the PLA.

#### China-India-Pakistan war draws in the US and goes nuclear

[James Rupert](https://www.usip.org/people/james-rupert), 5-19-2022, "Our Next ‘Unthinkable’ Crisis: Nuclear War in Asia?," United States Institute of Peace, <https://www.usip.org/publications/2022/05/our-next-unthinkable-crisis-nuclear-war-asia> GH-PJ

The British Empire’s withdrawal from the Indian subcontinent in 1947 left unresolved issues of statehood and borders — and the Himalayan frontiers of China, India and Pakistan have since formed a persistent, unhealed wound. The three nations have clashed in dozens of confrontations, from full-scale, conventional wars to Himalayan border skirmishes and armed standoffs, terrorist attacks or air strikes. India-Pakistan conflicts have escalated since Pakistani terrorists [attacked Mumbai](https://www.britannica.com/event/Mumbai-terrorist-attacks-of-2008) in 2008, killing or injuring hundreds of Indians. The India-China border conflict has flared since 2020, including its worst violence [in 45 years](https://www.deccanherald.com/national/first-time-in-45-years-soldiers-lost-lives-on-india-china-border-850264.html). The risks of sudden violence in the region [were dramatized](https://www.usip.org/node/146241) in March when India’s military accidentally launched an unarmed, supersonic missile 75 miles into Pakistan. Luckily, the missile’s crash killed no one, and it came in a moment of relative calm in the two countries’ volatile relations. Less noticed outside the region is China’s and India’s [continued buildup](https://www.voanews.com/a/india-monitoring-bridge-being-built-by-china-along-border/6388184.html) of [military infrastructure](https://asia.nikkei.com/Politics/International-relations/India-fortifies-Ladakh-in-military-infrastructure-race-with-China) and capabilities along their disputed border, including [a recent shift](https://www.indiatoday.in/defence/story/indian-army-divisions-china-border-pakistan-ladakh-gen-manoj-pande-1949788-2022-05-15) of Indian troops to to that zone. While the rivalries, periodic clashes and armed capacity of the three nations have sharpened over 15 years, policies to protect strategic stability “didn’t really move along with the changes,” said [Vikram Singh](https://www.usip.org/node/112856), an Asia security policy specialist at USIP. Fundamentally, “there is an absolute lack of strategic engagement among the three powers about how they would manage escalation,” and rising uncertainty about “how crises might spiral,” he said. “I think what we’ve seen in Russia and Ukraine gives us reason to think hard about the unthinkable.” Singh [spoke at USIP alongside others](https://www.usip.org/node/145661) among 19 Asia and nuclear security specialists who conducted [the study, published this week](https://www.usip.org/node/145701). The report analyzes recent years’ evolution of the conflicts and offers recommendations for U.S. policymakers. “We see an evolution, both in terms of the capabilities” of the rival states, notably “more and different types of weapons of technology,” and perhaps more importantly, in deteriorating relationships, “particularly between India and China, and India and Pakistan,” said [Daniel Markey](https://www.usip.org/node/141261), a scholar and policy practitioner on South Asia and USIP advisor. These evolutions lead “to possibilities for even the potential of nuclear use in the region that are very worrisome,” he said. Analysts from the USIP-convened [Senior Study Group on Strategic Stability in Southern Asia](https://www.usip.org/node/146161) discussed specific evolutions that are increasing the risks. One is that China is significantly expanding its nuclear arsenal, which is expected to reach “up to 700 deployed warheads within the next five years,” said [Lynn Rusten](https://www.nti.org/about/people/lynn-rusten/), who leads efforts to reduce the dangers of nuclear weapons at the nonpartisan [Nuclear Threat Initiative](https://www.nti.org/). Another problem is that the return to power of Afghanistan’s Taliban creates new space for violent extremist groups bent on attacking India through Pakistan. Such attacks have been a frequent trigger for India-Pakistan military clashes. Southern Asia has gradually become a theater of rival alliances — between the United States and India on one hand and China and Pakistan on the other, a polarization that has been accelerated by the global strategic rivalry between China and the United States, noted [Yu n Sun](https://www.stimson.org/ppl/sun/), an expert on Chinese foreign policy at the [Stimson Center](https://www.stimson.org/).

## Multinational Observer Controller Teams

### Solvency – Interoperability

#### The USFG should work with the North Atlantic Treaty Organization to… - increase multination representation in JMRC OC teams - integrate all NATO allies into OC teams - create a multinational OC team - recognize OC training as a career enhancing assignment - create a unified command structure to coordinate the roles of allies

#### The plan solves for interoperability – prefer our ev since its has specific mechanisms for solvency and the best warrants

Colonel Paul W. Fellinger, March 2013, "Enhancing NATO Interoperability," United States Army Strategy Research Project, <https://apps.dtic.mil/sti/pdfs/ADA589208.pdf> GH-PJ

The EUCOM Posture Statement refers to the Joint Multinational Training Center (JMTC) in Grafenwohr, Germany as a “strategic asset” and the “linchpin for achieving vital theater objectives meeting the comprehensive security cooperation mission”. Further it “enables a broad range of multinational training events that ensures U.S. and partner nation forces are well-prepared...for global contingencies.”42 The Joint Multinational Readiness Center (JMRC) at Hohenfels Germany, subordinate to the JMTC, is the U.S. military’s only combat training center in Europe. Located in eastern 18 Bavaria, it has been a maneuver training center since 1938 when it was first used to train German units preparing for combat. Since the 1950’s, the JMRC trained American infantry and armor maneuver battalions to combat the threat of the Warsaw Pact. Most recently, the JMRC has hosted Maneuver Rehearsal Exercises (MRXs) for units preparing to deploy to Afghanistan and Iraq.43 These units have comprised a mix of NATO forces. Other training exercises have included 1200 personnel from 18 different counties conducting Operational Mentor Liaison Team (OMLT) and Police Mentor Liaison Team (POMLT) training for deployment to Afghanistan.44 According to Mr. Chris Irwin, the JMRC Protocol Officer, since 2005 the installation alone has hosted over 170 foreign flag officers, Chiefs and Ministers of Defense, and parliamentary level civilians. In that same time representatives from nearly 50 countries visited the center to observe some aspect of the training environment.45 Although each visit had a separate agenda the number of foreign visitors demonstrates JMRCs importance as America’s allies strive for greater interoperability. A critical aspect of any training event at the JMRC is the feedback facilitated by the eight Observer Controller (OC) Teams assigned to the Operations Group. Each team is comprised of hand selected American commissioned and non-commissioned officers who have successfully served in tactical unit of the same type and size of the organization they are tasked to observe. Feedback is provided to units in the form of both informal and formal AARs and is designed to allow the rotational unit to learn from their actions. The goal is that a unit, regardless of nationality, departs the JMRC better trained than when it arrived and prepared to fight and win in a combat zone. The AAR is a sensitive event: the unit members should feel that they can learn from their 19 mistakes without feeling as if they are being belittled, humiliated, or at risk of being relieved. It is particularly sensitive for foreign armies who have not experienced AARs in the past. For the AAR to be an effective learning tool requires rapport building and proficiency across a broad range of technical and tactical skills. As foreign units rotate through the training center it also requires a greater degree of cultural empathy and an understanding of foreign weapons and tactics. OCs develop themselves professionally through interaction with rotational units and through discussion with other officers and NCOs assigned to the center. Most OCs depart the JMRC to re-join regular Army units where their expertise often sets them apart from their peers. Many OCs depart having initiated relationships with their rotational counterparts that endure.46 Currently OC teams are comprised of only American personnel: there are limited opportunities for other countries to integrate into the existing teams. To further develop interoperability and subject matter expertise amongst our NATO allies there needs to be more multinational representation on the OC teams. A gradual integration of our NATO allies into the teams would develop deeper understanding, cultural awareness, and ensure interoperability into the future. It is also mutually beneficial for the United States Army and any army that participates: allied officers and non-commissioned officers will leave the training center with a greater understanding of how to integrate into the planning and execution process of the U.S. Army. The first phase of this integration would assign NATO officers to key billets within the organization. This would include the Deputy Commander of the Operations Group, a position normally held by an Army senior lieutenant colonel. This assignment would place him as second in command of JMRC, and should be for a period of not less than 2 years. Integration would continue to the OC teams where alliance officers would assume executive officer positions, normally reserved for senior Army majors. Figure 2: Example of Key Position Integration. The second phase of this integration is the creation of a multi-national OC team where American commissioned and non-commissioned officers man only half of the authorized positions available. Over time, as countries see the benefit of this integration, NATO officers and NCOs could fill any position within any team. NATO observer controllers would have the opportunity to develop lifelong relationships, understand the complexities of developing training exercises, facilitate learning through the AAR process, and gain greater understanding of operating in a multinational force. 21 Figure 3: Example of Integrated Maneuver Observer Controller Team. Service as an OC should be recognized throughout NATO as a career enhancing assignment for those selected. Attendance and successful graduation from the required OC Training Academy training should serve as NATO professional military education for junior officer and senior non-commissioned officers. Two years of successful service on an OC team should result in the award of a skill identifier and NATO qualification badge. Future assignments should, as much as feasible, include service in NATO integrated units like those assigned to the NATO Response Force (NRF). Integration of the best officers and non-commissioned officers by our NATO allies into the existing structure at JMRC is a great investment in the future of NATO, and builds interoperability from the bottom up. This investment of officers and NCOs 22 demonstrates commitment to the alliance that later translates to resolve, trust, and more effective operations when deployed together.

#### Technology not key to interoperability – consensus and agreement first – unified command structures solve best

Larson ’04 – Larson, Eric V., Interoperability of Coalition Air Forces: Lessons Learned from U.S. Operations with NATO Allies. Santa Monica, CA: RAND Corporation, 2004. <https://www.rand.org/pubs/research_briefs/RB117.html>. GH-PJ

Interoperability problems may occur at all levels of warfare—strategic, operational, tactical, and technological. Military planners tend to think of interoperability as a technical and tactical concern. However, interoperability may also be affected by disagreement over the political objectives of a military operation, such as whether to pursue total destruction of an adversary or some agreed-upon level of damage to his forces. Problems at one level can affect interoperability at other levels. For example, the absence of secure communication among allies can increase the risk of aircraft attrition. This problem can exacerbate political differences over the number of acceptable casualties. Allies must recognize and address the fundamental sources of interoperability problems. In cases where political motives are misaligned, no amount of technological improvement will mitigate the problem. For example, in Somalia, disagreement between allies over the purpose of the mission led to a chain of command that proved incapable of preventing or mitigating the consequences of a downed helicopter. Consensus at the strategic and operational levels will make tactical and technical problems less likely and easier to resolve when they arise. Successful operations require flexible organizational structures, doctrines, and procedures. NATO allies often face uncertainty about what missions will be needed, which countries will participate, and what types of forces each country will contribute. Potential disruptions in interoperability can be mitigated through a unified command structure to coordinate the roles of various countries. Standing organizations devoted to planning, training, and exercising coalition forces can provide continuity between operations. These elements should be lubricated by the ready availability of liaison officers to overcome cultural and linguistic barriers and to facilitate information flow between allies. These case studies have supported PAF work to improve U.S.-NATO interoperability in the areas of command, control, communications, intelligence, surveillance, and reconnaissance.

## Ukraine Intervention

#### The USFG should work with the North Atlantic Treaty Organization to… - increase supplies to Ukraine while preventing escalation - establish a no-fly zone over Ukrainian airspace - bolster forward presence around Ukraine - take a strong nuclear deterrence posture towards Russia - increase economic sanctions against Russia

### Solvency - Russia

#### Plan is key to end Ukraine quickly and stop escalation

[Richard D. Hooker, Jr.](https://www.atlanticcouncil.org/expert/richard-d-hooker-jr/), 4-21-2022, "Climbing the ladder: How the West can manage escalation in Ukraine and beyond," Atlantic Council, <https://www.atlanticcouncil.org/in-depth-research-reports/report/managing-escalation-in-ukraine/> GH-PJ

What can NATO and the European Union do to prevent Russia from escalating the conflict to unacceptable levels? What follows are a few principles to guide NATO’s assessment of preventing and avoiding escalation. Keep Ukraine in the fight. The first, and most immediate, curative is to keep Ukraine in the war. This means continued financial assistance, shipments of lethal aid, and real-time intelligence sharing, as well as humanitarian assistance and help with absorption and resettlement of refugees. The United States and Europe have shown unity and concerted action in responding swiftly to Russian aggression in Ukraine and this must continue, even as Putin seeks to find and drive wedges between transatlantic allies and partners. In this struggle, a coherent narrative, shared and articulated in common, will be critical. In this regard, continuous references to the [danger of escalation to “World War III”](https://www.wsj.com/articles/why-u-s-deterrence-failed-ukraine-putin-military-defense-11647794454) and a steady drumbeat of measures not to be taken can only serve to reassure Putin that he has a free hand in Ukraine. A degree of strategic ambiguity and the possibility of US and NATO intervention should he go too far can be helpful in moderating Russian excesses and controlling escalation. An “all measures on the table” approach will force Russian planners to consider, and prepare for, multiple response scenarios, complicating resource allocation and inducing uncertainty. While deterrence is more art than science, signaling to one’s opponent that one is too frightened to engage is more likely to encourage than to deter. The most effective way to prevent spillover onto NATO territory and other forms of future Russian aggression is to [help defeat Russian forces in the field inside Ukraine](https://www.theatlantic.com/ideas/archive/2022/03/ukraine-is-winning-war-russia/627121/). Supplying Ukraine with food, fuel, spare parts, and modern equipment is the best way to do that, while still avoiding direct intervention by NATO. This means combat aircraft, main battle tanks, infantry fighting vehicles, self-propelled and rocket artillery, mobile air defense, secure radios, unmanned aerial vehicles, target-acquisition radars, spare parts, and ammunition, including precision-guided munitions. Many of these combat systems [exist in storage](https://www.atlasobscura.com/places/sierra-army-depot) in great numbers in the United States and in Europe. The Ukrainian military has shown remarkable versatility in adapting to unfamiliar systems such as the Javelin and Stinger, but exportable training packages, and even training sites in Europe for selected specialists, also warrant consideration. If NATO intervenes, do it decisively. Several European nations, including Poland, Denmark, and Belgium, are considering some form of [“peacekeeping” intervention](https://www.reuters.com/world/europe/polands-kaczynski-calls-peacekeeping-mission-ukraine-2022-03-15/) in Ukraine, while calls for a no-fly zone are mounting as the civilian death toll rises. This suggests a critical mass of support may be forming for outside intervention under certain circumstances. Strong material and financial aid may enable Ukraine to hold on, and even advance to retake occupied territory, but Russia remains a far larger and stronger opponent. If the logic that it is better to defeat Putin in Ukraine than on NATO territory is sound, intervention to prevent the fall of Ukraine or its dismemberment must be considered. The prospect of actual genocide of Ukrainian civilians, or use of weapons of mass destruction, might also trigger NATO intervention. This can take several forms. A no-fly zone would mean that NATO, or a coalition of the willing, employs combat aircraft based outside Ukraine to ground Russian military aviation, leaving ground combat to the Ukrainians (an analogy is the Kosovo air campaign). Unified command and control would be essential. The effort would fail if all targets required approval by thirty nations, so allowing discretion to military commanders acting within political guidance would be required. All Russian aircraft entering Ukrainian airspace would be engaged. Russian air defenses must be suppressed (perhaps even inside Russia), forward air controllers must be embedded with ground units to prevent fratricide, and target lists may be expanded quickly to include attack of Russian missile and rocket systems that are destroying Ukrainian cities. A no-fly zone is, of course, an escalation itself, but one intended to lead to a Russian defeat in Ukraine to prevent follow-on aggression in Europe. Entering the conflict from the air is a serious and sober step. Some aircrew would be lost. Putin could retaliate by launching ballistic missiles against Polish, Romanian, or other European targets. To do so, however, would mean expanding the conflict against a much stronger and wealthier NATO, at a point at which almost all of Russia’s available combat power is deployed in Ukraine. Intervention from the air also provides a clear firebreak. Introduction of large NATO ground forces would be an even more dramatic step Russia would surely seek to avoid if possible. Introduction of “peacekeeping forces” or establishing a “[humanitarian no-conflict zone](https://www.atlanticcouncil.org/blogs/new-atlanticist/why-nato-should-establish-a-humanitarian-no-conflict-zone-in-ukraine/?mkt_tok=NjU5LVdaWC0wNzUAAAGDV5I__mUy8Bvuqb528TF10EQUMRoQl3cbvKrCOqy2gfKr4APMKCqz3KcSj9Shugio412CYGt93rRXjzKS5__Y8fjP4PiS5bYEPNG8PfMwaA)” in western Ukraine, use of NATO special forces and trainers, and deployment of “niche” specialists with critical skills such as communications, targeting, and computer-network defense are also forms of intervention that could contribute to success in Ukraine. Unlike air operations, however, these could make only marginal contributions that may not be worth the added risk of bringing the Alliance into the war. Should the campaign mature, and a no-fly zone materialize, these additional measures could augment Ukraine’s defense in helpful ways, but they should not precede air intervention. Direct intervention is a major step. It should not be undertaken except to achieve a decisive result. Bolster forward presence. As a hedge against further Russian aggression and to reassure allies, the US deployed two additional heavy brigades to Poland in February and early March, along with an airborne brigade, bringing the US rotational “heel-to-toe” brigade there to divisional strength. US divisional and corps-level headquarters were also sent. The US 2nd Cavalry Regiment based in Germany (actually a Stryker brigade) was relocated to Romania at the same time. Additional air units and ground troops from a number of allies have also been deployed to NATO’s eastern flank, while the forty-thousand-soldier NATO Response Force (NRF) has been alerted for the first time in its history. Putin’s rhetoric and aggressive disinformation and subversion efforts have, for years, targeted the Baltic States, which stand between Kaliningrad and contiguous Russia and extend almost to the suburbs of St. Petersburg. To forestall future aggression and cement firm deterrence, these forces should remain in eastern Europe at least for the near term (i.e., 3–5 years). As the campaign in Ukraine unfolds, Putin should understand clearly that NATO is postured to respond strongly to further escalation. For many years, policymakers have [argued strenuously against](https://carnegieendowment.org/files/Kuhn_Baltics_INT_final_WEB.pdf) providing the Baltic States, and NATO’s eastern flank in general, with an adequate defense for fear of “provoking” Russia and to “maintain Alliance unity.” Measures to build up Ukraine’s defensive capacity were resisted for the same reasons; the Barack Obama administration opposed lethal aid, even after the invasions of Crimea and the Donbas, while the Donald Trump administration provided only a trickle. The invasion of Ukraine has demonstrated the pitfalls of this thinking. Putin’s threats were intended to keep his neighbors weak, but recent events have proven that it is the perception of weakness, not strength, that provokes him most. Accordingly, a [firm defense](https://jamestown.org/wp-content/uploads/2019/10/How-to-Defend-the-Baltic-States-full-web4.pdf?x48497) from the borders of Finnmark to the Black Sea can prevent spillover or regional escalation, communicate resolve, and reassure host-nation publics that the conflict in Ukraine will not land on their doorstep. This is under way with the recent announcement that NATO battlegroups will be posted in [Romania, Bulgaria, Hungary, and Slovakia](https://www.defense.gov/News/News-Stories/Article/Article/2975977/stoltenberg-expects-nato-leaders-to-strengthen-alliance-posture/). Meanwhile, Germany, the United Kingdom (UK), Denmark, and others have also pledged to increase their forces in the Baltic States. To further strengthen deterrence and head off escalation, NATO should thoughtfully consider how best to help the Baltic States help themselves. Though proud members of the 2-percent club, their small economies prevent them from acquiring the air defense and heavy forces they need to deter future Russian aggression. Estonia and Latvia field only a single light brigade each, while Lithuania fields a mechanized brigade with no tanks and a motorized brigade. [Using security-assistance funds](https://crsreports.congress.gov/product/pdf/IF/IF10946) (such as the European Deterrence Initiative), the United States and NATO could equip existing Baltic formations with modern tanks, self-propelled artillery, and air defense from reserve stocks, along with the training, spare parts, and ammunition needed to make them viable. The Alliance should also strengthen the enhanced Forward Presence (eFP) formations in the Baltic States, as Secretary General Jens [Stoltenberg has suggested](https://www.nato.int/cps/en/natohq/opinions_193610.htm). These forces are too small to pose a credible offensive threat, but can defend long enough for other NATO forces, such as the NRF and US armored units in Poland, to move up to assist. In the maritime domain, NATO’s naval strength clearly outmatches Russia’s, but operations in confined waters like the Baltic or Black Seas [are complicated by land-based air and missile threats](https://www.fpri.org/article/2020/07/maritime-security-issues-in-the-baltic-sea-region/), as well as sea mines. Russian anti-ship missiles also outrange NATO’s. Should Russian naval forces begin to attack commercial shipping in international waters, NATO can respond with standoff weapons, but should exercise caution within range of land-based systems until they are suppressed. If Turkey agrees, stronger NATO naval forces should enter the Black Sea to provide flexible response options to counter Russian maritime aggression. Take an unambiguous stance on nuclear policy. To relieve the threat of a Russian first-use nuclear strike and regain freedom of action, the United States and NATO must return to core deterrence principles. As it has for many decades, nuclear deterrence rests on both capability and credibility. NATO nuclear forces, though much reduced since the Cold War (especially with respect to theater nuclear systems) are redundant, survivable, and absolutely capable of destroying Russia from end to end. NATO’s credibility, on the other hand, is [constantly undermined](https://www.wsj.com/articles/how-putin-exploits-americas-fear-of-nuclear-war-nato-ukraine-invasion-attack-russia-11647982092) when leaders publicly express palpable fears that Putin will employ his nuclear arsenal, for unclear reasons and in unclear ways, and that they must at all costs avoid pushing him into a corner. A resolve not to be bullied is essential. Deterrence works best when leaders are direct, unambiguous, resolute, and calm, as John Kennedy was during the Cuban Missile Crisis. As President Emmanuel [Macron reminded his public](https://www.express.co.uk/news/world/1571786/ukraine-news-Vladimir-Putin-nato-france-nuclear-weapons-russia-invasion) recently, the West has nuclear weapons, too. Use economic tools as a primary “offensive” weapon. As the military campaign progresses, sanctions will continue to strangle the Russian economy. This pressure must continue—and, if possible, intensify—in order to force Russia, not just to the negotiating table, but to withdraw altogether from Ukrainian territory. To date, not all Russian banks have been banned from SWIFT, and many oligarchs remain unsanctioned. Though painful and difficult, weaning Europe from Russian energy, divesting from Russian businesses, and closing European markets are powerful weapons the EU can wield in its own right. (While 37 percent of Russian trade is with Europe, only [4 percent of the EU’s goods exports go to Russia](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Russia-EU_%E2%80%93_international_trade_in_goods_statistics).) Today, Russian energy remains exempt from EU sanctions. Developing alternate sources of energy, in particular, will take time and investment, but continued reliance on Russian oil and natural gas can only enable Putin to continue to finance the war in Ukraine. In March 2022, the EU imposed its [fourth tranche of trade sanctions](https://www.consilium.europa.eu/en/policies/sanctions/restrictive-measures-ukraine-crisis/) on Russia, tightening export restrictions on dual-use technologies, expanding the list of sanctioned persons related to defense industries; imposing further trade restrictions for steel, iron, and luxury goods; and prohibiting transactions with specific state-owned enterprises. The challenge now will be to maintain the full range of sanctions until they bear fruit. Global food shortages, rising energy prices, and scarcities among certain commodities will challenge the sanctions regime. Much depends on the persistence and resolve of Western leaders. Properly understood, comprehensive economic sanctions against Russia—what the French finance minister has called “total economic and financial war on Russia”—can be a major tool, denying Putin the financial resources to carry on the war and generating internal pressures on elites that could lead to his removal. By themselves, however, they [will probably not end the war](https://jacobinmag.com/2022/03/putin-ukraine-russia-sanctions-us-eu-economy). China, Brazil, and India remain open markets and suppliers, if not active supporters, while Hungary and Serbia retain close ties. As former Deputy National Security Adviser General Rick Waddell has pointed out to the author, “An economy that is self-sufficient in energy and food takes a lot of killing.” In concert with diplomacy, aggressive information operations, and the military instrument of power, sanctions can be a vital component of an overall strategy to control and limit escalation and drive conflict termination by draining Russia of the financial resources it needs to carry on the war.

#### Quick devastating end to Ukraine causes Russian military collapse – takes them out as a threat

[William Courtney](https://www.rand.org/about/people/c/courtney_william.html), 6/20/2022, "What if Russia's Army Fails in Ukraine?," RAND Corporation, <https://www.rand.org/blog/2022/06/what-if-russias-army-fails-in-ukraine.html> William Courtney is an adjunct senior fellow at the nonprofit, nonpartisan RAND Corporation and from 2014 to 2022 he served as executive director of the RAND Business Leaders Forum. He chairs the board of trustees of Eurasia Foundation, which carries out U.S. government-funded programs abroad to improve governance, strengthen civil society, and counter disinformation. He cochairs the international advisory council of the America 250 Foundation, the nonprofit arm of the U.S. Semiquincentennial Commission. GH-PJ

Despite incremental gains in eastern Ukraine, a [Russian military collapse](https://www.fpri.org/article/2022/06/the-evolving-political-military-aims-in-the-war-in-ukraine-after-100-days/) is possible. Russian forces could suffer catastrophic defeat akin to that of [Egyptian President Gamal Abdel Nasser's army](https://www.youtube.com/watch?v=JnqsskM8vlI) in the 1967 Six-Day War, when more than 80 percent of its military materiel was lost. Is such a defeat possible? Military history is replete with breakdowns. Last summer, the [Afghan armed forces](https://www.nytimes.com/2021/08/13/world/asia/afghanistan-rapid-military-collapse.html) collapsed amid weak governance and [extreme corruption](https://www.thenationalnews.com/world/asia/2021/08/16/afghan-armys-collapse-was-years-in-the-making-say-experts/). So have other large or well-equipped armies—the demoralized [Russian army in 1917](https://www.britannica.com/event/June-Offensive), the outmaneuvered [French army in 1940](https://www.france24.com/en/20200516-why-did-france-lose-to-germany-in-1940) and [British army in Singapore in 1942](https://www.britannica.com/event/World-War-II/The-fall-of-Singapore), and the weakened [South Vietnamese army in 1975](https://time.com/3840657/saigon-fall-lessons/) and [Iraqi army in Mosul in 2014](https://warontherocks.com/2014/07/inside-the-collapse-of-the-iraqi-armys-2nd-division/). Central to these fiascos was a lack of cohesion in military institutions, poor governance and corruption, and popular unwillingness to defend the state. Military theorist Carl von Clausewitz's [emphasis on sound relationships between the army (PDF)](https://www.usmcu.edu/Portals/218/EWS%20On%20War%20Reading%20Book%201%20Ch%201%20Ch%202.pdf), government, and society appears valid.

## Nuclear fail-safe

#### The USFG should work the other world Nuclear Powers to… - conduct a review to strengthen nuclear fail-safe - implement post-launch destruction of nuclear weapons and their delivery systems - establish nuclear rules of the road and red line understandings - establish a Joint Center for exchange of data from EWS and missile launches

### Solvency – Nuclear War

#### The CP prevents miscalc and eliminates the risk of nuclear use

Sam Nunn, Ernest J. Moniz 11-17-2021, Sam Nunn, a Democrat from Georgia, was a senator from 1972 to 1997. Ernest J. Moniz was energy secretary from 2013 to 2017. They are co-chairs of the Nuclear Threat Initiative. "Biden should do more to prevent the accidental launch of nuclear weapons. Here’s how," Washington Post, <https://www.washingtonpost.com/opinions/2021/11/17/biden-should-do-more-prevent-accidental-launch-nuclear-weapons-heres-how/> GH-PJ

President Biden can accelerate our efforts to reduce the risk of nuclear use by conducting a review aimed at strengthening nuclear “fail-safe,” the safeguards that could prevent unauthorized, inadvertent or mistaken use of a nuclear weapon, including through false warning of an attack, and challenge other nuclear powers to conduct their own internal reviews. Perhaps the most comprehensive review of the U.S. nuclear command and control systems was [conducted](https://documents.theblackvault.com/documents/dod/readingroom/15/622.pdf) almost 30 years ago during the George H.W. Bush administration, spearheaded by Defense Secretary Richard B. Cheney and led by the former U.S. ambassador to the United Nations Jeane Kirkpatrick. New technologies, the strategic environment and threats from the cyber, space and information warfare domains to the U.S. Nuclear command and control system have become more varied and complex since the end of the Cold War. However, many of the technical, procedural and policy measures to assure the highest standards of nuclear weapons control remain grounded in that era. The ongoing U.S. strategic nuclear modernization program — and the nuclear modernization programs of potential nuclear adversaries, in particular Russia and China — offer both challenges and opportunities. In this century, the U.S. nuclear weapons system, including command and control, will increasingly rely on digital and automated technologies, so nuclear operations and policies must be updated to anticipate these changes. The broader aim of the fail-safe review process should be to reduce and (where possible) eliminate the risk of nuclear use as the result of an accident, a miscalculation, a false warning, terrorism or a deliberate act. The review should also consider bilateral and multilateral risk reduction measures, focusing on confidence-building and enhanced predictability, that could be taken with Russia, China and other states with nuclear weapons, including options to increase warning and decision times for leaders. Such a review should assess options for improving technologies, processes and policies in ways that maintain required levels of nuclear weapons command and control. This could include a process for certifying the safety, security and reliability of nuclear systems and fail-safe procedures at least every two years. Another option might be to implement, for the first time, a system that would allow for the post-launch destruction of nuclear weapons or their associated delivery systems, if launched by mistake. The review should also include cooperative measures, including the establishment of cyber-nuclear “rules of the road” and red-line understandings with other nuclear nations precluding cyberattacks on nuclear systems, as well as establishing a Joint Center for the exchange of data from early-warning systems and notifications of missile launches. All nuclear-armed states must learn from history — and especially the errors and miscalculations that have led to past wars. We should give ourselves every feasible tool to prevent a mistake or blunder from turning into a catastrophe beyond imagination.

### AT: Say No

#### Countries will say yes – they all want to secure their futures and they all know that nuclear threats are existential – if the US shows that it is willing to hold itself to the same standards that it holds them to then they would be more willing to cooperate

#### A joint statement was issued that affirms that the nuclear powers don’t want to fight a nuclear war – they will be willing to cooperate since the CP reduces chances of a nuclear war

White House, 1-3-2022, "Joint Statement of the Leaders of the Five Nuclear-Weapon States on Preventing Nuclear War and Avoiding Arms Races," https://www.whitehouse.gov/briefing-room/statements-releases/2022/01/03/p5-statement-on-preventing-nuclear-war-and-avoiding-arms-races/

The People’s Republic of China, the French Republic, the Russian Federation, the United Kingdom of Great Britain and Northern Ireland, and the United States of America consider the avoidance of war between Nuclear-Weapon States and the reduction of strategic risks as our foremost responsibilities. We affirm that a nuclear war cannot be won and must never be fought. As nuclear use would have far-reaching consequences, we also affirm that nuclear weapons—for as long as they continue to exist—should serve defensive purposes, deter aggression, and prevent war. We believe strongly that the further spread of such weapons must be prevented. We reaffirm the importance of addressing nuclear threats and emphasize the importance of preserving and complying with our bilateral and multilateral non-proliferation, disarmament, and arms control agreements and commitments. We remain committed to our Nuclear Non-Proliferation Treaty (NPT) obligations, including our Article VI obligation “to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control.” We each intend to maintain and further strengthen our national measures to prevent unauthorized or unintended use of nuclear weapons. We reiterate the validity of our previous statements on de-targeting, reaffirming that none of our nuclear weapons are targeted at each other or at any other State. We underline our desire to work with all states to create a security environment more conducive to progress on disarmament with the ultimate goal of a world without nuclear weapons with undiminished security for all. We intend to continue seeking bilateral and multilateral diplomatic approaches to avoid military confrontations, strengthen stability and predictability, increase mutual understanding and confidence, and prevent an arms race that would benefit none and endanger all. We are resolved to pursue constructive dialogue with mutual respect and acknowledgment of each other’s security interests and concerns.

## CAFOs

#### The USFG should work with NATO to… - transition away from and eventually ban Concentrated Animal Feeding Operations - promote and subsidize sustainable agriculture procedures

### Solvency – Food Security

#### CAFOs must be removed to promote sustainable agriculture and improve food security

Michelle Johnson-Weider 2020 - Ms. Johnson-Weider (J.D., Stetson University College of Law) worked as an attorney in the United States Senate Office of the Legislative Counsel for thirteen years, with primary responsibility for drafting legislative proposals relating to agriculture and nutrition. She spent three years as a program analyst at the Food and Nutrition Service of the U.S. Department of Agriculture and is currently an attorney advisor in the Legislation Division of the Office of General Counsel, Department of Health and Human Services. She co-teaches a class in Legislative Analysis and Drafting at the George Washington University Law School. © 2020, Michelle Johnson-Weider. <https://www.animallaw.info/sites/default/files/From%20Factory%20Farming%20to%20A%20Sustainable%20Food%20System.pdf> GH-PJ

Sustainable agriculture is the future of food security. CAFOs are neither a viable nor a logical approach to achieving a safe, sustainable U.S. food supply—which is why they are already a failing model. As has been shown, cheap meat is not actually cheap when the environmental and health costs of industrialized production methods are taken into account. Moreover, industrialized agriculture like CAFOs, sometimes promoted as a job creator for depressed rural America, is actually a significant cause of the decline in the rural standard of living and quality of life. As the true costs of cheap animal-based protein are more widely understood, consumers will be less and less willing to see their tax dollars used to prop up activities that damage their rivers and lakes, poison their drinking water and air, and sicken their children. The impact of these consumer shifts should not be underestimated; changes to agricultural practices are already happening, from humane standards for egg production to increased demand for organic food and plant-based proteins. Additional changes are imminent. For instance, although milk production has been increasing, U.S. dairy consumption is down—one of the factors in the record-setting 1.4 billion-pound U.S. cheese surplus.100 Samantha Raphelson, Nobody Is Moving Our Cheese: American Surplus Reaches Record High, NAT’L PUB. RADIO (Jan. 9, 2019, 5:58 AM), https://perma.cc/JQU7-ZXGC. States are also recognizing that the damages caused by CAFOs outweigh the benefits. Oregon considered two bills to increase permitting requirements and environmental enforcement of air and water emissions from dairies with at least 2,500 cows.101 Tracy Loew, Oregon Bills Seek Nation’s Toughest Dairy Recommendations, STATESMAN J. (Dec. 12, 2018, 4:55 PM), https://perma.cc/C92D-XYLZ. The bills gained traction after a dairy farm with 30,000 cows was found to have more than 200 violations of its wastewater permit, including overflowing manure lagoons, improper application of manure to fields, and failure to report spills and leaks.102 Tracy Loew, Oregon Megadairy Lost Valley Farm Fined $187,320 for 224 Environmental Violations, STATESMAN J. (Oct. 16, 2018, 3:34 PM), https://perma.cc/J69X-TQ6Z. Of particular interest is that both bills “declare large dairies to be industrial, rather than agricultural or farming operations,” which would eliminate their ability to qualify for certain state agricultural exemptions and would subject them to local siting and health and safety requirements.103 One of the bills would also require new dairy CAFOs to post bonds “as security against environmental, health or animal welfare costs, such as costs due to manure spills, improper disposal of animals, excessive manure applications, cleaning up 100. 101. 102. 103. Loew, supra note 101. 2020] FROM FACTORY FARMING TO A SUSTAINABLE FOOD SYSTEM 703 abandoned facilities, or relocating animals after a facility closure.”104 In another notable development, Wisconsin appears to be taking a bipartisan interest in increasing CAFO permitting fees to account for their role in the widespread contamination of drinking water in the State.105 Steven Verburg, Tony Evers, Republicans Both Looking to Get Factory Farms to Pay for Cleaner Water, WIS. STATE J. (Mar. 17, 2019), https://perma.cc/WL95-GMDG. Although these state-level efforts are notable, they do not provide a comprehensive solution to what is a national problem. As stated by the Executive Director of the Pew Commission on Industrial Farm Animal Production, “The present system of producing food animals in the United States is not sustainable and presents an unacceptable level of risk to public health and damage to the environment, as well as unnecessary harm to the animals we raise for food.”106 The FARM SAFE Act proposed in this Article would tackle the negative consequences of industrialized agriculture while providing federal support where it is needed most—to promote proven sustainable agricultural practices that protect the environment and public health and help to ensure long-term food security and safety. The FARM SAFE Act is about much more than eliminating bad practices of large agribusiness; it would commit the resources of the federal government— taxpayer funds and agency efforts—to assisting agricultural operations that grow food sustainably. Moreover, the FARM SAFE Act would provide support exclusively to small and midsized agricultural producers whose success or failure dramatically impacts their rural communities. Over time, the changes would restore contaminated watersheds, create new jobs, and revitalize rural America. Sustainable agriculture has the potential of being a true positive for U.S. agriculture. Consider, for example, the USDA organic program, which successfully created an entirely new, internationally recognized brand with ever-growing market power.107 The organic certification program was established under the Organic Foods Production Act of 1990, 7 U.S.C. §§ 6501–6522. For more information, see the USDA Organic website at https://perma. cc/39A2-DNHR. With USDA organic-certified food now featured on grocery shelves from Whole Foods to Walmart,108 Jessica Wohl, Wal-Mart Aims to Push Organic Foods into Mainstream, CHI. TRIB. (Apr. 10, 2014), https://perma.cc/M8YL-5EPH. the success of the organic program has demonstrated that agricultural producers are willing to embrace new production methods when they are compensated for them. In the case of the organic program, this compensation has come in the form of transition assistance and the ability to label and charge a premium for food produced under specific production and handling 104. Id. 105. 106. PEW COMM’N ON INDUS. FARM ANIMAL PROD., supra note 10, at viii. The report further notes that CAFOs are increasingly found worldwide, often in countries with even fewer regulations and enforcement actions than in the United States. Id. at 9. 107. 108. 704 THE GEORGETOWN ENVTL. LAW REVIEW [Vol. 32:685 standards, such as prohibitions on synthetic fertilizers and genetic engineering, as well as proactive management of soil fertility.109 E.g., NAT’L ORGANIC PROGRAM, U.S. DEP’T OF AGRIC., ORGANIC PRODUCTION AND HANDLING STANDARDS (2016), https://perma.cc/D5XY-B7UM. The federal government created the industrial agricultural complex through law and taxpayer dollars; legislative change can redirect those same assets to create a sustainable agricultural infrastructure. Instead of continuing to support a model that benefits the corporate few at the expense of society as a whole, the United States must promote agricultural practices that are proven to minimize environmental harm and public health effects while promoting good stewardship of the soil, water, animals, and other farm inputs. As the watersheds are restored and agricultural operations diversify, opportunities now lost will be reclaimed, from the return of recreation and tourism to restoring jobs whose loss has devastated the rural economy. These are not new concepts, nor is the realization that industrial agriculture is unsustainable.110 As the climate grows more unstable and already strained global resources become even more scarce, the goal of agricultural production must change from producing cheap food quickly to producing nutrient-rich food sustainably.111 Climate changes are likely to make monoculture crop production untenable—even in the near future—and will exacerbate the already dire effects of large-scale agriculture on water quality as more severe storms will mean more flooding, more fertilizer runoff, and more overflowing manure lagoons. Increasing biodiversity, as well as diversity in production methods, will be necessary to survive unexpected disruptions from weather, pests, and socioeconomic difficulties.112

### Solvency – AMR

#### CAFOs are the root cause of antibiotic resistant bacteria

IARA, No Date "How CAFOs Cause Antibiotic Resistance – IARA – The Iowa Alliance for Responsible Agriculture,", <https://cleaniowanow.org/learn-about-the-problem/how-cafos-cause-antibiotic-resistance/> GH-PJ

Since many human diseases were transmitted from farm animals to humans, it is not surprising that many antibiotics that are widely used to treat humans are effective for animal diseases. Prior to routine antibiotic feeding to animals, antibiotic resistance was generally linked to misuse of antibiotics in hospitals or by individual patients of private physicians. While misuse is still a logical source of antibiotic resistance, scientific evidence is mounting that links antibiotic resistant bacteria in humans with routine feeding of antibiotics to livestock in confinement facilities. With the advent of factory farms, livestock producers quickly became a major user of antibiotics in the United States. An estimated 70-80% of all antibiotics in the U.S. are used in industrial agriculture. The majority of antibiotics are fed at sub-therapeutic (low dose) levels for disease prevention and growth stimulation. A comprehensive 2004 U.S. General Accounting Office review of the scientific literature on antibiotic resistance clearly linked antibiotic resistance to livestock feed. They reported that “many studies have found that the use of antibiotics in animals poses significant risks for human health, but a small number of studies contend that the health risks of the transference are minimal.”[[1]](https://cleaniowanow.org/learn-about-the-problem/how-cafos-cause-antibiotic-resistance/" \l "_ftn1) By 2013, a U.S. Center for Disease Control and Prevention report concluded that any doubt about the potential for transference of antibiotic resistant bacteria from animals to humans had been resolved: “Scientists around the world have provided strong evidence that antibiotic use in food-producing animals can harm public health through the following sequence of events: Use of antibiotics in food-producing animals allows antibiotic-resistant bacteria to thrive while susceptible bacteria are suppressed or die. Resistant bacteria can be transmitted from food-producing animals to humans through the food supply. Resistant bacteria can cause infections in humans. Infections caused by resistant bacteria can result in adverse health consequences for humans.”[[2]](https://cleaniowanow.org/learn-about-the-problem/how-cafos-cause-antibiotic-resistance/" \l "_ftn2) The evidence is clear that antibiotic resistant bacteria is a major risk to public health, and it is clearly linked to factory farms.

#### Massive health and economic costs to AMR

[Nicholas Watt](https://www.theguardian.com/profile/nicholaswatt) , 4-1-2016, "Antimicrobial resistance a 'greater threat than cancer by 2050'," Guardian, <https://www.theguardian.com/society/2016/apr/14/antimicrobial-resistance-greater-threat-cancer-2050-george-osborne> GH-PJ

Antimicrobial resistance to antibiotics will present a greater danger to humankind than cancer by the middle of the century unless world leaders agree international action to tackle the threat, according to [George Osborne](https://www.theguardian.com/politics/georgeosborne). The British chancellor will tell a panel of experts at an IMF meeting in Washington that 10 million people a year could die across the world by 2050 – more than the number of people lost to cancer every year – without radical action. Osborne will warn of an enormous economic cost, which could cut global GDP by 3.5%, a cumulative cost of $100bn (£70bn). The chancellor will say: “Unless we take global action, antimicrobial resistance will become an even greater threat to mankind than cancer currently is. “It is not just a health problem but an economic one, too. The cost of doing nothing, both in terms of lives lost and money wasted, is too great, and the world needs to come together to agree a common approach.” Dame Sally Davies, the chief medical officer for England, has warned of an “apocalyptic scenario” in the next two decades in which people die of routine infections during simple operations “because we have run out of antibiotics”. A government-commissioned review in 2014 by the economist Jim O’Neill, now a Treasury minister in the Lords, estimated that antimicrobial resistance would become the world’s greatest killer by 2050 unless a new generation of effective antibiotics are developed. In a Guardian article, the director of health and HIV at the [UN Development Programme](http://www.undp.org/), Mandeep Dhaliwal, warned of a return to the era before Alexander Fleming’s discovery of penicillin. “We are on the road back to the days of people dying from common infections and injuries,” Dhaliwal wrote.

## Collision Warning System

### Solvency – Satellite Collisions

#### The USFG should… - work with the NOAA to develop OADR collision warning systems - subsidize the development and implementation of OADR

#### A CWS solves for collisions in Earth Orbit – the prototype exists but further investment is key to make it effective

Rahul Rao, 2-21-2022, "Avoiding satellite collisions: NOAA unveils prototype warning system," Space, <https://www.space.com/noaa-satellite-collision-warning-system-prototype> Rahul Rao is a graduate of New York University's SHERP and a freelance science writer, regularly covering physics, space, and infrastructure. He holds a master’s degree in science writing from New York University's Science, Health and Environmental Reporting Program (SHERP) and earned a bachelors degree from Vanderbilt University, where he studied English and physics. GH-PJ

A new collision-warning system could help satellite operators sleep a little easier. The prototype system, developed by the U.S. National Oceanic and Atmospheric Administration (NOAA), is designed to alert operators when their spacecraft may be on a collision course with another object. That's a real and growing concern, given how [crowded Earth orbit is becoming](https://www.space.com/space-junk-threat-satellites-guidelines-reduce-orbital-debris.html). The system, which was demonstrated in a [webcast press conference](https://www.youtube.com/watch?v=XAJE7VpOelo) on Feb. 11, is called the Open-Architecture Data Repository (OADR). It's a cloud database that keeps tabs on the growing population in [Earth](https://www.space.com/54-earth-history-composition-and-atmosphere.html) orbit and warns if there's a danger of a collision, just as you might get a weather warning if you're in the path of a storm. It works like this: The OADR collects data on space conditions from a number of different scans from ground sensors that together cover much of the globe. The OADR is linked both to US-government-affiliated ground stations and to a network of commercial stations (especially in the Southern Hemisphere). The data also includes [space weather](https://www.space.com/space-weather) observations and other satellites' live telemetry and maneuvering plans. The OADR takes in all that data and creates a picture of the orbital environment, which it then uses to assess if there are any looming "conjunctions" — close encounters between orbiting objects. If there are any, the OADR can relay that data back to satellite operators as a sort of weather forecast, giving them (ideally) several days to move their satellite out of the way. "A hurricane notification displays a probability cone that continually changes as new data is obtained," Scott Leonard, Special Advisor to the Director of NOAA's Office of Space Commerce, said in the Feb. 11 press conference. "A conjunction is similar." OADR is still under development; the newly unveiled system is a prototype. According to Leonard, the OADR team still needs to iron out some kinks with automating data collection and prediction processes. If all goes according to plan, the OADR will see initial public operation by 2024 and be fully operational by 2025. There are already a number of commercial firms providing these sorts of space-tracking services, but the OADR's creators hope that it will ultimately have more data than those services — and better predictive capabilities to boot. It's hardly a secret that Earth orbit is getting quite crowded. There are already [at least 23,000 objects](https://www.space.com/space-junk-growing-problem-complicated-solution) in space with a diameter of 4 inches (10 centimeters) or greater. That number really began to explode in the 21st century, and it isn't slowing down. “We expect on the order of 57,000 new satellites by the year 2030," Stephen Volz, assistant secretary of commerce for environmental observation at NOAA, said in the press conference. And in-space collisions aren't just the stuff of nightmare fantasy. Last year, for example, a [Chinese military satellite collided](https://www.space.com/space-junk-collision-chinese-satellite-yunhai-1-02) with a piece of a 25-year-old Russian rocket. The satellites of SpaceX's Starlink broadband constellation, which may someday consist of more than 40,000 spacecraft, seem to be [a particular cause for alerts](https://www.space.com/spacex-starlink-satellite-collision-alerts-on-the-rise). In its stewards' eyes, the OADR is intended to preemptively keep track of all the biggest threats. But it will likely be some time before any system can keep track of the [millions of tiny objects](https://www.esa.int/Safety_Security/Space_Debris/Space_debris_by_the_numbers) in orbit — everything from rubbish to shards of metal to flecks of paint — all of which can cause catastrophic damage, given how fast everything moves up there.

#### **Government subsidies decrease costs and accelerate production**

idmworks, 9-3-2020, "Subsidies For Technology & Why That May Be a Good Thing," IDMWORKS: The Identity Experts, <https://www.idmworks.com/ciso-news/cares-act-tech-subsidies/> GH-PJ

In short – yes. Government subsidies assist the tech industry by covering the costs of production research and the distribution of goods or services. They can do this by offering tax credits, grants, loans, or reimbursements as is seen in the CARES Act. These subsidies make it possible for the tech industry to increase the overall supply of goods or services that they offer. This in turn increases the demand for the good or service, which lowers the overall price of the service. The idea is that when governments give subsidies to the tech industry, it’s a win-win both for the supplier and the customer. Subsidies give the tech industry more money to dedicate to research and development. Customers can enjoy life-improving products at a cheaper price since tech developers don’t need to break even on their production costs.

## Reforestation

### Solvency – Climate Change

#### The USFG should work with UN to coordinate reforestation and ecosystem restoration measures

#### Reforestation and ecosystem replenishment is key to fight climate change – prefer our comprehensive model that is realistic and accounts for the amount of tree cover that could realistically exist while still solving

Crowther et. al. ’19 - [Thomas W. Crowther](https://www.science.org/doi/10.1126/science.aax0848#con8), [Jean-Francois](https://www.science.org/doi/10.1126/science.aax0848#con1) Bastin [Yelena Fine](file:///C:\Users\whit2\Downloads\YELENA FINEGOLD)gold, [Claude](https://www.science.org/doi/10.1126/science.aax0848#con3) Garcia, [Danilo](https://www.science.org/doi/10.1126/science.aax0848#con4) Mollicone, [Marcelo](file:///C:\Users\whit2\Downloads\MARCELO REZENDE)Rezende, Devin [Constantin M. Zohner](https://www.science.org/doi/10.1126/science.aax0848#con7), and, 7-5-2019, "The global tree restoration potential," Science, <https://www.science.org/doi/10.1126/science.aax0848> Jean-Francois Bastin: Crowther Lab, Department of Environmental Systems Science, Institute of Integrative Biology, ETH-Zürich, Zürich, Switzerland. Devin Routh: Crowther Lab, Department of Environmental Systems Science, Institute of Integrative Biology, ETH-Zürich, Zürich, Switzerland. Constantin M. Zohner: Crowther Lab, Department of Environmental Systems Science, Institute of Integrative Biology, ETH-Zürich, Zürich, Switzerland. Thomas W. Crowther: Crowther Lab, Department of Environmental Systems Science, Institute of Integrative Biology, ETH-Zürich, Zürich, Switzerland. Yelena Finegold: Food and Agriculture Organization of the United Nations, Rome, Italy. Danilo Mollicone: Food and Agriculture Organization of the United Nations, Rome, Italy. Marcelo Rezende: Food and Agriculture Organization of the United Nations, Rome, Italy. Claude Garcia: Department of Environmental Systems Science, Institute of Integrative Biology, ETH-Zürich, Zürich, Switzerland. Centre de Coopération Internationale en la Recherche Agronomique pour le Développement (CIRAD), UR Forest and Societies, Montpellier, France. GH-PJ

Photosynthetic carbon capture by trees is likely to be among our most effective strategies to limit the rise of CO2 concentrations across the globe ([1](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R1)–[3](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R3)). Consequently, a number of international initiatives [such as the Bonn Challenge, the related AFR100, and the New York Declaration on Forests ([4](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R4), [5](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R5))] have established ambitious targets to promote forest conservation, afforestation, and restoration at a global scale. The latest special report ([1](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R1)) by the Intergovernmental Panel on Climate Change (IPCC) suggests that an increase of 1 billion ha of forest will be necessary to limit global warming to 1.5°C by 2050. However, it remains unclear whether these restoration goals are achievable because we do not know how much tree cover might be possible under current or future climate conditions or where these trees could exist. Previous efforts to estimate global tree cover potential have scaled existing vegetation estimates to the biome or ecoregion levels to provide coarse approximations of global forest degradation ([6](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R6), [7](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R7)). However, quantitatively evaluating which environments could support trees requires that we build models using direct measurements of tree cover (independent of satellite-derived models) from protected areas, where vegetation cover has been relatively unaffected by human activity. With enough observations that span the entire range of environmental conditions, from the lowest to the highest possible tree cover, we can interpolate these “natural tree cover” estimates across the globe to generate a predictive understanding of the potential tree cover in the absence of human activity. To explore the determinants of potential tree cover, we used 78,774 direct photo-interpretation measurements (data file S1) ([8](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R8)) of tree cover across all protected regions of the world (fig. S1) ([9](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R9), [10](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R10)). Using global environmental layers (table S1) ([11](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R11)), we examined how climate, edaphic, and topographic variables drive the variation in natural tree cover across the globe. The focus on protected areas is intended to approximate natural tree cover. Of course, these regions are not entirely free of human activity ([11](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R11)), presenting slightly lower tree cover than expected in some regions or higher tree cover than expected in other regions because of low fire frequency, but these ecosystems represent areas with minimal human influence on the overall tree cover. We then used a random forest machine-learning approach ([12](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R12)) to examine the dominant environmental drivers of tree cover and generated a predictive model ([Fig. 1](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#F1)) that enables us to interpolate potential tree cover across terrestrial ecosystems. The resulting map—Earth’s tree carrying capacity—defines the tree cover per pixel that could potentially exist under any set of environmental conditions, with minimal human activity ([Fig. 2A](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#F2)). This work is directly underpinned by our systematic dataset of direct tree cover measurements (entirely independent of climate and modeled remote sensing estimates) ([13](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R13)) across the globe (fig. S1) ([10](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R10)). Across the world’s protected areas (fig. S2), tree cover ranged between peaks of 0% in dry desert and 100% in dense equatorial forest, with fewer values falling between these two extremes (figs. S2 and S3). We paired these tree cover measurements with 10 global layers of soil and climate data (table S1) ([11](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R11)). Our resulting random forest model had high predictive power [coefficient of determination (R2) = 0.86; intercept = –2.05% tree cover; slope = 1.06] ([Fig. 1](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#F1)); rigorous k-fold cross-validation (fig. S4A) ([11](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R11)) revealed that our model could explain ~71% of the variation in tree cover without bias (R2 = 0.71; intercept = 0.34% tree cover; slope = 0.99) (fig. S3, B and C). Our k-fold cross-validation approach also allows us to generate a spatially explicit understanding of model uncertainty (figs. S5 and S6) ([11](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R11)). Across all pixels, the mean standard deviation around the modeled estimate is ~9% in tree cover (28% of the mean tree cover) (figs. S5 and S6) ([11](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R11)). As such, these models accurately reflected the distribution of tree cover across the full range of protected areas. We then interpolated this random forest model across all terrestrial ecosystems using all 10 soil and climate variables to project potential tree cover across the globe under existing environmental conditions. The resulting map reveals Earth’s tree carrying capacity at a spatial resolution of 30 arc sec ([Fig. 2A](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#F2)). The model accurately predicts the presence of forest in all existing forested land on the planet (fig. S7A) but also reveals the extent of tree cover that could naturally exist in regions beyond existing forested lands. The most recent Food and Agriculture Organization of the United Nations (FAO) definition of “forest” corresponds to a land of at least 0.5 ha covered by at least 10% tree cover and without agricultural activity or human settlements ([14](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R14)). Using this definition, our map reveals that about two-thirds of terrestrial land, 8.7 billion ha, could support forest (table S2). That value is 3.2 billion ha more than the current forested area (fig. S7A) ([11](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R11), [15](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R15)). We estimate that 1.4 billion ha of this potential forest land is located in croplands (>99%) and urban areas (<1%), as delineated by the European Space Agency’s global land cover model (fig. S7B and table S2) ([16](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R16)), and 1.5 billion ha with croplands as delineated by Fritz et al. (fig. S7C and table S2) ([17](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R17)). Therefore, ~1.7 billion to 1.8 billion ha of potential forest land (defined as >10% tree cover) exists in areas that were previously degraded, dominated by sparse vegetation, grasslands, and degraded bare soils. To avoid the pitfalls of categorical forest definitions, we also evaluated the tree canopy cover in a truly continuous scale (fig. S8). We refer to “canopy cover” as the area of the land that is covered by tree crown vertically projected to the ground (for example, 50% of tree cover over 1 ha corresponds to 0.5 ha of canopy cover) (fig. S8). By accounting for all levels of tree cover (from 0 to 100%), this approach balances the relative contribution of different forest types (such as woodlands, open forest, and dense forest) and of wooded lands outside forests (such as savannas) across the globe. In total, 4.4 billion ha of canopy cover can be supported on land under existing climate conditions (pixel uncertainty = 28%; global uncertainty <1%) (table S2) ([11](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R11)). This value is 1.6 billion ha more than the 2.8 billion ha existing on land today ([10](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R10), [15](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R15)). Of course, much of the land that could potentially support trees across the globe is currently used for human development and agriculture, which are necessary for supporting an ever-growing human population. On the basis of both the European Space Agency’s global land cover model ([16](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R16)) and on Fritz and colleagues cropland layer ([17](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R17)), we estimate that 0.9 billion hectares are found outside cropland and urban regions ([Fig. 2, B and C](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#F2), and table S2) ([11](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R11)) and may represent regions for potential restoration. More than 50% of the tree restoration potential can be found in only six countries (in million hectares: Russia, +151; United States, +103; Canada, +78.4; Australia, +58; Brazil, +49.7; and China, +40.2) (data file S2), stressing the important responsibility of some of the world’s leading economies. By comparing our country-level results to the commitments of 48 countries in the Bonn Challenge ([4](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R4)), we can provide a scientific evaluation of the country-level restoration targets. Approximately 10% of countries have committed to restoring an area of land that considerably exceeds the total area that is available for restoration (data file S2). By contrast, over 43% of the countries have committed to restore an area that is less than 50% of the area available for restoration. These results reinforce the need for better country-level forest accounting, which is critical for developing effective management and restoration strategies. Of course, it remains unclear what proportion of this land is public or privately owned, and so we cannot identify how much land is truly available for restoration. However, at a global scale, our model suggests that the global forest restoration target proposed by the IPCC ([1](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R1)) of 1 billion ha (defined as >10% tree cover) is undoubtedly achievable under the current climate. By scaling these forest area calculations by biome-level mean estimates of carbon storage ([18](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R18), [19](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R19)), we estimate that vegetation in the potential restoration areas could store an additional 205 gigatonnes of carbon (GtC) if they were restored to the status of existing forests (table S2). Our model accurately depicts the regions where tree growth is possible under existing environmental conditions. However, changing climate conditions may alter the area of land that could support forest growth over the rest of the century, a point that needs to be considered when developing long-term restoration projects. We tested this possibility by rerunning our potential tree cover model under future climate conditions, projected under three Earth System Models ([10](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R10)) and two Representative Concentration Pathways (RCP) scenarios (RCP 4.5 and 8.5) ([1](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R1)). Under both scenarios, the global tree carrying capacity is lower than the present day potential because of reductions in the potential area of tropics. This is in stark contrast to most current model predictions, which expect global tree cover to increase under climate change ([20](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R20)). Although warming is likely to increase tree cover in cold regions with low tree cover (for example, in northern boreal regions such as Siberia) or with existing open forests (such as in tropical drylands) ([Fig. 3](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#F3)), our model highlights the high probability of consistent declines of tropical rainforests with high tree cover. Because the average tree cover in the expanding boreal region (30 to 40%) is lower than that in declining tropical regions (90 to 100%), our global evaluation suggests that the potential global canopy cover will decrease under future climate scenarios, even if there is a larger total forest area with >10% tree cover. Therefore, despite potential increases in canopy cover in boreal (~130 Mha), desertic (~30 Mha), montane (~30 Mha), and temperate (~30 Mha) regions, the potential loss of forest habitat in tropical regions (~450 Mha) leads to a global loss of 223 Mha of potential canopy cover by 2050, corresponding to 46 GtC ([Fig. 3B](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#F3) and table S3). Such risks of loss do not account for future changes in land use, such as pasture and cattle raising ([7](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R7)), which might also contribute to the urgency of the situation. These models of future changes in tree cover potential reveal insights into how the structure of vegetation might change over time. Of course, these models are characterized by high uncertainty because, unlike the present-day interpolations, we rely on extrapolation of our machine-learning models outside of the existing range of global climate conditions. These extrapolations cannot be considered to be future projections of potential forest extent because they do not incorporate any of the ecological, hydrological, and biogeochemical feedbacks that would be associated with changes in forest cover. For example, it is possible that elevated CO2 concentrations under future climate scenarios might enhance the growth of those existing trees, although recent evidence suggests that increased growth rate does not necessarily translate to increase of carbon storage ([21](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R21)). However, our approach has a strong predictive power to describe the potential tree cover in the absence of humans under any given set of future climate scenarios. The global photointerpretation dataset offers the capacity to characterize the potential tree cover under any given set of environmental conditions. The resulting openly accessible map can serve as a benchmark map to assess restoration opportunities (such as tree planting and natural assisted regeneration) around the globe, with a tree cover of reference that respects the natural ecosystem type (for example, from wooded savannah to dense forest). However, restoration initiatives must not lead to the loss of existing natural ecosystems, such as native grasslands, that can support huge amounts of natural biodiversity and carbon. Using existing global land-cover layers ([15](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R15)–[17](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R17)), our maps reveal that there is likely to be space for at least an additional 0.9 billion ha of canopy cover. If restored woodlands and forests were allowed to mature to a similar state of existing ecosystems in protected areas, they could store up to 205 GtC. Given that the airborne fraction of carbon dioxide is ~45% ([1](https://www-science-org.proxy.lib.umich.edu/doi/10.1126/science.aax0848#R1)), reaching this maximum restoration potential would reduce a considerable proportion of the global anthropogenic atmospheric carbon burden to date (~300 GtC). This places ecosystem restoration as one of the most effective solutions at our disposal to mitigate climate change.

### AT: Crowther Wrong

#### Two issues with Marshall: 1---The card says that they were forced to admit that they were wrong because of backlash and anger not that they redid the study or model to determine whether they had errors – doesn’t 100% prove the study wrong 2---There is other evidence that proves that reforestation is good and possible – this ev is a year after Crowther “admitted” to being wrong – accounts for that yet it still optimistic

Robin Fearon, 12-3-2021, "Tree Planting and Reforestation Will Help Limit Global Warming," <https://www.discovery.com/science/tree-planting-and-reforestation-will-help-limit-global-warming> GH-PJ

Planting new trees is one of the most effective ways to reduce atmospheric carbon dioxide (CO2) and limit global warming. As forests grow they remove CO2 from the air through photosynthesis, working as a natural reservoir to store [carbon](https://www.state.gov/plan-to-conserve-global-forests-critical-carbon-sinks/). Planned projects worldwide will plant [billions](https://www.theguardian.com/environment/2019/jul/04/planting-billions-trees-best-tackle-climate-crisis-scientists-canopy-emissions) of trees and it is thought that forests will help protect the environment for future generations. An [estimated](https://www.fao.org/state-of-forests/2020/en/) 420 million hectares (one billion acres) of forest have been lost since 1990, converted to farmland and other uses. But by planting new trees in existing forests (reforestation), and growing in areas with no previous tree cover (afforestation) nations are using nature-based solutions to tackle man-made industrial emissions. Afforestation is seen as one of the best ways to store carbon. Data [gathered](https://www.carbonbrief.org/mapped-where-afforestation-is-taking-place-around-the-world) by the United Nations (UN) shows that, by 2015, China had planted 79 million hectares (195 million acres) in an effort to stop farmland from turning into desert. Next was the US, which planted forest covering 26 million hectares (65 million acres), ahead of Russia with 20 million hectares (49 million acres). The US Forest Service says it uses [both](https://www.fs.fed.us/forestmanagement/vegetation-management/reforestation/index.shtml) afforestation and reforestation to [restore](https://www.youtube.com/watch?v=WTWDTCy1xEs) forestland damaged by events like wildfire, climate change, and insect and disease damage. Benefits it lists from planting include creating new wildlife habitat, improving clean [water](https://www.wri.org/insights/3-surprising-ways-water-depends-healthy-forests) supply, stopping soil erosion, and sequestering carbon. Sadly, despite slowing in recent decades, deforestation losses worldwide still [outweigh](https://www.theworldcounts.com/challenges/planet-earth/forests-and-deserts/why-is-deforestation-a-problem) planting gains. Forest areas measuring 10 million hectares (25 million acres) were cut down and [cleared](https://www.fao.org/state-of-forests/2020/en/) every year between 2015 and 2020. That is roughly equal to the land area of Iceland or South Korea each year. Clearing forest releases CO2 and has [contributed](https://www.livescience.com/cop26-pledge-to-end-deforestation-by-2030) 23 percent of all man-made greenhouse gas emissions. One study says it has caused [hotter](https://www.carbonbrief.org/deforestation-has-driven-up-hottest-day-temperatures) day temperatures in Asia, Europe, and North America. In these regions, where more than 15 percent of tree cover was removed, deforestation led to a third of the increase in average hottest day temperatures.

## Hotlines

#### The United States Federal government should propose to establish a multilateral cyber hotline with the North Atlantic Treaty Organization, Russia, and China.

#### Multilateral cyber hotlines create cyber diplomacy and prevent attacks and miscalc

Stilgherrian 6-14-20 Stilgherrian is a freelance journalist, commentator and podcaster interested in big-picture internet issues, especially security, cybercrime and hoovering up bulldust. He studied computing science and linguistics before a wide-ranging media career and a stint at running an IT business. [Does the world need a multilateral cyber hotline?, <https://www.zdnet.com/article/does-the-world-need-a-multilateral-cyber-hotline/>] //DamienHS WAgustin

When someone is throwing nukes at you, you can probably tell where they're coming from. There's only a few nuclear nations and, over the decades of the Cold War, they have developed complex strategic intelligence and early warning networks. But what about a cyber war? Particularly the kind of intense multi-vector cyber attack targeting critical infrastructure that's been dubbed as [cyber blitzkrieg](https://www.zdnet.com/article/cyber-blitzkrieg-replaces-cyber-pearl-harbor/)? Cyber attribution is hard. It's not impossible, but it takes time. Time that doesn't exist when your infrastructure is collapsing and you're thinking about resorting to what is euphemistically called a "kinetic response". Retaliation against the wrong target could well result in disaster. One possible solution, at least in part, could be installing direct "cyber hotlines" between national leaders. The [Moscow–Washington hotline](https://en.wikipedia.org/wiki/Moscow%E2%80%93Washington_hotline) of Cold War fame is the archetype. During the high-stakes nuclear [Cuban Missile Crisis](https://en.wikipedia.org/wiki/Cuban_Missile_Crisis) of 1962, official diplomatic messages took up to six hours to deliver. Presidents John F Kennedy and Nikita Khrushchev had to resort to unofficial channels, including relaying messages via TV news correspondents. The Moscow–Washington hotline was installed the following year. This hotline was never the iconic red telephone of TV and movies. At first it was a teletype, then a fax machine, and now email. Initially, its terrestrial phone lines were backed up by a radio link via Tangier in northwestern Morocco. Today, a set of satellite links are backed up by optical fibre. At least eight other pairs of nations have [developed their own hotlines](https://www.armscontrol.org/factsheets/Hotlines). Cyber versions of these hotlines are a key recommendation of the [Cyberspace Solarium Commission](https://www.solarium.gov) (CSC), a US government initiative to "develop a consensus on a strategic approach" to defending the nation against "cyber attacks of significant consequences". "The US government should develop a multi-tiered signaling [sic] strategy aimed at altering adversaries' decision calculus and addressing risks of escalation. This signaling strategy should also effectively communicate to allies and partners US goals and intent," says the CSC's [final report](https://drive.google.com/file/d/1ryMCIL_dZ30QyjFqFkkf10MxIXJGT4yv/view) [PDF]. "The strategic level of signaling should involve overt, public diplomatic signaling through traditional mechanisms that have already been established for other domains, as well as private diplomatic communications through mechanisms such as hotlines and other nonpublic channels (including third party channels in instances in which the United States may lack robust diplomatic relationships)." At the operational level, this should include "clandestine, protected, and covert signaling (including through non-cyber means) that is deliberately coupled with cyber operations," the CSC wrote. "An example of this type of signaling is tailored messaging preceding or running concurrently with defend forward cyber operations." The CSC also recommends developing a framework to guide "when and under what conditions the US government will voluntarily self-attribute cyber operations and campaigns for the purposes of signaling capability and intent to various audiences". Diplomatic tools like hotlines are examples of what diplomats call "confidence building measures". Confidence building is one of four pillars of cyber diplomacy Your writer has previously reported on Australia's part in developing the so-called [11 international norms](https://www.zdnet.com/article/cyberwar-looms-as-diplomats-dither/) for nation-state behaviour in cyberspace and last year's [restart of the UN's stalled process](https://www.zdnet.com/article/australia-to-keep-playing-the-un-cyberspace-norms-game/) for negotiating such rules. Last month, the Department of Foreign Affairs and Trade (DFAT) reported that it was [progressing work on the norms](https://www.zdnet.com/article/australia-progressing-work-on-agreed-norms-of-responsible-state-behaviour-in-cyberspace/). Norms of behaviour are only a quarter of the cyber diplomacy story, however. "You have binding international law, you have voluntary non-binding norms, which complement and together set clear expectations of behaviour," said Johanna Weaver, Australia's cyber negotiator at the UN. "You have capacity building, which is a really important part of it ... to make sure that all countries have the ability to implement the recommendations and agreements," she told ZDNet. "Then you've got confidence building measures, which are designed to increase trust and transparency." While the building of hotlines has not yet become a priority at the UN, there has been modest progress at the regional level in the Association of South East Asian Nations (ASEAN). Australia and Malaysia's proposal for a [regional cyber points of contact directory](https://www.dfat.gov.au/international-relations/themes/cyber-affairs/Pages/building-confidence-in-cyberspace-through-the-development-of-a-regional-cyber-points-of-contact-directory) received in-principle endorsement at the ASEAN Regional Forum (ARF) Intersessional Meeting on Security of and in the use of ICTs in Singapore back in March 2019. "The directory will provide a means of direct communication to prevent miscalculation and escalation, as well as manage potential responses in the event of cybersecurity incidents with the potential to impact regional security," DFAT wrote. A cyber equivalent to the International Atomic Energy Agency? The UN's Open-Ended Working Group (OEWG), one of the two UN bodies negotiating the rules for cyberspace, has stressed the importance of accurate attribution of cyber attacks. "It was suggested that developing a common approach to attribution at the technical level could lead to greater accountability, transparency, and could help support legal recourse for those harmed by malicious acts," OEWG wrote in the [initial pre-draft](https://unoda-web.s3.amazonaws.com/wp-content/uploads/2020/03/200311-Pre-Draft-OEWG-ICT.pdf) [PDF] of its report. Australia has noted that attribution comes in two flavours. One is factual attribution, "the factual circumstances, including the technical indicators that allow you to make an assessment as to a technical assessment of attribution," Weaver said during a briefing in April. "Then there is a legal attribution assessment, which is taking into account the considerations of state responsibility. Can you take those technical or factual circumstances and say this is therefore attributable to a particular government?" Separate from that is any political decision to act publicly or privately on both of those attribution assessments, she said. To this end, the Geneva-based ICT4Peace Foundation has proposed what they've dubbed to be a Global Cyber Attribution Network. "ICT4Peace proposes the setting up of an independent network of organisations engaging in attribution peer-review," the organisation wrote in its policy brief [Trust and Attribution in Cyberspace](https://ict4peace.org/wp-content/uploads/2019/07/ICT4Peace-2019-Trust-and-Attribution-in-Cyberspace.pdf) [PDF]. Currently, most attribution is done by private cyber threat intelligence organisations and national security agencies. "For international legal provisions to be effective, and accountability for malicious cyber activities to take hold, high levels of confidence and publicly persuasive attribution of responsibility are required," ICT4Peace wrote. This new independent attribution agency should include "government representatives, private sector pundits as well as proponents from civil society and academia". Microsoft has also suggested, in 2017, an [attribution organisation to strengthen trust online](https://www.microsoft.com/en-us/cybersecurity/content-hub/an-attribution-organization-to-strengthen-trust-online) as part of its Digital Geneva Convention proposal. Such an agency has been compared with the long-established International Atomic Energy Agency, but the cyber world is vastly different. "Nuclear technology is industrial by design. It is difficult, if not impossible, to develop nuclear capabilities in hiding. Also, military use of nuclear technology is very different from civilian use," ICT4Peace wrote. "Cyber capabilities on the other hand are software based. In contrast to nuclear technology, cyber tools do not emit suspicious radiation and do not require factories for their development. A handful of dedicated individuals gathered in a room can launch a cyberattack of sizeable magnitude." While an independent agency wouldn't be able to provide real-time attribution during a cyber attack, its existence and its ability to subsequently validate or refute a nation's claims could provide a break on cyber escalation. ZDNet understands that the idea of an IAEA-style cyber inspection agency is raised at the UN from time to time, including in the OEWG intersessional multi-stakeholder consultations, but for various reasons, it has yet to gain traction.

### Solvency – Russia

#### Solves Russia

Franz-Stefan Gady and Greg Austin 6-24-10 Franz-Stefan Gady is an associate at the EastWest Institute. He has previously worked as an adjunct research assistant at the Institute for National Strategies Studies of the National Defense University in Washington, D.C., focusing on regional security issues. He was also an analyst for the Project on National Security Reform, a congressionally funded nonprofit organization founded to reform the national security structure of the United States. He holds an M.A. in Strategic Studies/International Economics from the School of Advanced International Studies, Johns Hopkins University, and has served in the Austrian Army and the Austrian Foreign Ministry, working on various security issues. Greg Austin is Vice President of Program Development and Rapid Response at the EastWest Institute. Greg’s career in international affairs spans thirty years and includes senior posts in academia and government. He writes a weekly column in the newspaper New Europe. He has also held senior posts at the International Crisis Group and the Foreign Policy Centre in London. Greg is the author of several well-reviewed books on international security, especially on Asia. His books include The Armed Forces of Russia, co-authored with Alexei Muraviev. He has several postgraduate qualifica- tions in international relations, including a Ph.D. His main specializations have included Soviet and Russian security policy. [Russia, The United States, And Cyber Diplomacy Opening the Doors , <https://www.eastwest.ngo/sites/default/files/ideas-files/USRussiaCyber_WEB.pdf>] //DamienHS WAgustin

Russky Newsweek, the Russian-language edition of Newsweek, ran a cover story in its November 23, 2009, is- sue on cyber crime that pointed a very big finger at Russian hackers working from home and abroad. It used terms like the “Evil Cyber Empire” and the “Cold Cyber War.” At the same time, NATO is trying to understand how it should deal with cybersecurity issues. Does a cyber attack on a NATO member state trigger the Article V commitment of the mutual defense treaty? Geopolitics during the Cold War was about borders and defending them. Cyber diplomacy in the twenty-first century is about managing a world that is not just borderless but can function best when connectivity is almost seamless. This world—so dependent on stable financial transactions and global trading—cannot function at all if cyber connectivity is successfully attacked. So how does NATO, a geographically defined alliance trying to redefine its relationship with Russia, understand its role in pro- moting cyber diplomacy and cyber peace? What should the institutional structure and strategic profile of NATO look like if the biggest security threats to it in the next ten years are from terrorists or states with advanced cyber offensive capabilities? One big change will be in espionage. It will continue but its fundamental character will change. Russia will change its intelligence-gathering priorities in NATO countries, and the United States will change its espionage priorities in Russia. All parties will become more interested in pro- tecting at least some of the others’ secrets than in stealing them, because to do so will buttress their own economic security. For NATO, the time has definitely arrived for it to el- evate cybersecurity to the top rank of issues to be dealt with in its official relations with Russia; the two sides have a shared interest in seeking common solutions, not simply looking at each other as potential threats. A low-profile speech by the vice chairman of the U.S. Joint Chiefs of Staff, General James E. Cartwright, in June 2009 gave a glimpse of an emerging strategic concept in the world’s only military superpower—something he dubbed “global strike.”91 He said that the low-end capa- bility for global strike “is probably [the ability to be] any place on the face of the earth in an hour,” while the “high end is any place on the face of the earth in about 300 mil- liseconds—that’s cyber.” This view was expressed during a discussion of the forthcoming quadrennial review of the country’s military planning and capability. It flowed from Cartwright’s vision of what deterrence looks like in the twenty-first century. Citing the proliferation of ballistic missiles, Cartwright observed that a new attack—potentially nuclear—“could be over in minutes.” This circumstance would require, he said, “something that deters that conflict and it has to be more than nuclear.” For him, part of the argument is that his country’s military bases are located “where we fought the Indians, the Japanese and the Germans.” He suggested that current basing realities might not address the needs of deterring or responding to new threats.

#### Russia says yes

Geoff Van Epps 13 Geoff Van Epps is a lieutenant colonel in the US Army. This article is based on research he conducted while serving as a Senior Fellow at the George C. Marshall European Center for Security Studies in Garmisch, Germany, from 2012-2013. [Common Ground: U.S. and NATO Engagement with Russia in the Cyber Domain, <https://www.proquest.com/docview/1501475931/fulltext/E74DB63D289B45DFPQ/1?accountid=14667>] //DamienHS WAgustin

An Agenda for NATO-Russian Cooperation Absent any ongoing cooperation between NATO and Russia, a virtually blank slate exists for developing NATO's agenda to finally begin to engage Russia in the cyber domain - and NATO must acknowledge that such engagement is imperative going forward. While the NATO Policy on Cyber Defense acknowledges that NATO will "tailor its international engagement based on shared values and common approaches,"147 and a recent NATO study called international partners "essential actors of NATO's cyber defense" with whom NATO should "develop bilateral arrangements ... focusing on infor- mation-sharing, exchange of best practices, and judicial agreements," Alliance gridlock has prevented NATO from even initiating a relationship with Russia on issues of mutual concern.148 As a consequence, NATO members with favorable bilateral relations with the Russian Federation are bypassing NATO to work directly with Russia on cybersecurity and other topics, which neutralizes the collective influence of NATO and plays toward the Russian strategic goal of marginalizing NATO wherever possible.149 Rather than sitting on the sidelines as the cyber domain is evolving around it, NATO has the opportunity and the need now to match its actions to its rhetoric by accepting Russian overtures to cooperate on cybersecurity. It should build internal consensus on engaging Russia with relatively low-cost, low-risk measures where both sides can easily find agreement as first steps toward an eventually more substantial partnership that tackles the thornier problems where the two sides have fundamental differences. Specifically, NATO should seek to cooperate with Russia to accomplish the following goals. Add a Cybersecurity Working Group to the NATO-Russia Council. Ideally, this arrangement would establish a stand-alone working group on par with working groups covering topics like missile defense, logistics, or terrorism. If that were to provide too broad of a mandate for the Alliance partners to agree to, it could be formed as a subgroup underneath the Science for Peace and Security Committee with a much narrower and more technical purview. In any case, forming a working group at the NRC would signal the intention to work seriously with Russia on cybersecurity and would provide an organizational venue for doing so.150 Partner Computer Emergency Response Teams. Regardless of the level of trust between NATO and the Russian Federation, having contacts established between the technical experts who have the ability to respond in the event of a crisis is invaluable.151 NATO should collectively adopt the pragmatic stance of some of its member states and begin a series of limited, technically-oriented exchanges between the NATO Computer Incident Response Capability Technical Center and the Russian CERT in order to exchange technical information and determine how best to communicate during a crisis. Share Cyber Intel. Because cyberspace is constantly evolving and the nefarious actors who operate within it are continually adapting, maintaining up-to-date information on cyber threats is an endless challenge. Likewise, sharing intelligence across NATO can be a sensitive and difficult process, so any proposal for trading secrets with Russia might on the surface seem dubious - except that during an April 2013 visit to Moscow, NATO Deputy Secretary-General Alexander Vershbow proposed the creation of two centers to allow Russia and NATO to share intelligence, conduct joint planning, and coordinate operations on missile defense.152 While a final agreement on establishing these centers is nowhere near, missile defense has been as much of a source of friction between the U.S., NATO, and Russia as cybersecurity, so the proposed facilities provide a template for a cyber threat information clearinghouse as another space for NATO and Russia to cooperate. Such a clearinghouse could start small and work initially on shared analysis of excellent but unclassified data from commercial cybersecurity firms and, as trust is built, graduate to more sensitive and classified intelligence products.153 Develop Confidence-Building Measures. The Organization for Security and Cooperation in Europe (OSCE) is nearing completion of a set of confidence-building measures (CBMs) intended to prevent misunderstandings and avert international conflicts among its fifty-seven member countries.154 Although the publicly available draft of the measures reveals them to be voluntary and not particularly robust,155 the agreement, once finalized, will be important for having started a conversation on cybersecurity among over a quarter of the world's nation-states and in facilitating the exchange of cybersecurity terminology, doctrine, and contacts among the members. NATO should build on the OSCE agenda to pursue a more detailed and more ambitious set of CBMs with Russia, including joint early-warning mechanisms, exchanges of technical cybersecurity recommendations, and improvement of cyber crisis communication channels.156 Given that all twenty-eight NATO countries and Russia are part of the OSCE, achieving consensus on confidence-building measures at the NRC should be attainable, and it would go a long way to addressing Russia's almost paralyzing fears of being blamed for a cyber incident in which it legitimately played no role.157 And since NATO and Russia have a long track record of devising CBMs related to nuclear weapons, adapting those existing procedures and processes to cybersecurity would appear eminently achievable.

### Solvency – China

#### Solves China – you can use this card for space too

Liselotte Odgaard 4-25-22 Liselotte Odgaard is a professor at the Norwegian Institute for Defense Studies . Her work focuses on US–China–Europe relations, including NATO–China relations; Chinese foreign, security and defense policy; Indo-Pacific security, and the geopolitics of the Arctic region. [NATO’s China Role: Defending Cyber and Outer Space, The Washington Quarterly, 45:1,167-183, DOI: [10.1080/0163660X.2022.2059145](https://doi.org/10.1080/0163660X.2022.2059145)] //DamienHS WAgustin

Cyber and space is a promising arena for NATO to address China challenges by building member state resilience. Like the air and sea domains, as areas that belong to no one state and which provide access to much of the globe, they form part of the global commons. Command of the commons has been the key enabler of the US global position of power for many decades.[26](https://www.tandfonline.com/doi/full/10.1080/0163660X.2022.2059145) However, China wields a sufficient range of sea, air, cyber, and space capabilities such that the global commons is now a contested zone. In contrast to the sea and air domains, cyber and space are sparsely regulated. This lack of international norms enhances the risk of conflict based on misperception, making NATO cooperation pertinent. Adversarial activities toward the US and Europe in the cyber and space domain threaten transatlantic security. These come not just from China, but also from other adversaries such as Russia and Iran. Mechanisms for addressing these challenges in the military sector are essentially generic and not, at least in their basic design, established with a particular country in mind. Thus, cyber and space provide an avenue for NATO to contribute significantly to deterrence of China without having to combat major internal resistance. NATO would also benefit from long-standing US-EU cooperation on cyber and space issues.[27](https://www.tandfonline.com/doi/full/10.1080/0163660X.2022.2059145) Cyber and space provide an avenue for NATO to contribute without major internal resistance NATO has vowed to clarify Article Five’s collective defense commitment to encompass threats to satellites in space and coordinated cyberattacks. NATO can design this effort to include adversarial behavior from China. The alliance already has an array of instruments to deal with cyber and space challenges from adversaries. These can be extended to encompass China without pronouncing it a threat.[28](https://www.tandfonline.com/doi/full/10.1080/0163660X.2022.2059145) This approach allows the US and Europe time to adjust their cooperation to take into account the fact that China poses military threats to them both without explicitly using the language of threat at a time when NATO members do not agree if China should be defined as a challenge that can trigger Article Five responses. Since the late 1990s, the vulnerability of shared space assets to cyberattacks has been a concern for both the US and Europe. For example, in 1998 a US-German satellite, used for peering into deep space, was rendered useless after it turned suddenly toward the sun, damaging its High Resolution Imager by exposure. NASA later determined that the accident was linked to a cyber-intrusion at the Goddard Space Flight Center. Coordinated cyberattacks have emerged as a major threat to both the US and Europe since the late 1990s. For example, for about eighteen minutes on April 8, 2010, China Telecom advertised erroneous network traffic routes that instructed US and other foreign internet traffic to travel through Chinese servers. Other servers around the world quickly adopted these paths, routing all traffic, including government and military traffic, to about 15 percent of the internet’s destinations through servers located in China.[29](https://www.tandfonline.com/doi/full/10.1080/0163660X.2022.2059145) In the future, the need to enhance situational awareness in space is likely to lead to further integration of space assets between the US and its allies. Civilian entry points are likely to provide a growing opportunity for infiltration. The weak state of cybersecurity in civilian agencies should also be considered. Chinese military doctrine prioritizes weaponry that targets vulnerabilities in the deployment of US and allied power, such as the use of cyberattacks to disrupt surveillance assets, intelligence networks, and command-and-control systems.[30](https://www.tandfonline.com/doi/full/10.1080/0163660X.2022.2059145) These threats are significant, since next generation systems, including fighter aircraft, destroyers, and special forces, will not function without access to space communication and space-derived data. Although European and US allies have indigenous space programs outside the NATO framework, cyber security and outer space would be a useful field for joint explorations of how to divert and manage attacks and identify an agency which can coordinate transatlantic responses to attacks. Allies are embedded in a range of information networks which may be disrupted, giving rise to alliance management concerns emerging from attacks. The lack of red lines regarding behavior in cyber and outer space between the US and its allies on one hand, and adversaries such as China on the other, adds to the risk of misperception and escalation, and hence also highlights the need for allied coordination to avoid starting a war by mistake. An improved NATO dialogue on safeguards and alliance consultation could also assist communication with China on arms control and conflict prevention in cyber and outer space, which is not currently taking place. Looking to the future, NATO’s success in establishing transatlantic mechanisms for cyber and outer space safeguards and consultation will be crucial to allow NATO a key role in taking on the China challenge in ways that help restore faith in NATO’s credibility as a provider of collective defense in all domains. It will also assist NATO in straddling the chasm between member states prioritizing threats from either China, Russia, the Middle East, or North Africa, since cyber and space threats potentially stem from all of them, and the effectiveness of cyber and space defense mechanisms do not necessarily depend on geographical origin. Cyber and space would allow NATO a key role in the China challenge without prioritizing China Improved communication between NATO and the EU will be essential for NATO to successfully address the military aspects of cyber and space threats. The framework for permanent EU-NATO relations, Berlin Plus, was concluded in March 2003. It allows for the exchange of classified information, the EU’s use of NATO assets and capabilities for EU-led crisis management operations, and the establishment of consultation arrangements.[31](https://www.tandfonline.com/doi/full/10.1080/0163660X.2022.2059145) Due to disagreements over responsibilities and jurisdiction, however, meaningful coordination did not take place until July 2016. On this occasion, NATO and the EU issued a joint declaration stating their intention to work together on security and defense responses to unprecedented challenges emanating from the South and East of the Euro-Atlantic area.[32](https://www.tandfonline.com/doi/full/10.1080/0163660X.2022.2059145)During Biden’s visit to Brussels in June 2021, NATO promised to strengthen cooperation with the EU on promoting peace and stability including protecting critical infrastructure, strengthening resilience, maintaining a technological edge, and addressing challenges to a rules-based order.[33](https://www.tandfonline.com/doi/full/10.1080/0163660X.2022.2059145) The EU-US summit statement from the same visit merely reaffirms support for robust NATO-EU cooperation and promises to strengthen the partnership.[34](https://www.tandfonline.com/doi/full/10.1080/0163660X.2022.2059145) At the level of policy implementation, it is clear when talking to NATO and EU officials that usually they do not coordinate their strategies and tactics for countering China challenges.[35](https://www.tandfonline.com/doi/full/10.1080/0163660X.2022.2059145)

#### China wants cyber diplomacy to maintain interdependence with the West

Nikolay Bozhkov March 2020 [China’s Cyber Diplomacy: A Primer, <https://eucd.s3.eu-central-1.amazonaws.com/eucd/assets/-GXl50Cl/bozhkov-digital-dialogue-final.pdf>] //DamienHS WAgustin

In absolute terms, the People's Republic of China is the European Union's largest trading partner. China is its most significant source of imports and second-largest export market. The EU is second only to the United States as China's top trade partner.207 In the framework of the EU-China 2020 Strategic Agenda for Cooperation signed in 2013 - the strategy that guides comprehensive bilateral cooperation - the EU and China agreed to establish strategic partnership across a wide range of issues, including sustainable development, economic prosperity, global governance, foreign policy, security and peace.208 In 2017, China and Europol reached an agreement known as the "Europol-China Strategic Cooperation Framework" to increase law enforcement cooperation directed at combating transnational crime. The 2016 Joint Communication on "Elements for a new EU strategy on China", adopted by the High Representative, the European Commission209 and the EU Council's Strategy on China210 further clarified EU priorities vis-à-vis China. In line with the EU's overarching engagement strategy, it put special attention on human rights, the rule of law, social-economic issues, trade and investment and market access. The EU has repeatedly highlighted the need to curb industrial cyber espionage by intensifying cooperation with China on reforming the country's "protection and enforcement of intellectual property rights"211 through mechanisms such as the Intellectual Property Rights Infringement Protection212 and the EU-China Strategic Framework for Customs Cooperation on IPR for 2018-2020.213 Underscoring the importance of intellectual property rights protection in Europe, and building on synergies with Japan and the USTR Section 301 Report, the EU has also launched a case at the WTO against China's "unfair [and forced] technology transfers" and discriminatory treatment of foreign companies.214 5.2 China's engagement with the EU and EU member states The landmark 2015 Xi-Obama industrial cyber espionage agreement has served as a template for EU member states' cyber-related bilateral partnerships with China. Both the United Kingdom (2016)215 and Germany (2015)216 have convinced China to formally adopt a norm against cyber espionage in bilateral accords, commit to hold a regular dialogue on pertinent cyber issues and cooperate in the fields of incident mitigation, CERTs assistance, cybercrime and CBMs. European member states' diplomatic approach to China has therefore been more functional and in pursuit of concrete practical outcomes of benefit for both sides. From EU countries' vantage point, this type of functional cooperation with China is necessary as it transcends unsurmountable differences between the two sides' normative preferences, threat perceptions and security interests. For decades, Sino-European Union relations have been characterised by consistently growing economic and cultural ties. Accommodating China's economic rise and appetite to shape international order has given rise to greater technological interdependence in tandem with tremendous new normative, security and political challenges. China's growing assertiveness - particularly its growing political reach in Europe, which is often perceived as a lever to undermine the cohesion of the Union - has eventually compelled the EU to fundamentally redefine its China strategy from an accommodation-based engagement policy towards one of balancing and "managed interdependence" in key strategic sectors and supply chains, with an emphasis on ensuring market reciprocity.217 2019 saw the European Union chart a new bolder course vis-à-vis China. In March 2019, weeks before the 21st EU-China Summit, and coming after recommendations made by the Federation of German Industries and other European actors (member states, other industry federations, etc.) earlier that year,218 the European Commission published an official document ("EU-China - A strategic outlook") describing a new "EU policy shift towards a more realistic, assertive, and multi-faceted approach" to dealing with China.219 The EU asserts that despite China being a cooperation and negotiating "partner" with which the EU needs to (re)align objectives and strike a "balance of interests", the PRC has increasingly become a "systemic rival" and an "economic competitor" that leverages economic investment to achieve geopolitical gains, energetically pursues global "technological leadership" and seeks to export norms and forms of governance at odds with neoliberalism. Furthermore, the profoundly intertwined role of the CCP in China's economy and the opaque and highly blended divisions between the public and private spheres and the military have made Chinese technology a security risk for the EU in the "short to mid-term". Overall, the EU's more critical stance before the 2019 summit has helped secure several concessions from the Chinese side. Concerning EU-China cooperation in cyberspace, the two sides will continue working towards implementing norms of responsible state behaviour under the EU-China Cyber Task Force framework and within parallel UN processes. While affirming that "there should be no forced technology transfers", the two sides also committed themselves to enhancing resilience against malicious cyber activities, including against cyber-enabled intellectual property theft. The two sides also committed to a concrete timeline to conclude the "EU-China Comprehensive Investment Agreement", for which "decisive progress" from the Chinese side - i.e. substantial market-opening reforms directed at ensuring a level playing field - will be required in 2019.225 Furthermore, China and the EU are to cooperate on reforming the WTO, though this will be conditional on China reforming the discriminatory effects of industrial state subsidies and other related issues.

### AT: PDCP

Note: Use the PDCP answers from the DoS CP file

#### Hotlines are under the Department of State’s jurisdiction – here’s proof of US’s most RECENT hotline agreement

AP News 5-5-1998 The Associated Press is an independent global news organization dedicated to factual reporting. Founded in 1846, AP today remains the most trusted source of fast, accurate, unbiased news in all formats and the essential provider of the technology and services vital to the news business. [China, Russia Open Communications, <https://apnews.com/article/0b2d1e1197f64795b0a5e0b9aeaf013e>] //DamienHS WAgustin

China and Russia have opened a direct presidential hot line to improve understanding between the former communist rivals, the Foreign Ministry announced Tuesday. The secure telecommunications link, China’s first with a foreign capital, will allow presidents Jiang Zemin and Boris Yeltsin to ``exchange views on bilateral relations and international issues at any time,″ Foreign Ministry spokesman Zhu Bangzao said. U.S. Secretary of State Madeleine Albright and Chinese Foreign Minister Tang Jiaxuan signed an agreement for a U.S.-China hot line last week, but Zhu said he did not know when it would open. China and the former Soviet Union engaged in a tense rivalry for the allegiances of the socialist world during the Cold War and fought border skirmishes in the late 1960s. Relations have improved steadily over the past decade.

#### Security Cooperation is administered by the DoD, Security Assistance is DoS

McLaren 14, US Air Force Captain (McKay, “Enhancing the Assessment of the Costs and Benefits of International Pilot Training (IPT) Within the U.S. Air Force: Is It Worth It?,” RAND Dissertations)//BB

U.S. Code Title 22 provides congressional authority to conduct DoS Security Assistance programs. The programs are carried out through two basic laws, the Foreign Assistance Act of 1961 (FAA) and the Arms Export Control Act of 1976 (AECA).24 AECA enacted congressional legislative controls over export of defense articles and services. The Senate Foreign Relations Committee and the House Foreign Affairs Committee are responsible for foreign assistance and Security Assistance program authorization legislation. The Senate and House Armed Services Committees are responsible for defense programs authorization legislation. The term security cooperation is used within DoD, whereas the term security assistance is used within the DoS. It is important to note that these congressional committees play a role only in FMS authorization. Although Congress maintains legislative control over exports, FMS is a nonappropriated program, external to the U.S. budget, and the president is charged with signing off on spending for the program. Through Executive Order 11958, as amended, the President delegates selected functions in the AECA to the secretaries of State and Defense. They are required to provide reports to Congress and obtain specific congressional approval on certain exports or transfers. The DoS has responsibilities relating to security assistance, which include managing the export of defense articles, services, training, and military technology.25 DoD has responsibilities relating to security cooperation, which include activities to encourage and enable international partners to work with the United States to achieve strategic objectives.26 The military departments and other DoD agencies involved in managing FMS programs are collectively called implementing agencies (IAs). The Army, Navy, and Air Force usually have the responsibility of being the IA in the process of FMS.27 The Air Force agency for all security cooperation programs is the Office of the Deputy Under Secretary of the Air Force for International Affairs (SAF/IA). The Assistant Secretary of the Air Force for Acquisition has oversight in the execution by virtue of having responsibility for Air Force acquisition. SAF/IA is supported by the Air Force Security Assistance Center at Wright-Patterson Air Force Base, Ohio, for most FMS and other logistics functions. The Air Force Security Assistance Training (AFSAT) squadron at Randolph Air Force Base (AFB), Texas, is in charge of planning and, with AETC, managing the Air Force international military training. It is organized under the authority of AETC.

## Russian Sanctions

#### The United States Federal Government should propose to the North Atlantic Treaty Organization to multilaterally impose sanctions and export controls on Russian defense contractors and their CEOs.

### Solvency – Russia

#### Plank solves. Russian defense CEOs and companies alike have avoided Western sanctions, keeping Russia’s military alive – cutting them off at the head impairs the Russian military

Chris Kirkham & David Gauthier-Villars 7-1-22 Reporting by Chris Kirkham in Los Angeles and David Gauthier-Villars in Istanbul; Additional reporting by Tim Hepher in Paris; Editing by Marla Dickerson and Vanessa O'Connell. [Special Report: Dozens of Russian weapons tycoons have faced no Western sanctions, <https://www.reuters.com/world/europe/dozens-russian-weapons-tycoons-have-faced-no-western-sanctions-2022-07-01/>] // DHS WAgustin 🍔

As Russia's military continues to pound Ukraine with missiles and other lethal weapons, Western nations have responded in part by targeting Russia's defense industry with sanctions. The latest round came on Tuesday, when the United States issued new sanctions on some arms makers and executives at the heart of what it dubbed Russian President Vladimir Putin's "war machine." But a Reuters examination of companies, executives and investors underpinning Russia's defense sector shows a sizable number of players have yet to pay a price: Nearly three dozen leaders of Russian weapons firms and at least 14 defense companies have not been sanctioned by the United States, the European Union or the United Kingdom. In addition, sanctions on Russia's arms makers and tycoons have been applied inconsistently by these NATO allies, with some governments levying penalties and others not, the Reuters review showed. Among the weapons moguls who have not been sanctioned by any of those three authorities is Alan Lushnikov, the largest shareholder of Kalashnikov Concern JSC, the original manufacturer of the well-known AK-47 assault rifle. Lushnikov owns a 75% stake in the firm, according to the most recent business records reviewed by Reuters. The company itself was sanctioned by the United States in 2014, the year Russia invaded and annexed the Ukrainian peninsula of Crimea. The EU and UK leveled their own sanctions against Kalashnikov Concern this year. The company accounts for 95% of Russia's production of machine guns, sniper rifles, pistols and other handheld firearms, and 98% of its handheld military machine guns, according to its website and most recent annual report. Its weapons include the AK-12 assault rifle, an updated version of the AK-47, some of which have been captured from Russian forces by Ukrainian soldiers. The Kalashnikov Concern also produces missiles that can be fired from aircraft or on land. A former Russian deputy transport minister, Lushnikov once worked for commodities tycoon Gennady Timchenko, a longtime friend of Putin. The United States sanctioned Timchenko in 2014 following Russia’s invasion of Crimea, naming him as a member of the Kremlin’s “inner circle.” Neither Lushnikov, Timchenko or the Kalashnikov Concern responded to requests for comment. It’s the same pattern with Almaz-Antey Concern, a Moscow-based defense company specializing in missiles and anti-aircraft systems. The company has been sanctioned by the United States, EU and UK, but CEO Yan Novikov has not been punished. Almaz-Antey’s website displays the motto “Peaceful Sky is Our Profession.” The company makes Kalibr missiles, which Russia’s Ministry of Defense has credited with destroying Ukrainian military installations. In a statement last month, the ministry said Russia had fired long-range Kalibr missiles at a Ukrainian command post near the village of Shyroka Dacha in eastern Ukraine, killing what the ministry claimed were more than 50 generals and officers of the Ukrainian military. Reuters was unable to independently verify that claim. Neither Almaz-Antey nor CEO Novikov responded to requests for comment. In response to a list of questions submitted by Reuters about Western sanctions aimed at Russia, a Kremlin spokesperson said "the consistency and logic of imposing sanctions, as well as the legality of imposing such restrictions, is a question that should be put directly to the countries that introduced them." The Reuters findings come as Ukrainian President Volodymyr Zelenskiy has said that current Western sanctions against Russia “are not enough” as Russian troops make gains in their assault on Ukraine’s eastern regions of Luhansk and Donetsk. The Ukrainian military has been outgunned by Russian artillery in places such as the industrial city of Sievierodonetsk, which it ceded to Russian forces last week after weeks of intense fighting. Putin has portrayed his military’s assault on Ukraine as a “special military operation” aimed at demilitarizing and “denazifying” its democratic neighbor. On Tuesday, Russia’s Foreign Ministry announced it would bar Jill Biden and Ashley Biden, the wife and daughter of U.S. President Joe Biden, from entering Russia indefinitely in what it said was a response to “constantly expanding U.S. sanctions against Russian politicians and public figures.” U.S. National Security advisor Jake Sullivan said on Tuesday that Russia's action was not surprising because "the Russian capacity for these kinds of cynical moves is basically bottomless." The Russian invasion has killed thousands of Ukrainian soldiers and civilians, but the exact number is unknown. The United Nations human rights office said, as of Monday, that 4,731 civilians had been killed in Ukraine since Russia’s invasion began on Feb. 24, including more than 300 children, with another 5,900 civilians injured in the conflict. The agency said most of the casualties were caused by the use of “explosive weapons with a wide impact area, including shelling from heavy artillery and multiple launch rocket systems, and missile and air strikes,” and that the actual number of dead and wounded was likely far higher. The West has levied sanctions on a swath of Russia’s economy to punish Moscow, an effort that so far has done little to deter the Russian offensive. Like the bans on other Russian firms, sanctions on weapons companies are meant to hamper their ability to sell to foreign customers. These penalties limit their access to imported components and generally make it more costly and time-consuming to produce weaponry. Levying sanctions on the people behind those firms goes a step further to make the pain personal. It allows Western nations to go after any mansions, yachts and other offshore wealth of those who supply Russia’s military, and it limits where they can travel abroad. “You’re demonstrating that being a regime collaborator comes with a cost,” said Max Bergmann, a former State Department official during the Obama administration who worked on U.S. arms transfers and safeguarding U.S. military technology. “They feel it very personally. You’re creating a disgruntled class of people that are tied to the Kremlin,” said Bergmann, now director of the Europe program at the Center for Strategic and International Studies, a Washington-based national security think tank. AMMUNITION MAKERS UNSCATHED Other companies in Russia’s defense industry identified by Reuters that have not been sanctioned by the United States, EU or UK include the V.A. Degtyarev Plant[(ZDEGI.MM)](https://www.reuters.com/companies/ZDEGI.MM), a facility 165 miles northeast of Moscow that makes machine guns, anti-tank and anti-aircraft weapons that are sold to the Russian military. Its weapons include the Kalashnikov PKM and PKTM machine guns, as well as Kord rifles and machine guns, some of which are mounted on armored vehicles. The Degtyarev Plant did not respond to a request for comment. Also not sanctioned is the Klimovsk Specialized Ammunition Plant, south of Moscow, where “world-famous cartridges” for pistols and Kalashnikov assault rifles are produced, according to an archived version of its website. Neither is the Novosibirsk Cartridge Plant, an ammunition manufacturer that calls itself “one of the leading engineering enterprises of the military-industrial complex of Russia.” Neither ammunition plant responded to requests for comment. Last month, Reuters sought comments from sanctions officials in the UK, EU and United States regarding the news agency’s findings that they had failed to punish a raft of Russian defense firms and tycoons fueling Putin’s war effort. As part of that process, Reuters provided those Western authorities with a detailed list of more than 20 companies and more than three-dozen people that had escaped sanctions. The UK’s Foreign, Commonwealth and Development Office, which levies sanctions for Britain, said it could not comment on future sanctions. It added that London and its allies had levied “the largest and most severe economic sanctions that Russia has ever faced, to help cripple Putin’s war machine.” The European Commission and the U.S. Treasury Department, which handle sanctions for Brussels and Washington respectively, declined to comment on the specifics of Reuters’ findings. Elizabeth Rosenberg, assistant secretary for terrorist financing and financial crimes at the Treasury Department, said in a statement that sanctions have “made it harder for Russia to obtain what it needs to procure and produce weapons.” On Tuesday, in conjunction with a meeting of leaders of the G7 nations in the German Alps, the Treasury Department released a new round of defense-related sanctions that included eight of the weapons firms and two of the executives on the list provided earlier by Reuters. One of those newly sanctioned executives, Vladimir Artyakov, has played key roles in Russia’s weapons industry for decades, and serves as the No. 2 executive at Rostec, a military-industrial giant with hundreds of subsidiaries employing more than half a million people, according to its website and annual reports. Artyakov is also the chairman of at least five Russian weapons firms, among them Russian Helicopters JSC, which builds several lines of military helicopters including the Ka-52 "Alligator," some of which have been shot down and documented in Ukraine. He has not been sanctioned by the EU or UK. Artyakov and Russian Helicopters did not respond to requests for comment. Rostec has been sanctioned by Washington since 2014. On Tuesday the United States targeted the company again, levying sanctions on more than 40 Rostec subsidiaries and affiliates. Among those hit was Avtomatika Concern, a company linked to cyber warfare. It was on the list of Russian defense firms that Reuters had submitted to the Treasury Department last month seeking an explanation as to why the companies had not been sanctioned. Rostec and Avtomatika Concern did not respond to requests for comment. Other firms on Reuters’ list that were sanctioned just this week by the Treasury Department include PJSC Tupolev, a maker of fighter jets such as the Tu-22M3 bomber. The Ukrainian military said Tu-22M3 bombers were responsible for a missile strike at a crowded shopping center in the central Ukrainian city of Kremenchuk on Monday, which killed at least 18 people and injured about 60. PJSC Tupolev and another firm on Reuters’ list, JSC VNII Signal, have not been sanctioned by the EU or UK. JSC VNII Signal is a producer of mechanical and navigational systems that power Russian military tanks and some of the country’s most advanced missile systems. PJSC Tupolev and JSC VNII Signal did not respond to requests for comment. TOP BRASS UNTOUCHED Executives at a host of Russian weapons firms, meanwhile, have largely escaped sanctions from Western authorities. Nearly three months after a Tochka-U ballistic missile hit a train station in the eastern Ukrainian city of Kramatorsk on April 8, Russian weapons executives linked to the company that makes those missiles have yet to pay a price. The strike killed more than 50 people, including children, and injured more than 100 others. The Russian firm JSC Research and Production Corporation Konstruktorskoye Byuro Mashynostroyeniya, known as KBM, has been the primary manufacturer of Tochka-U missiles, according to a U.S. Army database of worldwide military equipment. Neither Washington, Brussels or London have sanctioned Sergey Pitikov, KBM’s chief executive. The three Western allies have likewise spared Alexander Denisov, the CEO of NPO High Precision Systems, KBM’s parent company. High Precision Systems oversees production of a wide range of missiles, artillery, grenade launchers and machine guns used by Russian troops and outfitted on military helicopters, aircraft, tanks and warships. Sanctions on Russia’s arms companies and tycoons have been applied inconsistently by the Western allies. The United States and EU have sanctioned High Precision Systems, for example, while the UK has not. The United States has sanctioned KBM, but the EU and UK have not. High Precision Systems, Pitikov and Denisov did not respond to requests for comment. KBM confirmed that Pitikov is its chief executive, but did not respond to additional questions submitted by Reuters. Europe and the United States have failed to coordinate sanctions even on makers of banned weapons. Since the outset of Russia’s invasion in late February, Western governments and human rights groups have decried its use of cluster munitions: small bombs delivered by missiles or rockets, which scatter and explode over an area as large as a city block. A 2008 international treaty bans their use or production under any circumstances because of the devastating effects on civilians. Russia used a Uragan – which translates to “Hurricane” – rocket launcher system to fire cluster bombs in Kharkiv on March 24, killing eight civilians and injuring 15 others, according to the U.N. human rights office and Ukrainian officials. The Uragan is made by JSC Scientific and Production Association Splav, a Russian firm whose systems have been sold abroad to countries including India. The company has been sanctioned by the United States, but not by the UK or EU. Its CEO, Alexander Smirnov, has escaped sanctions altogether. Splav and Smirnov did not respond to requests for comment. It’s much the same for Splav’s parent company, NPK Techmash. The United States and the EU have sanctioned the firm, but the UK has not. Techmash CEO Alexander Kochkin has not been targeted by American or European authorities. Techmash and Kochkin did not respond to requests for comment. In a June 10 statement, the European Commission said there is an effort to align sanctions lists “as much as legally possible” among allies to achieve “the maximum cumulative effect of the sanctions with all our like-minded partners.” In cases where the lists do not align, the Commission statement said, people and companies not currently on the EU’s sanctions list could be added later if there is sufficient evidence. "Nothing is off the table," the statement said. WESTERN CONNECTIONS One of the highest-profile Russian firms to escape Western sanctions is VSMPO-Avisma Corp[(VSMO.MM)](https://www.reuters.com/companies/VSMO.MM), which is the world’s largest titanium supplier and 25% owned by Rostec. It supplies Russia’s defense industry, but also counts major Western aerospace companies among its clients. Based in Verkhnyaya Salda, in central Russia, VSMPO-Avisma has subsidiaries with facilities in the United States, Switzerland and the UK, as well as sales and distribution staff in the United States, Europe and Asia, according to its website and annual reports. That’s no doubt a factor that has allowed the company to escape punishment, according to three sanctions and Russian defense experts who spoke with Reuters. VSMPO-Avisma’s vice chairman and majority shareholder, Russian billionaire Mikhail Shelkov, ranked by Forbes this year as Russia’s 59th-richest person, likewise has not been sanctioned. According to past press releases, VSMPO-Avisma has long-term contracts to supply titanium to United Aircraft Corp, a Rostec subsidiary that oversees production of Russian fighter jets such as the Su-34 that have been shot down in Ukraine. United Aircraft has been sanctioned by the United States, EU and UK. VSMPO-Avisma also sells to Europe’s Airbus[(AIR.PA)](https://www.reuters.com/companies/AIR.PA), and it supplied U.S. aerospace behemoth Boeing Co[(BA.N)](https://www.reuters.com/companies/BA.N) up until March, when the Arlington, Virginia-based company said it stopped purchasing titanium from Russia. Boeing had announced just months earlier, in November 2021, that VSMPO-Avisma would be its largest titanium supplier “for current and future Boeing commercial airplanes.” VSMPO-Avisma and shareholder Shelkov declined to comment. Boeing said in a statement that it has worked since 2014 to diversify its sources of titanium around the world, and that its current inventory and sources "provide sufficient supply for airplane production." Airbus did not answer specific questions about its relationship with VSMPO-Avisma. But in an emailed statement it said potential sanctions on Russian titanium “would massively damage the entire aerospace industry in Europe” while doing little to harm Russia because those sales are but a small portion of that nation's overall exports. In 2020, foreign sales accounted for about two-thirds of VSMPO-Avisma’s $1.25 billion in revenue, according to the company’s most recent annual report. That puts Western officials in a tough spot, said Richard Connolly, director of Eastern Advisory Group, a UK consultancy that advises governments and businesses on the Russian economy and its defense industry. Slapping sanctions on VSMPO-Avisma would curtail its lucrative export trade, but it would also force major players in global aviation to switch suppliers or risk sanctions themselves. “That’s the classic sanctions conundrum: If you want to hurt somebody, you’re going to hurt yourself,” Connolly said

#### Sanctions are effective in limiting Russian military capabilities – targeting specific sectors of their defense disables their military

Jack Detsch & Robbie Gramer 5-12-22 By [Jack Detsch](https://foreignpolicy.com/author/jack-detsch/), Foreign Policy’s Pentagon and national security reporter, and [Robbie Gramer](https://foreignpolicy.com/author/robbie-gramer/), a diplomacy and national security reporter at Foreign Policy.[Western Sanctions Are ‘Beginning to Bite’ Into Russia’s Military, <https://foreignpolicy.com/2022/05/12/western-sanctions-are-beginning-to-bite-into-russias-military/>] // DHS WAgustin 🏋️‍♂️

U.S. and British officials believe that damaging international sanctions slapped on Russia over its full-scale invasion of Ukraine are hampering its ability to restock high-tech weapons, such as precision-guided munitions, though Russia still has plenty of conventional ammunition stocks at its disposal to continue to wage war. The impact of Russia’s sanctions-induced high-tech military shortages have been spotted by Western governments, as Russian President Vladimir Putin has ordered troops into the besieged steel factory in the city of Mariupol, Ukraine, while Russian pilots have rained down “dumb bombs” without advanced precision guidance kits into the city. The Russian military burned through much of its stockpile of advanced weapons in the early days of the war; the United States believes Russia may have fired as many as 12 hypersonic missiles into Ukraine. U.S.-led [export controls](https://foreignpolicy.com/2022/02/22/biden-russia-ukraine-sanctions-asia-allies-export-controls-invasion-plans/) announced in late February sought to starve Russia of computer chips and semiconductors that could be used in advanced military equipment. “Our sanctions and export controls were designed to deny Russia the critical inputs it needs to continue the war against Ukraine and to degrade its ability to project power in the future,” said Wally Adeyemo, deputy secretary of the U.S. Treasury Department. “We have disrupted the Russian military supply chain and overall production, inhibited its defense sector from settling payments, and will continue to target Russia’s ability to restock, resupply, and rebuild.” Since late February, when Russia launched its invasion of Ukraine, the U.S. government has designated 147 entities, 35 individuals, and 74 vessels operating in Russia’s defense sector, according to data from the Treasury Department. Among the top targets of U.S. sanctions is the Tactical Missiles Corporation, known as KTRV when transliterated and abbreviated. KTRV is a Russian state-owned defense conglomerate that produces hypersonic weapons and technology used in radar systems and other multipurpose missiles. The Treasury Department has sanctioned a chief executive of KTRV, Boris Obnosov, as well as 28 subsidiaries of the conglomerate. Within Russia, there are already signs the sanctions are starting to cut into the country’s ability to restock its high-end systems. U.S. Commerce Secretary Gina Raimondo told Congress on Wednesday that Ukrainian officials had told her that Russia was being forced to take semiconductors from dishwashers and refrigerators for high-tech weapons. Raimondo said U.S. technology exports to Russia had dropped by almost 70 percent since its full-scale invasion of Ukraine. Moscow set up an interdepartmental committee to sort out how to source more military equipment domestically and if so-called friendly countries—including China—might be willing to work around sanctions to provide microelectronic processors and ammunition, two of Russia’s biggest military needs. “We do believe that the sanctions and the export controls, particularly when it comes to components, electronic components, has had an effect on the Russian defense industrial base and their ability to restart [precision-guided munitions],” a senior U.S. defense official told reporters this week. “It’s definitely beginning to bite into his defense industrial capabilities.” A British Foreign, Commonwealth, and Development Office spokesperson told Foreign Policy that international sanctions had frozen 60 percent of Russia’s foreign currency reserves, nearly $340 billion. Up to 70,000 computer specialists left Russia in March, and another 100,000 were expected to. “Persistent sanctions will lead to depressed long-term GDP growth as the country is unable to access key Western technology,” the spokesperson said in an emailed statement. (Russian GDP could fall by up to 15 percent this year.) It’s difficult to track the exact extent that sanctions are hitting Russia’s ability to rearm; Western officials speak about the matter in broad terms but have not publicly offered specific numbers due the sensitivity of the information. “We cannot publicly comment on the specific impact that these measures are having on the production of particular weapons systems or munitions Russia is using to prosecute its war against Ukraine,” a State Department spokesperson said. The bite of Western sanctions seems to have forced Moscow to begin dusting off Soviet-era defense stocks and use munitions that are less accurate—and thus potentially deadlier to Ukrainian civilians caught in the crossfire of Russia’s clumsy military offensives. On Monday, the British defense ministry’s intelligence arm assessed that the depletion of Russia’s precision-guided stockpiles has “forced the use of readily available but aging munitions that are less reliable, less accurate, and more easily intercepted.” The 77-day invasion has “revealed shortcomings” in Russia’s ability to conduct precision strikes, including subjecting Ukraine’s towns and villages to intense shelling, a trend that seems to be on the rise in the offensive in the Donbas region. Even if such ammunition is inferior to precision-guided munitions, Russia has plenty of it to continue its military offensives. “They will face problems on the security of supply on their precision-guided missiles, some other high-tech elements, and weaponry,” said one senior Eastern European defense official. “But at the same time, we shouldn’t discount their ability to wage war with simpler stuff. They have enough [ammunition] for years and years for fighting on that level they’re doing,” the official added. Much of Russia’s defense industrial base has been under harsh U.S. sanctions since 2014, during Russia’s first invasion of Ukraine and illegal annexation of Crimea. In late March, the Biden administration also slapped [sanctions](https://www.whitehouse.gov/briefing-room/statements-releases/2022/03/24/fact-sheet-united-states-and-allies-and-partners-impose-additional-costs-on-russia/#:~:text=Today%2C%20the%20United%20States%20is,with%20the%20EU%20and%20G7.) on dozens of Russian defense companies beyond KTRV, including High Precision Systems, which produces surface-to-air missiles such as the Iskander and anti-tank missile systems, and Tekhmash, the producer of many of the Russian military’s ammunition, multiple rocket systems, and unguided bombs. The Treasury Department has also targeted neighboring Belarus’s defense sector with its own sanctions packages. Belarusian President Aleksandr Lukashenko, which has aligned his authoritarian government with Moscow, supported the invasion and allowed Russian troops to use his country to launch offensives and airstrikes across the border into northern Ukraine in the early weeks of the war, before Russia’s effort to capture Kyiv, Ukraine’s capital, failed. The U.S. Commerce Department rolled out new export control restrictions aimed at stopping Russia from getting U.S.-made technology that could be used in military hardware, even if that technology is supplied by third countries. This includes microelectronics, telecommunications, information security equipment, sensors, navigation equipment, avionics, and parts for civilian aircraft. But much of the U.S. effort to stop Russia’s military supply lines from humming relies on extensive export controls that lean on the newly made Foreign Direct Product Rule to block almost any products made with U.S. software or technology. The problem with depending on that rule, former officials told Foreign Policy, is that it leans heavily on foreign countries to make enforcement calls. And the United States has limited—if any—visibility on products that are actually reaching Russia. “My huge, huge concern is that we do not have end use checks in Russia,” said Nazak Nikakhtar, a former assistant secretary of commerce during the Trump administration and now a partner at Wiley Rein, a law firm. “We do not have U.S. officials that can go to the Russian entities to figure out even if there’s an export license that has been granted. We have nobody to go in there and do an audit to see that that’s happened.” There’s another potential end-around, Nikakhtar said: China. The U.S. rival could help supply critical minerals needed to make steel and aluminum for military equipment as well as microchips needed to help guide precision missiles to their targets. But even if Russia is able to find other suppliers for military components, as some expect, it is likely to face an increasingly steep economic cliff as the invasion of Ukraine continues. Speaking to reporters in Washington on Tuesday, British Defense Secretary Ben Wallace said Western sanctions would pose a “real challenge” to Russia’s ability to refurbish his “worn out” armed forces. And even though the Kremlin has managed to stabilize the ruble with energy exports, it is not likely to be able to stave off the financial pain for long. “Russia is probably spending almost everything it’s earning on its energy exports to prop up the ruble and, you know, do all sorts of other B.S. to make it seem like the economy is okay when it’s not,” said Brian O’Toole, a nonresident senior fellow with the Atlantic Council think tank and a former Treasury Department official. “They’re making hard choices now,” he added. “It’s frustrating for folks not to see all of the results, but this is unsustainable for the Russians. At some point, they’re just going to fall off a cliff.”

## China Tech Coop

#### The United States Federal Government should collaborate with China over military technology

### Solvency – China

#### Plank solves. Disables chances of a great power war and spurs innovation with China

Xiaoli Jin 3-12-20 Xiaoli Jin is an associate at Keystone Strategy. She is a prospective member of Harvard Law School’s Class of 2024. She has previously been published in YaleGlobal. [The Challenge and Necessity of US-China Technology Cooperation, <https://jia.sipa.columbia.edu/online-articles/challenge-and-necessity-us-china-technology-cooperation>] // DHS WAgustin 🐒

With rising frictions between the United States and China in the field of science and technology, few may still remember the great accomplishments achieved when the United States and China cooperated in the field of technology over the past 40 years. During the rapprochement in the 1970s, cooperation in technology spanned over fields like energy, health, basic research in physics and chemistry, and civil industrial technology, among others that could easily be considered sensitive areas by current standards. Academic exchanges also thrived: the U.S. National Institute of Standards and Technology has hosted thousands of Chinese scientists since the 1980s. The U.S. National Science Foundation also [sent U.S. scholars](https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/st-fact-sheet.pdf) to conduct scientific research in China. Yet in recent years, this collaborative ethos has been increasingly replaced by mistrust. The U.S. [urged its allies](https://www.bloomberg.com/news/articles/2018-11-23/u-s-urges-key-allies-to-avoid-using-huawei-equipment-wsj-says) to stop purchasing 5G infrastructure and equipment from China’s technology crown jewel, Huawei. Renowned scholars were [sanctioned](https://www.bloomberg.com/news/articles/2020-01-28/harvard-university-professor-accused-of-lying-about-china-ties) for involvement in technological research sponsored by the other nation’s government. Some people may view the deterioration of the U.S.-China technology exchange simply as a trade-off between national security and innovation. However, the contesting philosophies of technological protectionism and globalism is the more fundamental issue at play. This paper discusses the past, present, and future of US-China technology cooperation in three dimensions. 1.) Why has technological cooperation deteriorated? 2.) How is reviving cooperation beneficial to both countries? 3.) Is it possible to restore trust against the backdrop of U.S.-China competition? Why has U.S.-China cooperation in technology deteriorated? The reasons for deterioration lie in the rapid development of technology in both countries. On the one hand, China’s technological capacity has been advancing rapidly. Harvard Economics Professor Richard Freeman [accredited China with](https://economics.harvard.edu/files/economics/files/bigger_than_you_thought_chinas_contribution_journal_china_and_world_economy_xie-freeman_jan2019.pdf) 36 percent of global scientific articles in 2016 and 37 percent of citations to scientific articles in 2013, which is two times more than China’s share of global population or GDP. The time to turn research into commercial applications has also shortened. In November 2019, China had already [launched](https://www.cnn.com/2019/11/01/tech/5g-china/index.html) 5G services in 50 cities. The companies that run 5G services are none other but China’s three state-run telecom giants--China Mobile, China Telecom, and China Unicom--reinforcing the United States’ concerns that Chinese government is closely involved in China’s cutting-edge technologies. On the other hand, technology has also developed by leaps and bounds in the United States. In the past, only a few high-stake, dual-use technologies would spark national security concerns. In addition, these technologies often had military applications. Yet as technological applications proliferated and interfaced pervasively with people’s everyday lives, even dating applications can now collect personal data that warrants regulators’ concerns. Increasingly, the United States finds itself vulnerable in many new technological fields that were not formerly considered sensitive. Most fundamentally, U.S.-China technology cooperation has shifted from unilateral to bilateral. In the past, the U.S. was typically the provider of capital and technological know-how while China was the receiver. For the United States, technological assistance to China was partly an exercise in [science diplomacy](https://www.uscc.gov/sites/default/files/Research/Trends%20in%20US-China%20Science%20and%20Technology%20Cooperation.pdf). Since the U.S. surpassed China in technological capacity by a wide margin, exchanging technology assets for diplomatic objectives made political sense for the United States. Moreover, in the past, U.S.-China technological cooperation was often rolled out in formal settings. Cooperation usually took place between government agencies or government-affiliated research institutions, which enabled the U.S. to control the extent of the technological knowledge that was transferred to China. In recent years, however, China has started exporting capital and talent to the United States as well. Chinese technology giants Alibaba and Baidu established Artificial Intelligence research labs in California, where they collaborated with U.S. scholars and institutions. Chinese companies poured capital into U.S. technology companies. In the first quarter of 2014 alone, Chinese investors struck [high-tech deals](https://asiasociety.org/files/China_Hi_Tech_Report.pdf) worth over six billion dollars, including the takeovers of Motorola Mobility and IBM’s x86 server unit. With the rise of Chinese talent and capital, the exchange of technological know-how between the United States and China now takes place among private businesses and between individuals: an exchange that is impossible for the United States to fully control. The changing nature of technological cooperation has made both countries reconsider the political costs and benefits. Meanwhile, as nationalist sentiments rise on a global scale, technology has become a convenient medium to strike a political point. Hence, it comes as no surprise that backlash against U.S.-China technological cooperation gradually comes to the mainstream. Technological protectionism has temporarily prevailed against technological globalism. Why is reviving technological cooperation beneficial to both United States and China? The United States and China should not let technological protectionism persist, as cooperation has proven valuable to both sides. These benefits are evident whether cooperation is organized through government-sponsored programs or through private companies and individuals. The [U.S.-China Clean Energy Research Center](https://www.energy.gov/sites/prod/files/2017/04/f34/1_Zhou%2C%20Nan_CERC%20Overview.pdf) (CERC) is a quintessential example of the value of technology cooperation through government-sponsored programs. Initiated at the presidential level in 2009, CERC aims to achieve a large-scale adoption of energy efficient buildings backed up by cutting-edge technologies. Through the collective effort of and researchers in the United States and China, CERC has launched high-tech products including daylight redirecting windows, trilogy integrated heat pumps and co-axial ground heat exchangers that are reported to consume 14 to 30 percent less energy than conventional products. In addition, CERC also published multiple copyrighted software applications and are on the path to file joint intellectual properties on behalf of research teams from both countries. CERC is just one example of the vast potential that U.S.-China cooperation can unleash, especially in fields that concern both countries. As acknowledged in a [U.S.-China Economic and Security Review Commission report](https://www.uscc.gov/sites/default/files/Research/Trends%20in%20US-China%20Science%20and%20Technology%20Cooperation.pdf), the U.S. gained research access to important facilities in China and communicated with China’s leading scientists through various scientific initiatives. Needless to say, China also obtained a great amount of technological experience and know-how by collaborating with the United States. The two countries have only more to gain when their technology cooperation is carried out on a business-to-business or individual-to-individual level. The U.S. Bureau of Labor Statistics [estimates](https://www.bls.gov/opub/mlr/2015/article/stem-crisis-or-stem-surplus-yes-and-yes.htm) a need for approximately one million more Science, Technology, Engineering, and Mathematics (STEM) professionals than the U.S. currently produces to retain its own preeminence in technology. And over the years, China has consistently been the leading source of STEM students enrolled in the United States. Moreover, surveys of U.S. National Science Foundation [shows that](https://crsreports.congress.gov/product/pdf/IF/IF11347) 90 percent of Chinese scholars still work in the U.S. ten years after receiving their doctoral degrees in STEM. These scholars power innovation in Silicon Valley, expediting the creation of technological applications that benefit millions of people in the United States. The benefit of cooperating with the United States on a business-to-business or individual-to-individual level is also obvious for China. For instance, through joint ventures, medical companies in the United States have brought innovative treatments to China’s vast healthcare market that cover a wide array of complex diseases like influenza, diabetes, and hypertension. How do we restore trust in technology cooperation against the backdrop of U.S.-China competition? Restoring U.S.-China technological cooperation will benefit the people of both countries. As the U.S.-China relationship is currently characterized by tension and mistrust, leaders in each country need to firmly express their determination to restore cooperation with their counterpart. They must co-develop strategic solutions to achieve this shared goal. First, the U.S. and China need to identify common interests, search for shared problems, and capitalize on existing relationships in those areas. For example, as Professor Lan Xue at Tsinghua University and Denis Simon at Arizona State University [suggested](https://www.chinausfocus.com/2022/wp-content/uploads/Part-02-Chapter-122.pdf), the Integrated Gas-steam Combined Cycle field could be a potential opportunity to expand ties between the two countries. In this field, China appears to have the strongest technology in coal-gas transformation, while the United States ranks first in the world in steam turbine technology. The two countries could share their technological advantages to achieve a win-win outcome. Second, the U.S. and China need to enhance bilateral agreements that address pressing issues like intellectual property protection. Such agreements should contain clear protocols that guide the handling of sensitive data, specify the process of transferring technical knowledge, and establish corresponding auditing procedures. In addition, each country needs to do its part to address the other party’s core concerns. As scholars from the Asia Society [recommended](https://asiasociety.org/files/China_Hi_Tech_Report.pdf), China has to further unleash its private sector and give businesses more freedom to make investment decisions that are unconstrained by the government. If China is willing to take bold steps to empower its private enterprises, the United States will be less concerned about the politicization of Chinese investments. Meanwhile, U.S. regulators should evaluate foreign investments in technology sectors based on the investors’ compliance history rather than their nationality. While all the aforementioned suggestions are by no means easy to achieve, each small step in the right direction can go a long way to make technological exchanges between the United States and China more transparent and open. History reveals that technological protectionism and globalism often take turns to dominate the mainstream political narrative. While neither is categorically better than the other, most would agree with that rapid innovations needs a certain level of collaboration to sprout. As the world awaits the two great powers to bring more technology advancement to mankind, it behooves the United States and China to continue close cooperation.

### AT: Say No

#### China says yes

Evelyn Cheng 10-30-20 Evelyn Cheng is CNBC.com’s Beijing correspondent, covering China’s economy and financial markets. [China talks up a future in which it needs collaboration with the U.S. and other countries, <https://www.cnbc.com/2020/10/30/china-talks-up-a-future-in-which-it-needs-collaboration-with-the-us-.html>] // DHS WAgustin 🗿

BEIJING — As Chinese authorities prepare to build up their country in the next several years, they’re keen to ensure the rest of the world will still do business with them. In a high-level press conference Friday, central government officials emphasized the need for other countries to collaborate with China, amid rising global uncertainty from the coronavirus pandemic and protectionism. The media event comes as China’s top leadership conclude an important policy meeting aimed at setting the country’s economic and social priorities for the next five years. The officials particularly pushed back against “decoupling,” or a complete separation of the U.S. and Chinese economies that President Donald Trump’s administration has advocated, beginning with technology. Chinese telecommunications giant [Huawei has been severely hampered](https://www.cnbc.com/2020/10/30/huawei-q3-smartphone-shipments-plunge-as-us-sanctions-continue-to-bite.html) by U.S. restrictions in the last two years. “Decoupling is basically not realistic, and there’s no benefit for China or the U.S., or the entire world,” said Han Wenxiu, deputy director at the Office of the Central Commission for Financial and Economic Affairs. That’s according to a CNBC translation of his Mandarin-language remarks. “Those who want decoupling are few. Those who want collaboration are far more,” Han said, noting that the U.S. and China are only able to be the world’s two largest economies since they complement each other and operate in an open global environment. President Xi is bracing for a ‘combative’ period ahead with China’s five-year plan The U.S. is China’s largest trade partner, but the two countries have been locked in tensions for more than two years. Each government has levied tariffs on goods worth hundreds of billions of dollars from the other country. Critics say the dominance of the state in China’s economy gives it unfair advantages over American companies and other foreign businesses. Economists expect China to become the world’s largest economy in the next few years, surpassing the U.S. In an effort to reduce economic dependency on debt-fueled investment and manufacturing of goods for export, China has been trying to increase its reliance on domestic consumption. Foreign trade still accounts for about 30% of China’s gross domestic product, according to Han, who noted a decline from 60% previously. “Looking ahead, China’s imports and exports, use of foreign capital, and scale of investment overseas will expand, and international status will rise,” he said. “This is also an important characteristic of a large country’s economy.” ‘Self-reliance’ in technology Han and four other central government officials were speaking a day after the [release of preliminary details](http://www.xinhuanet.com/english/2020-10/30/c_139476984.htm) on a [plan for economic development from 2021 to 2025,](https://www.cnbc.com/2020/10/26/china-to-reveal-its-five-year-fyp-growth-strategy-in-xi-jinping-era.html) also known as the 14th Five-Year Plan. This week’s meeting of the central committee of China’s ruling Communist Party also addressed goals for the year 2035. The meeting emphasized China’s need to pursue “self-reliance” in technology as a strategy for national development, according to [state media.](http://www.xinhuanet.com/politics/2020-10/29/c_1126674147.htm) The country has been accelerating its own development of critical technologies such as semiconductors and a [navigation system to rival the U.S. Global-Positioning System (GPS).](https://www.cnbc.com/2020/06/22/beidou-china-aims-to-complete-gps-system-that-rivals-us.html) Again, while describing China’s need to pursue a new phase of development, officials were quick to point out how the country needed to learn from international expertise. “China’s technological innovation has never been closed innovation, and in the future it will not close its doors to innovate on its own,” Science and Technology Minister Wang Zhigang said during Friday’s press conference, according to a CNBC translation of his Mandarin-language remarks. Aim to build a ‘modern’ society In the release about goals for 2035, China’s leaders said they would focus on building a “modern socialist China“ that includes modernization of national defense and the military. The emphasis on “modern” comes after the ruling party said Thursday it will basically achieve its promise of building a “[moderately prosperous society”](https://www.globaltimes.cn/content/1079510.shtml) by next year, when the Chinese Communist Party celebrates its 100th anniversary. The release also said that Beijing expects GDP to top 100 trillion yuan (about $14.9 trillion) this year, which would imply an increase of at least 0.9% from 2019′s level. Longer term, authorities said China aims to become “a strong country in culture, education, talent, sports and health.”

## Info war

#### The United States Federal Government should:

#### Increase transparency requirements for foreign state-owned propaganda outlets operating in democratic states

#### Require social media companies to report foreign efforts to spread online disinformation and propaganda

#### Increase the amount of election audits and paper ballots

#### Polarization caused by inequality- cp key to unify Europe

Karl Aiginger, "Populism: Root Causes, Power Grabbing and Counter Strategy", Intereconomics, https://www.intereconomics.eu/contents/year/2020/number/1/article/populism-root-causes-power-grabbing-and-counter-strategy.html// KS]

<https://www.intereconomics.eu/contents/year/2020/number/1/article/populism-root-causes-power-grabbing-and-counter-strategy.html>

A strategy for overcoming populism in four steps To stop support for populists and put an end to their power is no easy task. The root problems, which had empowered the populists, have not vanished, and the incapacity of former mainstream parties to solve problems has not been forgotten. Support for populists eventually fades if the economic situation worsens – as the electoral results in main cities in Turkey and Hungary show. However, if there is no candidate presenting an alternative or opposition is divided, the return to liberal democracy is difficult, given the new majority rules and suppression of the media. A four-stage procedure is needed. The first step is to correct the wrong framing on which today’s populism is based. It is the pessimistic interpretation that life has become bad, the economy is approaching a collapse, and moral and social relations are worse than in some golden era. In fact, in most countries and regions, living conditions were not dismal at the time the populists came to power. Incomes were higher than those of the previous generation, there was a greater ability to choose education, training and location. The best proof that an overly pessimistic story is incorrect is perhaps rising life expectancy: it increases by three years for each decade after we were born, and it is largely a healthy life expectancy that includes the ability to work, travel and seek a partner up to an age that had previously been unimaginable. In rebalancing the framework it has to be acknowledged, that not everything is positive for everyone and the potential for improvement is great. Inequality can be decreased, employment made fairer with less burnout, and leisure choices can increase. It must be made clear that these improvements will never happen through protectionism, and that past jobs and family structures will not return. Furthermore, it needs to be stressed that heterogeneity is not negative and animosity towards outsiders or foreigners does not solve problems. Redrawing the picture without whitewashing must be the starting point of a new policy. The second step is to develop a vision outlining where the country or region wants to be in the medium-term future, for example by 2030. This includes which jobs can be created, which specialisations by industry are feasible and advantageous, and which abilities and education levels for the young can be attained. The vision should specify which public services are to be provided and how living conditions can be improved. Performance should be judged based on sustainable development goals.[7](https://www.intereconomics.eu/contents/year/2020/number/1/article/populism-root-causes-power-grabbing-and-counter-strategy.html#footnote-001) The vision should be ambitious but within reach, shared by citizens and developed jointly with experts and political parties. The third step is to define game-changing instruments and find partners in the process of change.[8](https://www.intereconomics.eu/contents/year/2020/number/1/article/populism-root-causes-power-grabbing-and-counter-strategy.html#footnote-000) Changing tax systems are all-important as they can make environmental exploitation costly while supporting a circular economy and innovation. Lifelong learning and retraining should be further promoted. The strategy should be discussed and fine-tuned in a dialogue with citizens, NGOs, reform-minded trade unions and representatives of new firms. Moreover, the skills of migrants should be utilised and their children integrated. The increase in spatial divergence has to be stopped. The flocking to urban centres should be curtailed through teleworking and teleconferencing. Buying ever bigger cars fuelled by gasoline or diesel should be discouraged through better public transport, incentives for electric cars and car sharing, and the renting of unused houses should replace urban sprawl. Finally, a new strategy requires a narrative that emotionalises and unites Europe. Europe’s old peace narrative no longer moves its citizens, though each and every day we see that peace is not a guarantee. Since Europe is a small geographical region and Europe’s share of the world population is proportional in size, this must be a narrative based on quality, innovation and partnership. A probable new narrative could be that Europe is trying to make globalisation responsible, taking the lead in fighting climate change and offering a larger variety. It can further aspire to the lowest inequality for its citizens, encouraging the extension of this European way of life. Change is around the corner Fighting populism is a necessity. Populism reduces life opportunities, promising a return to non-existent past glory. It leads to lower income and higher expenditures for people unable to find jobs and a self-determined life. It increases the probability of conflict with neighbours. Under populism, government expenditures for policy, border control, environmental degradation and health problems must increase significantly, and this in turn leads to higher taxes and debt. It has multiple roots which must be addressed, but there exist numerous better solutions for these problems if they are discussed with citizens. While support for populism seems to have peaked, an active policy is still needed to ensure its continued decline. Fortunately, the new president of the European Commission and her team are addressing these problems, with the support of new leaders at the IMF, the UN and the ECB. Economists seem to have partly descended from their ivory tower to include societal and environmental problems in their agenda, with GDP substituted by Sustainable Development Goals. New interdisciplinary think tanks are on the rise, and these are connected to international networks stimulating discussion. Young people are more interested than ever in the future of the planet and infecting their parents and teachers with their concerns. New political parties are being created on a basis other than that of the old socialist-vs-conservative divide, and governments are becoming greener, more liberal and more attentive to future opportunities opportunities and partnerships with neighbours in the East and in the South.

#### Planks 2,3 and 4 solve 2nd adv

[**Freedom House** **No date** "Policy Recommendations: Strengthening Democracy", https://freedomhouse.org/policy-recommendations/strengthening-democracy-abroad// KS]

Recommendations for Democracies Democracies should work to support their core principles at home and around the world. The following recommendations are intended to provide a framework for democratic countries as they pursue this goal. Strengthen and protect core values Respect, protect, and fulfill human rights at home. Attacks by elected leaders on democratic institutions—including the press, an independent judiciary, and anti-corruption agencies—and on the rights of minorities and migrants undermine faith in democracy around the world. Democratic leaders should demonstrate respect for fundamental norms at home by adhering to domestic legislation in line with international human rights laws and standards, and refraining from rhetoric that undermines these standards. Strengthen public support for democratic principles by investing in civic education. To protect freedom domestically and build support for a foreign policy that protects democratic rights and values abroad, it is essential to foster a stronger public understanding of democratic principles, especially among young people. In the United States, new legislation could require each state to develop basic content and benchmarks of achievement for civic education, including instruction on the fundamental tenets of US democracy. In the absence of new legislation, the US Department of Education should, to the extent possible, make funding available to states for civic education that focuses on democratic principles. Guard against manipulation by authoritarian actors Increase transparency requirements for foreign state-owned propaganda outlets operating in democratic states. Outlets like Russia’s RT and China’s CGTN spread government-approved narratives without clearly disclosing that they are government financed. Measures to improve transparency could include reporting requirements for media outlets’ spending on paid advertorials (advertisements designed to resemble an independent, objective news article), ownership structures, and other economic ties to repressive state actors. Require social media companies to report foreign efforts to spread online disinformation and propaganda. Social media companies should be required to report regularly to target governments on efforts by foreign governments and nonstate actors to manipulate public opinion and undercut democratic values by spreading disinformation and propaganda on their platforms. In the United States, the government should assess which entities would be the most appropriate to receive these reports, since this information is of interest across jurisdictions, including to intelligence agencies, Congress, the US State Department’s Global Engagement Center, the Securities and Exchange Commission, and the Department of Justice. The US government should carefully decide on the types and sizes of social media companies required to comply, the data they must submit, and appropriate penalties for noncompliance. The entity receiving the information should report findings regularly to the public and make the data publicly available, while ensuring the protection of users’ privacy. Address the use of bots on social media. Bots (automated accounts pretending to be real people) can be used to distort the online media environment by rapidly spreading false information, fomenting discord, and drowning out independent reporting and factual information. Democracies should address the use of bots in social media manipulation. In the United States, the proposed Bot Disclosure and Accountability Act (S. 2125) would authorize the Federal Trade Commission to require the conspicuous and public disclosure of bots intended to replicate human activity. Preventing election interference. Efforts should include protecting elections from cyberattacks through the use of paper ballots and election audits, and improving transparency and oversight of online political advertisements. In the United States, Congress should pass and the president should sign the Honest Ads Act (S. 1356/H.R. 2592), which would modernize existing laws by applying disclosure requirements to online political advertising. Strengthening laws that guard against foreign influence over government officials. Legislative proposals requiring greater transparency about officials’ personal finances and campaign donations, more rigorous standards for the disclosure of conflicts of interest, and the establishment of a clear code of conduct for engagement with foreign officials can help insulate governments from foreign attempts to subvert democratic institutions. In the United States, this could include passing legislation to enforce the principles of the constitution’s foreign emoluments clause, closing loopholes in rules on reporting foreign influence, and modernizing financial disclosure requirements for elected officials. Preventing corrupt foreign officials from laundering stolen assets through democracies. Corrupt actors steal more than $3 trillion annually from their home countries, the effects of which undermine institutions critical to democracy and harm economic growth in these countries. Stolen funds are routinely funneled through international financial markets, laundered via seemingly legitimate purchases in democratic nations. These practices pose a risk to the reputations of companies unwittingly involved and to financial markets overall. Democracies should strengthen transparency laws to ensure that accurate identifying information about purchasers and their funding sources is available. Governments should ensure robust enforcement of laws and investigate and prosecute violators when necessary.

## Russian Aggression

### 1NC – Russian Aggression - CP

#### Text: The United States federal government should completely remove Russia from The Society for Worldwide Interbank Financial Telecommunication.

#### Deterring Russia from further invasion is key – completely removing them from SWIFT sets a precedent that shocks their economy

Charles Riley 22 [Charles Riley, Cnn Business, 1-27-2022, "What is SWIFT and why it might be the weapon Russia fears most," CNN, https://www.cnn.com/2022/01/26/investing/swift-russia-ukraine/index.html, smarx, HHW]

As Western governments threaten Russia with a package of unprecedented sanctions aimed at deterring President Vladimir Putin from ordering an invasion of Ukraine, there's one measure in particular that appears to **strike fear at the heart of the Kremlin**: **cutting the country off from the global banking system.**

US lawmakers have suggested in recent weeks that Russia could be removed from SWIFT, a high security network that connect thousands of financial institutions around the world.

Senior Russian lawmakers have responded by saying that shipments of oil, gas and metals to Europe would stop if that happened.

"If Russia is disconnected from SWIFT, then we will not receive [foreign] currency, but buyers, European countries in the first place, will not receive our goods — oil, gas, metals and other important components," Nikolai Zhuravlev, vice speaker of Russia's upper house of parliament, said Tuesday, according to state media outlet TASS.

What is SWIFT?

**The Society for Worldwide Interbank Financial Telecommunication** was founded in 1973 to replace the telex and is now used by over 11,000 financial institutions to send secure messages and payment orders. With **no globally accepted alternative**, **it is essential plumbing for global finance**.

Removing Russia from SWIFT would **make it nearly impossible for financial institutions to send money in or out of the country**, **delivering a sudden shock to Russian companies** and their foreign customers — especially buyers of oil and gas exports denominated in US dollars.

"The cutoff would **terminate all international transactions**, **trigger currency volatility, and cause massive capital outflows**," Maria Shagina, a visiting fellow at the Finnish Institute of International Affairs, wrote in a paper last year for Carnegie Moscow Center. Excluding Russia from SWIFT would **cause its economy to shrink by 5%,** former finance minister Alexei Kudrin estimated in 2014.

SWIFT is based in Belgium and governed by a board consisting of 25 people, including Eddie Astanin, chairman of the management board at Russia's Central Counterparty Clearing Centre. SWIFT, which describes itself as a "neutral utility," is incorporated under Belgian law and must comply with EU regulations.

What happens if Russia is removed?

There is precedent for removing a country from SWIFT.

"SWIFT is a neutral global cooperative set up and operated for the collective benefit of its community," the organization said in a statement Wednesday. "Any decision to impose sanctions on countries or individual entities rests solely with the competent government bodies and applicable legislators," it added.

It's not clear how much support there is among US allies for taking similar action against Russia. The United States and Germany have the most to lose if Russia is disconnected, because their banks are the most frequent SWIFT users to communicate with Russian banks, according to Shagina.

The European Central Bank has warned lenders with significant exposure to Russia to prepare for sanctions against Moscow, according to the Financial Times. ECB officials have also asked banks how they would respond to scenarios including a move to prevent Russian banks accessing SWIFT.

The European Union is ready to respond to a Russian invasion of Ukraine with "comprehensive sanctions never seen before," Danish foreign minister Jeppe Kofod said on Monday. EU chief diplomat Josep Borrell said Tuesday that sanctions would be "the most consequential leverage that the West, or at least the European Union, has."

British Prime Minister Boris Johnson told lawmakers on Tuesday that his government was discussing the possibility of banning Russia from SWIFT with the United States.

SWIFT unplugged Iranian banks in 2012 after they were sanctioned by the European Union over the country's nuclear program. Iran lost almost half of its oil export revenue and 30% of foreign trade following the disconnection, according to Shagina.

"**There is no doubt that that would be a very potent weapon [against Russia].** I'm afraid it can only really be deployed with the assistance of the United States though. We are in discussions about that," Johnson said.

### 2NC – Russian Aggression – CP

#### The complete ban of Russia from SWIFT would decimate the economy of Russia and deter it from further aggression.

Nicholas Comfort 6-3 [Nicholas Comfort, 6-3-2022, "Analysis," Washington Post, https://www.washingtonpost.com/business/why-swift-ban-is-such-a-potent-sanction-on-russia/2022/06/03/a6809b30-e340-11ec-ae64-6b23e5155b62\_story.html, smarx, HHW]

One sanction that Western allies were hesitant to impose on Russia -- for fear of blowback to their own economies -- was called a “**financial nuclear weapon**” by France’s finance minister. That sanction is cutting off banks from SWIFT, the messaging system used by financial institutions globally to convey instructions to carry out tens of millions of transactions each day. Most major Russian banks did end up being cut off, underscoring Russia’s isolation as a global pariah and prompting its government to try to steer business with its remaining friends to its own, much smaller version of SWIFT. China, too, has been trying to develop a SWIFT alternative as part of its campaign to decrease its dependence on the Western financial system and use of the dollar.

1. What is SWIFT?

SWIFT -- the Society for Worldwide Interbank Financial Telecommunication -- is a member-owned cooperative, based just outside Brussels, founded in 1973 to end reliance on the telex system for banking communications. As the Gmail of global banking, SWIFT delivers secure messages among more than 11,000 financial institutions and companies in over 200 countries and territories, directing trillions of dollars in transactions. The message traffic -- 42 million a day on average last year -- includes orders and confirmations for payments, trades and currency exchanges. SWIFT is overseen by the National Bank of Belgium and representatives from the U.S. Federal Reserve System, the Bank of England, the European Central Bank, the Bank of Japan and other major central banks.

2. Why is losing SWIFT access such a big deal?

A country whose banking system is cut off from SWIFT has a very difficult time moving money, and thus goods, in or out, and can thus **suffer significant economic pain.** When Western nations threatened Russia’s access to SWIFT in 2014, Alexei Kudrin, a onetime finance minister close to Russian President Vladimir Putin, estimated that it could reduce Russia’s gross domestic product by 5% in a year. Iran’s banks lost access to SWIFT in 2012 as part of European Union sanctions targeting the country’s nuclear program and its sources of finance. Many of the banks were reconnected in 2016 after the EU took them off its sanctions list.

3. Who’s been banned?

In March, the US and the EU cut off seven Russian banks from SWIFT. They included state-controlled VTB, Bank Rossiya and Bank Otkritie. **Russia’s biggest bank, Sberbank PJSC, was allowed to stay on SWIFT**, as was Gazprombank JSC, a key bank for Russia’s energy conglomerates. On June 3, the EU added three more banks including Sberbank, which has twice as many assets as any other bank in Russia. Sberbank’s international operations were already heavily restricted after the U.S. and the U.K. froze its local assets and ordered their banks to stop working with it.

4. Why the reluctance to cut off all Russian banks from SWIFT?

Germany, which relies on Russia for more than half its gas supplies and more than a third of its oil, in particular **resisted adding Sberbank** to the list. Sberbank is a major conduit for EU-Russia trade, and if the Russians couldn’t get paid for their fuel, they could be counted on to stop providing it.

5. What was the **impact of the SWIFT cutoffs**?

Russia’s economy and society are being hit by so many different sanctions, and by the war itself, that it’s difficult to disentangle their effects. Adding to the challenge, Russian banks suspended monthly reporting of financial information when the war began. According to a March 31 report by independent Russian news agency Interfax, the central bank estimated that Russian banks may lose as much as 5.8 trillion rubles ($93.8 billion) in 2022 due to sanctions and from participating in measures to support the economy. Bloomberg News reported in May that an internal forecast by Russia’s Finance Ministry envisioned gross domestic product shrinking as much as 12% this year. The **Finance Ministry called the report inaccurate.**

6. Is there an alternative to SWIFT?

**Not really**, or at least not yet. Since 2014, the Bank of Russia has run its own financial messaging system for Russian and foreign banks, known by the acronym SPFS. Governor Elvira Nabiullina told parliament in April that 52 institutions from 12 countries were participating. In March, Moscow was said to be urging India, which had declined to impose sanctions on Russia, to use the system as a way to continue making payments for oil and weapons. Digital currencies and their underlying technology have been touted as a threat to SWIFT for several years, but **first they’d need to prove they’re a credible and secure alternative**. China has a payment system known as the Cross-Border Interbank Payment System, or CIPS, but it’s mainly a settlement system for renminbi transactions that also offers some communication functions. Most banks that use CIPS still communicate via SWIFT.

#### Further Russian aggression leads to US draw in which goes nuclear – extinction. Only banning Russia from SWIFT creates deterrence from further invasion

Aljazeera 7-21 [No Author, 7-21-2022, "Ukraine war must end to prevent nuclear ‘abyss’: Lukashenko," No Publication, https://www.aljazeera.com/news/2022/7/21/ukraine-war-must-end-to-prevent-nuclear-war-abyss-lukashenko, smarx, HHW]

“Let’s stop and then we will figure out how to go on living … There’s no need to go further. Further lies the abyss of nuclear war. There’s no need to go there.”

Russian officials have said Moscow would only authorise the use of nuclear weapons in the event it was confronted with an “existential threat”.

But concerns were raised over their possible use in Ukraine early in the war after Putin put Russia’s nuclear deterrent forces on high alert on February 27 – three days after ordering the invasion.

Belarusian President Alexander Lukashenko has said that Moscow, Kyiv and the latter’s Western allies must all agree to halt the war in Ukraine to avoid the “abyss of nuclear war.”

“We must stop, reach an agreement, end this mess, operation and war in Ukraine,” Lukashenko, a close ally of Russian President Vladimir Putin, told the AFP news agency on Thursday in the Belarusian capital, Minsk.

### 2NC – China

#### Heavier sanctions now deter Russia from further attack AND other deter China from initiating attack in the future

Hufbauer 22 [PIIE, 3-16-2022, "How effective are sanctions against Russia?," https://www.piie.com/blogs/realtime-economic-issues-watch/how-effective-are-sanctions-against-russia, smarx, HHW]

Sanctions against Russia for invading Ukraine are the most comprehensive imposed against a major power since the Second World War. But are they effective? They plainly have not deterred Russia from making war. But answering that question in a comprehensive way requires the distinction among four stages of effectiveness, including whether they prevent something bad from happening. The classic objectives of economic sanctions can be grouped similarly to the objectives of criminal justice: do they deter bad behavior, but also can they be enforced, are their punishments effective, and do they lead to changed behavior by the targeted countries? Deterrence, enforcement, punishment, and rehabilitation are classic objectives of criminal justice, and they apply equally to economic sanctions.

Although deterrence clearly failed to stop Russia's aggression, the sanctions imposed after the Russian invasion of Ukraine could still **deter other countries like China from undermining the sanctions**. The sanctions may also deter China from carrying out its own aggressive acts against Taiwan. As for effectiveness, the sanctions have proven among the most powerful in modern history, largely because so many countries have gone along with them. The punishment to the Russian economy, and to rich and poor Russians individually, has also been extraordinarily severe. But nearly three weeks after Russia invaded Ukraine, there is not the slightest evidence that Moscow will change course and "rehabilitate" itself in the eyes of the West.

FIRST STAGE: DETERRENCE

As Sun Tzu declared 2,500 years ago, "The **greatest victory is that which requires no battle**." Deterrence through threatened sanctions is a modern application of the general's wisdom, and the first stage of effectiveness. On December 7, 2021, well before Russian President Vladimir Putin recognized the Donetsk People's Republic and the Luhansk People's Republic (carved out of Ukrainian territory on February 21, 2022), President Joseph R. Biden, Jr. threatened "**high impact" sanctions** but did not make a public commitment by disclosing specifics. Unfortunately, Western threats failed to convey the extent and certainty of sanctions awaiting the Russian invasion.

Many experts argue that if President Biden and European leaders had **declared in advance,** in public, and in detail the path-breaking sanctions now imposed on Russia**, Putin might have reconsidered**. But advance threats from Washington and European capitals were ambiguous and deterrence failed, perhaps because Putin grossly underestimated not only Ukrainian opposition but also the worldwide condemnation and punishment evoked by the invasion. The size, speed, and sweep of existing sanctions—supported not only by the United States but also by the entire European Union and several Asian allies—are exceptional. It is entirely possible that Putin was unreceptive to Western threats leading up to the invasion because unified and damaging sanctions against Russia have little historical precedence.

Moreover, except for canceling the Nord Stream 2 gas pipeline from Russia, Western economic sanctions, including the freezing of Russian central bank assets, have **exempted sales of fossil fuels**. Crude petroleum, refined petroleum, and petroleum gas constitute roughly 35 percent of Russian exports, while all fuels and minerals make up 59 percent of exports. Putin clearly believed that his economy could easily weather the fallout from his war and that Europe would not risk cutting off Russian gas and oil supplies. Perhaps threatening to hit Russia where it would really hurt—by sanctioning exports of fossil fuels—would have made an **effective deterrent**. But Europe's energy shortages at the height of winter made an embargo politically impossible.

Despite their failure in deterring the invasion, current sanctions may serve future deterrence: Putin might, for example, desist from threatening Moldova, Finland, and Sweden (not members of the North Atlantic Treaty Organization [NATO]) in his quest for a grander Russian empire. As well, Beijing might draw a sobering lesson from the worldwide condemnation of Russia and reconsider military plans for eventual unification with Taiwan. China is more integrated with the world economy than Russia: Two-way Chinese trade was 36 percent of GDP in 2019 while two-way Russian trade, excluding oil and gas exports, was 25 percent.[1] The prospect of Russia-style sanctions on China would entail a drastic fall in living standards.

## China Aggression

### 1NC – China Aggression - CP

#### Text: The United States federal government should:

#### Assist Taiwan in developing asymmetrical weapons

#### Adopt the Overall Defense Concept

#### Create the Territorial Defense Force

#### Developing asymmetrical weapons and the overall defense concept deters China – it’s key to stopping nuclear escalation

Iain Marlow 7-13 [Iain Marlow, 7-13-2022, "Ukraine’s] Moves Against Russia Show Taiwan ‘Asymmetric’ Weapons Work, US Official Says," Bloomberg, https://www.bloomberg.com/news/articles/2022-07-13/ukraine-shows-taiwan-asymmetric-weapons-work-us-diplomat-says#xj4y7vzkg, smarx, HHW]

Ukraine’s countermoves against Russia’s larger military shows Taiwan that possessing advanced “asymmetric” weapons and a determination to resist invasion by a larger neighbor can be a successful combination, according to a senior US State Department official.

“One of the things that everyone is thinking about when it comes to Taiwan, and I think a lesson learned from this war, is that asymmetric works,” Jessica Lewis, assistant secretary of state for political-military affairs, said Wednesday at a Center for International and Strategic Studies event on US security assistance to Ukraine.

Lewis said Ukraine’s use of US-provided Javelin anti-tank systems and Stinger anti-aircraft weapons -- considered asymmetric because they can help a smaller force battle a stronger opponent -- hold lessons for the defense of Taiwan, which China has threatened with invasion.

Pointing out that US officials have long studied how Taiwan should prepare for a potential Chinese assault, Lewis said defenders against a numerically more powerful invasion force require more than advanced weapons. She said it’s important not to “over-compare” the situations in Ukraine and Taiwan but crucial to look for lessons learned.

“For a long time, when it comes to Taiwan, we’ve been looking at this question, you know: What does an asymmetric defense and preparing yourself look like?” she said. “It’s not just a matter of whether you have a Stinger or a Javelin. What we’ve seen from from the Ukrainians is you have a population that was trained, willing and able to fight.”

### 2NC – China Aggression – CP

#### Aiding the development of asymmetrical weapons solves Chinese aggression – deters them with the empirical success of asymmetrical weapons – that’s Marlow

#### Taiwan needs development of asymmetrical weapons and a territorial defense force to counter China’s impending invasion

Meera Suresh 7-20 [Meera Suresh, 7-20-2022, "'Not Fighter Jets And Tanks': Taiwan's Ex Defense Chief Says Island Needs Cheaper, Asymmetric Weapons," International Business Times, https://www.ibtimes.com/not-fighter-jets-tanks-taiwans-ex-defense-chief-says-island-needs-cheaper-asymmetric-3580128, smarx, HHW]

Taiwan's former defense chief has said that the self-ruled island's military urgently needs cheap and asymmetric weapons if it has to counter Beijing's greater firepower.

Lee Hsi-min, a retired admiral and former chief of general staff of Taiwan's armed forces, told Nikkei Asia in an exclusive interview that Taiwan is facing an "existential threat" posed by an increasingly aggressive China.

The former defense chief said Taiwan should prioritize weapons that are cost-effective and harder for Beijing to destroy, rather than procuring "conventional weapons such as fighter jets, tanks, and warships." He also stressed the importance of forcing civilian units, much like Ukraine's Territorial Defense Force.

Citing the U.S. Pacific Forces former commander Adm. Philip Davidson's warning that the Chinese invasion of Taiwan could happen by 2027, Lee said "time is so urgent" for Taiwan. "Taiwan doesn't have a sufficient sense of urgency to prepare for a Chinese attack," Lee told Nikkei Asia.

That said, Lee refused to "speculate" whether Washington would send troops to Taiwan in the event of a conflict. "I'm not a fortuneteller. The answer is for Taiwan to integrate its security with U.S. interests -- and how to do so is a political, not military, question -- on issues such as freedom, justice, human rights," he said, adding that Washington would come to the rescue if it were in its national interest.

"But Taiwan also needs to show the will to defend itself," he said. However, on the subject of military cooperation between Taipei and Washington, Lee said Taiwan should focus on close-range defense and the U.S. on long-range battles.

In countering China, Lee believes Taiwan should embrace the "overall defense concept," commonly known as "porcupine" asymmetric defense. "Given the discrepancies in defense resources across the strait, we have no way of competing against the People's Liberation Army in conventional capabilities," the former defense chief said.

He said rather than raising the defense budget, which only leads to an arms race, Taiwan should adopt "deterrence by denial."

"We don't have deterrence by alliances, because Taiwan doesn't have formal military pacts with other countries or nuclear deterrence. But deterrence by denial can deter a Chinese invasion by raising the cost for China via asymmetric defense. Even if they were willing to pay the price, the strategy adds uncertainty to whether they could take over Taiwan," Lee told the news outlet.

He also wants Taiwan to copy Ukraine in its creation of the Territorial Defense Force. "The Territorial Defense Force is not about guerrilla warfare. It is to tell the PRC: 'Even if you can defeat our air force and our navy, and even if you successfully land on Taiwanese territory, you still cannot occupy and control Taiwan because the people stand ready to defend. So don't invade."

#### Failure to deter Chinese aggression through development of asymmetrical weapons and adoption of the territorial defense force causes conflict which escalates to nukes – extinction

Tim Mcnulty 6-30 [Tim Mcnulty, 6-30-2022, "'Risk of nuclear war very high!' China clash risk ramps up as NATO slams 'hybrid threat' ," Express.co.uk, https://www.express.co.uk/news/world/1633246/China-latest-US-conflict-east-Asia-nuclear-war-south-china-sea-Taiwan-invasion-NATO-vn, smarx, HHW]

Western leaders have been warned pushing back on China's ambitions in the South China Sea could quickly escalate tensions into an all-out nuclear war. Australia National University Emeritus Professor of Strategic Studies Professor Hugh White has spoken of a return to the Cold War with the "risk of nuclear war very high."

Professor White told Sky News Australia: "We have to be realistic that we're looking at the Asia end of this global contest we do face in China, an exceptionally powerful and exceptionally determined country.

"It really does seek to take the leading place in East Asia and the Western Pacific and to push America out of the region.

"I think that question for Australia, the question for other countries in the region, and the question for America is how do we respond to that.

"Now the instinct of course, based on our experience of history is to push back as hard as we can, and try and keep China in that box."

"But my worry is that that's got a high chance of leading to conflict.

"That's a conflict that in East Asia, I don't think we could win.

"I don't think the United States could defeat China in a naval war over an issue like Taiwan, for example.

"The chance of that war going nuclear is I think, very high, and I think we back a bit in the world we were in in the Cold War."

#### The US will aid the development of Taiwan’s asymmetrical weapon arsenal – necessary for deterring Chinese invasion

**Reuters 22** [Reuters, 7-15-2022, "U.S. approves possible sale of military assistance to Taiwan," https://www.reuters.com/world/asia-pacific/us-approves-possible-sale-military-assistance-taiwan-2022-07-15/, smarx, HHW]

WASHINGTON, July 15 (Reuters) - The U.S. State Department has approved the potential sale of military technical assistance to Taiwan worth an estimated $108 million, the Pentagon said on Friday.

China has never renounced the use of force to bring Taiwan under its control, and the democratically governed island has complained of increased military pressure from Beijing to try and force it to accept its sovereignty.

The United States has only unofficial relations with Taipei. But U.S. law requires Washington to provide Taiwan with the means to defend itself, and President Joe Biden's administration has vowed to step up engagement with the island.

Taiwan requested the latest assistance, including spare and repair parts for tanks and combat vehicles, and U.S. government and contractor technical and logistical support, the Pentagon said.

"The proposed sale will contribute to the sustainment of the recipient's vehicles, small arms, combat weapon systems, and logistical support items, enhancing its ability to meet current and future threats," the Pentagon's Defense Security Cooperation Agency said in a statement.

It would also enhance Taiwan's military interoperability with the United States and other allies, and the island's armed forces would have no difficulty absorbing the equipment and support, it added.

## Smart Grids

### 2NC – Smart Grids

#### Smart grids prevent large scale blackouts – preventative technology and real time blackout isolation solve for all impacts

Volodarsky 21 [Now., 2-11-2021, "The Smart Grid, A Smart Investment," Risk Management and Decision Processes Center, https://riskcenter.wharton.upenn.edu/lab-notes/smartgrid/, smarx, HHW]

How does one tree create a dip in America’s GDP? It falls on a transmission line, causing a 2-day blackout for 50 million people. The 2003 East Coast Blackout cost America approximately $6.4 billion. But that was 17 years ago—one would assume the US would have improved its electrical grid by now.

According to data provided by the Department of Energy, that is not the case. The number of major outages in the US nearly tripled from 2003 to 2018. America has the highest number of outage minutes of any developed nation, totaling around 6 hours annually. US outages are getting longer too. The average US power outage is 120 minutes and increasing, while the average outage of other developed nations is approximately 20 minutes and decreasing. This is unsurprising considering 70% of American transmission lines and transformers are 25 years old, and the average age of US power plants is 36 years old.

Our current system doesn’t just need an update, it needs a reconstruction. The US should transition from its current electrical system to the smart grid, a network that utilizes digital communication technology to react to changes in electricity usage, in order to mitigate the risks associated with power outages as well as climate change.

How is a smart grid better than the current system?

Blackouts occur when electricity demand exceeds supply, or equipment in the system malfunctions. The current US grid delivers electricity from the power plant through transmission lines, substations, and transformers to homes and businesses. This system puts the burden on utility companies to match supply of electricity perfectly with demand, since electricity generated at power stations is not stored. If equipment fails, consumers notify the utility company and then a utility worker must physically reroute the flow of electricity. By the time the electricity is rerouted, the power failure could have escalated into a blackout, as other lines might not have enough spare capacity to accommodate the extra current.

Smart grids integrate digital technology such as smart meters throughout the energy system that feed real-time data back to utility companies, allowing for accurate predictions of supply and demand. Instead of relying on consumers to notify utilities of power failures, expected failures are located by smart sensors enabling quicker responses to disruption. More than just a data-aggregation vehicle, the smart grid also automatically reroutes electricity flow and prevents the overheating of transmission lines. When a disruption occurs, the smart grid isolates the outage, containing it before it becomes a large-scale blackout.

**Why is transitioning to a smart grid important?**

Power outages carry a myriad of risks. There are economic risks, with the inflation-adjusted cost to the US of only weather-related outages estimated at $25-$70 billion annually. There are also health and public safety risks. Power outages cause food spoilage and water contamination, as electricity-powered machinery such as refrigeration units and water pumps fail. Although most hospitals have emergency generators, most of these units provide back-up power for only about 8 hours. The power outages that last longer put hospital functionality at risk, as computer networks and medical devices are reliant on electricity. Power outages also increase mortality risk. A study on mortality during the 2003 blackout showed that mortality increased in New York City by 122% for accidental deaths and 25% for nonaccidental (disease-related) deaths, culminating in about 90 excess deaths.

Sticking to the status-quo will only increase the aforementioned risks, as extreme weather is expected to increase with climate change. According to the Union of Concerned Scientists, our current grid will require new technologies to withstand these more severe conditions. Not only will transitioning to a smart grid make our system more resilient against extreme weather, but it will also help the US mitigate the risk of climate change. The IBM white paper reports smart grid adoption would cause a 12% reduction in CO2 emissions by 2030. The study mentions 9 levers enabled by the smart grid, such as greater integration of renewable energy, which contribute to that reduction.

## BWC CP

### 1nc shell

#### Should call an emergency meeting of the Biological Weapons Convention; recommend the amendment of Article VI of the Convention to include Brain Computer Interfaces

#### The counterplan solves the aff, enforces international follow on, and restores BWC legitimacy, which is key to stop bioterrorism.

Braden Leach, 10-1-2021, [(Braden Leach is a J.D. Candidate at the University of California, Berkeley, School of Law) "Necessary Measures: Synthetic Biology & the Biological Weapons Convention.: EBSCOhost," Stanford Technology Law Review, p. 149-153, [https://web-s-ebscohost-com.proxy.lib.umich.edu/ehost/pdfviewer/pdfviewer?vid=0&sid=e0a84552-8940-48f8-a876-84dc3c0e78c8%40redis]//MaizeDS](https://web-s-ebscohost-com.proxy.lib.umich.edu/ehost/pdfviewer/pdfviewer?vid=0&sid=e0a84552-8940-48f8-a876-84dc3c0e78c8%40redis%5d//MaizeDS)

The obligations created under the BWC are broad, prophylactic, and forward-looking.

B. The Biological Weapons Act Of 1989

Congress gave the BWC domestic effect in 1989 when it passed the Biological Weapons Act.52 The statute had two principal purposes: (1) “to implement the 1972 Biological Weapons Convention, an international agreement unanimously ratified by the United States Senate in 1974 and signed by more than 100 other nations, including the Soviet Union”; and (2) to “protect the United States against the threat of biological terrorism.”53 To further the latter purpose, the law imposed criminal sanctions for developing bioweapons,54 allowed the government to seize bioweapons,55 and provided a cause of action for the U.S. to seek injunctions against violators.56 C. Security Council Resolution 1540 In 2004, the United Nations Security Council passed Resolution 1540 to strengthen international efforts to combat the development of biological weapons.57 As the Security Council acted under Chapter VII of the Charter of the United Nations, this Resolution is binding international law. Resolution 1540 strengthened several points in the BWC by providing: (1) an explicit focus on nonstate actors; (2) applicability to states not parties to the BWC; (3) more specific measures states must take to prevent bioterrorism, including measures regarding security, physical protection, and border and export controls; and (4) very limited verification and enforcement.58 The Security Council decided, that all States, in accordance with their national procedures, shall adopt and enforce appropriate effective laws which prohibit any non-State actor to manufacture, acquire, possess, develop, transport, transfer or use nuclear, chemical or biological weapons and their means of delivery, in particular for terrorist purposes, as well as attempts to engage in any of the foregoing activities, participate in them as an accomplice, assist or finance them.59 In my estimate, the U.S. is currently in compliance with this Resolution with respect to biological weapons because it adopted the Biological Weapons Act.60 This statute “prohibited” biological weapon-related activities, imposed harsh criminal penalties for violations, and specifically focused on terrorism.61 However, the story is not the same for the BWC. In addition to mandating that states “prohibit” bioweapons and related activities like Resolution 1540 does, the BWC also mandates that states “take any necessary measures . . . to prevent” bioweapon development and use.62

III. THE UNITED STATES IS VIOLATING INTERNATIONAL LAW

The United States is in violation of the BWC because of its failure to meaningfully regulate synthetic biology.63 First, I will demonstrate that the broad definition of biological weapons in the Convention encompasses the nefarious applications of synthetic biology. Next, I will argue that Article IV mandates that states regulate non-state actors. Finally, I will endeavor to show that the U.S. is violating the BWC because it is not taking “necessary measures” to “prevent” synthetic biology from being used to create biological weapons. According to the Third Restatement of Foreign Relations Law, a treaty is to be interpreted “in good faith in accordance with the ordinary meaning to be given to its terms in their context and in light of its object and purpose.”64 In Medellin v. Texas, the Supreme Court provided that “[t]he interpretation of a treaty, like the interpretation of a statute, begins with its text.”65 Synthetic Biology is Encompassed The broad language of the BWC encompasses synthetic biology used for nefarious purposes. Article I defines biological weapons as “microbial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes . . .”66 DNA is surely a “biological agent[],” and the phrase, “whatever their origin or method of production” ensures that man-made DNA is no exception.67 Applications of synthetic biology justified by prosocial purposes are clearly not forbidden, while malevolent applications are.68 The BWC purposefully used spacious language to encompass all biological entities that could be weaponized.69 Article VI, which establishes five-year reviews to “take into account any new scientific and technological developments relevant to the Convention,” ensures that that the meaning of a biological weapon was not fixed at the time of the Convention.70 The definition was meant to evolve to encompass future threats. Professor Sutton notes that at the time of the Convention, the parties understood they were in the middle of a biotechnology revolution, and that “there was a clear need to meet every five years to assess any new technologies that were relevant to the treaty.”71 Indeed, the Final Report of the Experts at the BWC Seventh Review Conference in 2014 explicitly determined that synthetic biology was encompassed by the Article I definition.72 In doing so, the Seventh Review Conference reaffirmed that “Article I applies to all scientific and technological developments in the life sciences and in other fields of science relevant to the Convention.”7 Mandatory Duty and Non-State Actors Article IV extends to states a mandatory duty to regulate non-state actors to prevent bioweapon development. Article IV provides that: Each State Party to this Convention shall, in accordance with its constitutional processes, take any necessary measures to prohibit and prevent the development, production, stockpiling, acquisition or retention of the agents, toxins, weapons, equipment and means of delivery specified in Article I of the Convention, within the territory of such State, under its jurisdiction or under its control anywhere.74 First, the command “shall” clearly imposes a mandatory duty. Second, the “territory, jurisdiction, or control” language applies this duty to non-state actors. This language was not in the Geneva protocol, which explicitly only applied to states.75 In addition, Article I already prohibits states from developing bioweapons, so if this phrase is to have any meaning, it must refer to non-state actors.76 C. Necessary Measures to Prevent We now move to the phrase “take any necessary measures to prohibit and prevent.”77 While this is undoubtedly forceful language, it is also quite general. However, a plain reading suggests that it compels energetic state action to prevent the development of bioweapons within its jurisdiction. Such a reading is bolstered by the BWC’s purpose. The BWC’s preamble expressly states that its purpose is “to exclude completely the possibility of bacteriological (biological) agents and toxins being used as weapons” through “effective measures,” “[c]onvinced that such use would be repugnant to the conscience of mankind and that no effort should be spared to minimise this risk.”78 Accordingly, states must take their obligation under the BWC quite seriously.79 To be clear, I am not suggesting that the BWC mandates state parties to take every conceivable measure to prevent bioweapon development; that would be wasteful and impossible. This provision is more straightforwardly read as requiring states to take reasonable, necessary measures. The crux of my argument is that the United States is in violation of the BWC because it is failing to take necessary measures to prevent synthetic biology from being weaponized. The United States currently employs two main measures toward compliance with the BWC. First, the Biological Weapons Act criminalizes bioweapon activities, which include the malicious manipulation of synthetic biology. 80 Second, the Centers for Disease Control and Prevention (CDC) and Department of Agriculture (USDA) screen biological product orders for “select agents” that pose severe threats. 81 However, this screening does not extend to synthetic DNA orders. These measures are deeply insufficient to meet the treaty’s obligations given the rapid democratization of synthetic biology and the threats it poses.

#### Bioterrorism causes extinction

Nura A. **Abboud**, 9-21-20**21**, [(Nura A. Abboud is an environmental activist and Founder of the Jordanian Society for Microbial Biodiversity (JMB), the only NGO in the Middle East concerning the microbial biodiversity. Nura specializes in molecular biology, biological sciences, microbial biodiversity, genetic fingerprinting and medical technologies. Her vision is to establish an eco-research center in the astonishing desert south of Jordan. She has received several scholarships and awards including honorary doctorate in Environmental leadership.) "Catastrophic Impacts of Biological Warfare on Biodiversity," EcoMENA, [https://www.ecomena.org/impacts-of-biological-warfare-on-biodiversity]/](https://www.ecomena.org/impacts-of-biological-warfare-on-biodiversity%5d/)/MaizeDS

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. 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. 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. 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. 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. 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. Biotechnology has increased the economical value of genetic diversity of living organisms; hence, it has increased the risk of eliminating genetic diversity through the use of GMO bioweapons. Most of all, the environment will be the silent victim of this war. It is not easy to put an end to the biological arms race, so global efforts must be consolidated to combat these threats. Countries must strengthen their ability to detect early attacks. Biologists and economists need to communicate with decision makers to convince them of the importance of developing defense systems to face bioweapons and limit their environmental and socioeconomical effects. Certainly, it is necessary to raise awareness regarding the dangers of biological warfare. Interdisciplinary and international efforts are required to increase the surveillance, monitoring, and identification of pathogens and to better understand the dynamics of disease transmission within human, plant, and animal populations. This will greatly enhance our ability to combat the effects of bioweapons and emerging diseases on biodiversity.

### 1nc cognitive biotechnology plank

#### Should recommend the amendment of Article VI of the convention to include cognitive biotechnology

These planks could both be used, this one only because it is probably generic enough to encompass the entire aff, or the top one only if looking to only solve for BCIs. The planks aren’t mutually exclusive, I just have them in different spots

### A2: Russia and China won’t cooperate

#### Russia and China want the counterplan – means that they do not circumvent

**Russian Embassy** in China, 10-07-20**21**, ["Joint Statement by the Foreign Ministers of Russia and China on Strengthening the BWC," Foreign Policy and Political Cooperation, https://beijing.mid.ru/en/news/joint\_statement\_by\_the\_foreign\_ministers\_of\_russia\_and\_china\_on\_strengthening\_the\_bwc/]//MaizeDS

The Russian Federation and China reaffirm their conviction that the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction (BWC) is essential as a pillar of the international peace and security, and their determination to safeguard the authority and effectiveness of the Convention. Today, as in 1975, its objective remains relevant: to rule completely out the possibility of biological agents being used as weapons. The Russian Federation and China reiterate the need that the BWC should be fully complied with and further strengthened, including through its institutionalization and the adoption of a legally binding protocol to the Convention with effective verification mechanism, as well as through regular consultations and cooperation in resolving any issues related to the implementation of the Convention. The Russian Federation and China emphasize that the BWC functions, including in what concerns the United Nations Security Council, should not be duplicated by other mechanisms. With a view to shaping a BWC mechanism of investigation of the alleged biological weapons incidents, they call on the BWC States Parties to develop operating standards for the mechanism, together with technical guidelines and procedures. The Russian Federation and China note with concern that over the past two decades the BWC States Parties, despite the wishes of the overwhelming majority, have failed to reach an agreement on resuming the multilateral negotiations on the Protocol to the Convention, suspended in 2001 when the United States unilaterally withdrew from this process despite the fact that the consensus was almost reached. Consequently, and also in the light of rapid advances in the field of science and technology with dual-use capabilities, the risk of biological agents being used as weapons has increased. In this context they emphasize that the United States’ and its allies’ overseas military biological activities (over 200 US biological laboratories are deployed outside its national territory, which function in opaque and non-transparent manner) cause serious concerns and questions among the international community over its compliance with the BWC. The two sides share the view that such activities pose serious risks for the national security of the Russian Federation and China, and are detrimental to the security of relevant regions. The Russian Federation and China further note that the United States’ and its allies’ military biological activities on their national territory also cause serious compliance concerns. Given the fact that the United States and its allies do not provide any meaningful information on those military biological activities that could allay concerns of the international community, the Russian Federation and China urge the United States and its allies to act in an open, transparent and responsible manner, by informing properly on its military biological activities carried out overseas and on their national territory, and supporting the resumption of negotiations on a legally binding protocol to the BWC with effective verification mechanism, so as to ensure their compliance with the BWC. In this context the Russian Federation and China note the importance of improved confidence-building measures under the Convention, inter alia, by including information on the overseas military biological activities by the BWC States Parties in the reporting form. The two sides believe that such declaration will be conducive to filling in the blank spots and fostering confidence among States Parties. The Russian Federation and China also call upon the BWC States Parties to continue joint efforts towards strengthening the Convention on a secure, legally binding basis. They welcome relevant initiatives. At the same time, they support ancillary measures to improve the current implementation of the Convention. The BWC institutional framework would be strengthened with the proposed mobile biomedical teams to render assistance in cases of biological weapons use, investigate such cases and help combat epidemics of various origins. This proposal represents a new approach to the improved BWC implementation at the international level, combining the principles of collective security and cooperation for peaceful purposes. The Russian Federation and China stress that the rapid development of science and technology in BWC-related areas call for greater attention of the BWC States Parties. There is a need to raise awareness of the risks associated with dual-use research and, simultaneously, promote the full use of the latest advances in biotechnology for peaceful purposes. In this context, the Russian Federation and China support the idea to establish a BWC scientific advisory committee to analyse scientific and technological advances relevant to the Convention and advise its States Parties accordingly. At the BWC Ninth Review Conference, the Russian Federation and China are prepared to consider any proposals capable of strengthening the Convention and improving its implementation in a non-discriminatory manner. They call upon all BWC States Parties to adopt a constructive approach to ensure that the decisions taken serve strengthening the BWC regime.

### Solvency extensions

#### The BWC effectively solves for Russia and China

Lynn C. **Klotz**, 11-15-20**19**, [(Klotz is Senior Science Fellow at the Center for Arms Control and Non-Proliferation and a longtime member of the Scientists’ Working Group on Chemical and Biological Weapons.) "The Biological Weapons Convention protocol should be revisited," Bulletin of the Atomic Scientists, https://thebulletin.org/2019/11/the-biological-weapons-convention-protocol-should-be-revisited/]//MaizeDS

After its enactment in 1975, one criticism of the major international treaty banning biological weapons, the Biological Weapons Convention, was that it had no provisions to monitor whether countries were complying with it. Being, as it was, the middle of the Cold War, it was unlikely that the Soviet Union would allow international inspectors to visit its biodefense facilities. But as representatives from dozens of countries prepare to discuss the convention in Geneva this December, it would be worth their while to revisit a long-abandoned protocol that would address flaws in a treaty that some have even derided as a gentleman’s agreement. After the Soviet Union collapsed, countries sought to address this perceived weakness in the convention by pushing measures to enforce its terms by enacting a so-called protocol to the convention that provided procedures for randomly selected site visits and a rapid means to investigate weapons development, stockpiling, and use. But supporters of the proposal had their hopes dashed in 2001 when the United States pulled out of a UN ad hoc group tasked with drafting the protocol, meaning the proposed provisions never were enacted into international law. US officials were concerned that biological weapons development couldn’t be verified. Undeterred, protocol supporters held out hopes that under President Barack Obama the United States would change course. But Obama officials also refused to support the protocol–for the same reasons the previous Bush administration had cited in 2001: The legally binding additions to the convention would not achieve meaningful verification or greater security. This claim by both US presidential administrations about inability to verify misses the important point that the main goal of the protocol was transparency, not verification. But recent events serve to underscore that a protocol to the convention to address the treaty’s shortcomings is an idea that should be revisited. Unfounded Russian allegations about biological weapons development in former Soviet countries are threatening the effectiveness of the convention. This concern along with strong arguments for the high importance of transparency in international treaties calls for revisiting the protocol, which had provisions for both transparency and for dealing with allegations like Russia’s. The Russian allegations. Moscow made waves ahead of a meeting of countries in the convention in late 2018 when it alleged, without evidence, that former Soviet states harbor biological weapons laboratories. To paraphrase biosecurity researcher Filippa Lentzos: The unfounded allegations about biological weapons development carried with them dangerous consequences. Accusations like these could help sow distrust and political dissent that could even lead to a military response. They could also erode the convention by making countries more likely to develop their own biological weapons. A coalition of nongovernmental groups that work on issues related to the convention echoed these concerns in a joint statement in December, 2018. These are reasons enough to revisit the protocol. The main focus of Russia’s allegations was the biosafety-level-three laboratory built in the country of Georgia to research pathogens that cause serious human disease. Biosafety-level-three laboratories have many features designed to protect laboratory workers from infection and to reduce the probability of a release of pathogens into the surrounding community. In an attempt to dispel the Russian allegations, a group of international experts visited the Georgia facility. They concluded that it demonstrated significant transparency, and they saw nothing that would not be expected in a legitimate facility. It is surprising that Russia would take such a disruptive position and put the convention at risk. The Soviet Union was one of three countries leading support for the convention (depository states) and Russia had been active in and supportive of the protocol negotiations. But under President Vladimir Putin, the country’s position has changed; It may now be trying to undermine the convention. Two of the abandoned protocol’s major provisions were randomly selected transparency visits and investigations of alleged breaches. Had the protocol been enacted, these measures would have provided means to either deter or dispel unfounded accusations. During the intense debate 20 years ago over the protocol, it seems that no one argued, at least loudly, for its value as a tool to address allegations like Russia’s that undermine the convention’s effectiveness. The argument for the high importance of transparency lays the foundation for revisiting the protocol. In the United States, the pharmaceutical industry was adamantly against visits to their facilities, some of which manufactured antibiotics using proprietary strains of bacteria. Some in the industry felt that stealing a microbe was akin to stealing a whole factory’s operation. There were also concerns that visitors would demand to see rooms with proprietary manufacturing processes or that employees would inadvertently give out proprietary information. Furthermore, the industry was concerned about damage to its good-will from misunderstandings about the purpose of random transparency visits or from false accusations of bioweapons development. But as experience with the Chemical Weapons Convention shows, the concepts of managed access have eased some of industry’s concerns. There were US government concerns as well. Some officials argued that convention-sanctioned international teams visiting biodefense facilities posed a risk to classified information and materials, especially if the delegations included foreign intelligence agents. But the United States has already agreed to intrusive inspections under managed access for at least three other international treaties. John Bolton, appointed early in the George W. Bush administration as undersecretary of state for arms control, pulled the United States from the protocol and pressured the UN ad hoc group to abandon it as well. Even without this overt pressure, supporters of the protocol would have been hard-pressed to enact it without US support. The United States withdrew at a very late stage; the ad hoc group’s chairman’s text was completed and was ready to be submitted to the United Nations for potential approval. When Obama was elected in 2008, there was hope among protocol supporters that it would finally be enacted, especially since its sister treaty, the Chemical Weapons Convention, was enacted in 1997. This was a false hope. In 2009, Under Secretary of State Ellen Tauscher told a meeting of convention members that the Obama administration would not seek enactment of the protocol. The administration had “determined that a legally binding protocol would not achieve meaningful verification or greater security. It is extraordinarily difficult to verify compliance.” Subsequently, US Ambassador Laura Kennedy and Secretary of State Hillary Clinton made almost identical arguments about the inability to verify. The US government under Obama had become ensnared in the verification trap. Even though discovery of hidden offensive biological weapons activities is difficult, other aspects of compliance with the convention are verifiable. Unfortunately, the word “verification” leads people into drawing false parallels to nuclear arms control where weapons development is often possible to verify. Although it actually focused on transparency, the 2001 protocol was viewed by some as a verification mechanism, a misguided view that helped lead to its collapse. The word “verification” does not appear even once in the draft of the protocol and the word “transparency” appears perhaps a hundred times. The protocol collapsed in part due to this misunderstanding (or misrepresentation). As the Bioweapons Monitor eloquently argued in 2011, “Compliance with the (bioweapons) prohibition is about more than verifying the absence of biological weapons. Perhaps more importantly, it is also about verifying the peaceful nature of activities that could contribute to biological weapons development efforts.” The Monitor argued that political scientists and diplomats have consistently stressed that multilateral arms control regimes rely on transparency to be effective. Transparency serves to reassure countries that others are not conducting illicit work. “Excessive secrecy of activities in the biological field, particularly if carried out in military facilities, is likely to lead to misinterpretation and suspicion, and may result in a new biological arms race.” A revised protocol could help counter destabilizing efforts like those of Russia, whose unfounded allegations threatened to undermine confidence in the convention. By dramatically increasing transparency around biological work, a new protocol could bolster the broader convention and help stave off the potential for a biological weapons arms race.

#### BWC something I will read this in a sec

Filippa **Lentzos and** Jez **Littlewood**, 3-4-20**22**, [(Filippa Lentzos is a Senior Lecturer in Science & International Security at the Department of War Studies and Co-Director of the Centre for Science and Security Studies (CSSS) at King’s College London. She is also an Associate Senior Researcher at the Stockholm International Peace Research Institute (SIPRI) and a Non-Resident Scholar at the James Martin Center for Nonproliferation Studies (CNS). Her research focuses on biological threats and on the security and governance of emerging technologies in the life sciences. A biologist and social scientist by training, Dr Lentzos has researched and been actively involved in biological disarmament and non-proliferation for nearly 20 years., Jez Littlewood is a policy analyst in Alberta. He previously worked at Carleton University (Ottawa) and the University of Southampton (United Kingdom); served under secondment to the UK Foreign and Commonwealth Office; and worked at the United Nations in Geneva. His areas of expertise include biological weapons, arms control, and national security issues.) “Don’t let finger-pointing doom this key treaty against bioweapons," Bulletin of the Atomic Scientists, https://thebulletin.org/2022/03/dont-let-finger-pointing-doom-this-key-treaty-against-bioweapons/]//MaizeDS

When the US State Department accused Russia of maintaining a biological weapons program last year, officials were putting concerns they had been harboring for years squarely on the record. Meanwhile Russia and China have been accusing US partnerships in Ukraine, other former Soviet republics, and elsewhere of being fronts for nefarious biological activities or bioweapons programs. For some 50 years, the Biological Weapons Convention has been the bulwark stopping countries from including these arms in arsenals and war plans, but some experts warn there is a new interest in the weapons or even a budding biological arms race.

Few doubt that the Biological Weapons Convention is languishing at a critical time. Major world powers are accusing each other of maintaining bioweapons programs and the fast pace of the global scientific enterprise is making it harder for countries to find balance between technological advances and risky biological research. Meanwhile, efforts to strengthen the convention have been in a holding pattern for over 20 years since the United States scuttled negotiations meant to give the treaty a means of verifying compliance. It’s now generally very hard to get anything done at treaty meetings.

The world needs a stronger Biological Weapons Convention more than ever, and this summer, when states meet to review the treaty, the prospects for making progress on issues like compliance, transparency, cooperation and verification are better than they have been for over a decade, if acrimony over bioweapons claims, for starters, doesn’t get in the way.

Bioweapons claims. Allegations of biological weapons programs are not a new issue, but in the last year more claims have been made public. Some are disinformation; others are assessments that cannot be easily validated with publicly available data.

The United States has been concerned about biological weapons for years, but the extent to which it announces these concerns publicly varies from year to year. Back in 2001, in the wake of 9/11, the United States identified Iraq, North Korea, Iran, Libya, Syria and Sudan as concerns. Last year, in its annual arms control compliance report China, North Korea, Iran, and Russia were named as problem states. For Iran, the concerns were couched in terms of dual use activities, i.e. research that could be used for peaceful or offensive purposes. For China, the United States has been concerned with the country’s biotechnology infrastructure, activities with dual-use applications, and pursuit of scientific cooperation with so-called “countries of concern,” but the US government has stopped short of claiming that China is non-compliant with the convention.

But in 2021, the State Department made a somewhat startling shift.

It not only assessed North Korea as having an offensive biological weapons program, which the department had done before, but also accused Russia of the same.

The report unambiguously declared that Russia maintains an offensive biological warfare program and is in violation of the convention. While the State Department provided no new evidence to explain the shift in language from the 2020 report, which said the United States was unable to conclude Russia has fulfilled its obligations under the convention and listed “concerns about Russian activities,” another issue presaged the change in the report’s tenor. In August 2020, the department added three key military biological facilities in Russia to its list of entities subject to trade restrictions because the US government believes they pose security risks. The 2021 report made clear that the United States believes these same three institutes are Russian Ministry of Defense facilities associated with the biological warfare program. The compliance report’s allegations are part of a larger US strategy to push back on Russia’s increasingly obstructionist diplomatic behavior in arms control talks and its aggressive disinformation campaign around biological weapons. Last November, US National Security Advisor Jake Sullivan, in a White House statement, noted “some nations still possess biological weapons programs” and that others seek to acquire them. The US under-secretary for arms control and international security, Ambassador Bonnie Jenkins, echoed these claims a few days later at a Biological Weapons Convention meeting where she referred to countries that possess “sophisticated, well-established biological weapons programs.”

But the US claims aren’t occurring in a vacuum.

Like Russia, China has often made claims about US biological weapons programs, most notably a repeated false assertion that the United States used bioweapons in the 1950s Korean war. More recently, Chinese officials have leveled the baseless claim that Fort Detrick, once the heart of the former US offensive weapons program, is the source of the SARS-CoV-2 outbreak.

The new twist is that Russia and China are now making these sorts of claims about US biological weapons programs in unison.

In October, as a UN meeting got underway, the two governments, for the first time, issued a joint statement that expressed “serious concerns” about United States and its allies’ overseas military biological activities, including the claim that they operated 200 “opaque and non-transparent” biological laboratories outside US territory and that activities at these laboratories pose “serious risks” to Russian and Chinese national security.

Russia and China followed this statement in November with individual claims in the form of official Biological Weapons Convention statements.

Russia, which has been accusing the United States of establishing a chain of biological weapons labs on Russia’s borders for years, claimed the United States and its NATO allies had significantly expanded military biomedical activities in countries near Russia. And China stated that US “bio-military activities” outside its territory had caused serious concerns about whether the United States was complying with the Biological Weapons Convention.

The United States characterized these claims as “truly appalling distortions of fact.” Chris Park, a State Department official who is part of the US delegation to the convention, called the accusations “pure disinformation, plain and simple.” The hundreds of laboratories Russia and China accuse of suspicious activity are not American facilities, he explained. While the US Department of Defense’s Cooperative Threat Reduction Program helped support the labs, they are public and animal health facilities that are owned and operated by the countries they are located in.

In advance of the Beijing Olympics in February, Chinese President Xi Jinping and Russian President Vladimir Putin released an extensive joint statement with a vision of a “new era” of international relations that replaced the American-led order. The “Beijing manifesto” as The Washington Post characterized it, also covered biological security. The pair re-iterated claims from the preceding months that “domestic and foreign bioweapons activities by the United States and its allies raise serious concerns and questions for the international community regarding their compliance with the [Biological Weapons Convention].” They called on the United States and its allies “to act in an open, transparent, and responsible manner by properly reporting on their military biological activities conducted overseas and on their national territory.” And they also pressed for renewed negotiations on a legally binding agreement to the Biological Weapons Convention that would create a verification mechanism. Allegations, so what? Trading allegations about biological weapons is nothing new for the United States, Russia, and China. While the increase in biological barbs these three states throw at each other is concerning, it does not necessarily mean the ninth review conference of the Biological Weapons Convention, scheduled for August, is doomed to become a shouting match. Past allegations have soured the tone, but not prevented meaningful work at these events.

One ray of hope is that each of the three countries has articulated plans that address issues of compliance, transparency and accountability. Each is different, but there is common ground to craft a workable compromise solution if the US, China, Russia and others are determined to make progress. The most significant reason for hope is a change in the US approach to making the convention more robust.

Last fall, Sullivan, the US National Security Advisor, said the United States is “determined to strengthen and revitalize the [convention].” Jenkins, the US ambassador, followed by outlining a two-track approach. Track one sees the upcoming meeting taking near-term, concrete action on a set of proposals that have been discussed at convention meetings over the past few years, such as creating a mechanism to review scientific advances and establishing a voluntary fund for technical cooperation.

A second track of activity would address harder issues, particularly that of improving ways of demonstrating and assuring compliance with the treaty. Only about half of the states in the Biological Weapons Convention regularly submit confidence building measures, reports that serve as one of the main means of assuring others of compliance. They’re not a mandatory, legal requirement.

The new tracks proposed by Jenkins represent a shift in the US position. Although the US proposal is for working groups to address future compliance mechanisms, i.e., meetings about the issues rather than a proposal, what gives the US second track greater potential substance is the similar approaches proposed by Russia and China’s statements in 2021.

Both Russia and China want to return to negotiations on the verification protocol abandoned in 2001, but both are aware the protocol of 2001 is not suitable for the future. Beyond significant changes in science and technology, the threat and risk environments around biological weapons are different in 2022 to those of 2001. The three countries have different visions, but share the idea of having specialised working groups explore how to strengthen and revitalize the treaty.

Reaching agreement on anything in the Biological Weapons Convention these days is extremely hard. In the last three years running, countries have not even been able to agree any substantive outcome at technically focused, expert meetings. The procedural reports from these gatherings simply note “no consensus could be reached”—an exceptionally poor show for meetings aiming merely to “promote common understanding.”

What chance does a new approach have of success? The United States, unlike Russia and China, has many allies, and much will depend on them coming on-board. If they do, and the United States, Russia and China recognize the commonalities in their approaches, and they work with other countries, it might be possible to break the status quo of a moribund work program.

### A2: Perms

#### The BWC is legally binding – means the CP is mutually exclusive with the plan

Daryl **Kimball**, 1-19-20**11**, Reviewed February 2022, ["The Biological Weapons Convention (BWC) At A Glance," Arms Control Association, https://www.armscontrol.org/factsheets/bwc]//MaizeDS

The Biological Weapons Convention (BWC) is a legally binding treaty that outlaws biological arms. After being discussed and negotiated in the United Nations' disarmament forum starting in 1969, the BWC opened for signature on April 10, 1972, and entered into force on March 26, 1975. It currently has 183 states-parties, including Palestine, and four signatories (Egypt, Haiti, Somalia, Syria, and Tanzania). Ten states have neither signed nor ratified the BWC (Chad, Comoros, Djibouti, Eritrea, Israel, Kiribati, Micronesia, Namibia, South Sudan and Tuvalu). Terms of the Treaty The BWC bans: The development, stockpiling, acquisition, retention, and production of: Biological agents and toxins "of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes;" Weapons, equipment, and delivery vehicles "designed to use such agents or toxins for hostile purposes or in armed conflict." The transfer of or assistance with acquiring the agents, toxins, weapons, equipment, and delivery vehicles described above. The convention further requires states-parties to destroy or divert to peaceful purposes the "agents, toxins, weapons, equipment, and means of delivery" described above within nine months of the convention's entry into force. The BWC does not ban the use of biological and toxin weapons but reaffirms the 1925 Geneva Protocol, which prohibits such use. It also does not ban biodefense programs. Verification The treaty regime mandates that states-parties consult with one another and cooperate, bilaterally or multilaterally, to solve compliance concerns. It also allows states-parties to lodge a complaint with the UN Security Council if they believe other member states are violating the convention. The Security Council can investigate complaints, but this power has never been invoked. Security Council voting rules give China, France, Russia, the United Kingdom, and the United States veto power over Security Council decisions, including those to conduct BWC investigations. Membership and Duration The BWC is a multilateral treaty of indefinite duration that is open to any country. Implementation The convention has been flagrantly violated in the past. The Soviet Union, a state-party and one of the convention's depositary states, maintained an enormous offensive biological weapons program after ratifying the BWC. Russia says that this program has been terminated, but questions remain about what happened to elements of the Soviet program. Iraq violated its commitments as a signatory state with its biological weapons program, which was uncovered by the UN Special Commission on Iraq after the Persian Gulf War. Iraq became a state-party after the war. In November 2001, the United States publicly accused Iraq, as well as member state North Korea, of breaching the convention's terms. Washington also expressed concern about compliance by Iran and Libya, which are also states-parties, and by Syria. The United States itself raised concerns in 2001 about whether some of its activities, ostensibly being conducted as part of its biodefense program, are permitted under the BWC. In 2002, Washington added Cuba, also a state-party, to its list of countries conducting activities that violate the convention. According to the U.S. State Department 2021 Compliance Report, Russia “maintains an offensive BW program and is in violation of its obligation under Articles I and II of the BWC.” The United States certified North Korea in noncompliance with the BWC in 2021, and assessed it “does not have sufficient information” to determine whether China is in compliance with its obligation to eliminate its biological weapons stockpile under the BWC. The 2021 U.S. Compliance Report also noted that Iran’s activities continue to “raise concerns regarding its compliance with Article I of the BWC,” and that it is “unable to differentiate some of Iran’s public health research and biodefense activities from those that are prohibited under the BWC.” Review Conferences States-parties have convened a review conference about every five years to review and improve upon the treaty's implementation. Second Review Conference In an effort to enhance confidence and promote cooperation among states-parties, at the second BWC review conference in 1986 member states agreed to implement a set of confidence-building measures. Under these politically binding measures, states should: Exchange data on high-containment research centers and laboratories or on centers and laboratories that specialize in permitted biological activities related to the convention. Exchange information on abnormal outbreaks of infectious diseases. Encourage the publication of biological research results related to the BWC and promote the use of knowledge gained from this research. Promote scientific contact on biological research related to the convention. Third Review Conference At the third BWC review conference in 1991, the scope of the first measure was expanded to include national biological defense programs and the second and fourth measures were slightly modified. In addition, three more measures were added to this list. States should: Declare legislation, regulations, and "other measures" pertaining to the BWC. Declare offensive or defensive biological research and development programs in existence since January 1, 1946. Declare vaccine production facilities. These endeavors have been largely unsuccessful; the vast majority of states-parties have consistently failed to submit declarations on their activities and facilities. The 1991 review conference also tasked a group of "governmental experts" to evaluate potential verification measures for use in a future compliance protocol to the BWC. The group subsequently considered 21 such measures and submitted a report to a special conference of states-parties in 1994. Building off this report, the conference tasked a second body, known as the Ad Hoc Group, with negotiating a legally binding protocol to the BWC to strengthen the convention. Ad Hoc Group The Ad Hoc Group met from January 1995 to July 2001 and aimed to finish its work before the fifth review conference, which began in November 2001. During the course of the negotiations, the group developed a protocol that envisioned states submitting to an international body declarations of treaty-relevant facilities and activities. That body would conduct routine on-site visits to declared facilities and could conduct challenge inspections of suspect facilities and activities as well. However, a number of fundamental issues—such as the scope of on-site visits and the role export controls would play in the regime—proved difficult to resolve. In March 2001, the Ad Hoc Group's chairman issued a draft protocol containing language attempting to strike a compromise on disputed issues. But in July 2001, at the Ad Hoc Group's last scheduled meeting, the United States rejected the draft and any further protocol negotiations, claiming such a protocol could not help strengthen compliance with the BWC and could hurt U.S. national security and commercial interests. Fifth Review Conference The fifth BWC review conference, which many experts thought could resolve the fate of the Ad Hoc Group, was suspended on its last day, December 7, 2001, after the United States tabled a controversial proposal to terminate the Ad Hoc Group's mandate and replace it with an annual meeting of BWC states parties. The United States was the only country that favored revoking the group's mandate. The states parties resumed the fifth review conference in November 2002, but failed to agree on any verification measures, including the proposed protocol. Sixth Review Conference The sixth BWC review conference, which met between November 20 and December 8, 2006, was the was the first successful review conference since 1996, reaching agreement on a final document The conference produced a list of four work programs held each successive year until the next review conference in 2011. Some issues that enjoyed broad-based support did not make it into the work program. The United States and Russia opposed proposals to reform confidence-building measures on the basis that participation in the existing mechanisms is poor. Russia was the primary factor behind bio-terrorism being dropped from the list of agenda items. States parties did agree to address the BWC’s institutional deficit through the creation of the Implementation Support Unit (ISU), which is staffed by three permanent employees based in Geneva. The permanent staff members will be paid by the BWC and will be housed in the UN Department of Disarmament Affairs in Geneva. Previously, the BWC review conference was only supported on a part-time basis. The ISU’s mandate is to provide administrative support for the BWC as well as facilitating confidence-building measures between states parties. The ISU will, among other things, serve to ease communication between states parties, as well as compile and disseminate confidence-building measures submitted from states parties. Since the conclusion of the 2006 review conference the ISU has been strengthened in terms of budget and staff. Despite initial U.S. opposition, an EU proposal to allow states parties to make additional, voluntary contributions to the ISU was accepted during the 2007 annual meeting. The United States originally objected to the proposal on the grounds that it would increase the responsibility of the ISU. However, this problem was resolved through a statement stressing that the ISU has only three staff members, and any contributions are only designed to assist the ISU in completing its mandate. During the 2008 meeting of states parties, the EU provided a $2 million dollar donation to the ISU in order to pay for two additional staff members for the following two years. The two new staff are officially assigned to the UN Office for Disarmament Affairs, to avoid any conflict over a perceived expansion of ISU. Seventh Review Conference The seventh BWC review conference was held in December 2011. The Final Declaration document concluded that “under all circumstances the use of bacteriological (biological) and toxin weapons is effectively prohibited by the Convention and affirms the determination of States parties to condemn any use of biological agents or toxins other than for peaceful purposes, by anyone at any time." Eighth Review Conference The eighth BWC review conference took place in November 2016. At the end of the conference, delegates agreed to a future one-week meeting of states-parties at the end of the year and a five-year extension of the BWC Implementation Support Unit. Ninth Review Conference The ninth BWC review conference was repeatedly postponed due to the Covid-19 pandemic. It is scheduled to be held in August 2022.

### Net Benefit answers/extensions

#### Bioterrorism creates a laundry list of impacts, from BioD loss to extinction, as well as loss of traditional cultures for many people

Nura A. **Abboud**, 9-21-20**21**, [(Nura A. Abboud is an environmental activist and Founder of the Jordanian Society for Microbial Biodiversity (JMB), the only NGO in the Middle East concerning the microbial biodiversity. Nura specializes in molecular biology, biological sciences, microbial biodiversity, genetic fingerprinting and medical technologies. Her vision is to establish an eco-research center in the astonishing desert south of Jordan. She has received several scholarships and awards including honorary doctorate in Environmental leadership.) "Catastrophic Impacts of Biological Warfare on Biodiversity," EcoMENA, <https://www.ecomena.org/impacts-of-biological-warfare-on-biodiversity/>]//MaizeDS

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. 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. 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. 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. 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. 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. Biotechnology has increased the economical value of genetic diversity of living organisms; hence, it has increased the risk of eliminating genetic diversity through the use of GMO bioweapons. Most of all, the environment will be the silent victim of this war. It is not easy to put an end to the biological arms race, so global efforts must be consolidated to combat these threats. Countries must strengthen their ability to detect early attacks. Biologists and economists need to communicate with decision makers to convince them of the importance of developing defense systems to face bioweapons and limit their environmental and socioeconomical effects. Certainly, it is necessary to raise awareness regarding the dangers of biological warfare. Interdisciplinary and international efforts are required to increase the surveillance, monitoring, and identification of pathogens and to better understand the dynamics of disease transmission within human, plant, and animal populations. This will greatly enhance our ability to combat the effects of bioweapons and emerging diseases on biodiversity.

## Hotlines Plank

Notes:

* Can use OCOs bad or cyber conflict bad as a NB
* Built for OCOs but can use against any cyber aff with a Russia/ China impact

#### The United States Federal government should propose to establish a multilateral cyber hotline with the North Atlantic Treaty Organization, Russia, and China.

#### Multilateral cyber hotlines create cyber diplomacy and prevent attacks and miscalc

Stilgherrian 6-14-20 Stilgherrian is a freelance journalist, commentator and podcaster interested in big-picture internet issues, especially security, cybercrime and hoovering up bulldust. He studied computing science and linguistics before a wide-ranging media career and a stint at running an IT business. [Does the world need a multilateral cyber hotline?, <https://www.zdnet.com/article/does-the-world-need-a-multilateral-cyber-hotline/>] //DamienHS WAgustin

When someone is throwing nukes at you, you can probably tell where they're coming from. There's only a few nuclear nations and, over the decades of the Cold War, they have developed complex strategic intelligence and early warning networks. But what about a cyber war? Particularly the kind of intense multi-vector cyber attack targeting critical infrastructure that's been dubbed as [cyber blitzkrieg](https://www.zdnet.com/article/cyber-blitzkrieg-replaces-cyber-pearl-harbor/)? Cyber attribution is hard. It's not impossible, but it takes time. Time that doesn't exist when your infrastructure is collapsing and you're thinking about resorting to what is euphemistically called a "kinetic response". Retaliation against the wrong target could well result in disaster. One possible solution, at least in part, could be installing direct "cyber hotlines" between national leaders. The [Moscow–Washington hotline](https://en.wikipedia.org/wiki/Moscow%E2%80%93Washington_hotline) of Cold War fame is the archetype. During the high-stakes nuclear [Cuban Missile Crisis](https://en.wikipedia.org/wiki/Cuban_Missile_Crisis) of 1962, official diplomatic messages took up to six hours to deliver. Presidents John F Kennedy and Nikita Khrushchev had to resort to unofficial channels, including relaying messages via TV news correspondents. The Moscow–Washington hotline was installed the following year. This hotline was never the iconic red telephone of TV and movies. At first it was a teletype, then a fax machine, and now email. Initially, its terrestrial phone lines were backed up by a radio link via Tangier in northwestern Morocco. Today, a set of satellite links are backed up by optical fibre. At least eight other pairs of nations have [developed their own hotlines](https://www.armscontrol.org/factsheets/Hotlines). Cyber versions of these hotlines are a key recommendation of the [Cyberspace Solarium Commission](https://www.solarium.gov) (CSC), a US government initiative to "develop a consensus on a strategic approach" to defending the nation against "cyber attacks of significant consequences". "The US government should develop a multi-tiered signaling [sic] strategy aimed at altering adversaries' decision calculus and addressing risks of escalation. This signaling strategy should also effectively communicate to allies and partners US goals and intent," says the CSC's [final report](https://drive.google.com/file/d/1ryMCIL_dZ30QyjFqFkkf10MxIXJGT4yv/view) [PDF]. "The strategic level of signaling should involve overt, public diplomatic signaling through traditional mechanisms that have already been established for other domains, as well as private diplomatic communications through mechanisms such as hotlines and other nonpublic channels (including third party channels in instances in which the United States may lack robust diplomatic relationships)." At the operational level, this should include "clandestine, protected, and covert signaling (including through non-cyber means) that is deliberately coupled with cyber operations," the CSC wrote. "An example of this type of signaling is tailored messaging preceding or running concurrently with defend forward cyber operations." The CSC also recommends developing a framework to guide "when and under what conditions the US government will voluntarily self-attribute cyber operations and campaigns for the purposes of signaling capability and intent to various audiences". Diplomatic tools like hotlines are examples of what diplomats call "confidence building measures". Confidence building is one of four pillars of cyber diplomacy Your writer has previously reported on Australia's part in developing the so-called [11 international norms](https://www.zdnet.com/article/cyberwar-looms-as-diplomats-dither/) for nation-state behaviour in cyberspace and last year's [restart of the UN's stalled process](https://www.zdnet.com/article/australia-to-keep-playing-the-un-cyberspace-norms-game/) for negotiating such rules. Last month, the Department of Foreign Affairs and Trade (DFAT) reported that it was [progressing work on the norms](https://www.zdnet.com/article/australia-progressing-work-on-agreed-norms-of-responsible-state-behaviour-in-cyberspace/). Norms of behaviour are only a quarter of the cyber diplomacy story, however. "You have binding international law, you have voluntary non-binding norms, which complement and together set clear expectations of behaviour," said Johanna Weaver, Australia's cyber negotiator at the UN. "You have capacity building, which is a really important part of it ... to make sure that all countries have the ability to implement the recommendations and agreements," she told ZDNet. "Then you've got confidence building measures, which are designed to increase trust and transparency." While the building of hotlines has not yet become a priority at the UN, there has been modest progress at the regional level in the Association of South East Asian Nations (ASEAN). Australia and Malaysia's proposal for a [regional cyber points of contact directory](https://www.dfat.gov.au/international-relations/themes/cyber-affairs/Pages/building-confidence-in-cyberspace-through-the-development-of-a-regional-cyber-points-of-contact-directory) received in-principle endorsement at the ASEAN Regional Forum (ARF) Intersessional Meeting on Security of and in the use of ICTs in Singapore back in March 2019. "The directory will provide a means of direct communication to prevent miscalculation and escalation, as well as manage potential responses in the event of cybersecurity incidents with the potential to impact regional security," DFAT wrote. A cyber equivalent to the International Atomic Energy Agency? The UN's Open-Ended Working Group (OEWG), one of the two UN bodies negotiating the rules for cyberspace, has stressed the importance of accurate attribution of cyber attacks. "It was suggested that developing a common approach to attribution at the technical level could lead to greater accountability, transparency, and could help support legal recourse for those harmed by malicious acts," OEWG wrote in the [initial pre-draft](https://unoda-web.s3.amazonaws.com/wp-content/uploads/2020/03/200311-Pre-Draft-OEWG-ICT.pdf) [PDF] of its report. Australia has noted that attribution comes in two flavours. One is factual attribution, "the factual circumstances, including the technical indicators that allow you to make an assessment as to a technical assessment of attribution," Weaver said during a briefing in April. "Then there is a legal attribution assessment, which is taking into account the considerations of state responsibility. Can you take those technical or factual circumstances and say this is therefore attributable to a particular government?" Separate from that is any political decision to act publicly or privately on both of those attribution assessments, she said. To this end, the Geneva-based ICT4Peace Foundation has proposed what they've dubbed to be a Global Cyber Attribution Network. "ICT4Peace proposes the setting up of an independent network of organisations engaging in attribution peer-review," the organisation wrote in its policy brief [Trust and Attribution in Cyberspace](https://ict4peace.org/wp-content/uploads/2019/07/ICT4Peace-2019-Trust-and-Attribution-in-Cyberspace.pdf) [PDF]. Currently, most attribution is done by private cyber threat intelligence organisations and national security agencies. "For international legal provisions to be effective, and accountability for malicious cyber activities to take hold, high levels of confidence and publicly persuasive attribution of responsibility are required," ICT4Peace wrote. This new independent attribution agency should include "government representatives, private sector pundits as well as proponents from civil society and academia". Microsoft has also suggested, in 2017, an [attribution organisation to strengthen trust online](https://www.microsoft.com/en-us/cybersecurity/content-hub/an-attribution-organization-to-strengthen-trust-online) as part of its Digital Geneva Convention proposal. Such an agency has been compared with the long-established International Atomic Energy Agency, but the cyber world is vastly different. "Nuclear technology is industrial by design. It is difficult, if not impossible, to develop nuclear capabilities in hiding. Also, military use of nuclear technology is very different from civilian use," ICT4Peace wrote. "Cyber capabilities on the other hand are software based. In contrast to nuclear technology, cyber tools do not emit suspicious radiation and do not require factories for their development. A handful of dedicated individuals gathered in a room can launch a cyberattack of sizeable magnitude." While an independent agency wouldn't be able to provide real-time attribution during a cyber attack, its existence and its ability to subsequently validate or refute a nation's claims could provide a break on cyber escalation. ZDNet understands that the idea of an IAEA-style cyber inspection agency is raised at the UN from time to time, including in the OEWG intersessional multi-stakeholder consultations, but for various reasons, it has yet to gain traction.

### Solvency - Russia

#### Solves Russia

Franz-Stefan Gady and Greg Austin 6-24-10 Franz-Stefan Gady is an associate at the EastWest Institute. He has previously worked as an adjunct research assistant at the Institute for National Strategies Studies of the National Defense University in Washington, D.C., focusing on regional security issues. He was also an analyst for the Project on National Security Reform, a congressionally funded nonprofit organization founded to reform the national security structure of the United States. He holds an M.A. in Strategic Studies/International Economics from the School of Advanced International Studies, Johns Hopkins University, and has served in the Austrian Army and the Austrian Foreign Ministry, working on various security issues. Greg Austin is Vice President of Program Development and Rapid Response at the EastWest Institute. Greg’s career in international affairs spans thirty years and includes senior posts in academia and government. He writes a weekly column in the newspaper New Europe. He has also held senior posts at the International Crisis Group and the Foreign Policy Centre in London. Greg is the author of several well-reviewed books on international security, especially on Asia. His books include The Armed Forces of Russia, co-authored with Alexei Muraviev. He has several postgraduate qualifica- tions in international relations, including a Ph.D. His main specializations have included Soviet and Russian security policy. [Russia, The United States, And Cyber Diplomacy Opening the Doors , <https://www.eastwest.ngo/sites/default/files/ideas-files/USRussiaCyber_WEB.pdf>] //DamienHS WAgustin

Russky Newsweek, the Russian-language edition of Newsweek, ran a cover story in its November 23, 2009, is- sue on cyber crime that pointed a very big finger at Russian hackers working from home and abroad. It used terms like the “Evil Cyber Empire” and the “Cold Cyber War.” At the same time, NATO is trying to understand how it should deal with cybersecurity issues. Does a cyber attack on a NATO member state trigger the Article V commitment of the mutual defense treaty? Geopolitics during the Cold War was about borders and defending them. Cyber diplomacy in the twenty-first century is about managing a world that is not just borderless but can function best when connectivity is almost seamless. This world—so dependent on stable financial transactions and global trading—cannot function at all if cyber connectivity is successfully attacked. So how does NATO, a geographically defined alliance trying to redefine its relationship with Russia, understand its role in pro- moting cyber diplomacy and cyber peace? What should the institutional structure and strategic profile of NATO look like if the biggest security threats to it in the next ten years are from terrorists or states with advanced cyber offensive capabilities? One big change will be in espionage. It will continue but its fundamental character will change. Russia will change its intelligence-gathering priorities in NATO countries, and the United States will change its espionage priorities in Russia. All parties will become more interested in pro- tecting at least some of the others’ secrets than in stealing them, because to do so will buttress their own economic security. For NATO, the time has definitely arrived for it to el- evate cybersecurity to the top rank of issues to be dealt with in its official relations with Russia; the two sides have a shared interest in seeking common solutions, not simply looking at each other as potential threats. A low-profile speech by the vice chairman of the U.S. Joint Chiefs of Staff, General James E. Cartwright, in June 2009 gave a glimpse of an emerging strategic concept in the world’s only military superpower—something he dubbed “global strike.”91 He said that the low-end capa- bility for global strike “is probably [the ability to be] any place on the face of the earth in an hour,” while the “high end is any place on the face of the earth in about 300 mil- liseconds—that’s cyber.” This view was expressed during a discussion of the forthcoming quadrennial review of the country’s military planning and capability. It flowed from Cartwright’s vision of what deterrence looks like in the twenty-first century. Citing the proliferation of ballistic missiles, Cartwright observed that a new attack—potentially nuclear—“could be over in minutes.” This circumstance would require, he said, “something that deters that conflict and it has to be more than nuclear.” For him, part of the argument is that his country’s military bases are located “where we fought the Indians, the Japanese and the Germans.” He suggested that current basing realities might not address the needs of deterring or responding to new threats.

#### Russia says yes

Geoff Van Epps 13 Geoff Van Epps is a lieutenant colonel in the US Army. This article is based on research he conducted while serving as a Senior Fellow at the George C. Marshall European Center for Security Studies in Garmisch, Germany, from 2012-2013. [Common Ground: U.S. and NATO Engagement with Russia in the Cyber Domain, <https://www.proquest.com/docview/1501475931/fulltext/E74DB63D289B45DFPQ/1?accountid=14667>] //DamienHS WAgustin

An Agenda for NATO-Russian Cooperation Absent any ongoing cooperation between NATO and Russia, a virtually blank slate exists for developing NATO's agenda to finally begin to engage Russia in the cyber domain - and NATO must acknowledge that such engagement is imperative going forward. While the NATO Policy on Cyber Defense acknowledges that NATO will "tailor its international engagement based on shared values and common approaches,"147 and a recent NATO study called international partners "essential actors of NATO's cyber defense" with whom NATO should "develop bilateral arrangements ... focusing on infor- mation-sharing, exchange of best practices, and judicial agreements," Alliance gridlock has prevented NATO from even initiating a relationship with Russia on issues of mutual concern.148 As a consequence, NATO members with favorable bilateral relations with the Russian Federation are bypassing NATO to work directly with Russia on cybersecurity and other topics, which neutralizes the collective influence of NATO and plays toward the Russian strategic goal of marginalizing NATO wherever possible.149 Rather than sitting on the sidelines as the cyber domain is evolving around it, NATO has the opportunity and the need now to match its actions to its rhetoric by accepting Russian overtures to cooperate on cybersecurity. It should build internal consensus on engaging Russia with relatively low-cost, low-risk measures where both sides can easily find agreement as first steps toward an eventually more substantial partnership that tackles the thornier problems where the two sides have fundamental differences. Specifically, NATO should seek to cooperate with Russia to accomplish the following goals. Add a Cybersecurity Working Group to the NATO-Russia Council. Ideally, this arrangement would establish a stand-alone working group on par with working groups covering topics like missile defense, logistics, or terrorism. If that were to provide too broad of a mandate for the Alliance partners to agree to, it could be formed as a subgroup underneath the Science for Peace and Security Committee with a much narrower and more technical purview. In any case, forming a working group at the NRC would signal the intention to work seriously with Russia on cybersecurity and would provide an organizational venue for doing so.150 Partner Computer Emergency Response Teams. Regardless of the level of trust between NATO and the Russian Federation, having contacts established between the technical experts who have the ability to respond in the event of a crisis is invaluable.151 NATO should collectively adopt the pragmatic stance of some of its member states and begin a series of limited, technically-oriented exchanges between the NATO Computer Incident Response Capability Technical Center and the Russian CERT in order to exchange technical information and determine how best to communicate during a crisis. Share Cyber Intel. Because cyberspace is constantly evolving and the nefarious actors who operate within it are continually adapting, maintaining up-to-date information on cyber threats is an endless challenge. Likewise, sharing intelligence across NATO can be a sensitive and difficult process, so any proposal for trading secrets with Russia might on the surface seem dubious - except that during an April 2013 visit to Moscow, NATO Deputy Secretary-General Alexander Vershbow proposed the creation of two centers to allow Russia and NATO to share intelligence, conduct joint planning, and coordinate operations on missile defense.152 While a final agreement on establishing these centers is nowhere near, missile defense has been as much of a source of friction between the U.S., NATO, and Russia as cybersecurity, so the proposed facilities provide a template for a cyber threat information clearinghouse as another space for NATO and Russia to cooperate. Such a clearinghouse could start small and work initially on shared analysis of excellent but unclassified data from commercial cybersecurity firms and, as trust is built, graduate to more sensitive and classified intelligence products.153 Develop Confidence-Building Measures. The Organization for Security and Cooperation in Europe (OSCE) is nearing completion of a set of confidence-building measures (CBMs) intended to prevent misunderstandings and avert international conflicts among its fifty-seven member countries.154 Although the publicly available draft of the measures reveals them to be voluntary and not particularly robust,155 the agreement, once finalized, will be important for having started a conversation on cybersecurity among over a quarter of the world's nation-states and in facilitating the exchange of cybersecurity terminology, doctrine, and contacts among the members. NATO should build on the OSCE agenda to pursue a more detailed and more ambitious set of CBMs with Russia, including joint early-warning mechanisms, exchanges of technical cybersecurity recommendations, and improvement of cyber crisis communication channels.156 Given that all twenty-eight NATO countries and Russia are part of the OSCE, achieving consensus on confidence-building measures at the NRC should be attainable, and it would go a long way to addressing Russia's almost paralyzing fears of being blamed for a cyber incident in which it legitimately played no role.157 And since NATO and Russia have a long track record of devising CBMs related to nuclear weapons, adapting those existing procedures and processes to cybersecurity would appear eminently achievable.

### Solvency – China

#### Solves China – you can use this card for space too

Liselotte Odgaard 4-25-22 Liselotte Odgaard is a professor at the Norwegian Institute for Defense Studies . Her work focuses on US–China–Europe relations, including NATO–China relations; Chinese foreign, security and defense policy; Indo-Pacific security, and the geopolitics of the Arctic region. [NATO’s China Role: Defending Cyber and Outer Space, The Washington Quarterly, 45:1,167-183, DOI: [10.1080/0163660X.2022.2059145](https://doi.org/10.1080/0163660X.2022.2059145)] //DamienHS WAgustin

Cyber and space is a promising arena for NATO to address China challenges by building member state resilience. Like the air and sea domains, as areas that belong to no one state and which provide access to much of the globe, they form part of the global commons. Command of the commons has been the key enabler of the US global position of power for many decades.[26](https://www.tandfonline.com/doi/full/10.1080/0163660X.2022.2059145) However, China wields a sufficient range of sea, air, cyber, and space capabilities such that the global commons is now a contested zone. In contrast to the sea and air domains, cyber and space are sparsely regulated. This lack of international norms enhances the risk of conflict based on misperception, making NATO cooperation pertinent. Adversarial activities toward the US and Europe in the cyber and space domain threaten transatlantic security. These come not just from China, but also from other adversaries such as Russia and Iran. Mechanisms for addressing these challenges in the military sector are essentially generic and not, at least in their basic design, established with a particular country in mind. Thus, cyber and space provide an avenue for NATO to contribute significantly to deterrence of China without having to combat major internal resistance. NATO would also benefit from long-standing US-EU cooperation on cyber and space issues.[27](https://www.tandfonline.com/doi/full/10.1080/0163660X.2022.2059145) Cyber and space provide an avenue for NATO to contribute without major internal resistance NATO has vowed to clarify Article Five’s collective defense commitment to encompass threats to satellites in space and coordinated cyberattacks. NATO can design this effort to include adversarial behavior from China. The alliance already has an array of instruments to deal with cyber and space challenges from adversaries. These can be extended to encompass China without pronouncing it a threat.[28](https://www.tandfonline.com/doi/full/10.1080/0163660X.2022.2059145) This approach allows the US and Europe time to adjust their cooperation to take into account the fact that China poses military threats to them both without explicitly using the language of threat at a time when NATO members do not agree if China should be defined as a challenge that can trigger Article Five responses. Since the late 1990s, the vulnerability of shared space assets to cyberattacks has been a concern for both the US and Europe. For example, in 1998 a US-German satellite, used for peering into deep space, was rendered useless after it turned suddenly toward the sun, damaging its High Resolution Imager by exposure. NASA later determined that the accident was linked to a cyber-intrusion at the Goddard Space Flight Center. Coordinated cyberattacks have emerged as a major threat to both the US and Europe since the late 1990s. For example, for about eighteen minutes on April 8, 2010, China Telecom advertised erroneous network traffic routes that instructed US and other foreign internet traffic to travel through Chinese servers. Other servers around the world quickly adopted these paths, routing all traffic, including government and military traffic, to about 15 percent of the internet’s destinations through servers located in China.[29](https://www.tandfonline.com/doi/full/10.1080/0163660X.2022.2059145) In the future, the need to enhance situational awareness in space is likely to lead to further integration of space assets between the US and its allies. Civilian entry points are likely to provide a growing opportunity for infiltration. The weak state of cybersecurity in civilian agencies should also be considered. Chinese military doctrine prioritizes weaponry that targets vulnerabilities in the deployment of US and allied power, such as the use of cyberattacks to disrupt surveillance assets, intelligence networks, and command-and-control systems.[30](https://www.tandfonline.com/doi/full/10.1080/0163660X.2022.2059145) These threats are significant, since next generation systems, including fighter aircraft, destroyers, and special forces, will not function without access to space communication and space-derived data. Although European and US allies have indigenous space programs outside the NATO framework, cyber security and outer space would be a useful field for joint explorations of how to divert and manage attacks and identify an agency which can coordinate transatlantic responses to attacks. Allies are embedded in a range of information networks which may be disrupted, giving rise to alliance management concerns emerging from attacks. The lack of red lines regarding behavior in cyber and outer space between the US and its allies on one hand, and adversaries such as China on the other, adds to the risk of misperception and escalation, and hence also highlights the need for allied coordination to avoid starting a war by mistake. An improved NATO dialogue on safeguards and alliance consultation could also assist communication with China on arms control and conflict prevention in cyber and outer space, which is not currently taking place. Looking to the future, NATO’s success in establishing transatlantic mechanisms for cyber and outer space safeguards and consultation will be crucial to allow NATO a key role in taking on the China challenge in ways that help restore faith in NATO’s credibility as a provider of collective defense in all domains. It will also assist NATO in straddling the chasm between member states prioritizing threats from either China, Russia, the Middle East, or North Africa, since cyber and space threats potentially stem from all of them, and the effectiveness of cyber and space defense mechanisms do not necessarily depend on geographical origin. Cyber and space would allow NATO a key role in the China challenge without prioritizing China Improved communication between NATO and the EU will be essential for NATO to successfully address the military aspects of cyber and space threats. The framework for permanent EU-NATO relations, Berlin Plus, was concluded in March 2003. It allows for the exchange of classified information, the EU’s use of NATO assets and capabilities for EU-led crisis management operations, and the establishment of consultation arrangements.[31](https://www.tandfonline.com/doi/full/10.1080/0163660X.2022.2059145) Due to disagreements over responsibilities and jurisdiction, however, meaningful coordination did not take place until July 2016. On this occasion, NATO and the EU issued a joint declaration stating their intention to work together on security and defense responses to unprecedented challenges emanating from the South and East of the Euro-Atlantic area.[32](https://www.tandfonline.com/doi/full/10.1080/0163660X.2022.2059145)During Biden’s visit to Brussels in June 2021, NATO promised to strengthen cooperation with the EU on promoting peace and stability including protecting critical infrastructure, strengthening resilience, maintaining a technological edge, and addressing challenges to a rules-based order.[33](https://www.tandfonline.com/doi/full/10.1080/0163660X.2022.2059145) The EU-US summit statement from the same visit merely reaffirms support for robust NATO-EU cooperation and promises to strengthen the partnership.[34](https://www.tandfonline.com/doi/full/10.1080/0163660X.2022.2059145) At the level of policy implementation, it is clear when talking to NATO and EU officials that usually they do not coordinate their strategies and tactics for countering China challenges.[35](https://www.tandfonline.com/doi/full/10.1080/0163660X.2022.2059145)

#### China wants cyber diplomacy to maintain interdependence with the West

Nikolay Bozhkov March 2020 [China’s Cyber Diplomacy: A Primer, <https://eucd.s3.eu-central-1.amazonaws.com/eucd/assets/-GXl50Cl/bozhkov-digital-dialogue-final.pdf>] //DamienHS WAgustin

In absolute terms, the People's Republic of China is the European Union's largest trading partner. China is its most significant source of imports and second-largest export market. The EU is second only to the United States as China's top trade partner.207 In the framework of the EU-China 2020 Strategic Agenda for Cooperation signed in 2013 - the strategy that guides comprehensive bilateral cooperation - the EU and China agreed to establish strategic partnership across a wide range of issues, including sustainable development, economic prosperity, global governance, foreign policy, security and peace.208 In 2017, China and Europol reached an agreement known as the "Europol-China Strategic Cooperation Framework" to increase law enforcement cooperation directed at combating transnational crime. The 2016 Joint Communication on "Elements for a new EU strategy on China", adopted by the High Representative, the European Commission209 and the EU Council's Strategy on China210 further clarified EU priorities vis-à-vis China. In line with the EU's overarching engagement strategy, it put special attention on human rights, the rule of law, social-economic issues, trade and investment and market access. The EU has repeatedly highlighted the need to curb industrial cyber espionage by intensifying cooperation with China on reforming the country's "protection and enforcement of intellectual property rights"211 through mechanisms such as the Intellectual Property Rights Infringement Protection212 and the EU-China Strategic Framework for Customs Cooperation on IPR for 2018-2020.213 Underscoring the importance of intellectual property rights protection in Europe, and building on synergies with Japan and the USTR Section 301 Report, the EU has also launched a case at the WTO against China's "unfair [and forced] technology transfers" and discriminatory treatment of foreign companies.214 5.2 China's engagement with the EU and EU member states The landmark 2015 Xi-Obama industrial cyber espionage agreement has served as a template for EU member states' cyber-related bilateral partnerships with China. Both the United Kingdom (2016)215 and Germany (2015)216 have convinced China to formally adopt a norm against cyber espionage in bilateral accords, commit to hold a regular dialogue on pertinent cyber issues and cooperate in the fields of incident mitigation, CERTs assistance, cybercrime and CBMs. European member states' diplomatic approach to China has therefore been more functional and in pursuit of concrete practical outcomes of benefit for both sides. From EU countries' vantage point, this type of functional cooperation with China is necessary as it transcends unsurmountable differences between the two sides' normative preferences, threat perceptions and security interests. For decades, Sino-European Union relations have been characterised by consistently growing economic and cultural ties. Accommodating China's economic rise and appetite to shape international order has given rise to greater technological interdependence in tandem with tremendous new normative, security and political challenges. China's growing assertiveness - particularly its growing political reach in Europe, which is often perceived as a lever to undermine the cohesion of the Union - has eventually compelled the EU to fundamentally redefine its China strategy from an accommodation-based engagement policy towards one of balancing and "managed interdependence" in key strategic sectors and supply chains, with an emphasis on ensuring market reciprocity.217 2019 saw the European Union chart a new bolder course vis-à-vis China. In March 2019, weeks before the 21st EU-China Summit, and coming after recommendations made by the Federation of German Industries and other European actors (member states, other industry federations, etc.) earlier that year,218 the European Commission published an official document ("EU-China - A strategic outlook") describing a new "EU policy shift towards a more realistic, assertive, and multi-faceted approach" to dealing with China.219 The EU asserts that despite China being a cooperation and negotiating "partner" with which the EU needs to (re)align objectives and strike a "balance of interests", the PRC has increasingly become a "systemic rival" and an "economic competitor" that leverages economic investment to achieve geopolitical gains, energetically pursues global "technological leadership" and seeks to export norms and forms of governance at odds with neoliberalism. Furthermore, the profoundly intertwined role of the CCP in China's economy and the opaque and highly blended divisions between the public and private spheres and the military have made Chinese technology a security risk for the EU in the "short to mid-term". Overall, the EU's more critical stance before the 2019 summit has helped secure several concessions from the Chinese side. Concerning EU-China cooperation in cyberspace, the two sides will continue working towards implementing norms of responsible state behaviour under the EU-China Cyber Task Force framework and within parallel UN processes. While affirming that "there should be no forced technology transfers", the two sides also committed themselves to enhancing resilience against malicious cyber activities, including against cyber-enabled intellectual property theft. The two sides also committed to a concrete timeline to conclude the "EU-China Comprehensive Investment Agreement", for which "decisive progress" from the Chinese side - i.e. substantial market-opening reforms directed at ensuring a level playing field - will be required in 2019.225 Furthermore, China and the EU are to cooperate on reforming the WTO, though this will be conditional on China reforming the discriminatory effects of industrial state subsidies and other related issues.

### A/T PDCP

Note: Use the PDCP answers from the DoS CP file

#### Hotlines are under the Department of State’s jurisdiction – here’s proof of US’s most RECENT hotline agreement

AP News 5-5-1998 The Associated Press is an independent global news organization dedicated to factual reporting. Founded in 1846, AP today remains the most trusted source of fast, accurate, unbiased news in all formats and the essential provider of the technology and services vital to the news business. [China, Russia Open Communications, <https://apnews.com/article/0b2d1e1197f64795b0a5e0b9aeaf013e>] //DamienHS WAgustin

China and Russia have opened a direct presidential hot line to improve understanding between the former communist rivals, the Foreign Ministry announced Tuesday. The secure telecommunications link, China’s first with a foreign capital, will allow presidents Jiang Zemin and Boris Yeltsin to ``exchange views on bilateral relations and international issues at any time,″ Foreign Ministry spokesman Zhu Bangzao said. U.S. Secretary of State Madeleine Albright and Chinese Foreign Minister Tang Jiaxuan signed an agreement for a U.S.-China hot line last week, but Zhu said he did not know when it would open. China and the former Soviet Union engaged in a tense rivalry for the allegiances of the socialist world during the Cold War and fought border skirmishes in the late 1960s. Relations have improved steadily over the past decade.

#### Security Cooperation is administered by the DoD, Security Assistance is DoS

McLaren 14, US Air Force Captain (McKay, “Enhancing the Assessment of the Costs and Benefits of International Pilot Training (IPT) Within the U.S. Air Force: Is It Worth It?,” RAND Dissertations)//BB

U.S. Code Title 22 provides congressional authority to conduct DoS Security Assistance programs. The programs are carried out through two basic laws, the Foreign Assistance Act of 1961 (FAA) and the Arms Export Control Act of 1976 (AECA).24 AECA enacted congressional legislative controls over export of defense articles and services. The Senate Foreign Relations Committee and the House Foreign Affairs Committee are responsible for foreign assistance and Security Assistance program authorization legislation. The Senate and House Armed Services Committees are responsible for defense programs authorization legislation. The term security cooperation is used within DoD, whereas the term security assistance is used within the DoS. It is important to note that these congressional committees play a role only in FMS authorization. Although Congress maintains legislative control over exports, FMS is a nonappropriated program, external to the U.S. budget, and the president is charged with signing off on spending for the program. Through Executive Order 11958, as amended, the President delegates selected functions in the AECA to the secretaries of State and Defense. They are required to provide reports to Congress and obtain specific congressional approval on certain exports or transfers. The DoS has responsibilities relating to security assistance, which include managing the export of defense articles, services, training, and military technology.25 DoD has responsibilities relating to security cooperation, which include activities to encourage and enable international partners to work with the United States to achieve strategic objectives.26 The military departments and other DoD agencies involved in managing FMS programs are collectively called implementing agencies (IAs). The Army, Navy, and Air Force usually have the responsibility of being the IA in the process of FMS.27 The Air Force agency for all security cooperation programs is the Office of the Deputy Under Secretary of the Air Force for International Affairs (SAF/IA). The Assistant Secretary of the Air Force for Acquisition has oversight in the execution by virtue of having responsibility for Air Force acquisition. SAF/IA is supported by the Air Force Security Assistance Center at Wright-Patterson Air Force Base, Ohio, for most FMS and other logistics functions. The Air Force Security Assistance Training (AFSAT) squadron at Randolph Air Force Base (AFB), Texas, is in charge of planning and, with AETC, managing the Air Force international military training. It is organized under the authority of AETC.

## Russian Sanctions Plank

Notes:

* Read the Terrorism turn as a NB (possibility)
* This was built for PGMs
* And say no as a solvency deficit to their plan – not ALL members of NATO need to impose sanctions
* Change CP plank text especially if you want to get out of PDCP trouble – You can put the EU and Britain instead of NATO

#### The United States Federal Government should propose to the North Atlantic Treaty Organization to multilaterally impose sanctions and export controls on Russian defense contractors and their CEOs.

#### Plank solves. Russian defense CEOs and companies alike have avoided Western sanctions, keeping Russia’s military alive – cutting them off at the head impairs the Russian military

Chris Kirkham & David Gauthier-Villars 7-1-22 Reporting by Chris Kirkham in Los Angeles and David Gauthier-Villars in Istanbul; Additional reporting by Tim Hepher in Paris; Editing by Marla Dickerson and Vanessa O'Connell. [Special Report: Dozens of Russian weapons tycoons have faced no Western sanctions, <https://www.reuters.com/world/europe/dozens-russian-weapons-tycoons-have-faced-no-western-sanctions-2022-07-01/>] // DHS WAgustin 🍔

As Russia's military continues to pound Ukraine with missiles and other lethal weapons, Western nations have responded in part by targeting Russia's defense industry with sanctions. The latest round came on Tuesday, when the United States issued new sanctions on some arms makers and executives at the heart of what it dubbed Russian President Vladimir Putin's "war machine." But a Reuters examination of companies, executives and investors underpinning Russia's defense sector shows a sizable number of players have yet to pay a price: Nearly three dozen leaders of Russian weapons firms and at least 14 defense companies have not been sanctioned by the United States, the European Union or the United Kingdom. In addition, sanctions on Russia's arms makers and tycoons have been applied inconsistently by these NATO allies, with some governments levying penalties and others not, the Reuters review showed. Among the weapons moguls who have not been sanctioned by any of those three authorities is Alan Lushnikov, the largest shareholder of Kalashnikov Concern JSC, the original manufacturer of the well-known AK-47 assault rifle. Lushnikov owns a 75% stake in the firm, according to the most recent business records reviewed by Reuters. The company itself was sanctioned by the United States in 2014, the year Russia invaded and annexed the Ukrainian peninsula of Crimea. The EU and UK leveled their own sanctions against Kalashnikov Concern this year. The company accounts for 95% of Russia's production of machine guns, sniper rifles, pistols and other handheld firearms, and 98% of its handheld military machine guns, according to its website and most recent annual report. Its weapons include the AK-12 assault rifle, an updated version of the AK-47, some of which have been captured from Russian forces by Ukrainian soldiers. The Kalashnikov Concern also produces missiles that can be fired from aircraft or on land. A former Russian deputy transport minister, Lushnikov once worked for commodities tycoon Gennady Timchenko, a longtime friend of Putin. The United States sanctioned Timchenko in 2014 following Russia’s invasion of Crimea, naming him as a member of the Kremlin’s “inner circle.” Neither Lushnikov, Timchenko or the Kalashnikov Concern responded to requests for comment. It’s the same pattern with Almaz-Antey Concern, a Moscow-based defense company specializing in missiles and anti-aircraft systems. The company has been sanctioned by the United States, EU and UK, but CEO Yan Novikov has not been punished. Almaz-Antey’s website displays the motto “Peaceful Sky is Our Profession.” The company makes Kalibr missiles, which Russia’s Ministry of Defense has credited with destroying Ukrainian military installations. In a statement last month, the ministry said Russia had fired long-range Kalibr missiles at a Ukrainian command post near the village of Shyroka Dacha in eastern Ukraine, killing what the ministry claimed were more than 50 generals and officers of the Ukrainian military. Reuters was unable to independently verify that claim. Neither Almaz-Antey nor CEO Novikov responded to requests for comment. In response to a list of questions submitted by Reuters about Western sanctions aimed at Russia, a Kremlin spokesperson said "the consistency and logic of imposing sanctions, as well as the legality of imposing such restrictions, is a question that should be put directly to the countries that introduced them." The Reuters findings come as Ukrainian President Volodymyr Zelenskiy has said that current Western sanctions against Russia “are not enough” as Russian troops make gains in their assault on Ukraine’s eastern regions of Luhansk and Donetsk. The Ukrainian military has been outgunned by Russian artillery in places such as the industrial city of Sievierodonetsk, which it ceded to Russian forces last week after weeks of intense fighting. Putin has portrayed his military’s assault on Ukraine as a “special military operation” aimed at demilitarizing and “denazifying” its democratic neighbor. On Tuesday, Russia’s Foreign Ministry announced it would bar Jill Biden and Ashley Biden, the wife and daughter of U.S. President Joe Biden, from entering Russia indefinitely in what it said was a response to “constantly expanding U.S. sanctions against Russian politicians and public figures.” U.S. National Security advisor Jake Sullivan said on Tuesday that Russia's action was not surprising because "the Russian capacity for these kinds of cynical moves is basically bottomless." The Russian invasion has killed thousands of Ukrainian soldiers and civilians, but the exact number is unknown. The United Nations human rights office said, as of Monday, that 4,731 civilians had been killed in Ukraine since Russia’s invasion began on Feb. 24, including more than 300 children, with another 5,900 civilians injured in the conflict. The agency said most of the casualties were caused by the use of “explosive weapons with a wide impact area, including shelling from heavy artillery and multiple launch rocket systems, and missile and air strikes,” and that the actual number of dead and wounded was likely far higher. The West has levied sanctions on a swath of Russia’s economy to punish Moscow, an effort that so far has done little to deter the Russian offensive. Like the bans on other Russian firms, sanctions on weapons companies are meant to hamper their ability to sell to foreign customers. These penalties limit their access to imported components and generally make it more costly and time-consuming to produce weaponry. Levying sanctions on the people behind those firms goes a step further to make the pain personal. It allows Western nations to go after any mansions, yachts and other offshore wealth of those who supply Russia’s military, and it limits where they can travel abroad. “You’re demonstrating that being a regime collaborator comes with a cost,” said Max Bergmann, a former State Department official during the Obama administration who worked on U.S. arms transfers and safeguarding U.S. military technology. “They feel it very personally. You’re creating a disgruntled class of people that are tied to the Kremlin,” said Bergmann, now director of the Europe program at the Center for Strategic and International Studies, a Washington-based national security think tank. AMMUNITION MAKERS UNSCATHED Other companies in Russia’s defense industry identified by Reuters that have not been sanctioned by the United States, EU or UK include the V.A. Degtyarev Plant[(ZDEGI.MM)](https://www.reuters.com/companies/ZDEGI.MM), a facility 165 miles northeast of Moscow that makes machine guns, anti-tank and anti-aircraft weapons that are sold to the Russian military. Its weapons include the Kalashnikov PKM and PKTM machine guns, as well as Kord rifles and machine guns, some of which are mounted on armored vehicles. The Degtyarev Plant did not respond to a request for comment. Also not sanctioned is the Klimovsk Specialized Ammunition Plant, south of Moscow, where “world-famous cartridges” for pistols and Kalashnikov assault rifles are produced, according to an archived version of its website. Neither is the Novosibirsk Cartridge Plant, an ammunition manufacturer that calls itself “one of the leading engineering enterprises of the military-industrial complex of Russia.” Neither ammunition plant responded to requests for comment. Last month, Reuters sought comments from sanctions officials in the UK, EU and United States regarding the news agency’s findings that they had failed to punish a raft of Russian defense firms and tycoons fueling Putin’s war effort. As part of that process, Reuters provided those Western authorities with a detailed list of more than 20 companies and more than three-dozen people that had escaped sanctions. The UK’s Foreign, Commonwealth and Development Office, which levies sanctions for Britain, said it could not comment on future sanctions. It added that London and its allies had levied “the largest and most severe economic sanctions that Russia has ever faced, to help cripple Putin’s war machine.” The European Commission and the U.S. Treasury Department, which handle sanctions for Brussels and Washington respectively, declined to comment on the specifics of Reuters’ findings. Elizabeth Rosenberg, assistant secretary for terrorist financing and financial crimes at the Treasury Department, said in a statement that sanctions have “made it harder for Russia to obtain what it needs to procure and produce weapons.” On Tuesday, in conjunction with a meeting of leaders of the G7 nations in the German Alps, the Treasury Department released a new round of defense-related sanctions that included eight of the weapons firms and two of the executives on the list provided earlier by Reuters. One of those newly sanctioned executives, Vladimir Artyakov, has played key roles in Russia’s weapons industry for decades, and serves as the No. 2 executive at Rostec, a military-industrial giant with hundreds of subsidiaries employing more than half a million people, according to its website and annual reports. Artyakov is also the chairman of at least five Russian weapons firms, among them Russian Helicopters JSC, which builds several lines of military helicopters including the Ka-52 "Alligator," some of which have been shot down and documented in Ukraine. He has not been sanctioned by the EU or UK. Artyakov and Russian Helicopters did not respond to requests for comment. Rostec has been sanctioned by Washington since 2014. On Tuesday the United States targeted the company again, levying sanctions on more than 40 Rostec subsidiaries and affiliates. Among those hit was Avtomatika Concern, a company linked to cyber warfare. It was on the list of Russian defense firms that Reuters had submitted to the Treasury Department last month seeking an explanation as to why the companies had not been sanctioned. Rostec and Avtomatika Concern did not respond to requests for comment. Other firms on Reuters’ list that were sanctioned just this week by the Treasury Department include PJSC Tupolev, a maker of fighter jets such as the Tu-22M3 bomber. The Ukrainian military said Tu-22M3 bombers were responsible for a missile strike at a crowded shopping center in the central Ukrainian city of Kremenchuk on Monday, which killed at least 18 people and injured about 60. PJSC Tupolev and another firm on Reuters’ list, JSC VNII Signal, have not been sanctioned by the EU or UK. JSC VNII Signal is a producer of mechanical and navigational systems that power Russian military tanks and some of the country’s most advanced missile systems. PJSC Tupolev and JSC VNII Signal did not respond to requests for comment. TOP BRASS UNTOUCHED Executives at a host of Russian weapons firms, meanwhile, have largely escaped sanctions from Western authorities. Nearly three months after a Tochka-U ballistic missile hit a train station in the eastern Ukrainian city of Kramatorsk on April 8, Russian weapons executives linked to the company that makes those missiles have yet to pay a price. The strike killed more than 50 people, including children, and injured more than 100 others. The Russian firm JSC Research and Production Corporation Konstruktorskoye Byuro Mashynostroyeniya, known as KBM, has been the primary manufacturer of Tochka-U missiles, according to a U.S. Army database of worldwide military equipment. Neither Washington, Brussels or London have sanctioned Sergey Pitikov, KBM’s chief executive. The three Western allies have likewise spared Alexander Denisov, the CEO of NPO High Precision Systems, KBM’s parent company. High Precision Systems oversees production of a wide range of missiles, artillery, grenade launchers and machine guns used by Russian troops and outfitted on military helicopters, aircraft, tanks and warships. Sanctions on Russia’s arms companies and tycoons have been applied inconsistently by the Western allies. The United States and EU have sanctioned High Precision Systems, for example, while the UK has not. The United States has sanctioned KBM, but the EU and UK have not. High Precision Systems, Pitikov and Denisov did not respond to requests for comment. KBM confirmed that Pitikov is its chief executive, but did not respond to additional questions submitted by Reuters. Europe and the United States have failed to coordinate sanctions even on makers of banned weapons. Since the outset of Russia’s invasion in late February, Western governments and human rights groups have decried its use of cluster munitions: small bombs delivered by missiles or rockets, which scatter and explode over an area as large as a city block. A 2008 international treaty bans their use or production under any circumstances because of the devastating effects on civilians. Russia used a Uragan – which translates to “Hurricane” – rocket launcher system to fire cluster bombs in Kharkiv on March 24, killing eight civilians and injuring 15 others, according to the U.N. human rights office and Ukrainian officials. The Uragan is made by JSC Scientific and Production Association Splav, a Russian firm whose systems have been sold abroad to countries including India. The company has been sanctioned by the United States, but not by the UK or EU. Its CEO, Alexander Smirnov, has escaped sanctions altogether. Splav and Smirnov did not respond to requests for comment. It’s much the same for Splav’s parent company, NPK Techmash. The United States and the EU have sanctioned the firm, but the UK has not. Techmash CEO Alexander Kochkin has not been targeted by American or European authorities. Techmash and Kochkin did not respond to requests for comment. In a June 10 statement, the European Commission said there is an effort to align sanctions lists “as much as legally possible” among allies to achieve “the maximum cumulative effect of the sanctions with all our like-minded partners.” In cases where the lists do not align, the Commission statement said, people and companies not currently on the EU’s sanctions list could be added later if there is sufficient evidence. "Nothing is off the table," the statement said. WESTERN CONNECTIONS One of the highest-profile Russian firms to escape Western sanctions is VSMPO-Avisma Corp[(VSMO.MM)](https://www.reuters.com/companies/VSMO.MM), which is the world’s largest titanium supplier and 25% owned by Rostec. It supplies Russia’s defense industry, but also counts major Western aerospace companies among its clients. Based in Verkhnyaya Salda, in central Russia, VSMPO-Avisma has subsidiaries with facilities in the United States, Switzerland and the UK, as well as sales and distribution staff in the United States, Europe and Asia, according to its website and annual reports. That’s no doubt a factor that has allowed the company to escape punishment, according to three sanctions and Russian defense experts who spoke with Reuters. VSMPO-Avisma’s vice chairman and majority shareholder, Russian billionaire Mikhail Shelkov, ranked by Forbes this year as Russia’s 59th-richest person, likewise has not been sanctioned. According to past press releases, VSMPO-Avisma has long-term contracts to supply titanium to United Aircraft Corp, a Rostec subsidiary that oversees production of Russian fighter jets such as the Su-34 that have been shot down in Ukraine. United Aircraft has been sanctioned by the United States, EU and UK. VSMPO-Avisma also sells to Europe’s Airbus[(AIR.PA)](https://www.reuters.com/companies/AIR.PA), and it supplied U.S. aerospace behemoth Boeing Co[(BA.N)](https://www.reuters.com/companies/BA.N) up until March, when the Arlington, Virginia-based company said it stopped purchasing titanium from Russia. Boeing had announced just months earlier, in November 2021, that VSMPO-Avisma would be its largest titanium supplier “for current and future Boeing commercial airplanes.” VSMPO-Avisma and shareholder Shelkov declined to comment. Boeing said in a statement that it has worked since 2014 to diversify its sources of titanium around the world, and that its current inventory and sources "provide sufficient supply for airplane production." Airbus did not answer specific questions about its relationship with VSMPO-Avisma. But in an emailed statement it said potential sanctions on Russian titanium “would massively damage the entire aerospace industry in Europe” while doing little to harm Russia because those sales are but a small portion of that nation's overall exports. In 2020, foreign sales accounted for about two-thirds of VSMPO-Avisma’s $1.25 billion in revenue, according to the company’s most recent annual report. That puts Western officials in a tough spot, said Richard Connolly, director of Eastern Advisory Group, a UK consultancy that advises governments and businesses on the Russian economy and its defense industry. Slapping sanctions on VSMPO-Avisma would curtail its lucrative export trade, but it would also force major players in global aviation to switch suppliers or risk sanctions themselves. “That’s the classic sanctions conundrum: If you want to hurt somebody, you’re going to hurt yourself,” Connolly said

#### Sanctions are effective in limiting Russian military capabilities – targeting specific sectors of their defense disables their military

Jack Detsch & Robbie Gramer 5-12-22 By [Jack Detsch](https://foreignpolicy.com/author/jack-detsch/), Foreign Policy’s Pentagon and national security reporter, and [Robbie Gramer](https://foreignpolicy.com/author/robbie-gramer/), a diplomacy and national security reporter at Foreign Policy.[Western Sanctions Are ‘Beginning to Bite’ Into Russia’s Military, <https://foreignpolicy.com/2022/05/12/western-sanctions-are-beginning-to-bite-into-russias-military/>] // DHS WAgustin 🏋️‍♂️

U.S. and British officials believe that damaging international sanctions slapped on Russia over its full-scale invasion of Ukraine are hampering its ability to restock high-tech weapons, such as precision-guided munitions, though Russia still has plenty of conventional ammunition stocks at its disposal to continue to wage war. The impact of Russia’s sanctions-induced high-tech military shortages have been spotted by Western governments, as Russian President Vladimir Putin has ordered troops into the besieged steel factory in the city of Mariupol, Ukraine, while Russian pilots have rained down “dumb bombs” without advanced precision guidance kits into the city. The Russian military burned through much of its stockpile of advanced weapons in the early days of the war; the United States believes Russia may have fired as many as 12 hypersonic missiles into Ukraine. U.S.-led [export controls](https://foreignpolicy.com/2022/02/22/biden-russia-ukraine-sanctions-asia-allies-export-controls-invasion-plans/) announced in late February sought to starve Russia of computer chips and semiconductors that could be used in advanced military equipment. “Our sanctions and export controls were designed to deny Russia the critical inputs it needs to continue the war against Ukraine and to degrade its ability to project power in the future,” said Wally Adeyemo, deputy secretary of the U.S. Treasury Department. “We have disrupted the Russian military supply chain and overall production, inhibited its defense sector from settling payments, and will continue to target Russia’s ability to restock, resupply, and rebuild.” Since late February, when Russia launched its invasion of Ukraine, the U.S. government has designated 147 entities, 35 individuals, and 74 vessels operating in Russia’s defense sector, according to data from the Treasury Department. Among the top targets of U.S. sanctions is the Tactical Missiles Corporation, known as KTRV when transliterated and abbreviated. KTRV is a Russian state-owned defense conglomerate that produces hypersonic weapons and technology used in radar systems and other multipurpose missiles. The Treasury Department has sanctioned a chief executive of KTRV, Boris Obnosov, as well as 28 subsidiaries of the conglomerate. Within Russia, there are already signs the sanctions are starting to cut into the country’s ability to restock its high-end systems. U.S. Commerce Secretary Gina Raimondo told Congress on Wednesday that Ukrainian officials had told her that Russia was being forced to take semiconductors from dishwashers and refrigerators for high-tech weapons. Raimondo said U.S. technology exports to Russia had dropped by almost 70 percent since its full-scale invasion of Ukraine. Moscow set up an interdepartmental committee to sort out how to source more military equipment domestically and if so-called friendly countries—including China—might be willing to work around sanctions to provide microelectronic processors and ammunition, two of Russia’s biggest military needs. “We do believe that the sanctions and the export controls, particularly when it comes to components, electronic components, has had an effect on the Russian defense industrial base and their ability to restart [precision-guided munitions],” a senior U.S. defense official told reporters this week. “It’s definitely beginning to bite into his defense industrial capabilities.” A British Foreign, Commonwealth, and Development Office spokesperson told Foreign Policy that international sanctions had frozen 60 percent of Russia’s foreign currency reserves, nearly $340 billion. Up to 70,000 computer specialists left Russia in March, and another 100,000 were expected to. “Persistent sanctions will lead to depressed long-term GDP growth as the country is unable to access key Western technology,” the spokesperson said in an emailed statement. (Russian GDP could fall by up to 15 percent this year.) It’s difficult to track the exact extent that sanctions are hitting Russia’s ability to rearm; Western officials speak about the matter in broad terms but have not publicly offered specific numbers due the sensitivity of the information. “We cannot publicly comment on the specific impact that these measures are having on the production of particular weapons systems or munitions Russia is using to prosecute its war against Ukraine,” a State Department spokesperson said. The bite of Western sanctions seems to have forced Moscow to begin dusting off Soviet-era defense stocks and use munitions that are less accurate—and thus potentially deadlier to Ukrainian civilians caught in the crossfire of Russia’s clumsy military offensives. On Monday, the British defense ministry’s intelligence arm assessed that the depletion of Russia’s precision-guided stockpiles has “forced the use of readily available but aging munitions that are less reliable, less accurate, and more easily intercepted.” The 77-day invasion has “revealed shortcomings” in Russia’s ability to conduct precision strikes, including subjecting Ukraine’s towns and villages to intense shelling, a trend that seems to be on the rise in the offensive in the Donbas region. Even if such ammunition is inferior to precision-guided munitions, Russia has plenty of it to continue its military offensives. “They will face problems on the security of supply on their precision-guided missiles, some other high-tech elements, and weaponry,” said one senior Eastern European defense official. “But at the same time, we shouldn’t discount their ability to wage war with simpler stuff. They have enough [ammunition] for years and years for fighting on that level they’re doing,” the official added. Much of Russia’s defense industrial base has been under harsh U.S. sanctions since 2014, during Russia’s first invasion of Ukraine and illegal annexation of Crimea. In late March, the Biden administration also slapped [sanctions](https://www.whitehouse.gov/briefing-room/statements-releases/2022/03/24/fact-sheet-united-states-and-allies-and-partners-impose-additional-costs-on-russia/#:~:text=Today%2C%20the%20United%20States%20is,with%20the%20EU%20and%20G7.) on dozens of Russian defense companies beyond KTRV, including High Precision Systems, which produces surface-to-air missiles such as the Iskander and anti-tank missile systems, and Tekhmash, the producer of many of the Russian military’s ammunition, multiple rocket systems, and unguided bombs. The Treasury Department has also targeted neighboring Belarus’s defense sector with its own sanctions packages. Belarusian President Aleksandr Lukashenko, which has aligned his authoritarian government with Moscow, supported the invasion and allowed Russian troops to use his country to launch offensives and airstrikes across the border into northern Ukraine in the early weeks of the war, before Russia’s effort to capture Kyiv, Ukraine’s capital, failed. The U.S. Commerce Department rolled out new export control restrictions aimed at stopping Russia from getting U.S.-made technology that could be used in military hardware, even if that technology is supplied by third countries. This includes microelectronics, telecommunications, information security equipment, sensors, navigation equipment, avionics, and parts for civilian aircraft. But much of the U.S. effort to stop Russia’s military supply lines from humming relies on extensive export controls that lean on the newly made Foreign Direct Product Rule to block almost any products made with U.S. software or technology. The problem with depending on that rule, former officials told Foreign Policy, is that it leans heavily on foreign countries to make enforcement calls. And the United States has limited—if any—visibility on products that are actually reaching Russia. “My huge, huge concern is that we do not have end use checks in Russia,” said Nazak Nikakhtar, a former assistant secretary of commerce during the Trump administration and now a partner at Wiley Rein, a law firm. “We do not have U.S. officials that can go to the Russian entities to figure out even if there’s an export license that has been granted. We have nobody to go in there and do an audit to see that that’s happened.” There’s another potential end-around, Nikakhtar said: China. The U.S. rival could help supply critical minerals needed to make steel and aluminum for military equipment as well as microchips needed to help guide precision missiles to their targets. But even if Russia is able to find other suppliers for military components, as some expect, it is likely to face an increasingly steep economic cliff as the invasion of Ukraine continues. Speaking to reporters in Washington on Tuesday, British Defense Secretary Ben Wallace said Western sanctions would pose a “real challenge” to Russia’s ability to refurbish his “worn out” armed forces. And even though the Kremlin has managed to stabilize the ruble with energy exports, it is not likely to be able to stave off the financial pain for long. “Russia is probably spending almost everything it’s earning on its energy exports to prop up the ruble and, you know, do all sorts of other B.S. to make it seem like the economy is okay when it’s not,” said Brian O’Toole, a nonresident senior fellow with the Atlantic Council think tank and a former Treasury Department official. “They’re making hard choices now,” he added. “It’s frustrating for folks not to see all of the results, but this is unsustainable for the Russians. At some point, they’re just going to fall off a cliff.”

## China Tech Coop Plank

Notes:

* Built for PGMs

#### The United States Federal Government should collaborate with China over military technology

#### Plank solves. Disables chances of a great power war and spurs innovation with China

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With rising frictions between the United States and China in the field of science and technology, few may still remember the great accomplishments achieved when the United States and China cooperated in the field of technology over the past 40 years. During the rapprochement in the 1970s, cooperation in technology spanned over fields like energy, health, basic research in physics and chemistry, and civil industrial technology, among others that could easily be considered sensitive areas by current standards. Academic exchanges also thrived: the U.S. National Institute of Standards and Technology has hosted thousands of Chinese scientists since the 1980s. The U.S. National Science Foundation also [sent U.S. scholars](https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/st-fact-sheet.pdf) to conduct scientific research in China. Yet in recent years, this collaborative ethos has been increasingly replaced by mistrust. The U.S. [urged its allies](https://www.bloomberg.com/news/articles/2018-11-23/u-s-urges-key-allies-to-avoid-using-huawei-equipment-wsj-says) to stop purchasing 5G infrastructure and equipment from China’s technology crown jewel, Huawei. Renowned scholars were [sanctioned](https://www.bloomberg.com/news/articles/2020-01-28/harvard-university-professor-accused-of-lying-about-china-ties) for involvement in technological research sponsored by the other nation’s government. Some people may view the deterioration of the U.S.-China technology exchange simply as a trade-off between national security and innovation. However, the contesting philosophies of technological protectionism and globalism is the more fundamental issue at play. This paper discusses the past, present, and future of US-China technology cooperation in three dimensions. 1.) Why has technological cooperation deteriorated? 2.) How is reviving cooperation beneficial to both countries? 3.) Is it possible to restore trust against the backdrop of U.S.-China competition? Why has U.S.-China cooperation in technology deteriorated? The reasons for deterioration lie in the rapid development of technology in both countries. On the one hand, China’s technological capacity has been advancing rapidly. Harvard Economics Professor Richard Freeman [accredited China with](https://economics.harvard.edu/files/economics/files/bigger_than_you_thought_chinas_contribution_journal_china_and_world_economy_xie-freeman_jan2019.pdf) 36 percent of global scientific articles in 2016 and 37 percent of citations to scientific articles in 2013, which is two times more than China’s share of global population or GDP. The time to turn research into commercial applications has also shortened. In November 2019, China had already [launched](https://www.cnn.com/2019/11/01/tech/5g-china/index.html) 5G services in 50 cities. The companies that run 5G services are none other but China’s three state-run telecom giants--China Mobile, China Telecom, and China Unicom--reinforcing the United States’ concerns that Chinese government is closely involved in China’s cutting-edge technologies. On the other hand, technology has also developed by leaps and bounds in the United States. In the past, only a few high-stake, dual-use technologies would spark national security concerns. In addition, these technologies often had military applications. Yet as technological applications proliferated and interfaced pervasively with people’s everyday lives, even dating applications can now collect personal data that warrants regulators’ concerns. Increasingly, the United States finds itself vulnerable in many new technological fields that were not formerly considered sensitive. Most fundamentally, U.S.-China technology cooperation has shifted from unilateral to bilateral. In the past, the U.S. was typically the provider of capital and technological know-how while China was the receiver. For the United States, technological assistance to China was partly an exercise in [science diplomacy](https://www.uscc.gov/sites/default/files/Research/Trends%20in%20US-China%20Science%20and%20Technology%20Cooperation.pdf). Since the U.S. surpassed China in technological capacity by a wide margin, exchanging technology assets for diplomatic objectives made political sense for the United States. Moreover, in the past, U.S.-China technological cooperation was often rolled out in formal settings. Cooperation usually took place between government agencies or government-affiliated research institutions, which enabled the U.S. to control the extent of the technological knowledge that was transferred to China. In recent years, however, China has started exporting capital and talent to the United States as well. Chinese technology giants Alibaba and Baidu established Artificial Intelligence research labs in California, where they collaborated with U.S. scholars and institutions. Chinese companies poured capital into U.S. technology companies. In the first quarter of 2014 alone, Chinese investors struck [high-tech deals](https://asiasociety.org/files/China_Hi_Tech_Report.pdf) worth over six billion dollars, including the takeovers of Motorola Mobility and IBM’s x86 server unit. With the rise of Chinese talent and capital, the exchange of technological know-how between the United States and China now takes place among private businesses and between individuals: an exchange that is impossible for the United States to fully control. The changing nature of technological cooperation has made both countries reconsider the political costs and benefits. Meanwhile, as nationalist sentiments rise on a global scale, technology has become a convenient medium to strike a political point. Hence, it comes as no surprise that backlash against U.S.-China technological cooperation gradually comes to the mainstream. Technological protectionism has temporarily prevailed against technological globalism. Why is reviving technological cooperation beneficial to both United States and China? The United States and China should not let technological protectionism persist, as cooperation has proven valuable to both sides. These benefits are evident whether cooperation is organized through government-sponsored programs or through private companies and individuals. The [U.S.-China Clean Energy Research Center](https://www.energy.gov/sites/prod/files/2017/04/f34/1_Zhou%2C%20Nan_CERC%20Overview.pdf) (CERC) is a quintessential example of the value of technology cooperation through government-sponsored programs. Initiated at the presidential level in 2009, CERC aims to achieve a large-scale adoption of energy efficient buildings backed up by cutting-edge technologies. Through the collective effort of and researchers in the United States and China, CERC has launched high-tech products including daylight redirecting windows, trilogy integrated heat pumps and co-axial ground heat exchangers that are reported to consume 14 to 30 percent less energy than conventional products. In addition, CERC also published multiple copyrighted software applications and are on the path to file joint intellectual properties on behalf of research teams from both countries. CERC is just one example of the vast potential that U.S.-China cooperation can unleash, especially in fields that concern both countries. As acknowledged in a [U.S.-China Economic and Security Review Commission report](https://www.uscc.gov/sites/default/files/Research/Trends%20in%20US-China%20Science%20and%20Technology%20Cooperation.pdf), the U.S. gained research access to important facilities in China and communicated with China’s leading scientists through various scientific initiatives. Needless to say, China also obtained a great amount of technological experience and know-how by collaborating with the United States. The two countries have only more to gain when their technology cooperation is carried out on a business-to-business or individual-to-individual level. The U.S. Bureau of Labor Statistics [estimates](https://www.bls.gov/opub/mlr/2015/article/stem-crisis-or-stem-surplus-yes-and-yes.htm) a need for approximately one million more Science, Technology, Engineering, and Mathematics (STEM) professionals than the U.S. currently produces to retain its own preeminence in technology. And over the years, China has consistently been the leading source of STEM students enrolled in the United States. Moreover, surveys of U.S. National Science Foundation [shows that](https://crsreports.congress.gov/product/pdf/IF/IF11347) 90 percent of Chinese scholars still work in the U.S. ten years after receiving their doctoral degrees in STEM. These scholars power innovation in Silicon Valley, expediting the creation of technological applications that benefit millions of people in the United States. The benefit of cooperating with the United States on a business-to-business or individual-to-individual level is also obvious for China. For instance, through joint ventures, medical companies in the United States have brought innovative treatments to China’s vast healthcare market that cover a wide array of complex diseases like influenza, diabetes, and hypertension. How do we restore trust in technology cooperation against the backdrop of U.S.-China competition? Restoring U.S.-China technological cooperation will benefit the people of both countries. As the U.S.-China relationship is currently characterized by tension and mistrust, leaders in each country need to firmly express their determination to restore cooperation with their counterpart. They must co-develop strategic solutions to achieve this shared goal. First, the U.S. and China need to identify common interests, search for shared problems, and capitalize on existing relationships in those areas. For example, as Professor Lan Xue at Tsinghua University and Denis Simon at Arizona State University [suggested](https://www.chinausfocus.com/2022/wp-content/uploads/Part-02-Chapter-122.pdf), the Integrated Gas-steam Combined Cycle field could be a potential opportunity to expand ties between the two countries. In this field, China appears to have the strongest technology in coal-gas transformation, while the United States ranks first in the world in steam turbine technology. The two countries could share their technological advantages to achieve a win-win outcome. Second, the U.S. and China need to enhance bilateral agreements that address pressing issues like intellectual property protection. Such agreements should contain clear protocols that guide the handling of sensitive data, specify the process of transferring technical knowledge, and establish corresponding auditing procedures. In addition, each country needs to do its part to address the other party’s core concerns. As scholars from the Asia Society [recommended](https://asiasociety.org/files/China_Hi_Tech_Report.pdf), China has to further unleash its private sector and give businesses more freedom to make investment decisions that are unconstrained by the government. If China is willing to take bold steps to empower its private enterprises, the United States will be less concerned about the politicization of Chinese investments. Meanwhile, U.S. regulators should evaluate foreign investments in technology sectors based on the investors’ compliance history rather than their nationality. While all the aforementioned suggestions are by no means easy to achieve, each small step in the right direction can go a long way to make technological exchanges between the United States and China more transparent and open. History reveals that technological protectionism and globalism often take turns to dominate the mainstream political narrative. While neither is categorically better than the other, most would agree with that rapid innovations needs a certain level of collaboration to sprout. As the world awaits the two great powers to bring more technology advancement to mankind, it behooves the United States and China to continue close cooperation.

### A/T Won’t cooperate

#### China says yes

Evelyn Cheng 10-30-20 Evelyn Cheng is CNBC.com’s Beijing correspondent, covering China’s economy and financial markets. [China talks up a future in which it needs collaboration with the U.S. and other countries, <https://www.cnbc.com/2020/10/30/china-talks-up-a-future-in-which-it-needs-collaboration-with-the-us-.html>] // DHS WAgustin 🗿

BEIJING — As Chinese authorities prepare to build up their country in the next several years, they’re keen to ensure the rest of the world will still do business with them. In a high-level press conference Friday, central government officials emphasized the need for other countries to collaborate with China, amid rising global uncertainty from the coronavirus pandemic and protectionism. The media event comes as China’s top leadership conclude an important policy meeting aimed at setting the country’s economic and social priorities for the next five years. The officials particularly pushed back against “decoupling,” or a complete separation of the U.S. and Chinese economies that President Donald Trump’s administration has advocated, beginning with technology. Chinese telecommunications giant [Huawei has been severely hampered](https://www.cnbc.com/2020/10/30/huawei-q3-smartphone-shipments-plunge-as-us-sanctions-continue-to-bite.html) by U.S. restrictions in the last two years. “Decoupling is basically not realistic, and there’s no benefit for China or the U.S., or the entire world,” said Han Wenxiu, deputy director at the Office of the Central Commission for Financial and Economic Affairs. That’s according to a CNBC translation of his Mandarin-language remarks. “Those who want decoupling are few. Those who want collaboration are far more,” Han said, noting that the U.S. and China are only able to be the world’s two largest economies since they complement each other and operate in an open global environment. President Xi is bracing for a ‘combative’ period ahead with China’s five-year plan The U.S. is China’s largest trade partner, but the two countries have been locked in tensions for more than two years. Each government has levied tariffs on goods worth hundreds of billions of dollars from the other country. Critics say the dominance of the state in China’s economy gives it unfair advantages over American companies and other foreign businesses. Economists expect China to become the world’s largest economy in the next few years, surpassing the U.S. In an effort to reduce economic dependency on debt-fueled investment and manufacturing of goods for export, China has been trying to increase its reliance on domestic consumption. Foreign trade still accounts for about 30% of China’s gross domestic product, according to Han, who noted a decline from 60% previously. “Looking ahead, China’s imports and exports, use of foreign capital, and scale of investment overseas will expand, and international status will rise,” he said. “This is also an important characteristic of a large country’s economy.” ‘Self-reliance’ in technology Han and four other central government officials were speaking a day after the [release of preliminary details](http://www.xinhuanet.com/english/2020-10/30/c_139476984.htm) on a [plan for economic development from 2021 to 2025,](https://www.cnbc.com/2020/10/26/china-to-reveal-its-five-year-fyp-growth-strategy-in-xi-jinping-era.html) also known as the 14th Five-Year Plan. This week’s meeting of the central committee of China’s ruling Communist Party also addressed goals for the year 2035. The meeting emphasized China’s need to pursue “self-reliance” in technology as a strategy for national development, according to [state media.](http://www.xinhuanet.com/politics/2020-10/29/c_1126674147.htm) The country has been accelerating its own development of critical technologies such as semiconductors and a [navigation system to rival the U.S. Global-Positioning System (GPS).](https://www.cnbc.com/2020/06/22/beidou-china-aims-to-complete-gps-system-that-rivals-us.html) Again, while describing China’s need to pursue a new phase of development, officials were quick to point out how the country needed to learn from international expertise. “China’s technological innovation has never been closed innovation, and in the future it will not close its doors to innovate on its own,” Science and Technology Minister Wang Zhigang said during Friday’s press conference, according to a CNBC translation of his Mandarin-language remarks. Aim to build a ‘modern’ society In the release about goals for 2035, China’s leaders said they would focus on building a “modern socialist China“ that includes modernization of national defense and the military. The emphasis on “modern” comes after the ruling party said Thursday it will basically achieve its promise of building a “[moderately prosperous society”](https://www.globaltimes.cn/content/1079510.shtml) by next year, when the Chinese Communist Party celebrates its 100th anniversary. The release also said that Beijing expects GDP to top 100 trillion yuan (about $14.9 trillion) this year, which would imply an increase of at least 0.9% from 2019′s level. Longer term, authorities said China aims to become “a strong country in culture, education, talent, sports and health.”

## REM’s/REE’s

\*make sure you don’t read this with a heg bad turn on case

\* read a nato bad turn as a nb

#### The United States Federal government should

#### Invest money into United States nero S/T development

#### Purchase rare earth minerals from domestic producers

#### First plank solves scenario 1 – that’s 1ac Giordano and DiEuliis’ 21

James Giordano and Diane DiEuliis ’21, \*PhD, MPhil, is Professor in the Departments of Neurology and Biochemistry; Chief of the Neuroethics Studies Program; Director of the Cyber-SMART Center’s Program in Biotechnology, Biosecurity and Ethics; Co-director of the Program in Brain Science and Global Law and Policy; and Chair of the Subprogram in Military Medical Ethics at Georgetown University, \*\*is a Senior Research fellow at National Defense University. Her research areas focus on emerging biological technologies, biodefense, and preparedness for biothreats. Specific topic areas under this broad research portfolio include dual-use life sciences research, synthetic biology, the US bioeconomy, disaster recovery, and behavioral, cognitive, and social science as it relates to important aspects of deterrence and preparedness, “Emerging Neuroscience and Technology (NeuroS/T): Current and Near-Term Risks and Threats to US—and Global—Biosecurity”, A STRATEGIC MULTILAYER ASSESSMENT, May 2021, https://nsiteam.com/social/wp-content/uploads/2021/07/SMA-Invited-Perspective\_Emerging-NeuroST\_Giordano-and-DiEuliis\_FINAL.pdf

Additionally, **it is important to note that although the US National Academies of Science, Engineering, and Medicine report briefly mentioned recent developments in brain-controlled robotics and brainmachine interface (BMI), neuroS/T, writ large, was not a core aspect of their address**. At present, a majority of countries do not yet identify the brain sciences as a principal economic focus. Of the 41 nations that pursued specific political strategies to expand and promote their bioeconomies in 2018, only 10 included neuroS/T research and development objectives.16 So, while there may be little doubt that neuropsychiatric disorders are a significant public health problem, brain research is relatively costly, and the perceived return-on-investment for those countries that do not have substantial neuroepidemiological burdens may not be sufficient to justify pursuing dedicated neuroS/T initiatives. **However, while intranational human capital and socio-political agendas of a given nation may not prompt investment and engagement in neuro-bioeconomics, the relative economic**—and perhaps cultural and political—**hegemony afforded by leveraging global neuroS/T** (**and overall biological**) **markets might prove influential to changing perspectives, postures, and participation**. To be sure, **due to the current lack of emphasis on brain science in national bioeconomic strategies, those countries that initiate policies and programs to invest in neuroS/T may achieve significant financial successes and economic power, and thereby direct future** (ethical, technical, and legal) **standards of research and use**.

#### Buying from domestic producers creates a stockpile and solves dependency AND Japan and Australia can lead the way

**Hui**, B.A, **’21** (Mary, B.A in Spanish and Portugese from Princeton university, a reporter based in Hong Kong. She previously worked at New York Times, Washington Post, and CityLab. published April 23, 2021, updated December 28, 2021, accessec 7/16/21, published by Quartz, “Japan’s global rare earths quest holds lessons for the US and Europe”, <https://qz.com/1998773/japans-rare-earths-strategy-has-lessons-for-us-europe/>)//lexmw

As the US and Europe seek to secure their rare earths supply chains and limit reliance on China, Japan’s model may offer some guidance. One key difference is that while Japan is scarce in mineral resources, the **US and Europe have sizable rare earth reserves**. The problem, in the case of the US, is that it ceded its mining and processing capabilities to China over the past decades, and must now rebuild the industry at a time when [China is already deeply embedded](https://qz.com/1971108/chinese-rare-earths-giant-shenghe-is-building-global-alliances/) in global rare earth supply chains. “**Japan and Australia have definitely led** the way **in terms of how the US government should approach** [securing rare earths supplies],” but it’s “not necessarily a cut-and-paste” job for Washington in terms of emulating specific policies, said Pini Althaus, CEO of USA Rare Earth, which is developing a mine in Texas and establishing a domestic processing facility in Colorado. It is [expecting to go public](https://qz.com/1969069/the-us-takes-steps-to-break-chinas-rare-earths-monopoly/) in a New York listing this year. For example, **the US could** use existing federal legislation to **build up its national defense stockpile of rare earths** **by** committing to **buying rare earths from domestic producers** over a certain number of years, and within a certain price band, explained Dan McGroarty, advisory board member of USA Rare Earth. That would, in effect, be an offtake agreement much like those of Jogmec with various rare earths producers. And the US government, by committing to buying from a particular domestic producer, would send a strong signal to capital markets, said McGroarty. This would also avoid “picking winners and losers,” which direct federal grants to specific companies would entail, possibly at the expense of driving private capital away from other firms. Experts also caution that rare earth mines only represent the upstream part of the supply chain concerned with getting the ores out of the ground. Processing those ores into high-purity rare earth metals, then using them to manufacture magnets and batteries, is just as crucial. “A hundred new mines can open around the world with generous public support, but **without investing** in value-added processing and manufacturing, **the rest of the world will** continue to **remain dependent on China** for refined rare earths and rare earth-bearing technologies,” said Julie Klinger, assistant professor in geography at the University of Delaware.

### 2nc cards

#### Buying from domestic producers stops dependency

**Green**, PhD, **’19** ( John A., Green holds a BA, summa cum laude, from Yale University, a JD from Yale Law School, and a PhD from Harvard. Since 2017, he is director of the Andrea Mitchell Center for the Study of Democracy, published 11/12/19, accessed 7/16/22, DefenseNews, “The collapse of American rare earth mining — and lessons learned”, <https://www.defensenews.com/opinion/commentary/2019/11/12/the-collapse-of-american-rare-earth-mining-and-lessons-learned/>)//lexmw

By 2017, it was obvious that in the showdown between Molycorp and China, the Chinese had won. Mountain Pass was now sending U.S.-mined rare earth concentrate to China for processing. The dream of a one-stop American rare earths solution was over, and the private sector had little appetite for reviving it. The history of Molycorp is littered with “what ifs.” What if the Pentagon’s mid-2010s industrial policy determined that rare earths were critical to national security, like it does now? And, most importantly, what if American customers, including those in the U.S. government, had decided that diversifying their rare earth supplies with an American source had been worthwhile? Recently there have been stirrings of interest in repatriating rare earth production to the United States. **The U.S. military has become** acutely **aware of its** [**dependence on China**](https://www.defensenews.com/opinion/2018/05/02/americas-critical-minerals-problem-has-gone-from-bad-to-worse/)**,** **due** in part **to belligerent Chinese threats to cut rare earth exports**. American companies, too, are realizing how dependent they are on this single supplier, a country that is becoming more expensive to work with as trade tensions rise. However, those in the private sector know all too well how difficult it is for companies to take proactive supply chain steps. Therefore, i**t is the government’s responsibility to set the stage for increased American rare earth productio**n. There are a number of steps the U.S. government can take to establish a more certain future for domestic rare earth production. Reducing red tape and bureaucratic inertia will lower costs and reduce risk — there is no reason that permitting a mine in the United States should take five times longer than it does in Canada or Australia. The **government** **can** also **protect the market,** at little cost, **from Chinese manipulation by agreeing to purchase rare earths from American producers** when such materials are intended for military systems. Instead of funding substitution technologies to reduce demand for rare earths, the U.S. should invest in production technologies to increase its supply.

#### Federal investment is key to sustainable mining development

**Kim and Jariwala**, PhD ‘**21** (Hyong-Min and Deep, Hyong Min Kim is a senior majoring in electrical engineering and minoring in history at the University of Pennsylvania and Deep is an assistant professor of electrical systems engineering in the School of Engineering and Applied Science at the University of Pennsylvania. Deep has a Ph.D. from Northwestern University, published 9/23/21 by the Kleinman Center for Energy Policy, accessed 7/19/22, “The Not-So-Rare Earth Elements: A Question of Supply and Demand”, https://kleinmanenergy.upenn.edu/research/publications/the-not-so-rare-earth-elements-a-question-of-supply-and-demand/)//lexmw

**To meet growing REE demands**, future **U.S. policies should aim at** locating and **tapping into other** promising **REE reserves in the nation** so that Mountain Pass Mine no longer constitutes the entirety of domestic REE mining. The United States Geological Survey has recently entered a joint venture with the respective geological survey functions of Australia and Canada in pooling data and best practices, called the Critical Minerals Mapping Initiative (USGS 2020). All three nations have vast tracts of land with potentially tremendous reserves of critical minerals, and an accurate understanding of the distribution and concentration of these reserves should precede any 10 major prospecting and development of mining facilities. The Round Top Mountain in Texas, Bear Lodge Range in Wyoming, and the Bokan-Dotson Ridge in Alaska have all been identified as promising deposits of REEs in the United States, and projects to develop and exploit these sites are underway (Borzykowski 2019; Goyal 2020). The former is expected to begin commercial production of refined REE in 2021. Deep sea mining for polymetallic nodules with exploitable concentrations of REE may be considered if its drastic environmental ramifications can be justified for value of REEs extractable. **Sustainable development implementation of best practices may be encouraged with** a combination of **government funding** and environmental regulations, e.g. by putting these mines under pilot programs in joint venture with the Department of Energy. Regulations may further ensure that ores mined from these mines are refined in the U.S. and fed into the domestic supply chain as opposed to being refined overseas. Policies regarding domestic mining and refining should keep in mind that, while multiple REEs are found in the same deposit, the most critical REEs are the few that are extensively used in permanent magnets—notably Nd and Dy. Relative concentrations of these elements could certainly be an important criterion in future mapping and prospecting of deposits. **Future government funding and incentivization may encourage the priority purification of elements that are in high demand**. For example, the Wheat Ridge refining facility was funded by the U.S. Department of Defense and the latter will determine the specific elements to be purified, ostensibly those that are essential to the defense enterprise (Stutt 2020).

#### Government investment would provide certainty to investors and spills over to expand REE private investment

**Klinger**, PhD, ‘**18** (Julie Michelle, has a PhD in Geography from University of California Berkeley and is Assistant Professor at the Frederick S. Pardee School of Global Studies at Boston University, published January 2018 by The Extractive Industries and Society, accessed 7/19/22, “Rare earth elements: Development, sustainability and policy issues”, https://www.bu.edu/gdp/files/2018/02/Klinger-2018-Rare-Earth-Elements\_Development-Policy-and-Sustainability-Issues.pdf)//lexmw

The rude awakening precipitated by the 2010 crisis stimulated an unprecedented wave of interest in the supply chains and life cycles of rare earth elements. Some examined these dynamics out of concern for the environmental and health impacts of rare earth mining and processing (Klinger, 2015a; Pagano et al., 2015; Sprecher et al., 2014; Carpenter et al., 2015; Weng et al., 2013). Others focused on mitigating the risks of future supply disruptions (Keilhacker and Minner, 2017; Stegen, 2015; Mancheri, 2015), and still others capitalized on the moment to develop proposals to “green” the rare earth supply chain (Rauer and Kaufmann, 2014). **Despite a number of feasible proposals to improve** the **sustainability** of the rare earths lifecycle (McLellan et al., 2014), **there remains a** considerable **gap** between theory and practice, **due to policy and market failures.** **Governments thus far have failed to provide sufficient certainty to support investments in environmentally sound rare earth production, while** **major downstream buyers have opted not to purchase more sustainably produced rare earth elements.** Because rare earth elements are critical to life as we know it, they present rich and as yet, largely untapped, potential for fertile social science research. Beyond policy analysis and supply chain concerns, the integration of these elements into everyday life in ever more intimate and mundane ways requires further analysis.

#### Revitalizing domestic supply is key to reducing dependency

**Kim and Jariwala**, PhD ‘**21** (Hyong-Min and Deep, Hyong Min Kim is a senior majoring in electrical engineering and minoring in history at the University of Pennsylvania and Deep is an assistant professor of electrical systems engineering in the School of Engineering and Applied Science at the University of Pennsylvania. Deep has a Ph.D. from Northwestern University, published 9/23/21 by the Kleinman Center for Energy Policy, accessed 7/19/22, “The Not-So-Rare Earth Elements: A Question of Supply and Demand”, https://kleinmanenergy.upenn.edu/research/publications/the-not-so-rare-earth-elements-a-question-of-supply-and-demand/)//lexmw

U.S. policies for the time being should accept that Chinese supplies will remain the most lucrative option for most industries, and punitive policies to discourage their use would not be advisable. Both **the U.S.** and other countries, **through stockpiling** **of** key **REEs** **at** both **governmental and corporate levels**, **should ensure** that **domestic industries are** relatively **unimpacted by** future **fluctuations** **in** **the REE market** for a reasonable period of a year or more. In the long run, **incentivizing the use of American REE supplies should be considered**, both **to reduce dependency on Chinese supplies** and to help vitalize the domestic REE market.

### AT: PDB

#### Still links to the nb – The US acting unilaterally is key to avoiding [whatever the NATO bad scenario is]

### AT: PDCP

#### 1) The CP is textually and functionally competitive – it’s textually different from the plantext and solves through domestic investment exclusively rather than through funding through NATO cooperation

#### 2) Links to the NATO bad net benefit

#### 3) Severs out of security cooperation with NATO

#### Severance perms are a voter– allows the aff to sever out of links to and da’s and net benefits, killing neg ground making it impossible to be neg

# AT: Advantage CPs

## AT: Net Assessment Office

#### Perm do both – CP isn’t mutually exclusive to the aff

#### Net Assessment is a failure and waste of money

Senator Chuck Grassley, 2-7-2022, "Grassley: The Office of Net Assessment is a Failure," <https://www.grassley.senate.gov/news/remarks/grassley-the-office-of-net-assessment-is-a-failure> GH-PJ

Accordingly, it appears that the Office of Net Assessment gets to keep operating like a Pentagon slush fund for irrelevant and political research projects. On [February 5, 2020](https://www.grassley.senate.gov/download/2020-02-05-ona-to-ceg-halper-follow-up), the Director of the Office of Net Assessment told me, “We review all deliverables to ensure they’re consistent with the statement of work. We evaluate each deliverable to assess whether we should seek additional information or require a resubmission of commissioned work.” I’ll return to that statement in a bit. In [December 2020](https://www.grassley.senate.gov/download/2020-12-18-ceg-to-dod-ig-ona-evaluation), I asked the inspector general to take a deeper dive into the Office of Net Assessment’s contracting practices. That means connecting all the dots in the contract transactions to ensure everything matches up. The inspector general reviewed 20 contracts. On [January 25, 2022](http://www.dodig.mil/Reports/Audits-and-Evaluations/Article/2913927/audit-of-the-office-of-net-assessments-contract-administration-procedures-dodig/), the inspector general issued its results and found, in part: · Office of Net Assessment acquisition personnel inappropriately performed Contracting Officer Representative duties for 20 contracts. · ONA acquisition personnel and an office providing contract support didn’t maintain complete contract files, including pre-award and contract administration documentation. That also included the failure to maintain signed contracts and modifications. Since 2019, I’ve repeatedly asked for a full accounting of Stefan Halper’s contracts. Either they never had one or they’ve decided to obstruct Congress. · ONA acquisition personnel and an office providing contract support inappropriately approved invoices for payments totaling 9.8 million dollars due to a lack of oversight. And that’s just for the 20 contracts the Inspector General sampled. Without required supporting documentation for payment, the door is wide open to fraud, theft and improper payments. · Without established and documented surveillance measures for ONA service contracts, the Office of Net Assessment may not have received all services outlined in contractor statements of work. · At this point, the next finding is no surprise: the ONA didn’t administer contracts in accordance with federal, Defense Department and Washington Headquarters Services internal regulations and policies. Further, the audit states, “Office of Net Assessment Acquisition personnel can’t verify whether they received services, valued at 4.1 million dollars, in accordance with the statement of work.” Now, let’s return to that quote from the Director of the ONA, “We review all deliverables to ensure they’re consistent with the statement of work. We evaluate each deliverable to assess whether we should seek additional information or require a resubmission of commissioned work.” Based on the available evidence, his statement is false. Here’s the bottom line: the ONA has no clue what they’re paying for and whether they’ve even received complete work product. And whatever they’re actually doing, it’s not in compliance with federal regulations, policy and law. This is a complete embarrassment and a slap in the face to the American taxpayer. While the ONA wasted millions of dollars in taxpayer money every year, the communist Chinese government developed hypersonic missiles that can travel the globe. If this unit isn’t doing the job they’re supposed to do, why are we still funding it? It’d be better to take their 20 million dollar budget and give it our service members. At least we know they’ve earned it. A government slush fund will always be a government slush fund unless the Congress steps up and fixes the problem.

## AT: Multinational Observer Controller Teams

#### Perm do both – CP isn’t mutually exclusive to the aff

#### Tech and info key to interoperability – means that the aff is key

[Szilveszter Szeleczki](https://www.researchgate.net/scientific-contributions/Szilveszter-Szeleczki-2160359491), June 2019, "(PDF) Interpreting the Interoperability of the Nato’s Communication and Information Systems," ResearchGate, <https://www.researchgate.net/publication/334677622_Interpreting_the_Interoperability_of_the_Nato's_Communication_and_Information_Systems> GH-PJ

In our current network-based world, cooperation between different participants in all areas, for example political, defense, economic or cultural, has an increasing role. Because of this the importance of interoperability between participants is also increasing. The central presence of information also highlights the concept and influencing factors of interoperability. The participants can be individuals, organizations or other groups, where a comprehensive flow of information and the constant presence of the information space is essential for its effective and efficient activity. Interoperability issues are also a key component of the military transformation process of NATO, so basic information questions should be answered to achieve the target system. Nowadays, interoperability requirements and definitions are subject to periodic changes in order to facilitate high-tech joint exercises using advanced technology.

## AT: Ukraine Intervention

#### Perm do both – CP isn’t mutually exclusive to the aff

#### Ukraine is already a zone for potential nuclear or even chemical escalation – intervention guarantees escalation

Malcolm Davis, 5-4-2022, "Will Putin go nuclear to avoid defeat in Ukraine?," Strategist, <https://www.aspistrategist.org.au/will-putin-go-nuclear-to-avoid-defeat-in-ukraine/> GH-PJ

In 2022 the world faces a new nuclear threat, with the risk that Russian President Vladimir Putin’s invasion of Ukraine could turn into a wider war between NATO and Moscow that escalates past the nuclear threshold or, alternatively, Russia’s use of a [tactical nuclear weapon](https://dc.medill.northwestern.edu/blog/2018/02/09/exactly-low-yield-nuclear-weapon/#sthash.NpMxbirP.dpbs) in Ukraine. CIA Director William Burns [said](https://www.rferl.org/a/russia-nuclear-weapons-burns-cia/31804539.html) on 14 April: ‘Given the potential desperation of President Putin and the Russian leadership, given the setbacks that they’ve faced so far, militarily, none of us can take lightly the threat posed by a potential resort to tactical nuclear weapons or low-yield nuclear weapons.’ A Russian defeat at the conventional military level would increase the likelihood of Putin going nuclear, perhaps as part of a [strategy](https://thebulletin.org/2022/03/russian-military-doctrine-calls-a-limited-nuclear-strike-de-escalation-heres-why/) of ‘escalate to de-escalate’ in which a low-yield tactical nuclear weapon is detonated in Ukraine. Such a move would either seek to turn the tide of battle or serve as a warning shot to Kyiv and NATO to accept Russia’s terms for ending the war. It’s also possible that Russia could decide to escalate at a conventional level by extending its attacks beyond Ukraine. Russian Foreign Minister Sergei Lavrov [has accused](https://www.reuters.com/world/response-lavrov-comments-us-says-talk-nuclear-escalation-is-irresponsible-2022-04-26/) NATO of engaging in a proxy war and said that weapons shipments are legitimate targets. And Russia is already making implied threats of [extending the war](https://foreignpolicy.com/2022/04/26/moldova-ukraine-war-putin-russia/) to the disputed Transnistria region of [Moldova](https://olgalautman.substack.com/p/russia-sets-their-eye-on-moldova?r=k8nwv&s=w&utm_campaign=post&utm_medium=web). That would dramatically increase the threat to Romania, a NATO member, and destabilise the Moldovan state, many of whose residents are ethnically Romanian. Perhaps most worryingly, Putin recently doubled down on the nuclear rhetoric with an [implicit threat](https://asia.nikkei.com/Politics/Ukraine-war/Ukraine-war-Free-to-read/Ukraine-from-April-12-to-April-28-Putin-warns-West-of-lightning-fast-retaliation): If someone intends to intervene in the ongoing events from the outside and create strategic threats for Russia that are unacceptable to us, they should know that our retaliatory strikes will be lightning-fast. We have all the tools for this, things no one else can boast of having now. And we will not boast—we will use them if necessary. And I want everyone to know that. With the West expanding its assistance to Ukraine, the possibility that Putin could interpret it as intervention generates another pathway to escalation. It’s not clear how NATO would respond to the use of a low-yield nuclear weapon in Ukraine—or, for that matter, large-scale use of chemical weapons against Ukrainian targets. The chemical weapons scenario is perhaps more likely, given that norms of non-use of chemical weapons have already been eroded by Syria’s large-scale use of a range of them against its own people in 2014. Use of such weapons by Russia might simply attract intensified sanctions and political condemnation. Tactical nuclear use would be a different matter altogether. Use of a nuclear weapon—even a low-yield tactical weapon—would represent a fundamental shift in global security. It would shatter the norm of non-use of nuclear weapons, and absent an effective response by NATO, would usher in a new era in which states would perceive such weapons as credible options for warfighting, not just for deterrence. Other nuclear-armed states might move to prioritise low-yield tactical nuclear weapons, and non-nuclear states that had nuclear ambitions, such as Iran, might decide that participating in non-proliferation and arms control is no longer a priority. Negotiations on restoring the nuclear deal with Iran could become a casualty of nuclear escalation in Ukraine and North Korea is already well into [developing](https://www.japantimes.co.jp/news/2022/04/26/asia-pacific/north-korea-parade-kim-nuclear/) a range of new tactical nuclear forces. Of course, not responding—or responding weakly, such as with intensified economic sanctions and political condemnation—isn’t the only option open to NATO in the event Russia uses a tactical nuclear weapon in Ukraine. Direct military intervention at a conventional level, to strike at Russian nuclear-capable delivery systems, would be one option; another would be deployment of NATO forces on the ground to directly support Ukrainian forces in battle. But any direct military intervention by NATO, even below the nuclear threshold, would almost inevitably lead to a wider NATO–Russia war, and with it, the near certainty of nuclear escalation. It’s that spectre of nuclear war—as opposed to a single detonation—that constrains NATO’s responses, even in the face of Russian atrocities in Bucha and Kramatorsk. In particular, the prospect of such a war escalating to strategic nuclear exchanges and devastating the planet will be in the minds of NATO decisionmakers.

## AT: Nuclear Fail-safe

#### Perm do both – CP isn’t mutually exclusive to the aff

#### China and the US can’t cooperate

Evan A. Feigenbaum, 4-28-2020, "Why the United States and China Forgot How to Cooperate," Carnegie Endowment for International Peace, <https://carnegieendowment.org/2020/04/28/why-united-states-and-china-forgot-how-to-cooperate-pub-81673> GH-PJ

Governments, regimes, and leaders do not act against their self-defined interest. The financial crisis provides an ideal example because before he was treasury secretary, Paulson had worked closely with Chinese leaders for decades, including as the chairman and chief executive of Goldman Sachs. But even he couldn’t get the Chinese to do some things during the 2008 crisis. At the end of the day, U.S. and Chinese actions are dictated by U.S. and Chinese interests. And it requires incredibly hard work by people with vision, persistence, and a sense of the moment to produce cooperation. There is no magic wand to induce altruistic joint action. But it is hard to solve real problems that affect real people the world over when the two most significant actors in the international system not only are not coordinating but are actually working at cross purposes, even if they are doing so for their own purposes. The question facing the international system is whether and how the countries, governments, and peoples affected by what happens between Beijing and Washington can get those two to coordinate on things that really matter to the entire world. Or to put that a little bit differently, what does the rest of the world do if no crisis is truly big enough anymore to elicit even modest cooperation between Beijing and Washington? The world surely won’t be better off. And past episodes of coordination and cooperation demonstrate how it can sometimes be made better.

#### North Korea wants more nukes to use against the US, South Korea, and Japan

Abigail Ng, 4-18-2022, “North Korea is committed to an ‘alarming change’ in its nuclear policy, professor says,” CNBC, <https://www.cnbc.com/2022/04/19/north-korea-is-committed-to-an-alarming-change-in-nuclear-policy-professor.html> GH-PJ

North Korea ultimately wants to have more nuclear weapons to use against the U.S. troops in South Korea and Japan in the event of an invasion, according to a professor at the Middlebury Institute of International Studies. North Korea currently has the ability to use a small number of nuclear weapons against the United States, said Jeffrey Lewis, a professor on arms control. “They have some deterrence, but what I think the North Koreans really, fundamentally want is the ability to use a much larger number of nuclear weapons against U.S. forces in South Korea and Japan if they thought an invasion was underway,” he told CNBC’s [“Squawk Box Asia”](https://www.cnbc.com/asia-squawk-box/) on Monday. “This is part of [an] … alarming change in the way they approach nuclear weapons, and that change is really to give themselves the ability to use nuclear weapons first if they think they are about to be invaded,” he said. His comments came after [North Korea conducted another missile test on Sunday](https://www.cnbc.com/2022/04/17/north-korean-leader-kim-observes-missile-test-to-boost-nuclear-capabilities-.html). State news agency KCNA reported that Kim “gave important instructions on further building up the defense capabilities and nuclear combat forces of the country.” “North Koreans are really committed to shifting their nuclear policy,” according to Lewis. He said the missile looked like “yet another variant” of a short-range one and that it’s “more of the same” from North Korea — but it’s “still quite unwelcome.” According to Lewis, North Korea is now working toward a nuclear weapons test, more than four years since its last one in 2017. “In a sense, the gloves are off,” he said. “They don’t really feel bound by any of the commitments they made in 2018 when the diplomacy period started, and we’re also seeing a lot of activity at the nuclear test site.” During his presidency, U.S. President [Donald Trump](https://www.cnbc.com/donald-trump/) held two summits with Kim to [discuss denuclearization on the Korean peninsula.](https://www.cnbc.com/2018/06/12/trump-and-kim-sign-agreement-document-after-summit-in-singapore.html) The second one, in Hanoi, ended abruptly when the [two sides were unable to agree on the removal of sanctions.](https://www.cnbc.com/2019/02/28/white-house-trump-kim-meetings-change-of-schedule.html) North Korea closed the entrances to its nuclear test tunnels in 2018, but they have likely already reopened them, Lewis said. Satellite images taken in March showed [construction at the site where North Korea has conducted all its previous nuclear tests](https://www.reuters.com/world/asia-pacific/nkorea-appears-be-restoring-its-dismantled-nuclear-test-site-2022-03-15/), Reuters reported. It’s now up Kim to decide when he wants to test a nuclear weapon, the professor said. “If we know one thing, we know that there’s going to be a nuclear test when Kim Jong Un feels like it,” he added.

## AT: CAFOs

#### Perm do both – CP isn’t mutually exclusive to the aff

#### Modern agriculture is sustainable

FAIR No Date "Modern Agriculture is Sustainable Agriculture," Farmers Alliance for Integrated Resources, <http://www.faircolorado.org/modern-agriculture-is-sustainable-agriculture/> GH-PJ

Advances in modern agriculture allow today’s farmers to grow in ways that are measurably more sustainable. These practices help farmers retain topsoil and reduce erosion, conserve water in multiple ways, reduce emissions, protect pollinators, and protect natural resources by using farmland more efficiently. Modern agricultural practices, including crop rotation, keep crops healthy. Without them, the farmers’ crops would be more vulnerable to pests, diseases, and invasive weeds. The sustainability benefits of modern agriculture are supported by local data collected by Boulder County. The paper linked below contains data collected from a variety of Boulder County farmers. It clearly demonstrates that farming techniques that utilize GMO seeds and responsible pesticide use produce better environmental results compared to conventional or organic farming methods. This includes factors that affect climate change. Continuing support for these modern agricultural practices is in keeping with Boulder County’s sustainability goals. [Implications of cropping systems in Boulder County](http://www.faircolorado.org/wp-content/uploads/2016/01/Implications-of-cropping-systems-in-Boulder-County-CSU.pdf) Pollinators are an essential part of food productions – and our farmers know it! That’s why farmers are invested in growing food in ways that protect pollinator populations.

## AT: Smart Grid

#### Perm do both – CP isn’t mutually exclusive to the aff

#### **Smart Grids are incredibly vulnerable to cyberattacks – especially Denial of Service attacks**

Faquir et. al. 21 [Dharmesh Faquir](javascript:void(0);), [Nestoras Chouliaras](javascript:void(0);) , [Vlachou Sofia](javascript:void(0);) , [Kalopoulou Olga](javascript:void(0);), [Leandros Maglaras](javascript:void(0);) Published: 12 January 2021, "Cybersecurity in smart grids, challenges and solutions," AIMS Electronics and Electrical Engineering, <https://www.aimspress.com/article/doi/10.3934/electreng.2021002?viewType=HTML> GH-PJ

Smart Grids are better than traditional legacy power grids in terms of competency and productivity as the Smart Grids are environmentally friendly, it uses a lot of renewable sources of energy and foremost it is more secure than the traditional power grid. Furthermore, the research suggested possible benefits and vulnerability against the Smart Grid. The benefits of using a Smart Grid in the overall perspective, it will provide a wider range of security with having various techniques and techniques to overcome some of the cyber-attack issues. However, while conducting the research, the various paper has suggested the security benefits and vulnerability related Smart Grids, almost every research paper suggested that threatening weakness for Smart Grids would be the Denial-of-Service attack. Since Smart Grids are the construction of the network and attacking the network would cripple the Smart Grid. Although, the Smart Grid will protect the Availability of the service with multiple layers of security an optimal solution for the security aspects would be using the Virtual Private Network (VPN) for more secure communication. Moreover, concluding this research, self-awareness related to cyber-attack in Smart Grids is important. The user should be aware of the risks related to the Smart Grid and mitigate them by doing various risk assessments and case studies to provide a further solution in protecting the Smart Grid against different types of cyber-attack. Additionally, the research addressed possible challenges related to the Smart Grid. The Smart Grids challenges are that various devices connected over vast geographical area networks. The biggest challenge to secure these devices over larger infrastructure. Blockchain technology could help resolve security issues by providing a shared and encrypted ledger that is immutable to changes made by malicious nodes or attackers. It can also be utilized to verify identities and authorize access by storing and recording transactions in the immutable ledger and make data exchanges between distributed gadgets smooth and cost-efficient. In conclusion, the computer network protocols need to be modified according to the current posture of communication as well as providing sophisticated encryption methods and to offer security countermeasures. Therefore, it will provide defense against evolved cyber-attacks.

## AT: Collision Warning System

#### Perm do both – CP isn’t mutually exclusive to the aff

#### OADR is already in development and will be operational by 2025– space tracking services already exist – read green

Rahul Rao, 2-21-2022, "Avoiding satellite collisions: NOAA unveils prototype warning system," Space, <https://www.space.com/noaa-satellite-collision-warning-system-prototype> Rahul Rao is a graduate of New York University's SHERP and a freelance science writer, regularly covering physics, space, and infrastructure. He holds a master’s degree in science writing from New York University's Science, Health and Environmental Reporting Program (SHERP) and earned a bachelors degree from Vanderbilt University, where he studied English and physics. GH-PJ

A new collision-warning system could help satellite operators sleep a little easier. The prototype system, developed by the U.S. National Oceanic and Atmospheric Administration (NOAA), is designed to alert operators when their spacecraft may be on a collision course with another object. That's a real and growing concern, given how [crowded Earth orbit is becoming](https://www.space.com/space-junk-threat-satellites-guidelines-reduce-orbital-debris.html). The system, which was demonstrated in a [webcast press conference](https://www.youtube.com/watch?v=XAJE7VpOelo) on Feb. 11, is called the Open-Architecture Data Repository (OADR). It's a cloud database that keeps tabs on the growing population in [Earth](https://www.space.com/54-earth-history-composition-and-atmosphere.html) orbit and warns if there's a danger of a collision, just as you might get a weather warning if you're in the path of a storm. It works like this: The OADR collects data on space conditions from a number of different scans from ground sensors that together cover much of the globe. The OADR is linked both to US-government-affiliated ground stations and to a network of commercial stations (especially in the Southern Hemisphere). The data also includes [space weather](https://www.space.com/space-weather) observations and other satellites' live telemetry and maneuvering plans. The OADR takes in all that data and creates a picture of the orbital environment, which it then uses to assess if there are any looming "conjunctions" — close encounters between orbiting objects. If there are any, the OADR can relay that data back to satellite operators as a sort of weather forecast, giving them (ideally) several days to move their satellite out of the way. "A hurricane notification displays a probability cone that continually changes as new data is obtained," Scott Leonard, Special Advisor to the Director of NOAA's Office of Space Commerce, said in the Feb. 11 press conference. "A conjunction is similar." OADR is still under development; the newly unveiled system is a prototype. According to Leonard, the OADR team still needs to iron out some kinks with automating data collection and prediction processes. If all goes according to plan, the OADR will see initial public operation by 2024 and be fully operational by 2025. There are already a number of commercial firms providing these sorts of space-tracking services, but the OADR's creators hope that it will ultimately have more data than those services — and better predictive capabilities to boot. It's hardly a secret that Earth orbit is getting quite crowded. There are already [at least 23,000 objects](https://www.space.com/space-junk-growing-problem-complicated-solution) in space with a diameter of 4 inches (10 centimeters) or greater. That number really began to explode in the 21st century, and it isn't slowing down. “We expect on the order of 57,000 new satellites by the year 2030," Stephen Volz, assistant secretary of commerce for environmental observation at NOAA, said in the press conference. And in-space collisions aren't just the stuff of nightmare fantasy. Last year, for example, a [Chinese military satellite collided](https://www.space.com/space-junk-collision-chinese-satellite-yunhai-1-02) with a piece of a 25-year-old Russian rocket. The satellites of SpaceX's Starlink broadband constellation, which may someday consist of more than 40,000 spacecraft, seem to be [a particular cause for alerts](https://www.space.com/spacex-starlink-satellite-collision-alerts-on-the-rise). In its stewards' eyes, the OADR is intended to preemptively keep track of all the biggest threats. But it will likely be some time before any system can keep track of the [millions of tiny objects](https://www.esa.int/Safety_Security/Space_Debris/Space_debris_by_the_numbers) in orbit — everything from rubbish to shards of metal to flecks of paint — all of which can cause catastrophic damage, given how fast everything moves up there.

#### This doesn’t mean our impacts will be solved for by OADR in 2025 – our impact still stand because OADR doesn’t account for attacks on satellites – OADR is just a warning system

## AT: Reforestation

#### Perm do both – CP isn’t mutually exclusive to the aff

#### Reforestation isn’t a silver bullet – we need to stop emitting first

Michael Marshall, 26th May 2020, "Planting trees doesn’t always help with climate change," British Broadcasting Company, <https://www.bbc.com/future/article/20200521-planting-trees-doesnt-always-help-with-climate-change> GH-PJ

Protecting existing forests and planting new ones are surely good things to do. However, scientists say we must not place too much faith in trees to save us. In particular, last year one research group claimed we can plant a trillion extra trees and [remove a quarter of the carbon dioxide currently in the air](https://doi.org/10.1126/science.aax0848). These figures have been widely criticised as overhyped and unreliable. Trees will definitely help us slow climate change, but they won’t reverse it on their own. The underlying problem is that our society is releasing greenhouse gases, especially carbon dioxide (CO2), that are warming the Earth’s climate to levels we have never experienced before. As a result the great ice sheets are melting, contributing to rising seas, and extreme weather events like hurricanes and droughts are becoming more severe. The solution is to stop emitting all greenhouse gases, for instance by replacing fossil fuels with renewable energy sources like solar power. Deforestation is actually one of the biggest sources of carbon dioxide, because when trees are cut down much of the carbon stored within them escapes into the air – especially if the wood is burned. For instance, in 2017 land use changes – mostly deforestation – contributed [four billion tonnes of CO2](https://www.newscientist.com/article/2152929-bad-news-carbon-emissions-have-suddenly-started-rising-again/) emissions to [the global total of 41 billion tonnes of CO2](https://doi.org/10.5194/essd-10-2141-2018). In other words, if we stopped cutting down trees we would cut our annual emissions by about 10%.

#### Their author admitted that their study is incorrect

Michael Marshall, 26th May 2020, "Planting trees doesn’t always help with climate change," British Broadcasting Company, <https://www.bbc.com/future/article/20200521-planting-trees-doesnt-always-help-with-climate-change> GH-PJ

By some estimates, trees can be an enormous carbon sink. A study published in July 2019, led by [Thomas Crowther](https://usys.ethz.ch/en/people/profile.tom-crowther.html) of ETH-Zurich in Switzerland, estimated the world has room for [an extra 0.9 billion hectares of forest](https://ethz.ch/en/news-and-events/eth-news/news/2019/07/how-trees-could-save-the-climate.html). [Once those trees had matured](https://www.bbc.co.uk/news/science-environment-48870920), they could store 752 billion tonnes of CO2. Planting trees, the team wrote, is “[one of the most effective carbon drawdown solutions to date](https://doi.org/10.1126/science.aax0848)”. This finding has had immediate, fierce pushback from other climate scientists. In October 2019, the journal Science published [four](https://doi.org/10.1126/science.aaz0388) [highly](https://doi.org/10.1126/science.aay8060) [critical](https://doi.org/10.1126/science.aay7976) [comments](https://doi.org/10.1126/science.aay8334). These argued that the researchers had overestimated the carbon trees could store – by a factor of five. They also highlighted multiple mistakes. For instance, much of the land Crowther described as “available” for tree planting already has plants growing on it, all of them storing carbon, many of which would have to be removed, according to [Sonia Seneviratne](https://iac.ethz.ch/people-iac/person-detail.html?persid=54778) of ETH-Zurich and her colleagues. The criticism hit home and, in May 2020, [Crowther's team published an extensive correction](https://doi.org/10.1126/science.abc8905), in which they admitted that some of their headline claims were "incorrect" and that the data contained "errors".

## AT: Hotlines

#### Hotlines fail – Pakistan and India prove

Muhammad W. Haider & Tahir M. Azad 8-3-21 Azad: King’s College London Haider: National Defence University Lancaster University [THE ROLE OF CONFIDENCE-BUILDING MEASURES IN THE EVOLUTION OF RELATIONS BETWEEN PAKISTAN AND INDIA, <https://journals.sagepub.com/doi/full/10.1177/00438200211030222>] // DHS WAgustin 🛏

Pakistan and India have engaged in military and nuclear CBMs on numerous occasions, despite non-cordial relations. The first step in the military CBMs was the establishment of a hotline between the militaries in 1971 following the model of the United States’ and USSR's military communications in the same timeframe ([Ahmar 2001](https://journals.sagepub.com/doi/full/10.1177/00438200211030222), 87). However, the hotline between the Director Generals of Military Operations of both countries remained symbolic, and no practical advantages were effectively achieved for maintaining peaceful relations. The hotline works well during peacetime while it gets suspended during crises build-ups, rendering it, in essence, useless. The sitting prime ministers of both countries, Benazir Bhutto and Rajiv Gandhi, signed the next major CBM under the umbrella of the Nuclear Threat Initiatives. This CBM aimed to prevent attacks on each other's nuclear facilities but does not provide any prevention against foreign allies attacking such installations. This measure enabled the exchange of a list of nuclear facilities between both the countries in 1992 (Shahid-ur-Rehman Khan [1992](https://journals.sagepub.com/doi/full/10.1177/00438200211030222)) which helped to build trust and both the nuclear rivals respected the arrangements during the peace as well as during times of increased crisis. In 1991, Pakistan and India's CBMs progressed further as they signed an agreement for prior notification regarding military exercises and air space violations, especially near the LoC. This set of CBMs opened further channels of communication in the military and diplomatic domains to avoid the repetition of earlier crises but it could not achieve the desired results owing to the non-availability of implementation structures. The next CBM milestone was the 1992 agreement on the complete prohibition of chemical weapons—both countries declared that they do not possess any chemical weapons. However, these CBMs suffered a considerable setback once India declared its chemical weapons arsenal under the Chemical Weapons Convention ([Nuclear Threat Initiative 2011a](https://journals.sagepub.com/doi/full/10.1177/00438200211030222)). Such incidents created further suspicion between both countries—which were already having problematic relations—and halted the advancement in the process of confidence building. Pakistan considered the incident as a violation of the bilateral agreement which widened the gulf in trust deficit between the two countries. In the wake of this incident, no further progress was achieved until 1999. Later, Nawaz Sharif and Vajpayee concluded the Lahore Accord in 1999, which was a milestone agreement for peacebuilding following the nuclear tests in 1998. This agreement incorporated the concept of developing and employing CBMs in both the conventional military and nuclear domains to avoid any untoward nuclear weapons launch situations and to reduce the prospects for future conflicts ([Nuclear Threat Initiative 2011b](https://journals.sagepub.com/doi/full/10.1177/00438200211030222)). Unfortunately, this set of CBMs was undermined by the Kargil Conflict, which started a few months after the declaration. This time it was the Pakistani side that undermined the peace efforts as political and military leaderships were not on the same page. Here the political leadership tried to put some mechanisms in place for peaceful coexistence, but the military institution spoiled these efforts. This problem necessitates the requirement of structures that can implement and sustain CBMs without significant interference from any state institution, military in particular. From 1999 to 2003, tensions remained high between both the states due to large-scale deployments along the LoC, plus terrorist attacks in Srinagar and on the Indian parliament. The UN General Assembly session of 2003 carved out a route toward a ceasefire and later on to direct negotiations between the political leadership of both countries ([Khawaja 2018](https://journals.sagepub.com/doi/full/10.1177/00438200211030222), 120–121). A new set of military and nuclear CBMs was then worked upon which included the reduction of troops along the LoC, no further development of military posts, and prior information regarding the testing of ballistic missiles ([Krepon 2017](https://journals.sagepub.com/doi/full/10.1177/00438200211030222)). The composite dialogue process constituted a major step forward which aimed to resolve the issues between both countries through a strategy that satisfies the demands of both countries ([Padder 2012](https://journals.sagepub.com/doi/full/10.1177/00438200211030222)). This dialogue process provided the opportunity to discuss the peace process through a diverse range of domains including the Kashmir issue. However, all these CBMs halted in 2008 ([Gul 2007](https://journals.sagepub.com/doi/full/10.1177/00438200211030222)) after the terrorist attacks in Mumbai for which India blamed Pakistan. Later, very few efforts were initiated in 2014 and 2015, but those did not work due to pre-existing notions of trust deficit and further accusations of terrorist attacks. The primary issues in the implementation of the military and nuclear CBMs are the non-availability of a framework, transparency issues, and lack of trust. Political aspects will also play a significant role in the success of any military and nuclear CBMs, yet military and security concerns continue to undermine political will between these two states. While Pakistan and India are so-called democratic countries, they do not have liberal democratic structures and the separation of powers remains a contentious issue. Additionally, the policies adopted through CBMs proved to be thoroughly incompatible with follow-up actions because the military and political leadership in both countries remained suspicious of each other. These issues obstructed the implementation of military and nuclear CBMs in both letter and spirit. The recurring crises between Pakistan and India after the Pulwama attacks of 2019 highlight the shortfalls of the concept of nuclear deterrence between both South Asian neighbors. Cyberspace also provides a new domain for waging wars and there are no existing agreements between Pakistan and India in this domain. A cyber-attack may prove disastrous in provoking an unintentional war in the region ([Yamin 2019](https://journals.sagepub.com/doi/full/10.1177/00438200211030222)).

## AT: Russian Sanctions

#### Sanctions fail – They hurt the people NOT the military or leaders

Rami Al-Khalifa Al-Ali 6-5-22 Writer for Saudi Gazette [The failure of Western sanctions against Russia, <https://www.zawya.com/en/world/uk-and-europe/the-failure-of-western-sanctions-against-russia-gycrd12k>] //DHS WAgustin

Historically, sanctions have failed to achieve any political goals. It is the worst weapon that the modern and contemporary international system has produced. Every time when sanctions were imposed, it was the people who paid the price, while these sanctions failed to harm the leaders and officials in the targeted countries. With the beginning of the Russian war on Ukraine, a series of Western sanctions are being slapped on the Russian side, and that has covered almost all fields. This is up to the extent that one of the Western universities canceled a lecture on Tolstoy on the pretext that he was a Russian! The Western nations wished that their sanctions would be so crushing and thus deal a fatal blow to the Russian economy, and hence they have frozen Russian deposits as well as Russian assets abroad, leaving no room for the Western hand to reach unless it was punished. The worst scenario was the attempt to isolate Russia from the global banking payment system called SWIFT (The Society for Worldwide Interbank Financial Telecommunication) as this makes import and export a very complicated affair even though it would be possible. The Russian economy absorbed the first blow, despite the sagging ruble, but it quickly recovered, and even achieved higher gains than before the war. The obvious question that must be asked by Western circles: what is the purpose of these sanctions? The answer, as presented by Western politicians, is twofold: the first is the weakening of the Russian economy, which affects the stability of the Putin government and undermines confidence in Russian President Vladimir Putin on the Russian street. However, the results of these sanctions were counterproductive and the proportion of opponents of the war is very small on the Russian street, and President Putin’s popularity is on the rise. The second aspect is the effect on the Russian war machine. It is true that there were many difficulties experienced by the Russian forces, especially in the beginning of the war, and the failure to capture Kiev, and this forced the Russian leadership to change its military plans. But this has nothing to do with the Western sanctions. Rather, the armed forces, like the Russian economy, have regained their solidity and seemed more capable of achieving breakthroughs and steady military progress. This does not mean victory in the war, but it means that the Russian forces were not affected by the aforesaid sanctions. The Western sanctions on Russia made the supply of Ukrainian grain a very difficult issue, even if it was done in relatively small quantities, and Russia's isolation from the SWIFT regime made the supply of Russian grain no less difficult. If we know that both countries export 30 percent of the grain worldwide, it can be understood that the food crisis that the world is beginning to suffer from, and which threatens impending famines that might afflict a large number of the third world countries, even though these countries have no part in the Ukrainian war or in the conflict between the West and Russia. The worst is that the European societies themselves have begun to suffer from the rise in the prices of essential goods, as the prices of fuels increased by up to 40 percent, and this led to a rise in most essential goods, especially foodstuffs. After the experience of the past months, the Western sanctions on Russia are like those who shoot themselves in the feet. In fact, Moscow has benefited from sanctions on the energy sector. What it was unable to export was compensated by the rise in oil prices. It is clear that the West must change its strategy, and this can only be done by bitterly admitting that it has failed miserably in its policy of imposing sanctions against Russia.

## AT: China Tech Coop

#### China says no – US and China are locked in a stalemate

Sam Bresnick & Paul Haenle 2-21-22 Sam Bresnick is assistant editor and senior research analyst Paul Haenle holds the 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. He served as the White House China director on the National Security Council staffs of former presidents George W. Bush and Barack Obama. [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>] // DHS WAgustin 🍞

Fifty years ago this week, former U.S. President Richard Nixon flew to China, setting the stage for a dramatic shift in relations between the two countries. Much has changed since that visit, not always for the better. Despite a flurry of diplomatic activity over the past year, U.S.-China ties remain tense. Discussions in [Alaska](https://www.bbc.com/news/world-us-canada-56452471) and [Tianjin](https://www.state.gov/deputy-secretary-shermans-visit-to-the-peoples-republic-of-china/) yielded few, if any, breakthroughs. While friendlier in tone, the recent summit between Chinese President Xi Jinping and U.S. President Joe Biden led only to [agreements](https://foreignpolicy.com/2021/11/17/xi-biden-summit-us-china-policy/) to hold yet more talks, albeit on important issues such as strategic stability. The lone bilateral bright spot has been some cooperation on [climate](https://www.state.gov/u-s-china-joint-glasgow-declaration-on-enhancing-climate-action-in-the-2020s/). Since the summit, the Biden administration [announced](https://www.npr.org/2021/12/07/1062016949/president-biden-announces-a-diplomatic-boycott-of-the-being-winter-olympics) its diplomatic boycott of the Beijing Olympics and [added](https://www.federalregister.gov/documents/2021/12/17/2021-27406/addition-of-certain-entities-to-the-entity-list-and-revision-of-an-entry-on-the-entity-list) more Chinese companies to its trade restriction list while Congress passed a [bill](https://www.nbcnews.com/politics/congress/senate-passes-bill-targeting-china-over-uyghur-forced-labor-n1286160) aimed at countering China’s forced labor abuses in Xinjiang. The two sides’ antagonistic stances on issues related to security, economics, technology, and ideology have largely crystalized, leaving little space for the adjustments that could relieve simmering tensions. Below, Paul Haenle and Sam Bresnick analyze how the two countries got here and how they can move forward. 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](https://www.nytimes.com/2021/06/28/world/asia/china-hong-kong-security-law.html). 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](https://www.scmp.com/news/china/politics/article/3117314/xi-jinping-says-time-and-momentum-chinas-side-he-sets-out) last year at a high-level meeting, though many analysts accuse the party of [overconfidence](https://asia.nikkei.com/Editor-s-Picks/China-up-close/Analysis-From-leader-to-students-overconfidence-clouds-China). 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](https://www.economist.com/china/2021/03/31/china-is-betting-that-the-west-is-in-irreversible-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](https://www.pewresearch.org/global/2021/03/04/most-americans-support-tough-stance-toward-china-on-human-rights-economic-issues/) from the Pew Research Center consider China a competitor or enemy, while around [two-thirds](https://uscnpm.org/the-pulse/) 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](https://www.fmprc.gov.cn/mfa_eng/wjbxw/202107/t20210726_9134602.html). 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](https://www.nytimes.com/2018/04/12/world/asia/china-trade-war-trump.html) 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](https://news.cgtn.com/news/3245444e77554464776c6d636a4e6e62684a4856/index.html)” China’s rise. They [cite](https://www.economist.com/china/2021/09/25/china-believes-that-america-is-forging-alliances-to-stop-its-rise) the Trump administration’s [policies](https://www.globaltimes.cn/page/202101/1213441.shtml), as well as Biden’s [AUKUS submarine pact](https://www.scmp.com/news/china/diplomacy/article/3151700/aukus-alliance-what-it-what-does-it-have-do-china-and-why) and the Quad’s [increasing coordination](https://www.npr.org/2021/03/11/975469203/quad-summit-biden-looks-to-boost-coordination-against-china), as evidence of Washington’s desire to [contain](https://www.globaltimes.cn/page/202201/1246562.shtml) 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](https://www.scmp.com/economy/china-economy/article/3164367/china-must-brace-digital-cold-war-us-battle-tech-supremacy) that the United States seeks to hamper its burgeoning tech sector. Finally, they [see](https://www.globaltimes.cn/page/202104/1220502.shtml)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](https://www.foreignaffairs.com/articles/china/2019-06-11/world-safe-autocracy)”; that its continued military modernization and interest in building bases in [Cambodia](https://amti.csis.org/changes-underway-at-cambodias-ream-naval-base/), [Equatorial Guinea](https://www.wsj.com/articles/china-seeks-first-military-base-on-africas-atlantic-coast-u-s-intelligence-finds-11638726327), and the [United Arab Emirates](https://www.google.com/search?client=firefox-b-1-d&q=dubai+chinese+military+bas) 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](https://www.cfr.org/backgrounder/chinas-repression-uyghurs-xinjiang) in Xinjiang, increasingly strict online censorship, and prosecution of dissidents have further fueled Washington’s desire to enact more aggressive responses. WHAT DOES EACH SIDE WANT OUT OF THE RELATIONSHIP? Our conversations have revealed that China wants the United States to afford it the space it believes it deserves as a rising power, at least in its own backyard. Beijing, as the preeminent Asian security and economic actor, sees the United States’ military presence in East and Southeast Asia as inherently threatening. Moreover, it hopes that Washington will ease pressure, especially regarding economics and technology, as well as refrain from engaging in ideological competition in service of impugning Beijing’s governance model and human rights record. But perhaps China’s most significant wish is for the United States to acknowledge the legitimacy of its economic and political systems. Given that the United States views China’s economic and political practices as antithetical to its own, as well as to those of countries acting within a healthy, properly functioning international system, Washington is unlikely to refrain from impeaching Chinese authoritarianism, mercantilism, and treatment of ethnic minorities and dissidents. The United States’ tougher policies and more confrontational approach are meant to push back on and defend against a range of Chinese domestic and foreign practices that threaten to undermine the international rules and norms that have been in place since the end of World War II, as well as raise the costs for China to revise that very order. In general, Washington would prefer that Beijing dial back or eliminate its economic and innovation mercantilism, respect other countries’ sovereignties, agree to peacefully resolve disputes, and abide by international agreements on human rights. HOW CAN THE TWO SIDES RECONCILE THEIR DIFFERENCES? Biden has opted to use a calmer, more restrained tone with Beijing than did his predecessor, with the aim of avoiding escalation. Moreover, unlike some Trump administration [officials](https://www.wsj.com/articles/secretary-of-state-pompeo-to-urge-chinese-people-to-change-the-communist-party-11595517729), Biden’s team has made it clear that Washington is not seeking regime change in China. And though Biden [criticized](https://www.cfr.org/election2020/candidate-tracker) Trump’s lack of a clear set of goals or a coherent interagency policy framework for addressing the China challenge, his administration has yet to release its long-awaited [China strategy](https://www.foreignaffairs.com/articles/china/2022-01-14/washingtons-missing-china-strategy) (though China does figure prominently in its recently issued [Indo-Pacific Strategy](https://www.whitehouse.gov/wp-content/uploads/2022/02/U.S.-Indo-Pacific-Strategy.pdf)). Until that document is issued, the finer points of the administration’s plans to compete with Beijing, as well as the end goal of such competition, will remain fuzzy. A clear articulation of U.S. aims would be helpful in Washington’s efforts to secure greater international cooperation from allies and partners in addressing the challenges China poses. It would also provide Chinese and U.S. leaders a starting point from which to negotiate the future of bilateral ties. In China, there is considerable room for greater self-reflection. Chinese leaders should closely examine how Beijing’s own aggressive diplomacy, economic statecraft, military buildup, and human rights violations have alarmed and unsettled the United States and many other countries, especially those in Europe and the Asia-Pacific region. Across many conversations, few, if any, Chinese experts have acknowledged that Beijing’s actions have played a role in the cratering of U.S.-China relations. Furthermore, they are reluctant to acknowledge that numerous nations’ hardening stances toward China are driven by China’s activities rather than U.S. coercion. Acknowledging its agency in harming relations, as well as its ability to take proactive steps to put U.S.-China ties on better footing, would constitute important initial gestures by the Chinese side. Moreover, China’s willingness to take more responsibility for its own actions and modify its policy and rhetoric would go a long way toward stabilizing bilateral dynamics. There is no doubt the U.S.-China relationship will remain competitive going forward. Preventing bilateral ties from becoming even more hostile and adversarial, however, should constitute a common aim for both countries. Biden understands this, as he stressed the importance of developing guardrails and establishing strategic stability talks between the two governments [during his virtual summit](https://www.whitehouse.gov/briefing-room/statements-releases/2021/11/16/readout-of-president-bidens-virtual-meeting-with-president-xi-jinping-of-the-peoples-republic-of-china/) with Xi. Implementing robust crisis management mechanisms would also prove a useful step in augmenting both nations’ abilities to control escalation in the event of a military incident in the increasingly crowded waters and air space off of China’s eastern and southern coasts. Washington and Beijing also should establish an effective problem-solving mode for the bilateral relationship. Many observers stress the importance of U.S.-China cooperation on transnational issues where the two sides have common interests—[climate change](https://www.brookings.edu/blog/planetpolicy/2021/10/28/rebuilding-us-chinese-cooperation-on-climate-change-the-science-and-technology-opportunity/), [nuclear nonproliferation](https://www.brookings.edu/research/revitalizing-nonproliferation-cooperation-with-russia-and-china/), and [global health](https://www.csis.org/analysis/advancing-us-china-health-security-cooperation-era-strategic-competition), among others. These efforts are certainly important, but they are quite ambitious and often hampered by Washington’s and Beijing’s different approaches to managing international issues. The two countries have thus far failed to make progress in most areas. That does not mean they should abandon these efforts. But perhaps the United States and China should devote more energy toward trying to create a problem-solving approach for addressing more pointed irritants, such as limits on journalist visas and consulate closures. Such a method has already yielded dividends regarding the [former issue](https://www.nytimes.com/2021/11/16/us/politics/us-china-journalists.html). The two countries should focus on how to build on those smaller successes to work through larger problems in other areas. By committing to this pragmatic approach, the United States and China may be able to find a way to put a floor under deteriorating relations, begin to build goodwill, and lay the foundation for taking on the larger structural issues in areas, like trade and technology, that will be key to determining the future health and welfare of the U.S.-China relationship over the long term. Despite the two nations’ differing mindsets and approaches to bilateral ties, starting small could prove the best method through which to, eventually, realize large gains.

## AT: Russian Aggression

### 2AC – US Says no

#### US says no – it can’t afford to ban Russia from SWIFT – economy shock spills over into the US AND sanctions incite dedollarization

Hirsh Chitkara 22 [Hirsh Chitkara, 2-22-2022, "The US won’t sanction Russia on SWIFT," Protocol, https://www.protocol.com/policy/russia-swift-sanctions-ukraine, smarx, HHW]

“We in Germany are prepared to pay a high price economically — that’s why everything is on the table,” German Foreign Minister Annalena Baerbock said on Friday.

“These are some of the greatest sanctions, if not the strongest that we’ve ever issued,” Vice President Kamala Harris reiterated at the Munich Security Conference over the weekend. “It is directed at institutions — in particular, financial institutions — and individuals, and it will exact absolute harm for the Russian economy.”

Yet for all the aggressive posturing, the U.S. coalition has seemingly backtracked on SWIFT, deciding not to block Russian access to the international payments communication system. Pundits have come to refer to SWIFT sanctions as “the nuclear option.” But some policy experts say this characterization is wildly overstated, arguing instead that SWIFT sanctions wouldn’t be nearly as effective as those directly targeting Russian banks.

So why are sanctions against Russian banks still on the table, while cutting off SWIFT access has been deemed a step too far? There’s a simple answer: Removing Russian access would constitute an economic shock that U.S. politicians and corporations would rather not instigate.

There’s a more complicated and consequential explanation, however, that has to do with anxiety over the U.S. dollar’s status as global reserve currency. SWIFT sanctions, rather than being a “nuclear option” thwarting Russia, could be the first domino in a sequence of events that bolster China- and Russia-backed alternative digital payment systems. Such sanctions might also, in the long run, steer emerging markets toward blockchain-based systems that would reduce global reliance on the U.S.-centric international monetary system. Altogether, SWIFT sanctions could very well incite the dedollarization of the world economy.

Over 11,000 financial institutions spread across more than 200 countries use SWIFT to communicate payments and securities transfers. The system was launched in 1977 by a coalition of banks and headquartered in Belgium, likely in part to convey the “strict neutrality” that SWIFT purports to uphold.

But the vast majority of SWIFT transactions are settled in U.S. dollars, which helps solidify the currency’s status as the global reserve currency. This gives the U.S. tremendous influence over the world economy, allowing the federal government to borrow at discounted rates, rack up national debt that now exceeds $30 trillion and exert influence over foreign nations through punitive monetary policy. Despite the supposed neutrality of SWIFT, the U.S. wielded its influence to boot Iran from the service twice. In both cases, the sanctions had the intended consequence of hamstringing the Iranian economy by limiting international trade.

### 2AC – Doesn’t Deter Russia

#### Sanctions don’t deter russia – status quo proves

Abigail Ng 22 [Abigail Ng, 3-11-22, “Relying on sanctions to stop Russia could go ‘terribly wrong,’ says Niall Ferguson,” CNBC, https://www.cnbc.com/2022/03/11/waiting-for-sanctions-to-stop-russia-could-go-terribly-wrong-niall-ferguson.html, smarx, HHW]

The strategy of sitting back and waiting for Russia’s war machine to grind to a halt because of sanctions could go “terribly wrong,” according to Niall Ferguson, a senior fellow at the Hoover Institution at Stanford University.

“It’s a highly risky strategy,” he said.

The Ukrainian resistance cannot hold the fort for much longer, and sanctions by the West won’t be able to stop Russia in time, he told CNBC’s “Squawk Box Asia” on Friday.

He said the U.S. is relying heavily on sanctions and “very belated arms deliveries” to Ukraine, but he’s concerned that those fighting for Ukraine won’t be able to defend the country for long.

Though the Russians have sustained more casualties than expected, they are still “advancing steadily,” he said.

“The assumption that this is going to drag out, that the United States can sit back and watch the economic sanctions do their work may be gravely mistaken,” Ferguson said.

Anna Ohanyan of the Carnegie Endowment for International Peace (CEIP) echoed that sentiment.

“While the sanctions will start biting — perhaps can change Putin’s behavior down the road — at this point, they cannot be relied on as an instrument to be used to stop the violence,” said Ohanyan, a nonresident senior scholar in CEIP’s Russia and Eurasia program.

“It won’t work fast enough to avert a Russian victory in Ukraine and I think this is the critical problem,” Ferguson said.

‘Nightmare scenario’

The U.S. and its allies have imposed wide-ranging sanctions on Russia for its invasion of Ukraine. But it appears that there’s a race between Russia’s military advancements and the sanctions that are crippling Moscow.

“There’s no guarantee that Ukraine holds out, and what I dread is steadily worse news from Ukraine, and the breakdown of Ukraine’s defenses,” Ferguson said.

“We’ll sit there saying, oh, well the sanctions have really hurt Russia — but it won’t matter to Putin because he will be able to claim victory. That for me is the nightmare scenario,” he added.

Ferguson said the U.S. should help support Ukraine’s defenses without escalating it into a full-blown NATO-Russia war.

Arms deliveries to Ukraine slowed down previously, and now there is a “frantic effort” to help Ukraine keep up the fight, he said.

That, however, may create the conditions of a proxy war, CEIP’s Ohanyan said.

“It appears that unfortunately, [at] this point, sanctions and the military assistance work at cross purposes,” she said.

## AT: BWC CP

### Solvency Deficits

#### There are too many problems with the BWC for it to solve – funding, cooperation, and more are issues that it is dealing with right now

Kathryn **Millett**., 06-01-**17**, "Financial Woes Spell Trouble for the Biological Weapons Convention," Health Security, https://www-liebertpub-com.proxy.lib.umich.edu/doi/full/10.1089/hs.2017.0030

Strong stewardship is critical to the enduring health and strength of international disarmament treaties and the norms they uphold. Such stewardship involves significant investment of both political will and financial capital. Currently, the Biological and Toxin Weapons Convention (BWC)—a cornerstone of the web of international efforts to ensure and protect global health security—seems to have neither, and the ramifications are significant. In November 2016, states parties to the BWC gathered together for the 5-year review of the operation of the convention. Such review conferences are opportunities to assess the health of the treaty and take decisions and recommendations to further strengthen its effectiveness and improve its implementation. Key issues requiring urgent action by states parties in 2016 included the modalities of cooperation and assistance efforts in responding to deliberate disease events, enhanced reassurance on treaty compliance, and a regular scientific and technological review process to ensure the treaty keeps pace with the rapid developments in the life sciences. Despite considerable preparatory effort by states parties, the review conference failed to reach consensus on any substantive issues or agree an intersessional work program. The sole outcome of over a year's hard work was agreement that the treaty would continue to function as before, while a Meeting of States Parties (MSP) would be held in December 2017 that would “seek to make progress on issues of substance and process for the period before the next Review Conference, with a view to reaching consensus on an intersessional process.” While the majority of attention focused on efforts to reach consensus on substantive issues—and the continuing disappointment of the failure to do so—another issue rumbled largely ignored in the background. Just prior to the review conference—and for the first time in the treaty's history—the BWC Implementation Support Unit (ISU) distributed a document prepared by the Financial Resources Management Service (FRMS) of the United Nations Office at Geneva detailing the status of states parties' financial contributions to the convention. This document demonstrated that 62% of states parties owed a combined total of US$596,519 to the treaty over the period 2001 to 2016 in unpaid assessed contributions. Concurrently, a number of presentations by the UN FRMS made during the review conference explicitly spelled out the consequences to states parties of the roll-out of the UN enterprise resource planning system, dubbed “Umoja”: under UN financial procedures, funds must be available before staff contracts can be renewed and meetings held; if there are insufficient funds, meetings cannot be convened and staff cannot be recruited or have their contracts renewed. Umoja does not permit crossing budget lines to make up shortfalls in other areas. In the run-up to a meeting, a review process will take place where a go/no-go decision will be taken 3 months ahead of the proposed meeting dates based on funding. While the implementation of the financial rules are causing havoc across a number of disarmament treaties (eg, the 5th Review Conference of the Convention on Certain Conventional Weapons [CCW] was almost brought to a screeching halt in 2016, and all remaining scheduled meetings for 2017 are facing cancellation), these rules possess a greater significance for the BWC ISU than other similar treaty support agencies: Since the ISU is merely hosted by the UN and is not itself a UN body, it cannot draw on the regular budget of the UN and is thus dependent solely on the annual assessed contributions of its states parties. The ISU's financial instability is further compounded by the fact that its current funding arrangements do not permit recruitment of temporary staff to cover gaps in the ISU due to maternity leave or illness. Amid this new focus on finances came an extraordinary move from the BWC depository states (the Russian Federation, the United States, and the United Kingdom). In March 2017, the BWC depository states called on all states parties to pay their assessed financial contributions to the treaty and settle their arrears “without further delay,” warning that failure to do so could result in staff losses in the BWC ISU and cancellation of the forthcoming meeting of states parties in December. While a number of states responded rapidly to this urgent call and consequently enabled renewal of ISU staff contracts, as of the latest FRMS report of April 31, 2017, there remains –$473,195 in outstanding contributions shared by 114 (or 64% of) states parties covering the years 2001 to 2017. While a significant proportion of arrears reflects late payments of assessed contributions for the year 2017 (–$141,195), 4 states have not paid their assessed contributions since 2001 and another 8 have not paid any contributions over the past 5 years. One state party alone owns 63% of all debts owed to the BWC, accrued over the period 2001 to 2017. Conversely, several states have overpaid the BWC, the most notable among them being the United States's overpayment of around a quarter of a million dollars. However, the BWC still possesses a deficit of –$114,344: not enough to cover the meeting costs for 2017. With the planned 2017 meeting of states parties being the sole forum for making any progress on agreement of a substantive intersessional work program prior to the next review conference scheduled for 2021, it is of the utmost importance that states parties dig deep and make sure that there are sufficient funds to allow the meeting to be held. Of equal importance are measures to ensure financial sustainability of the convention and the ISU. There are a number of financial solutions that have been adopted by similar treaties and agencies that could be adapted to suit the needs of the BWC. For example, the Organisation for the Prohibition of Chemical Weapons (OPCW) maintains a working capital fund that it uses to cover temporary financial shortcomings, while the International Atomic Energy Agency's (IAEA) Peaceful Uses Initiative solicits extrabudgetary contributions that supplement its other funds when the need arises. Both funds ensure that the agencies possess the financial flexibility to quickly respond to financial shortages, requests for additional activities by states parties, and any unexpected needs or unforeseen emergency events. Another option would be to consider the establishment of a voluntary revolving capital fund as adopted in January 2015 by the United Nations Institute for Disarmament Research (UNIDIR). UNIDIR's “stability fund” has a $1 million goal for which 1-time donations are received from participating states on a rotating annual basis, ensuring that the fund is replenished each year. Extrabudgetary funding for the BWC is not new. The ISU has often received voluntary contributions from states parties in a position to do so, but these contributions are usually given on a project-by-project basis to fund the convening of a certain meeting or similar activity. The most significant of these contributions is from the European Council, which has supported the BWC through the adoption of 2 council decisions and which provides financial contributions to UNODA for activities in support of the BWC, including costs for 2 UNODA staff to carry out activities mandated by the decisions. Further, the BWC administers a sponsorship program funded by voluntary contributions from states that enable participants from developing countries to attend BWC meetings. The creation of a voluntary and non-earmarked fund that the ISU could employ as needed to cover any shortfalls in meeting and staffing costs would provide the BWC with the flexibility needed to cover urgent costs that cannot be achieved under Umoja rules. Further, by channeling overpayments by states parties into a central reserve, the ongoing unpaid arrears of recalcitrant states would no longer be masked by any overpayments and more pressure could be brought to bear on them to resolve their debts in a timely fashion. But any such monies would need to be held outside the Umoja system, which may not be possible. The above options could also be supported by the adoption of sanctions against states in arrears that would deny voting or participatory rights to states until their debts are settled or an appropriate reduction in arrears has been effected. Such a system has long been in use by the UN. Under Article 19 of the Charter, a UN member state in arrears of an amount that equals or exceeds the contributions due for 2 preceding years can lose its vote in the general assembly. An exception is permitted if the member state can show that conditions beyond its control contributed to its inability to pay. As recently as May 2, 2017, the UN invoked Article 19 to withdraw Libya's voting rights in the general assembly until such time as it has made the necessary payments to reduce its arrears below the specified amount. The OPCW has the option to invoke a similar procedure under rule 35 of the rules of procedure of the executive council. However, financial woes are not the only issue to plague the BWC. States parties have consistently shown a lack of the necessary political will to strengthen the BWC. Participation in BWC meetings has historically been low when compared with other disarmament treaties, and states have regularly failed to overcome political differences and point-scoring to agree on necessary measures to strengthen implementation of the treaty. In fact, the planned 2017 MSP has yet to appoint a chair, meaning that critical preparations and discussions prior to the meeting cannot be undertaken. Measures instigated by states parties such as the cooperation and assistance database remain woefully under-used by both states offering assistance and those seeking assistance, and the request from the Seventh Review Conference in 2011 for “States Parties to provide at least biannually appropriate information on how they implement Article X of the Convention to the ISU” saw submissions from just 10 states parties, 1 regional organization, and 1 group of states during the intersessional period of 2012 to 2015. Perhaps the most obvious evidence of a general lack of political will or interest in the BWC can be found in the level of annual confidence-building measures (CBM) returns. Despite a number of programs and efforts to enhance participation, the number of confidence-building measures returns per year has never risen above 45% of states parties. In fact, a third of states parties have never submitted a return, and, when returns are submitted, the quality of the information provided is often sorely lacking. This is particularly significant in the BWC context as the confidence-building measures represent the sole means by which states parties more formally provide reassurance of compliance with the provisions and obligations of the BWC. All across the disarmament sphere, treaties are under financial pressure. The continued use and threats of use of conventional and nonconventional weapons by states and non-state actors puts international weapons norms at risk. States parties must act to positively reinforce the norms against the use of banned weapons. Upholding the life-saving norms enshrined in international disarmament treaties is a difficult and costly business—one that requires considerable political commitment and financial investment. When states fail to invest in ensuring that treaties remain strong and well-resourced, it is humanity that ultimately pays the price. If BWC states parties truly value the norms against the use of biology as a weapon, they need to demonstrate this by putting their money where their mouth is.

#### Countries circumvent the BWC – it is really ineffective

Al **Mauroni**, 05-20**22**,[( Al Mauroni is the director of the U.S. Air Force Center for Strategic Deterrence Studies at Air War College, Maxwell Air Force Base, Alabama. He has more than thirty-five years’ experience in Department of Defense counter-weapons of mass destruction (WMD) policy and program development. In this role he oversees the development and execution of Air Force education, research, and outreach initiatives relating to counter-WMD and nuclear deterrence operations. Prior to his current assignment, he worked counter-WMD and chemical, biological, radiological, and nuclear defense issues for the Air Staff. Mauroni holds a master’s degree in administration from Central Michigan University and a bachelor’s degree in chemistry from Carnegie-Mellon University.) "On Biological War," Army University Press, <https://www.armyupress.army.mil/Journals/Military-Review/English-Edition-Archives/May-June-2022/Mauroni/>]//MaizeDS

In 1990, the U.S. political and military leadership was significantly challenged by the possibility that Iraq, having the fourth largest offensive chemical and biological weapons program in the world at the time, might use those unconventional weapons against U.S. forces and its allies massing in Saudi Arabia. For all practical purposes, there was no real capability to rapidly detect and identify the deliberate release of anthrax spores or other biological weapons, and the U.S. military did not have sufficient vaccines or therapeutics for such an event. Due to this severe neglect to biological defense, former Secretary of State James Baker gave a formal letter to the Iraqi foreign minister stating that Iraq would “pay a terrible price” if it used chemical or biological weapons against the U.S.-led coalition.1 Had Saddam Hussein decided to use biological weapons, it could have caused thousands of casualties. Fortunately for U.S. forces, he did not have a significant biological weapons capability and there was no use of those weapons. Despite dark predictions of both nation-states and violent extremist organizations planning biological attacks against the nation, there has been no test of the U.S. military’s biodefense capability. A “biological taboo” resulting from decades of arms control discussions has held, despite the lack of a verification regime behind the Biological Weapons Convention (BWC).2 Concerns about Iraq’s biological weapons capability in 2003 evaporated a year later, with nothing substantive to find. Despite concerns about a domestic terrorist biological incident following the anthrax attacks in 2001, there has never been a mass casualty attack caused by biological organisms in the United States since then. The Nation’s recent public health challenges in addressing the 2019 coronavirus pandemic (COVID-19) have caused questions as to whether the U.S. military is sufficiently prepared for an adversary that might be emboldened to use biological weapons against U.S. national security interests. Despite the lack of any biological attacks or even threat of attacks over the past twenty years, the potential impact of a large-scale use of a contagious disease concerns enough people to call for new national strategies and improved response capabilities for biological threats. Current strategies aim to mitigate natural disease, to regulate biological research associated with the more hazardous biological diseases, and to improve the U.S. public health system to better respond to biological threats.3 Yet despite the development of four national strategies for national biodefense over the past twenty years, the U.S. government has not significantly advanced its capabilities for protecting against and responding to biological threats, defined as including natural diseases, deliberate biological releases, and laboratory accidents. Despite the high-level attention to this threat, assessments of the Nation’s capability to prepare for deliberate biological threats have not, however, been positive. Unclassified assessments from the State Department and the Department of Defense (DOD) suggest that China and Russia could have a biological weapons capability, as could North Korea and Iran.4 The lack of any actual use of biological weapons against the United States has perhaps diminished the concern that potential weaknesses exist. In the event of a future conflict with great powers, there is the chance that biological warfare could emerge as a significant threat, perhaps in a form unrecognized from Cold War experiences. Prior to attempting the implementation of yet another strategy to counter biological threats, the Army needs to establish the context of how adversaries would deliberately use biological threats against U.S. national security interests. Once a rational appreciation of the threat is developed, one can then create a defense strategy that directly addresses deliberate biological releases. Importantly, such a strategy needs to be resourced and implemented to address the future challenges of a deliberate biological release, understanding that natural infectious diseases pose a competing priority. Counter to the hypothesis that the pandemic outbreak has revealed potential vulnerabilities to biological weapons, COVID-19 has not in fact acted like a biological weapon. As a result, the lessons that apply from this contemporary crisis toward a biological weapons attack are few. A pandemic outbreak, affecting the general population over a year’s time, requires a different approach than military forces protecting themselves from a focused deliberate biological attack. COVID-19 is not lethal enough and does not incapacitate people quickly enough to qualify as a potential weapon, despite the more than 750,000 deaths caused over twenty-four months across the United States.5 A biological disease that does not significantly impact young, healthy people and that is easily countered by a national vaccine program is not prime material for a weapon system. COVID-19 may have slowed down economic activities, but it is not an existential threat to the U.S. government. Despite the potential impact on national security, pandemic diseases are best addressed separately from biological defense concepts. The U.S. military does anticipate the potential use of biological weapons in combat operations. In that light, the Department of Defense has a counter-weapons of mass destruction (WMD) strategy and chemical, biological, radiological, and nuclear (CBRN) defense concept to guide its efforts to prevent, protect against, and respond to adversaries using biological weapons.6 The ratification of the BWC has significantly reduced the number of potential adversaries that might use traditional biological warfare (BW) agents, allowing one to focus on particular actors and military scenarios. The traditional biological warfare agents such as anthrax, pneumatic plague, smallpox, and tularemia are still potent candidates for future warfare. However, the employment of said weapons may look very different than envisioned during the Cold War. North Korea may be the exception to this statement, as it is unclear how that nation would use unconventional weapons, but its operational concept for warfare appears to be based in an industrial age, massed firepower approach, similar to what NATO might have anticipated in the 1970s.7 China and Iran are assessed as not complying with the BWC, and Russia and North Korea are believed to have retained offensive biological weapons programs.8 While we can understand the biological warfare model that North Korea might employ, this does not necessarily apply to Russia’s and China’s concepts of employment for biological weapons. The Cold War model of using massive amounts of biological agents against troop concentrations, major population centers, and large military sites such as air bases and seaports requires large-scale production, storage, and testing capability. As Russia and China have modernized their nuclear and conventional forces, they have also changed their approach toward military confrontations with the United States and partner nations. While preparing for the possibility of total war, both countries have focused on conducting regional operations against U.S. allies using methods that fall below the threshold of open conflict.9 Their nuclear arsenals cast a coercive shadow over regional operations that allow those nations to aggressively push and attain their political objectives. As a result, a clandestine biological weapons program can offer them a capability to perform single, small-scale chemical or biological weapons attacks on focused targets (facilities or individuals) while claiming to be compliant with the BWC.10 The former Soviet Union had a massive biological warfare program, unmatched by any historical measure. Despite extensive documentation of this program, the Russian Federation has not fully acknowledged the former Soviet Union BW program. The State Department has gone so far as to designate specific Russian government facilities as “acting contrary to the national security or foreign policy interests of the United States” through their association as military defense facilities associated with a BW research program.11 These are not recent concerns. Analysts will point out that in 2012, then Prime Minister Vladimir Putin talked about creating “weapon systems that use different physical principles … (beam, geophysical, wave, genetic, psychophysical and other types of weapons).”12 However, it is unclear that this attributed quote referred to a return to developing biological weapons to support military conflict. In 2019, Putin directed a budget of 220 billion rubles (or $3.3 billion) toward the development of genetic technologies that could support a wide range of applications (biomedical, agricultural, or biodefense).13 At the same time, the Russian government has claimed that the United States is building offensive BW laboratories in countries surrounding Russia through the Biological Threat Reduction Program. For instance, the “Lugar Center for Public Health Research” in Tbilisi, Georgia, was funded by U.S. defense funds, but its intent is to promote health security against natural infectious disease outbreaks.14 In response to U.S. government accusations of China’s role in the COVID-19 outbreak, Chinese government officials have recently echoed the same claims that the U.S. government has created biological weapons near their borders.15 This type of disinformation campaign falls squarely in the “gray zone” set of tools. Both China and Russia have ignored international efforts to prevent the proliferation of unconventional weapons technology and materials. China’s position as one of the leaders of the global bioeconomy increases its potential for realized or latent advanced biological warfare capabilities. Beijing appears committed to becoming a leader in biotechnology, which holds the promise of myriad public health applications. Yet, many biotechnology applications are dual-use, capable of delivering both public health benefits and advances in biological warfare capabilities. As one top U.S. expert noted, China “is pursuing a very aggressive strategy to become the world leader in biotechnology.”16 Sustained public and private investment in synthetic biology technologies needed for DNA sequencing and synthesis as well as gene editing have enabled China to develop a wide array of dual-use biotechnologies in the field of synthetic biology. Many experts anticipate that synthetic biology advances will enable the development of “new and novel biomaterials” to include advanced bioweapons.17 As a 2020 Brookings Institution study noted, “The determination of China’s one-party state to become a leading player in biotechnology is reflected by the rapid growth in investment in the sector. Some estimates claim that collectively, China’s central, local, and provincial governments have invested over $100 billion in life sciences research and development.”18 China’s sustained and sizeable government investment in domestic biotechnology has created an industrial base capable of developing and manufacturing a range of extant and novel biological warfare agents. And while the possibility of developing novel biological warfare agents is present, it is more probable that China wants to use its biotechnology lead to produce superior commercial pharmaceuticals and to enhance its military forces. There is always speculation that advances in the life sciences will drive an evolution in biological weapons, making them more lethal, more environmentally hardy, more targeted toward specific populations, or more able to confound contemporary detection systems. This belief used to be rooted in the 1970s rise of biotechnology, and then it was 1990s genetics driving the concerns. Today, it is the promise (and dangers) of synthetic biology. And while it is true that one could always improve characteristics of certain biological weapons, there are significant drawbacks as to such an approach.19 Assuming that an adversary might develop altered biological weapons to be more operationally relevant, this would still be a violation of treaty (if it were China or Russia) and international norms. Modifying a biological organism to enhance its resistance to antibiotics might in turn reduce other desired characteristics, such as its lethality or dissemination qualities. Any use of a genetically modified organism would run the risk of direct attribution to a particular source. Western military forces lack the capability to detect the deliberate use of biological weapons until after exposure. In addition, U.S. forces lack vaccines for a number of traditional biological warfare agents, let alone engineered diseases.20 Any nation with an advanced industrial capability can easily develop biological agents that can damage or destroy crops or livestock, in addition to targeting humans. There is no need for an overly sophisticated engineered biological warfare agent à la the latest James Bond movie, No Time to Die. And even if military forces had tactical biological detectors that could identify all biological warfare agents in a timely enough fashion to put on protective masks, traditional biological weapons would still be an effective strategic weapon against a civilian populace, its livestock, or cropland. There is no possibility that the United States and its Western allies can make biological weapons obsolete.21 At the same time, we do not need to overexaggerate the threat of biological weapons as some Hollywood scripts portray them. There are several options that could be explored. The traditional approach has been to develop chemical and biological defense as a combined operational concept. Both chemical and biological warfare agents use similar delivery systems and target the human body’s physiological response to hazards. Under the larger construct of countering WMD threats, the U.S. government can engage in arms control negotiations to limit biological weapons use, use preemptive strikes to target a nation’s WMD capability, and respond to its use with protective equipment that limits the impedance of combat operations. None of these options are singular to biological threats. A second option is to task the medical community to identify and respond to both biological warfare attacks and natural disease outbreaks while limiting reliance on biological detectors and technical experts. The U.S. Air Force, for instance, endorses a biological defense concept that is separate from chemical defense and that relies on the medical community for initial detection and identification.22 This is a very specific focus on biological threats that includes a conscious decision to limit investments in people and equipment in response to a lower probability of deliberate biological attacks. The Air Force concept is a subset of its counter WMD operations, as the Army’s CBRN defense efforts are. The U.S. Army recently released a biological defense strategy that calls for the “synchronized implementation” of both biological warfare defense and infectious natural diseases across the Army.23 Interestingly, the office responsible for implementing this strategy is the U.S. Army Nuclear and Countering Weapons of Mass Destruction Agency, not the Army’s chemical-biological defense specialists and not the Army’s medical experts who respectively own those areas of expertise. It is not immediately clear as to whether this strategy calls for the development of a stand-alone biological defense concept that combines capabilities for both infectious natural diseases and deliberate biological releases, or just a single agency that manages two very different concepts (counter-WMD and force health protection) that have a common scientific origin. The strategy details four “lines of effort” that include developing and managing talent and facilities that address biological threats; maintaining a biological common operating picture and awareness of biological defense forensics; building a readiness posture that includes protection, response, and training for biological defense capabilities; and directing modernization efforts for biological defense concepts and doctrine. Will this new governance structure fundamentally change how the Army does biological defense? Given policy and budget direction, probably not. This is not the first time a military agency has suggested moving all biodefense activities into a portfolio for medical countermeasures for infectious diseases. There is an almost instinctual movement toward putting medical experts in charge of developing capabilities for countering all biological threats; however, that does not work for two reasons. First, given a collection of biological threats—whether natural, deliberate, or accidental—medical leaders will always consider infectious natural diseases the most important concerns because of the large numbers of service members and their dependents who get sick from natural diseases. And there are a lot of infectious natural diseases to address. In 1990, the U.S. military found itself without adequate vaccines for anthrax and botulin toxin when it was preparing to face an Iraqi military force that had an active chemical and biological weapons program. This was due to a deliberate decision to deprioritize research and development for biological warfare agents and focus instead on countermeasures for natural diseases such as chikungunya virus and diarrheal diseases. Second, while the response to biological threats has often had a common core, the prevention and protection against biological threats certainly does not. While one can try to deter adversaries from using biological weapons, Mother Nature cannot be deterred. Protecting military forces from biological weapons during combat operations requires a completely different approach than protecting a military base’s population from natural diseases. This requires a level of nuance to understand that a single biodefense concept cannot protect fundamentally different populations with different requirements and facing fundamentally different biological threats. There is a reason why there are different budgets and authorities for dealing with biological warfare agents, natural biological diseases, and biological research laboratory accidents. The primary purposes of any strategy document are to identify a specific mission or program, to identify policy objectives that should drive discrete programs, and to offer a plan to achieve those objectives. In the military, this is called “ends, ways, and means.” Ideally, a strategy will also aid decision makers in moving resources toward those goals that require funding to achieve those objectives. So, the problem with a biological defense strategy that aims to address all biological threats—whether at the Army, the DOD, or national level—is that there are multiple agencies with budget elements who are already directed to address specific biological threats. I will argue that at least five biological threat sectors require consideration in any biological defense strategy: disease prevention as a function of public health, bioterrorism response as a function of homeland security, military biodefense as a function as countering WMD, biosurety as a function of laboratory practices, and biosecurity and biosafety as a function of agricultural and food industries. None of these are new security concerns. Each has a dedicated government agency that focuses on a distinct threat using a congressionally approved budget. Because each biological threat sector already has a lead agency and agenda to pursue, the question comes as to what a centralized biological defense strategy would change or impact the direction of federal government or military biodefense programs. Public health efforts addressing infectious biological diseases, to include aspects of disease prevention in the military’s force health protection program, have been around for more than one hundred years. One of the challenges in the U.S. public health program is that it is federalized, meaning that states and local jurisdictions implement public health programs while the federal government provides research and funding for specific purposes. The Centers for Disease Control and Prevention (CDC) and the National Institutes of Health represent the largest government agencies in this area, putting tens of billions of dollars against infectious disease research, surveillance, and response. Within the military, the Army’s Medical Research Institute for Infectious Diseases has a research and development program for infectious diseases to address potential biological threats to service members in U.S. and overseas theaters. Top threats include tuberculosis, measles, influenza, pneumonia, and malaria. Bioterrorism response is a little more nebulous, since we have not seen a terrorist group successfully use a biological hazard to cause mass casualties in the United States since 1984. However, following the 2001 Amerithrax incidents, the concern that they might has thrown a few billion dollars a year toward the Department of Homeland Security and Department of Health and Human Services to develop response plans for the possibility.24 The DOD needs to consider biological terrorism within its installation force protection plans, but for the most part, it is not an integral part of that effort due to the very low probability of such an incident. The DOD does have a massive CBRN Response Enterprise that would assist states and cities in any federal response to a biological terrorist incident. The top (realistic) biological threats usually include salmonella, ricin, botulinum toxin, sewage, and tainted body fluids. Military biodefense has focused on protecting U.S. forces from biological warfare agents developed by adversarial nation-states for the purpose of combat operations. We have always envisioned biological weapons attacks as large-area coverage, mass casualty events on the battlefield. Because of technical challenges, military biodefense capabilities were largely lacking during the 1991 Persian Gulf conflict, leading to a crash program in the mid-1990s to develop biological detectors and medical countermeasures for the services. Biological detection and vaccines were more readily available in 2003 as U.S. forces prepared for possible Iraqi biological weapons use. There is a central program office that manages all DOD biological defense programs, receiving maybe a half billion dollars a year for funding. Their top threats include anthrax, pneumonic plague, smallpox, tularemia, and brucellosis. The DOD’s Biological Threat Reduction Program, which is more of an effort to secure other nations’ laboratories and hospitals than biodefense, accounts for less than a $300 million in annual funding over the past decade.25 Biosurety addresses the security and safety of laboratory research labs both across the United States and within the U.S. military. Unlike traditional biodefense efforts, biosurety is more about keeping biologicals safe from humans, as opposed to the other way around. The threat includes both the possibility that a researcher on the inside might deliberately or accidentally release a dangerous biological organism, or that an outsider might try to break in and steal them. There is also the danger of natural disasters or externally derived accidents to consider. The U.S. Army has had biosurety failures that resulted in CDC shutdowns at its Dugway Proving Ground (in 2015 due to anthrax shipments) and Fort Detrick laboratories (in 2019 due to unsafe laboratory practices). While the CDC has some oversight role for a small set of select agents and toxins, in general, the CDC can only provide suggestions on how the U.S. research and development community should implement good business practices. This area is not well funded (maybe $500 million/year) or overseen from the federal level. The top threats for biosurety are too varied for listing, but in general, accidents are largely limited to individual researchers and not the general community surrounding a biological research lab. Biosecurity and biosafety challenges within the agricultural and food industries have been of two parts. First, many facilities have significantly large amounts of livestock or crops to protect against the introduction of any foreign disease that might wipe out their livelihood. In addition, foreign pests or animals could displace or eliminate native animals and crops. Second, there is the challenge of regulating food products as they are moved from the farm to the table, as the saying goes. Federal regulations aim to ensure that agricultural products used in meal production are both safe and accurately labeled. Both the Food and Drug Administration and U.S. Department of Agriculture have responsibilities to oversee this area, in addition to the Customs and Border Patrol. There is not a significant DOD equity in this area other than ensuring that meals prepared for the field are safe and free of contamination. Because Congress is very interested in ensuring that the public has safe food and a variety of different foods, this area gets funded between $3 billion and $4 billion a year. Its biological threats of concern include foot-and-mouth disease, swine flu, avian flu, wheat rust, and invasive species such as Asian carp, zebra mussels, cane toads, and brown marmorated stink bugs. This is just the tip of the challenge of trying to address all biological threats—natural, deliberate, and accidental—under one Army, DOD, or national strategy. There are more complex discussions as to what would constitute a national biosurveillance effort—surprisingly, this would not be solely focused on infectious biological diseases to humans, but also include diseases affecting animals and plants, as well as chemical or radiological hazards to any biological organism. There is the challenge of addressing the impact of future technologies such as “gain-of-function” and synthetic biology. Even after we identify all of the potential issues that surround “biological threats,” there is the question of who ought to lead the effort. The public health community claims that if it were better funded, it could address all natural disease outbreaks as well as respond to biological terrorism. The national security community feels that it needs to have a larger voice in this effort, given that these are foreign threats that impact the armed forces and other U.S. national security interests. And given the national security community’s funding and ability to quickly form new project offices, they could very well dominate the discussion, which could result in different priorities than what the public health community sees as important. Concluding Thoughts The military’s primary concern should be on deliberate biological threats, but there is no question that it has been distracted by COVID-19 and the general topic of natural disease outbreaks. If the DOD’s Chemical-Biological Defense Program decides to move from working on countermeasures to biological warfare agents and focus instead on “threat-agnostic” systems that address all biological threats, the military will not get necessary detectors, protective ensembles, medical vaccines, or decontaminants for biological warfare agents due to the larger number and greater impact of natural infectious diseases. This is, in essence, what happened in the 1980s; because the military medical community was focused on research and development for infectious diseases and not biological warfare agents, U.S. forces were unprepared for biological warfare in 1990.26 Military concepts of future war assure us that biological and nuclear warfare are expected threats to U.S. forces.27 In the case of a conflict with North Korea, it may not look that different than Cold War concepts of massive, large-coverage attacks on U.S. military bases. In the case of China and Russia, it is less clear what the future of biological war will be. As technology such as drone swarms, artificial intelligence, and synthetic biology continue to mature, the shape of biological warfare threats will evolve. One can assume that the traditional biological warfare agents will still be viable candidates, or possibly enhancements on their natural forms. Terrorist use of biological hazards may be limited to crude toxins and improvised delivery systems—still a threat to installation force protection measures, but not necessarily a mass casualty event. This future operating environment requires us to focus on enhancing the survivability of critical infrastructure—in particular, command and control, power projection, and logistics bases—and the resiliency of military operations while impacted by biological weapons. The only way to succeed in moving forward in a future biological defense posture is not, then, to dilute the Army’s efforts by trying to manage the development of defensive capabilities for all natural disease outbreaks and deliberate biological attacks under a single general construct. There needs to be a laser-sharp focus on both pandemic preparedness and biological defense during combat operations. In addition, the DOD needs to ensure that its biological research and development laboratories have the best practices in place to avoid future shutdowns due to biosurety challenges. This is not an either/or discussion nor is it the time to radically revise how military forces accomplish biological defense. Instead, Army leaders need to engage in these discussions, despite the complicated technical nature of the topic, and ensure that future operations can be maintained despite the threat of biological weapons use.

### AT: Bioterrorism

#### Bioterrorism is just myths – analysis proves. And there is no impact.

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Interestingly, although there are no doubt many features that distinguish the two topics, the public’s perception of bioterrorism, in its broad sense, shares some striking features with the human interest in viral haemorrhagic fevers, as seen during the recent ebolavirus disease outbreak in Guinea [1]. Although the overall risk of disease propagation and spread beyond the immediately involved patients is limited, interest in these phenomena rises to an almost hysterical level during an outbreak situation, and then collapses as quickly as it built up immediately after the worst seems to be over. No matter how far away the outbreak may be, and how remote the risk of spread is, some features (the agent striking apparently out of the blue, and then ‘disappearing’ again; the disease being gruesome and killing cruelly, at least in the beginning of an outbreak) make the waxing and waning public response, often tinged with sensationalism, a characteristic feature accompanying viral haemorrhagic fever outbreaks that is not dissimilar to the reaction towards perceived or real bioweapon threats. In this CMI theme issue, we attempt to answer the important question of whether bioterrorism is a myth or reality, which is of relevance for clinical microbiologists, hospital hygiene specialists, infectious diseases clinicians, basic researchers, defence specialists, and public health policy-makers. In this issue, we also decided to address several key questions, listed in Table 1, with the input of biosafety officers and bioterrorism specialists from three different countries. We aimed at providing a concise overview on key facts and current points of discussion, rather than providing an exhaustive textbook-like inventory and bibliography. Consequently, we are confident that this compilation of articles constitutes a highly informative and also gripping read. In the first article, by Jansen et al. [2], the definitions of biological warfare, biocrime and bioterrorism are provided, clearly separating terrorist from criminal use of biological agents. Jansen et al. also provide a very precise and exhaustive list of biological agents that have been involved in bioterrorism events, and that may serve as a basis for assessing the real threat, and thus pitching the level of awareness and preparedness of the various stakeholders at the most appropriate level. In addition, this article provides some information for infectious disease specialists, including the main clinical syndromes, incubation times, mortality rates and treatment options for all listed ‘bioterrorism agents’. Moreover, this article highlights the fact that, in the 20th century, only ten events were recorded during the first 70 years, whereas 17 and 153 events were recorded from 1970 to 1989 and from 1990 to 1999, respectively. This raised another question: does the higher number of events registered more recently reflect the reality, or is it only the result of a strong reporting bias? If this the case, we may wonder why, when and how our perception has become biased. To answer the latter question, Barras and Greub [3] performed a detailed historical analysis of reported events from ancient times through to the 21st century. Although there is no doubt that, on several occasions, biological agents have been used to cause panic and terror among civil populations, their true frequency of use and impact remain very difficult to appreciate, because: (i) data are largely lacking from before the Pasteurian microbiology era; (ii) reality was often hidden and manipulated by politicians, as the ‘truth’ about biological attacks may not be openly disseminated, given its intrinsically non-ethical nature, and because information may be classified as secret by the authorities, as it may be considered to be sensitive; and (iii) the passage of time adds an additional layer of complexity, by distorting facts. Thus, although illustrations such as the one provided on the cover of this special issue may suggest the dissemination of plague by the use of infected arrows, such illustrations may also simply represent an allegory of the contagiousness of Yersinia pestis. The detailed historical analysis conducted by the authors includes the contemporary period, which is a period dominated, in terms of bioterrorism, by the anthrax letters attack, which resulted in at least 45 infections requiring hospitalization. The importance of the anthrax letters attack led most clinical microbiology laboratories to develop diagnostic approaches for the detection of Bacillus anthracis. As outlined by Jaton and Greub [4], the level of preparedness progressively increased, although most initial procedures were simply based on the procedures used for suspected haemorrhagic fever. However, as shown in Table 2, there are major differences between a suspected bioterrorism attack and the detection of a naturally infected haemorrhagic fever case that should be taken into account. Also important is the fact that most clinical microbiology laboratories progressively decrease their preparedness when the threat decreases. Therefore, in order to reduce the risk of not being adequately prepared, it is important to have regular exercises using true quality controls (Fig. 1) or using plasmid-based positive controls, as using ‘real’ biosafety level 3 agents may be difficult, owing to their association with significant biological risks. Finally, Wurtz et al. [5] highlight the problems that inevitably arise from the strict legislation aimed at making unlawful access to and experimentation with potential bioweapon agents impossible. The unwanted adverse effect is that well-intended, and much needed, research for the ‘right’ reasons has also become difficult, if not completely unfeasible, in some respects. The article of Wurtz et al. will stimulate fresh debate on how best to strike the balance between protecting the public from aggression involving biological agents, and allowing the biomedical research that is needed to keep the ‘real-life’ natural infectious agent at bay and to enable progress in our understanding of the ecology, epidemiology and best diagnostic, prevention and treatment options for what may constitute a minute bioweapons threat, but a real natural threat. We conclude that bioterrorism and smaller-scale atrocities involving biological agents do indeed constitute a reality—a reality surrounded by myths. We hope that this series of articles will facilitate reasoned discussion of a problem whose absolute and relative dimensions may be limited, but that we must not ignore.

## AT: Hotlines

#### Hotlines fail – Pakistan and India prove

Muhammad W. Haider & Tahir M. Azad 8-3-21 Azad: King’s College London Haider: National Defence University Lancaster University [THE ROLE OF CONFIDENCE-BUILDING MEASURES IN THE EVOLUTION OF RELATIONS BETWEEN PAKISTAN AND INDIA, <https://journals.sagepub.com/doi/full/10.1177/00438200211030222>] // DHS WAgustin 🛏

Pakistan and India have engaged in military and nuclear CBMs on numerous occasions, despite non-cordial relations. The first step in the military CBMs was the establishment of a hotline between the militaries in 1971 following the model of the United States’ and USSR's military communications in the same timeframe ([Ahmar 2001](https://journals.sagepub.com/doi/full/10.1177/00438200211030222), 87). However, the hotline between the Director Generals of Military Operations of both countries remained symbolic, and no practical advantages were effectively achieved for maintaining peaceful relations. The hotline works well during peacetime while it gets suspended during crises build-ups, rendering it, in essence, useless. The sitting prime ministers of both countries, Benazir Bhutto and Rajiv Gandhi, signed the next major CBM under the umbrella of the Nuclear Threat Initiatives. This CBM aimed to prevent attacks on each other's nuclear facilities but does not provide any prevention against foreign allies attacking such installations. This measure enabled the exchange of a list of nuclear facilities between both the countries in 1992 (Shahid-ur-Rehman Khan [1992](https://journals.sagepub.com/doi/full/10.1177/00438200211030222)) which helped to build trust and both the nuclear rivals respected the arrangements during the peace as well as during times of increased crisis. In 1991, Pakistan and India's CBMs progressed further as they signed an agreement for prior notification regarding military exercises and air space violations, especially near the LoC. This set of CBMs opened further channels of communication in the military and diplomatic domains to avoid the repetition of earlier crises but it could not achieve the desired results owing to the non-availability of implementation structures. The next CBM milestone was the 1992 agreement on the complete prohibition of chemical weapons—both countries declared that they do not possess any chemical weapons. However, these CBMs suffered a considerable setback once India declared its chemical weapons arsenal under the Chemical Weapons Convention ([Nuclear Threat Initiative 2011a](https://journals.sagepub.com/doi/full/10.1177/00438200211030222)). Such incidents created further suspicion between both countries—which were already having problematic relations—and halted the advancement in the process of confidence building. Pakistan considered the incident as a violation of the bilateral agreement which widened the gulf in trust deficit between the two countries. In the wake of this incident, no further progress was achieved until 1999. Later, Nawaz Sharif and Vajpayee concluded the Lahore Accord in 1999, which was a milestone agreement for peacebuilding following the nuclear tests in 1998. This agreement incorporated the concept of developing and employing CBMs in both the conventional military and nuclear domains to avoid any untoward nuclear weapons launch situations and to reduce the prospects for future conflicts ([Nuclear Threat Initiative 2011b](https://journals.sagepub.com/doi/full/10.1177/00438200211030222)). Unfortunately, this set of CBMs was undermined by the Kargil Conflict, which started a few months after the declaration. This time it was the Pakistani side that undermined the peace efforts as political and military leaderships were not on the same page. Here the political leadership tried to put some mechanisms in place for peaceful coexistence, but the military institution spoiled these efforts. This problem necessitates the requirement of structures that can implement and sustain CBMs without significant interference from any state institution, military in particular. From 1999 to 2003, tensions remained high between both the states due to large-scale deployments along the LoC, plus terrorist attacks in Srinagar and on the Indian parliament. The UN General Assembly session of 2003 carved out a route toward a ceasefire and later on to direct negotiations between the political leadership of both countries ([Khawaja 2018](https://journals.sagepub.com/doi/full/10.1177/00438200211030222), 120–121). A new set of military and nuclear CBMs was then worked upon which included the reduction of troops along the LoC, no further development of military posts, and prior information regarding the testing of ballistic missiles ([Krepon 2017](https://journals.sagepub.com/doi/full/10.1177/00438200211030222)). The composite dialogue process constituted a major step forward which aimed to resolve the issues between both countries through a strategy that satisfies the demands of both countries ([Padder 2012](https://journals.sagepub.com/doi/full/10.1177/00438200211030222)). This dialogue process provided the opportunity to discuss the peace process through a diverse range of domains including the Kashmir issue. However, all these CBMs halted in 2008 ([Gul 2007](https://journals.sagepub.com/doi/full/10.1177/00438200211030222)) after the terrorist attacks in Mumbai for which India blamed Pakistan. Later, very few efforts were initiated in 2014 and 2015, but those did not work due to pre-existing notions of trust deficit and further accusations of terrorist attacks. The primary issues in the implementation of the military and nuclear CBMs are the non-availability of a framework, transparency issues, and lack of trust. Political aspects will also play a significant role in the success of any military and nuclear CBMs, yet military and security concerns continue to undermine political will between these two states. While Pakistan and India are so-called democratic countries, they do not have liberal democratic structures and the separation of powers remains a contentious issue. Additionally, the policies adopted through CBMs proved to be thoroughly incompatible with follow-up actions because the military and political leadership in both countries remained suspicious of each other. These issues obstructed the implementation of military and nuclear CBMs in both letter and spirit. The recurring crises between Pakistan and India after the Pulwama attacks of 2019 highlight the shortfalls of the concept of nuclear deterrence between both South Asian neighbors. Cyberspace also provides a new domain for waging wars and there are no existing agreements between Pakistan and India in this domain. A cyber-attack may prove disastrous in provoking an unintentional war in the region ([Yamin 2019](https://journals.sagepub.com/doi/full/10.1177/00438200211030222)).

## AT: China Tech Coop

#### China says no – US and China are locked in a stalemate

Sam Bresnick & Paul Haenle 2-21-22 Sam Bresnick is assistant editor and senior research analyst Paul Haenle holds the 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. He served as the White House China director on the National Security Council staffs of former presidents George W. Bush and Barack Obama. [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>] // DHS WAgustin 🍞

Fifty years ago this week, former U.S. President Richard Nixon flew to China, setting the stage for a dramatic shift in relations between the two countries. Much has changed since that visit, not always for the better. Despite a flurry of diplomatic activity over the past year, U.S.-China ties remain tense. Discussions in [Alaska](https://www.bbc.com/news/world-us-canada-56452471) and [Tianjin](https://www.state.gov/deputy-secretary-shermans-visit-to-the-peoples-republic-of-china/) yielded few, if any, breakthroughs. While friendlier in tone, the recent summit between Chinese President Xi Jinping and U.S. President Joe Biden led only to [agreements](https://foreignpolicy.com/2021/11/17/xi-biden-summit-us-china-policy/) to hold yet more talks, albeit on important issues such as strategic stability. The lone bilateral bright spot has been some cooperation on [climate](https://www.state.gov/u-s-china-joint-glasgow-declaration-on-enhancing-climate-action-in-the-2020s/). Since the summit, the Biden administration [announced](https://www.npr.org/2021/12/07/1062016949/president-biden-announces-a-diplomatic-boycott-of-the-being-winter-olympics) its diplomatic boycott of the Beijing Olympics and [added](https://www.federalregister.gov/documents/2021/12/17/2021-27406/addition-of-certain-entities-to-the-entity-list-and-revision-of-an-entry-on-the-entity-list) more Chinese companies to its trade restriction list while Congress passed a [bill](https://www.nbcnews.com/politics/congress/senate-passes-bill-targeting-china-over-uyghur-forced-labor-n1286160) aimed at countering China’s forced labor abuses in Xinjiang. The two sides’ antagonistic stances on issues related to security, economics, technology, and ideology have largely crystalized, leaving little space for the adjustments that could relieve simmering tensions. Below, Paul Haenle and Sam Bresnick analyze how the two countries got here and how they can move forward. 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](https://www.nytimes.com/2021/06/28/world/asia/china-hong-kong-security-law.html). 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](https://www.scmp.com/news/china/politics/article/3117314/xi-jinping-says-time-and-momentum-chinas-side-he-sets-out) last year at a high-level meeting, though many analysts accuse the party of [overconfidence](https://asia.nikkei.com/Editor-s-Picks/China-up-close/Analysis-From-leader-to-students-overconfidence-clouds-China). 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](https://www.economist.com/china/2021/03/31/china-is-betting-that-the-west-is-in-irreversible-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](https://www.pewresearch.org/global/2021/03/04/most-americans-support-tough-stance-toward-china-on-human-rights-economic-issues/) from the Pew Research Center consider China a competitor or enemy, while around [two-thirds](https://uscnpm.org/the-pulse/) 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](https://www.fmprc.gov.cn/mfa_eng/wjbxw/202107/t20210726_9134602.html). 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](https://www.nytimes.com/2018/04/12/world/asia/china-trade-war-trump.html) 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](https://news.cgtn.com/news/3245444e77554464776c6d636a4e6e62684a4856/index.html)” China’s rise. They [cite](https://www.economist.com/china/2021/09/25/china-believes-that-america-is-forging-alliances-to-stop-its-rise) the Trump administration’s [policies](https://www.globaltimes.cn/page/202101/1213441.shtml), as well as Biden’s [AUKUS submarine pact](https://www.scmp.com/news/china/diplomacy/article/3151700/aukus-alliance-what-it-what-does-it-have-do-china-and-why) and the Quad’s [increasing coordination](https://www.npr.org/2021/03/11/975469203/quad-summit-biden-looks-to-boost-coordination-against-china), as evidence of Washington’s desire to [contain](https://www.globaltimes.cn/page/202201/1246562.shtml) 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](https://www.scmp.com/economy/china-economy/article/3164367/china-must-brace-digital-cold-war-us-battle-tech-supremacy) that the United States seeks to hamper its burgeoning tech sector. Finally, they [see](https://www.globaltimes.cn/page/202104/1220502.shtml)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](https://www.foreignaffairs.com/articles/china/2019-06-11/world-safe-autocracy)”; that its continued military modernization and interest in building bases in [Cambodia](https://amti.csis.org/changes-underway-at-cambodias-ream-naval-base/), [Equatorial Guinea](https://www.wsj.com/articles/china-seeks-first-military-base-on-africas-atlantic-coast-u-s-intelligence-finds-11638726327), and the [United Arab Emirates](https://www.google.com/search?client=firefox-b-1-d&q=dubai+chinese+military+bas) 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](https://www.cfr.org/backgrounder/chinas-repression-uyghurs-xinjiang) in Xinjiang, increasingly strict online censorship, and prosecution of dissidents have further fueled Washington’s desire to enact more aggressive responses. WHAT DOES EACH SIDE WANT OUT OF THE RELATIONSHIP? Our conversations have revealed that China wants the United States to afford it the space it believes it deserves as a rising power, at least in its own backyard. Beijing, as the preeminent Asian security and economic actor, sees the United States’ military presence in East and Southeast Asia as inherently threatening. Moreover, it hopes that Washington will ease pressure, especially regarding economics and technology, as well as refrain from engaging in ideological competition in service of impugning Beijing’s governance model and human rights record. But perhaps China’s most significant wish is for the United States to acknowledge the legitimacy of its economic and political systems. Given that the United States views China’s economic and political practices as antithetical to its own, as well as to those of countries acting within a healthy, properly functioning international system, Washington is unlikely to refrain from impeaching Chinese authoritarianism, mercantilism, and treatment of ethnic minorities and dissidents. The United States’ tougher policies and more confrontational approach are meant to push back on and defend against a range of Chinese domestic and foreign practices that threaten to undermine the international rules and norms that have been in place since the end of World War II, as well as raise the costs for China to revise that very order. In general, Washington would prefer that Beijing dial back or eliminate its economic and innovation mercantilism, respect other countries’ sovereignties, agree to peacefully resolve disputes, and abide by international agreements on human rights. HOW CAN THE TWO SIDES RECONCILE THEIR DIFFERENCES? Biden has opted to use a calmer, more restrained tone with Beijing than did his predecessor, with the aim of avoiding escalation. Moreover, unlike some Trump administration [officials](https://www.wsj.com/articles/secretary-of-state-pompeo-to-urge-chinese-people-to-change-the-communist-party-11595517729), Biden’s team has made it clear that Washington is not seeking regime change in China. And though Biden [criticized](https://www.cfr.org/election2020/candidate-tracker) Trump’s lack of a clear set of goals or a coherent interagency policy framework for addressing the China challenge, his administration has yet to release its long-awaited [China strategy](https://www.foreignaffairs.com/articles/china/2022-01-14/washingtons-missing-china-strategy) (though China does figure prominently in its recently issued [Indo-Pacific Strategy](https://www.whitehouse.gov/wp-content/uploads/2022/02/U.S.-Indo-Pacific-Strategy.pdf)). Until that document is issued, the finer points of the administration’s plans to compete with Beijing, as well as the end goal of such competition, will remain fuzzy. A clear articulation of U.S. aims would be helpful in Washington’s efforts to secure greater international cooperation from allies and partners in addressing the challenges China poses. It would also provide Chinese and U.S. leaders a starting point from which to negotiate the future of bilateral ties. In China, there is considerable room for greater self-reflection. Chinese leaders should closely examine how Beijing’s own aggressive diplomacy, economic statecraft, military buildup, and human rights violations have alarmed and unsettled the United States and many other countries, especially those in Europe and the Asia-Pacific region. Across many conversations, few, if any, Chinese experts have acknowledged that Beijing’s actions have played a role in the cratering of U.S.-China relations. Furthermore, they are reluctant to acknowledge that numerous nations’ hardening stances toward China are driven by China’s activities rather than U.S. coercion. Acknowledging its agency in harming relations, as well as its ability to take proactive steps to put U.S.-China ties on better footing, would constitute important initial gestures by the Chinese side. Moreover, China’s willingness to take more responsibility for its own actions and modify its policy and rhetoric would go a long way toward stabilizing bilateral dynamics. There is no doubt the U.S.-China relationship will remain competitive going forward. Preventing bilateral ties from becoming even more hostile and adversarial, however, should constitute a common aim for both countries. Biden understands this, as he stressed the importance of developing guardrails and establishing strategic stability talks between the two governments [during his virtual summit](https://www.whitehouse.gov/briefing-room/statements-releases/2021/11/16/readout-of-president-bidens-virtual-meeting-with-president-xi-jinping-of-the-peoples-republic-of-china/) with Xi. Implementing robust crisis management mechanisms would also prove a useful step in augmenting both nations’ abilities to control escalation in the event of a military incident in the increasingly crowded waters and air space off of China’s eastern and southern coasts. Washington and Beijing also should establish an effective problem-solving mode for the bilateral relationship. Many observers stress the importance of U.S.-China cooperation on transnational issues where the two sides have common interests—[climate change](https://www.brookings.edu/blog/planetpolicy/2021/10/28/rebuilding-us-chinese-cooperation-on-climate-change-the-science-and-technology-opportunity/), [nuclear nonproliferation](https://www.brookings.edu/research/revitalizing-nonproliferation-cooperation-with-russia-and-china/), and [global health](https://www.csis.org/analysis/advancing-us-china-health-security-cooperation-era-strategic-competition), among others. These efforts are certainly important, but they are quite ambitious and often hampered by Washington’s and Beijing’s different approaches to managing international issues. The two countries have thus far failed to make progress in most areas. That does not mean they should abandon these efforts. But perhaps the United States and China should devote more energy toward trying to create a problem-solving approach for addressing more pointed irritants, such as limits on journalist visas and consulate closures. Such a method has already yielded dividends regarding the [former issue](https://www.nytimes.com/2021/11/16/us/politics/us-china-journalists.html). The two countries should focus on how to build on those smaller successes to work through larger problems in other areas. By committing to this pragmatic approach, the United States and China may be able to find a way to put a floor under deteriorating relations, begin to build goodwill, and lay the foundation for taking on the larger structural issues in areas, like trade and technology, that will be key to determining the future health and welfare of the U.S.-China relationship over the long term. Despite the two nations’ differing mindsets and approaches to bilateral ties, starting small could prove the best method through which to, eventually, realize large gains.

## AT: Russian Sanctions

#### Sanctions fail – They hurt the people NOT the military or leaders

Rami Al-Khalifa Al-Ali 6-5-22 Writer for Saudi Gazette [The failure of Western sanctions against Russia, <https://www.zawya.com/en/world/uk-and-europe/the-failure-of-western-sanctions-against-russia-gycrd12k>] //DHS WAgustin

Historically, sanctions have failed to achieve any political goals. It is the worst weapon that the modern and contemporary international system has produced. Every time when sanctions were imposed, it was the people who paid the price, while these sanctions failed to harm the leaders and officials in the targeted countries. With the beginning of the Russian war on Ukraine, a series of Western sanctions are being slapped on the Russian side, and that has covered almost all fields. This is up to the extent that one of the Western universities canceled a lecture on Tolstoy on the pretext that he was a Russian! The Western nations wished that their sanctions would be so crushing and thus deal a fatal blow to the Russian economy, and hence they have frozen Russian deposits as well as Russian assets abroad, leaving no room for the Western hand to reach unless it was punished. The worst scenario was the attempt to isolate Russia from the global banking payment system called SWIFT (The Society for Worldwide Interbank Financial Telecommunication) as this makes import and export a very complicated affair even though it would be possible. The Russian economy absorbed the first blow, despite the sagging ruble, but it quickly recovered, and even achieved higher gains than before the war. The obvious question that must be asked by Western circles: what is the purpose of these sanctions? The answer, as presented by Western politicians, is twofold: the first is the weakening of the Russian economy, which affects the stability of the Putin government and undermines confidence in Russian President Vladimir Putin on the Russian street. However, the results of these sanctions were counterproductive and the proportion of opponents of the war is very small on the Russian street, and President Putin’s popularity is on the rise. The second aspect is the effect on the Russian war machine. It is true that there were many difficulties experienced by the Russian forces, especially in the beginning of the war, and the failure to capture Kiev, and this forced the Russian leadership to change its military plans. But this has nothing to do with the Western sanctions. Rather, the armed forces, like the Russian economy, have regained their solidity and seemed more capable of achieving breakthroughs and steady military progress. This does not mean victory in the war, but it means that the Russian forces were not affected by the aforesaid sanctions. The Western sanctions on Russia made the supply of Ukrainian grain a very difficult issue, even if it was done in relatively small quantities, and Russia's isolation from the SWIFT regime made the supply of Russian grain no less difficult. If we know that both countries export 30 percent of the grain worldwide, it can be understood that the food crisis that the world is beginning to suffer from, and which threatens impending famines that might afflict a large number of the third world countries, even though these countries have no part in the Ukrainian war or in the conflict between the West and Russia. The worst is that the European societies themselves have begun to suffer from the rise in the prices of essential goods, as the prices of fuels increased by up to 40 percent, and this led to a rise in most essential goods, especially foodstuffs. After the experience of the past months, the Western sanctions on Russia are like those who shoot themselves in the feet. In fact, Moscow has benefited from sanctions on the energy sector. What it was unable to export was compensated by the rise in oil prices. It is clear that the West must change its strategy, and this can only be done by bitterly admitting that it has failed miserably in its policy of imposing sanctions against Russia.

## AT: REM/REE

[cross apply cohesion key answers]

#### Environmental costs cause backlash

**Subin**, BA, ‘**21**(Samantha, associate reporter for CNBC Pro and CNBC.com and has a BA in in multiplatform journalism and general business from the University of Maryland, Published 4/17/22 by CNBC, accessed 7/19/22, “The new U.S. plan to rival China and end cornering of market in rare earth metals”, <https://www.cnbc.com/2021/04/17/the-new-us-plan-to-rival-chinas-dominance-in-rare-earth-metals.html>)//mw

While companies like Lynas and MP Materials are eager to ramp up the domestic supply chains, extracting **rare earths is a difficult process** due to a combination of environmental, technical and political factors. Many regions, including the European Union, have an abundance of these resources but lack the expertise that other countries like China have in the processing and magnet production, Nakano said. The **rare earths industry has come under fire for environmental concerns**. Many **r**are **e**arth **e**lement**s reside among mineral deposits with radioactive materials** that can leach into the water table. Mining, processing and disposal can also contribute to ecosystem disruption and release hazardous byproducts into the atmosphere. Although the U.S. is making strides to advance the rare earths supply chain and develop alternatives to mining rare earths, environmental regulations are often more stringent than inside China. In recent years, **Lynas came under scrutiny** from activists and the Malaysian **government for radioactive waste that it produces as part of its enrichment process**. Lynas has said that the low-levels of radioactive waste were not dangerous and the Malaysian government ultimately [renewed the license](https://www.reuters.com/article/us-lynas-corp-malaysia/malaysia-defends-move-to-extend-licence-for-rare-earth-firm-lynas-idUSKCN1VP1K6) and [green-lighted a construction plan](https://www.mining.com/lynas-gets-green-light-for-waste-treatment-plant-in-malaysia/) for a permanent disposal and waste treatment facility in August 2020.

#### Biden already invested $35 million

**Hirneisen ‘2/22** (Madison, a staff reporter covering California for The Center Square, published 2/22/22 by The Center Square, accessed 7/19/22, “Biden, Newsom announce $35 million investment in rare-earth mineral mining”, https://www.thecentersquare.com/national/biden-newsom-announce-35-million-investment-in-rare-earth-mineral-mining/article\_8d1060e6-9434-11ec-a9cf-6f20234b1569.html)//lexmw

**Biden** [**announced**](https://www.whitehouse.gov/briefing-room/statements-releases/2022/02/22/fact-sheet-securing-a-made-in-america-supply-chain-for-critical-minerals/) **a $35 million investment for Mountain Pass Materials** on Tuesday, **the only rare-earth mining and processing site in the U**nited **S**tates. Biden said the funds will help create a "fully domestic supply chain" for the magnets that power technology like wind turbines and electric vehicle motors. The new **multi-million dollar investment** announced on Tuesday **comes on top of $700 million** **that Mountain Pass Materials plans to invest by 2024** to create a rare earth supply chain in the U.S. "These new investments are going to do more than create good paying jobs, they are also going to set America up to lead the world and build a clean energy economy and the clean energy future," Biden said on Tuesday. Mountain Pass Materials, which is based in California, was started five years ago and has since become the second-largest producer in the world of rare earth materials, James Litinsky, CEO of Mountain Pass Materials, said during Tuesday's news conference. **The company** [**mines and recovers**](https://mpmaterials.com/what-we-do/#our-process) **r**are **e**arth **e**lements **used to power digital tech**nologies, electric vehicles, **clean energy**, **and** even certain **military control systems.** The company estimates that through a partnership with General Motors, it will be able to produce enough magnets for 500,000 electric vehicles per year with the materials it recovers at its facility. Biden noted on Tuesday that investments in these kinds of processes and operations would help the U.S. compete with China, which currently controls most of the global market for these minerals. "We can't build a future that's made in America if we ourselves are dependent on China for the materials, the power [and] the products of today and tomorrow," Biden said.

#### $140 million from the infrastructure bill went to domestic supply chains– proves investment alone is not enough

**DOE ‘2/14** ( US Department of Energy, federal government agency that manages the United States' nuclear infrastructure and administers the country's energy policy and funds scientific research, published 2/14/22 by the DOE, accessed 7/19/22, “DOE Launches $140 Million Program to Develop America’s First-of-a-Kind Critical Minerals Refinery”, https://www.energy.gov/articles/doe-launches-140-million-program-develop-americas-first-kind-critical-minerals-refinery)//mw

The U.S. Department of Energy (DOE) today released a [Request for Information (RFI)](https://www.fedconnect.net/FedConnect/default.aspx?ReturnUrl=%2ffedconnect%2f%3fdoc%3dDE-FOA-0002686%26agency%3dDOE&doc=DE-FOA-0002686&agency=DOE) on the design, construction and operation of a new facility to demonstrate the commercial feasibility of a full-scale rare earth element (REE) and critical minerals (CM) extraction and separation refinery using unconventional resources. When built, this first-of-a-kind facility, supported by **$140 million investment from the Bipartisan Infrastructure Law, will** support American manufacturing jobs, and help **build a strong domestic supply chain for** the next generation of clean **energy technologies** vital to reaching President Biden’s goal of a net-zero emissions future. “Applying next-generation technology to convert legacy fossil fuel waste into a domestic source of critical minerals needed to strengthen our supply chains is a win-win — delivering a healthier environment and driving us forward to our clean energy goals,” said U.S. Secretary of Energy Jennifer M. Granholm. “With **the Bipartisan Infrastructure Law’s investment** in the **build** out of this first-of-its kind critical minerals refinery, we are moving ideas from the lab to the commercial stage **and demonstrating how America can compete for the global supply chain to meet the growing demand** for clean energy technology.”Across the United States, there are billions of tons of coal waste and ash, acid mine drainage, and produced water. The legacy wastes left behind by coal mining and related activities all contain a wide variety of valuable minerals and materials. Each of them offers an untapped resource for producing a wealth of critical minerals. REEs and CMs are essential materials that are used in a broad range of technologies that are significant to national security and energy, such as advanced aircraft, wind turbines, electric vehicles, semiconductors, and hydrogen fuel cells. Currently, even when REEs are being mined within the U.S., they are shipped overseas for processing, before being sold back to the U.S. in more expensive products.