

In this debate, I affirm the following:

Resolved: The appropriation of outer space by private entities is unjust.

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**Value:** My value is the mitigation of existential threat

**Criteria:** My criteria is Rule Utilitarianism which means doing the greatest good for the greatest number of people, without violating the standards set forth by the UDHR (universal declaration of human rights)” - john stuart mill

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**Plan Text:** The United States federal government should end the appropriation of space exploration and tourism by private entities, ruling that they violate its non-appropriation obligations under the Outer Space Treaty of 1967 and its succeeding treaties.

**To clarify:** This results in a ban of private-only space colonization and exploration –

**Cooper 8** [Cooper, Nikhil D. "Circumventing Non-Appropriation: Law and Development of United States Space Commerce." Hastings Const. LQ 36 (2008): 457.] TDI

The latest piece of congressional legislation regulating the commercial space industry was the Commercial Space Launch Act (CSLA) 77 that was spurred on in part by the host of new technologies capable of commercially exploiting space. 78 The CSLA streamlined the earlier space-launch bureaucracy and mandated the DOT to issue licenses for all commercial space launch programs, 79 regulate forms of space tourism8 and space advertising, 8 ' impose minimum liability insurance and financial responsibility requirements, and82 provide for administrative and judicial review of DOT Secretariat decisions.83 II. A Legal System? The CSLA represents the most recent and comprehensive United States space commerce legislation; but, in the years since its passage, no one has seriously questioned its consistency with United States international obligations of "non-appropriation." The issue is especially apt now, however, because the current and future capacities of commercially exploiting space seem primed to challenge non-appropriation as the guiding theme in space commerce. Therefore, the question we must ask now is whether or not the United States is circumventing the intent of non-appropriation by encouraging and protecting private commercial expansion into space. A. Treaties Versus Congressional Acts Whether the regulatory regime outlined in the CSLA conflicts with the national non-appropriation principle, as outlined in the Outer Space Treaty of 1967 and in its succeeding treaties, is an issue that could be reviewed by the federal judiciary under its constitutional grant of subject-matter jurisdiction over cases "arising under" treaties.8 4 The judiciary's power to interpret treaties is a power distinct from the treaty-making authority delegated to the executive and legislative branches. Article II of the United States Constitution authorizes the president to ratify treaties with the consent of two-thirds membership of the Senate. 5 Treaties entered into in this manner are the supreme law of the United States and bind state constitutions, legislatures, and judiciaries.8 6 Generally, courts employ distinct methods of interpretation when called on to perform the separate but related tasks of interpreting treaties and resolving treaty-statutory disputes. As to the former, courts generally will liberally construct a treaty "to give effect to the purpose which animates it" and will prefer that liberal construction "[e]ven where a provision of a treaty fairly admits of two constructions, one restricting, the other enlarging [of] rights which may be claimed under it."87 A preference for broad construction,

however, is not a license for courts to impose any interpretation they deem appropriate. For example, although courts have a greater ability to construct treaties more broadly than private contracts, they are still precluded from interpreting a treaty beyond the "apparent intent and purport" of its language.<sup>88</sup> In this way, determining a treaty's "intent" delineates the boundaries of how broadly or narrowly the court may interpret a treaty's provision. Courts obviously have a much easier time determining a treaty's intent where the treaty language is unambiguous. In these instances, courts expressly forbid looking beyond the language of the treaty to supply the intent of the parties at the time the treaty was drawn.<sup>89</sup> When the language of the treaty is ambiguous, however, the court will attempt to effectuate the drafter's intent through a broader inquiry into "the letter and spirit of the instrument," and may take into account "considerations deducible from the situation of the parties; and the reasonableness, justice, and nature of the thing, for which provision has been made."<sup>90</sup> The United States Supreme Court summarized its interpretive process in the case *Eastern Airlines Inc., v. Floyd*: When interpreting a treaty, [begin] "with the text of the treaty and the context in which the written words are used."<sup>91</sup> [When confronted with difficult or ambiguous passages, the Court provided that] [o]ther general rules of construction may be brought to bear[.]. [And it finally noted that] treaties are construed more liberally than private agreements, and to ascertain their meaning we may look beyond the written words to the history of the treaty, the negotiations, and the practical construction adopted by the parties.<sup>92</sup> Treaty interpretation as described above is important when determining whether the treaty conflicts with an act of Congress. Each being the supreme law of the land, treaties and congressional acts are governed by the last-in-time rule: when they conflict, courts must privilege the last enacted treaty or congressional act over the other.<sup>93</sup> Still, federal courts often avoid finding such conflicts between congressional acts and treaty obligations. As Justice Marshall opined in 1804: [A]n act of Congress ought never to be construed to violate the law of nations if any other possible construction remains, and consequently can never be construed to violate neutral rights, or to affect neutral commerce, further than is warranted by the law of nations as understood in this country.<sup>94</sup> Supreme Court jurisprudence since has largely followed the same presumption and, therefore, courts are inclined to harmonize treaties and congressional legislation that are seemingly antithetical to one another.<sup>95</sup> In the event that a congressional act were to supplant United States treaty obligations, courts would look for unambiguous evidence appearing "clearly and distinctly" in the text of the statute or treaty provision.<sup>96</sup> In other words, repeals of prior statutes or treaty provision must likely be made express. In contrast, "repeals by implication" are generally disfavored "unless the last statute is so broad in its terms and so clear and explicit in its words as to show that it was intended to cover the whole subject, and, therefore, to displace the prior statute."<sup>97</sup> B. CSLA Versus the Outer Space Treaty Both being duly enacted, the CSLA and the Outer Space Treaty are considered the supreme law of the land. If there is a conflict between the United States space commerce provisions as outlined in the CSLA and the Outer Space Treaty, a reviewing court would first be called upon to interpret the intent of the treaty itself. Recall that in the context of treaty interpretation, a court would be at liberty to give the treaty a broad construction to effectuate its intent. The key provision of the Outer Space Treaty at issue would be the language of Article II which forecloses "national appropriation" of space by claims of sovereignty, means of use, occupation, or any other means.<sup>98</sup> Black's Law Dictionary defines "appropriation" as "the exercise of control over property, a taking of possession."<sup>99</sup> If defined broadly enough, the joint enterprise nature of the United States space commerce, as implemented in the CSLA, might violate the "spirit" of non-appropriation as outlined in the Outer Space Treaty of 1967. **The best argument one could make against the CSLA's provisions is to advocate the court to broadly interpret the "appropriation" principle of the Outer Space Treaty.** The proponent of this argument would urge that **in so doing, a court should look beyond the words of the treaty and examine the history, negotiations, and practical considerations at the time of the treaty's negotiation to determine its true intent.**<sup>100</sup> One would also want to argue **that the space commerce industry violates perhaps not the "letter" of the treaty, but circumvents entirely its "spirit" if a court were taking into account "considerations deducible from the situation of the parties; and the reasonableness, justice, and nature of the thing, for which provision has been made."**<sup>01</sup> One who attacked the CSLA's general legitimacy in this way could argue that **the United States is effectively "appropriating" space through its protection and encouragement of private industry. Such an appropriation would take place** not by realizing a "sovereign" right to space property or the uses of space as expressly proscribed in the Outer Space Treaty, but, instead, **through the effective use of government power, services, and contracts to encourage and support the rapid development of the private space commerce industry in the United States.** In essence, the result of such government encouragement might not amount to wholesale sovereign appropriation, but, at the very least, a kind of sovereign and private space activity that would cast doubt on whether the non-appropriation principle is actually being respected. Therefore, one arguing that such activities were tantamount to sovereign appropriation would highlight the interrelatedness of government and private industry and argue for a broad interpretation of "appropriation" that encompassed the practical effects of such a relationship. In addition to the regulatory interaction between the CSLA and private space commerce industries, the interrelatedness between government and private industry is clearly illustrated by the interaction between CSLA and the 1972 Liability Convention. Recall that **the Outer Space Treaty and its progeny envision a "state-oriented" system of responsibility**<sup>10 2</sup> **where each member state is responsible for all actions in outer space undertaken by the state and its nationals.**<sup>10 3</sup> The Liability Convention further binds member states by holding each strictly liable for its actions or the actions of its nationals within outer space and permits only member states to petition for remuneration under the terms of the treaty.<sup>1 04</sup> In its text, the CSLA cites to such international obligations,<sup>0 5</sup> while also mitigating the United States' liability under the Liability Convention.<sup>0 6</sup> **The CSLA licensing program** ensures overall safety of private space ventures,<sup>0 7</sup> **raises the funds necessary to pay "potential treaty claims through its liability insurance requirement,"**<sup>10 8</sup> **and limits the United States' joint and several liability exposure through restricting private use of foreign launch and reentry facilities.**<sup>09</sup> These provisions effectively **allow the United States to pass on the financial cost and recover from their private entities the amount of damages for which they are internationally liable.**<sup>110</sup> **In this way, the government is limiting its international liability exposure by passing on the cost to the private sector.** When highlighting the

further interrelatedness between government and private industry, one could also note that the United States government holds something of a monopoly in launch services and currently requires that decisions regarding commercial space-launch must be approved through the CSLA. 1' In addition, one making this argument would want to highlight the highly interdependent nature of investment flowing from government to private space commerce: in a February 4, 2008 press release, NASA Deputy Administrator Shana Dale justified the agency's 2009 budget request of \$17.6 billion by claiming that "[t]he development of space simply cannot be 'all government all the time[]' . . . . NASA's budget for [fiscal year] 2009 provides \$173 million for entrepreneurs—from big companies or small ones—to develop commercial transport capabilities. . . [and] NASA is designating \$500 million toward the development of this commercial space capability." 2

## **A: Definition of Appropriation**

**“Appropriation of outer space” by private entities refers to the exercise of exclusive control of space – private entities can no longer exclusively act in space – they must act alongside public entities**

**TIMOTHY JUSTIN TRAPP, JD Candidate @ UIUC Law, '13, TAKING UP SPACE BY ANY OTHER MEANS: COMING TO TERMS WITH THE NONAPPROPRIATION ARTICLE OF THE OUTER SPACE TREATY UNIVERSITY OF ILLINOIS LAW REVIEW [Vol. 2013 No. 4]**

The issues presented in relation to the nonappropriation article of the Outer Space Treaty should be clear.<sup>214</sup> The ITU has, quite blatantly, created something akin to **“property interests in outer space.”**<sup>215</sup> It allows nations to exclude others from their orbital slots, even when the nation is not currently using that slot.<sup>216</sup> This **is directly in line with at least one definition of outer-space appropriation.**<sup>217</sup> **[\*\*Start Footnote 217\*\*Id. at 236 (“Appropriation of outer space, therefore, is ‘the exercise of exclusive control or exclusive use’ with a sense of permanence, which limits other nations’ access to it.”) (quoting Milton L. Smith, The Role of the ITU in the Development of Space Law, 17 ANNALS AIR & SPACE L. 157, 165 (1992)). \*\*End Footnote 217\*\*]**The ITU even allows nations with unused slots to devise them to other entities, creating a market for the property rights set up by this regulation.<sup>218</sup> In some aspects, this seems to effect exactly what those signatory nations of the Bogotá Declaration were trying to accomplish, albeit through different means.<sup>219</sup>

## **B: Thus, the plan forces private companies to partner with governments if they want to be involved in space**

**The private space industry is *more efficient* than public – working together prevents stifling of innovation – solves debris, climate and US space dominance**

**Van Burken 20 [(Rebecca, technology policy analyst at Reason Foundation) “Biden Can Utilize Space Companies and Public-Private Partnerships,” December 14, 2020  
<https://reason.org/commentary/biden-can-utilize-space-companies-and-public-private-partnerships/>] TDI**

**Biden Can Utilize Space Companies and Public-Private Partnerships The commercial space industry is making NASA's operations more cost-effective and encouraging innovation.** By Rebecca van Burken December 14, 2020 President-elect Joe Biden will predictably distance himself from many of the Trump administration's policies and positions, but its openness to commercial space partnerships should not be among them. **The expansion of public-private space partnerships that began during the Obama administration has continued during the Trump administration. These public-private partnerships have helped lead to many major space successes, including crewed-launches returning to American soil through SpaceX and the first-ever civilian passenger on a private suborbital spaceflight as part of Virgin Galactic's 2019 VSS Unity SpaceShipTwo launch. These successes, and others, reflect positively on the U.S. space sector. However, they would not have happened without the entrepreneurial nature of commercial space. Unlike government engineers and scientists, commercial space operations are not constrained by government bureaucracy nor reliant on taxpayer funding. This allows commercial space companies to explore some seemingly far-fetched ideas, like 3D printing of small rockets, a concept being pioneered by the small start-up Relativity.** Commercial space companies must also develop and maintain a competitive edge to survive in the market. Significant competition ultimately creates less-costly services that give NASA more bang for its buck

when developing new technology. **Competitive market pressures have created inspiring innovation exemplified by SpaceX's reusable rocket technology and proposals for recycling and turning discarded orbiting tanks into space stations. Without the federal government's continued openness to commercial space, innovation, and invention in the U.S. space industry could be stifled.** Commercial space continues to show up when the government needs new services. Over the last few years, we have seen amazing new technologies developed to track environmental and climate concerns. This is, in part, because NASA has entered into deals with private companies like Planet that are able to analyze data collected by satellite imagery. Planet has stakes in defense satellite imagery but has expanded its portfolio to collect data for climate scientists and researchers to use. Its constellation of 120 satellites is at work photographing every portion of the world at least once a day, which provides constant and up-to-date environmental information. **By maintaining deals like that with commercial satellite companies, NASA can avoid the costs of creating its own satellite constellation and other remote sensing technology. Additionally, NASA does not need to focus its energies on updating technologies to keep up with new software and technological capabilities.** Companies that worry about competition in the market naturally reassess their services and the burden of doing this should be put on private industry, not on the government. **Biden's team should seek out the most effective private partners, hiring new talent in civil programs to use these systems. This would also free up funding for crewed space exploration.**

## Russia Scenario

### A: Deep Space Exploration is a shared goal that prevents escalation of US-Russia tensions. But privatization threatens it independent of our other internal links

**CSIS 18** [(Center for Strategic and International Studies), "Why Human Space Exploration Matters," August 21, 2018 <https://www.csis.org/blogs/post-soviet-post/space-cooperation>] TDI

**U.S.-Russian space cooperation continues to be a stated mutual goal. In April 2018, President Putin said of space, "Thank God, this field of activity is not being influenced by problems in politics. Therefore, I hope that everything will develop, since it is in the interests of everyone... This is a sphere that unites people. I hope it will continue to be this way."** During his statement at a recent event at CSIS, NASA Administrator Jim Bridenstine said, **"[space] is our best opportunity to dialogue when everything else falls apart. We've got American astronauts and Russian cosmonauts dependent on each other on the International Space Station, which enables us to ultimately maintain that dialogue."** The U.S. and Russia both benefit from the ISS partnership. Russia provides transportation to the ISS for U.S. astronauts, from which Russia receives an average of \$81 million per seat on the Soyuz (and recognition of its status as a space power). The U.S. also benefits from Russia's technical contributions to the ISS while Russia benefits. **The U.S. and Russia signed a joint statement in 2017 in support of the idea of collaborating on deep space exploration, including the construction of the Lunar Orbital Platform-Gateway, a research-focused space station orbiting the moon.** Through agreements on civilian space exploration, such as the Lunar Orbital Platform-Gateway or future Mars projects, that have clear benefits to both sides, some degree of cooperation will remain in both countries' interest. **The high price tag for pursuing space exploration alone and opportunities for sharing and receiving technical expertise encourages international partnerships like the ISS.** However, at least three factors, apart from the overall deterioration of U.S.-Russia relations, threaten this cooperation. First, **growth of the private sector space industry may alter the economic arrangement between the U.S. and Russia, and ultimately lower the benefits of cooperation to both countries. The development of advanced technologies by private companies will**

give NASA new options to choose from and **reduce the need to depend on (and negotiate with) Russia. If NASA and its Russian counterpart, Roscosmos, have no need to talk with one another, they probably won't in the face of tense political relations. The U.S. intends to use Boeing and SpaceX capsules for human spaceflight beginning in 2020, and a Congressional plan in 2016 set a phase out date of Russian RD-180 rocket engines by 2022.**

## **B: Russia's space program is doomed if private appropriation expands**

**Berger 2018** ([Eric Berger](#) -staff writer ars technica quoting statements by Roscosmos head 7/9/2018, 8:45 AM Russian editor: Our space program is entering the “Dark Ages”)

<https://arstechnica.com/science/2018/07/russian-editor-our-space-program-is-entering-the-dark-ages/>

Russian space editor Andrei Borisov has captured the fading zeitgeist of the Russian space program in [a lengthy article](#) on the new leader of Roscosmos, Dmitry Rogozin, and the changes he has proposed. **"The 'Russian Space' Rogozin is trying to create reminds one of the Dark Ages** in Europe," Borisov writes on *Lenta.Ru*, where he serves as editor of science and technology. "In it, **there is no place for modernization, there is only the mission of survival.**" Surviving The article catalogs **current Russian efforts to develop newer, competitive rockets and modern spacecraft.** All of these efforts, Borisov finds, **are behind schedule, outdated, or already non-competitive.** Borisov asserts that this is because there are concerns about post-launch problems. **"No official from Russia's space industry wants to take responsibility for the laboratory module and its safety for use as part of the ISS, about which many questions have arisen,"** he writes. (A translation of the 3,000-word article was provided to Ars by Robinson Mitchell). **The story is similar for Russia's next-generation spacecraft,** Federation. Instead of investing in this new vehicle designed for deep-space crew activities, which has been under development for a decade, Russia will likely opt to continue revising the Soyuz spacecraft, which first launched 52 years ago. This was *before* NASA's Apollo capsule had flown. Russia also faces difficult decisions with its rocket programs. **Rogozin has already made the decision to retire the Proton booster,** preferring **to focus on** the next-generation **Angara rockets**. However, Borisov suggests this line of rockets **is "already obsolescent."** (There have been just two test flights of the Angara rockets: a small Angara 1 in 2014 and a larger Angara 5 the same year). [Russia's Proton rocket, which predates Apollo, will finally stop flying](#) One problem is that **these Angara rockets were conceived and developed just before SpaceX rose to prominence and fulfilled the promise of lower-cost spaceflight.** By comparison, **the Angara rockets are expensive.** The more bulky Angara 5 has a similar payload capacity to the SpaceX Falcon 9 rocket, but its cost of about \$100 million is considerably above Falcon 9's \$62 million cost. For this reason, Roscosmos has also proposed developing the Soyuz 5 rocket. This booster would be competitive with the Falcon 9 on cost, but it is not scheduled for its first test flight until 2024. And already, Rogozin has talked about putting the Soyuz 5 project [on hold](#) because it is not simple enough and should have a methane engine. Roscosmos "needs to build a booster of completely different quality, simple and reliable, like a Kalashnikov automatic rifle," he has said. **The bottom line is that global demand for Russian rockets is rapidly dwindling, and the great hope for the future, the Soyuz 5, remains years if not decades away. How long can Russia survive** on past glories? "There are significant doubts about the future of Russian launch vehicles and spacecraft," Borisov concludes.

## **C: Ukraine, decline of US moral authority on international affairs puts us at the brink of the end of Russian diplomacy and even war**

**Weir 21** [(Fred Weir has been the Monitor's Moscow correspondent, covering Russia and the former Soviet Union, since 1998. He's traveled over much of that vast territory, reporting on stories ranging from Russia's financial crash to the war in Chechnya, creeping Islamization in central Asia, Russia's demographic crisis, the rise of Vladimir Putin and his repeated returns to the Kremlin, and the ups and downs of US-Russia relations). "Worse than the Cold War? US-Russia relations hit new low." Christian Science Monitor 4-20-2021

<https://www.csmonitor.com/World/Europe/2021/0420/Worse-than-the-Cold-War-US-Russia-relations-hit-new-low>] TDI

**Russia's relations with the West, and the United States** in particular, **appear to be plumbing depths of acrimony and mutual misunderstanding unseen even during the original Cold War.** After years of deteriorating relations, sanctions, tit-for-tat diplomatic expulsions, and an escalating "information war," some in Moscow are asking if there even is any point in seeking renewed dialogue with the U.S., if only out of concern that more talking might just make things worse. Events have cascaded over the past month. Russia's treatment of imprisoned dissident Alexei Navalny, who has been sent to a prison hospital amid reports of failing health, underlines the sharp perceived differences between Russia and the West over matters of human rights. Meanwhile, a Russian military buildup near Ukraine has illustrated that the conflict in the Donbass region might explode at any time, possibly even dragging Russia and NATO into direct confrontation. With its relations with Washington at a nadir, **Russia is eyeing a more pragmatic, if adversarial, relationship with the U.S. in the hopes of getting the respect it desires.** President Joe Biden surprised the Kremlin by proposing a "personal summit" to discuss the growing list of U.S.-Russia disagreements in a phone conversation with Vladimir Putin last week. He later spoke of the need for "disengagement" in the escalating tensions around Ukraine, and postponed a planned visit of two U.S. warships to Russia-adjacent waters in the Black Sea. But days later he also imposed a package of tough sanctions against Russia, for its alleged SolarWinds hacking and interference in the 2020 U.S. presidential elections, infuriating Moscow and drawing threats of retaliation. Last month, after Mr. Biden agreed with a journalist's intimation that Mr. Putin is a "killer," the Kremlin ordered Russia's ambassador to the U.S. to return home for intensive consultations, an almost unprecedented peacetime move. Over the weekend, Russian Foreign Minister Sergey Lavrov suggested that the acting U.S. ambassador to Moscow, John Sullivan, should likewise go back to Washington for a spell. On Tuesday, Mr. Sullivan announced he would do just that this week. And **there is a growing sense in Moscow that the downward spiral of East-West ties has reached a point of no return, and that Russia should consider abandoning hopes of reconciliation with the West** and seek permanent alternatives: perhaps in an intensified compact with China, and targeted relationships with countries of Europe and other regions that are willing to do business with Moscow. **"Things are at rock bottom. This may not be structurally a cold war in the way the old one was, but mentally, in terms of atmosphere, it's even worse,"** says Fyodor Lukyanov, editor of Russia in Global Affairs, a Moscow-based foreign policy journal. "The fact that Biden offered a summit meeting would have sounded a hopeful note anytime in the past. Now, nobody can be sure of that. A hypothetical Putin-Biden meeting might not prove to be a path to better relations, but just the opposite. It could just become a shouting match that would bring a hardening of differences, and make relations look like even more of a dead end." Room for discussion Foreign policy experts agree that there is a long list of practical issues that could benefit from purposeful high-level discussion. With the U.S. preparing to finally exit Afghanistan, some coordination with regional countries, including Russia and its Central Asian allies, might make the transition easier for everyone. One of Mr. **Biden's first acts in office was to extend the New START arms control agreement, which the Trump administration had been threatening to abandon, but the former paradigm of strategic stability remains in tatters and requires urgent attention, experts say.** "If you are looking for opportunities to make the world a safer place through reason and compromise, there are quite a few," says Andrey Kortunov, director of the Russian International Affairs Council, which is affiliated with the Foreign Ministry. "There are also some areas where the best we could do is agree to disagree, such as Ukraine and human rights issues." **The plight of Mr. Navalny, which has evoked so much outrage in the West, seems unlikely to provide leverage in dealing with the Kremlin, because — as Western moral authority fades — Russian public opinion appears indifferent, or even in agreement with its government's actions.** Recent surveys by the Levada Center in Moscow, Russia's only independent pollster, found that fewer than a fifth of Russians approve of Mr. Navalny's activities, while well over half disapprove. **An April poll found that while 29% of Russians consider Mr. Navalny's imprisonment unfair, 48% think it is fair.** Russian opposition figure Alexei Navalny, shown here during a hearing in the Babuskinsky District Court in Moscow Feb. 12, 2021, is in poor health amid his hunger strike while in prison in Russia. He was recently moved

to a prison hospital. **Tensions around the Russian-backed rebel republics in eastern Ukraine have been much severer than usual,** with a spike in violent incidents on the front line, a demonstrative Russian military buildup near the borders, and strong U.S. and NATO affirmations of support for Kyiv. **The Russian narrative claims that Ukrainian President Volodymyr Zelenskiy triggered the crisis a month ago** by signing a decree that makes retaking the Russian-annexed territory of Crimea official Ukrainian state policy. **Mr. Zelenskiy has also appealed to the U.S. and Europe to expedite Ukraine's membership in NATO, which Russia has long described as a "red line" that would lead to war.** But Russian leaders, who have been at pains to deny any direct involvement in Ukraine's war for the past seven years, now say openly that they will fight to defend the two rebel republics. Top Kremlin official Dmitry Kozak even warned that if conflict erupts, it could be "the beginning of the end" for Ukraine. "This is a very desperate situation," says Vadim Karasyov, director of the independent Institute of Global Strategies in Kyiv. "We know the West is not going to help Ukraine militarily if it comes to war. So we need to find some kind of workable compromises, not more pretexts for war." Time to turn eastward? In this increasingly vexed atmosphere, the Russians appear to be saying there is no point in Mr. Putin and Mr. Biden meeting unless an agenda has been prepared well in advance, setting out a few achievable goals and leaving aside areas where there can be no agreement. "Russia isn't going to take part in another circus like we had with Trump in Helsinki in 2018," says Sergei Markedonov, an expert with MGIMO University in Moscow. "What is needed is a deeper dialogue. That could begin if we had a real old-fashioned summit between Biden and Putin, one that has been calculated to yield at least some positive results. We need to find a modus vivendi going forward, and the present course is not leading there." Alternatively, **Russia may turn away from any hopes of even pragmatic rapprochement with the West,** experts warn. Mr. Lukyanov, who maintains close contact with his Chinese counterparts, says they felt blindsided at a summit with U.S. foreign policy chiefs in Alaska last month, when what they expected to be a practical discussion of how to overcome the acrimonious Trump-era legacy in their relations turned into what they saw as a U.S. lecture about how China needs to obey the "rules-based" international order. "It was the Chinese, in the past, who were very cautious about participating" in anything that looked like an anti-Western alliance, says Mr. Lukyanov. "We are hearing a new tone from them now. Now our growing relationship with China isn't just about compensating for a lack of relations with the U.S. It's about the need to build up a group of countries that will resist the U.S., aimed at containing U.S. activities and policies that are harmful to our two countries."

## **D: US-Russian Space coop provides security and safety benefits to US missions as well as communication channels and levers for mitigating crisis escalation even in Ukraine.**

**Kramer 2018,** Andrew Andrew E. Kramer is a Pulitzer prize winning reporter based in the Moscow bureau of The New York Times, "Russia Wants to Extend U.S. Space Partnership. Or It Could Turn to China", NY Times, Dec 11 2018

**In the interview, Mr. Rogozin said Russia wanted to carry on joint flights with the United States and its allies, despite the tensions over election interference, wars in Syria and Ukraine, and the chemical weapons poisoning of a former double agent in Britain. The American and Russian piloted space programs should remain merged, he said, as a symbol of coexistence and the peaceful pursuit of science. He also argued that it would be a mistake to leave the Russians out of any risky venture in space. Russian hardware would provide a safety net if something went wrong near the moon, he said, just as Russian rockets were able to supply the International Space Station after the Space Shuttle Columbia disaster in 2003, which grounded the shuttle program for more than two years.** "Even if Americans make their own lunar transport system, there should always be a reserve, for the safety of the crew," he said. "That reserve can exist only if a partner — and now only Russia can do this, and nobody else — has another, alternative transport system capable of saving the astronauts in case of a very problematic situation."

**E: There's no chance ukrainian conflict will undermine us and russian space coop, the effect only moves downward and positively; us and russian coop continued without a hitch when they annexed crimea, the only real risk is cutting russia out through privatization.**

Koren 2019, (marina, staff writer at the atlantic monthly, January 11, 2019 “The Chill of U.S.-Russia Relations Creeps Into Space” The atlantic monthly -

<https://www.theatlantic.com/science/archive/2019/01/nasa-roscosmos-russia-bridenstine-rogozin/579973/>

On the ground, the United States and Russia might have conflicting interests, but in space, 250 miles above Earth, they get along nicely. On the International Space Station, American astronauts and Russian cosmonauts share meals, routines, and a stunning view of our little planet. That same spirit of cooperation characterized the handling of the failed launch in October—the quick rescue response, the careful investigation of hardware, the eventual return to spaceflight [less than two months later](#)—and after Bridenstine’s visit to Russia, he sought to reciprocate the invitation. Bridenstine had addressed Rogozin’s alma mater, Moscow State University, and he suggested that in early 2019 Rogozin deliver a speech at his own, Rice University in Texas.\* But even in a bromance as sunny as this one, sometimes politics finds a way to creep in, and Bridenstine [rescinded](#) his invitation. And according to Russian media, Rogozin [isn’t happy about it](#). Some current members of Congress and former national-security officials, mostly Democrats, saw the proposed visit as a mistake, *Politico* [reported](#), and more lawmakers soon joined [the chorus of opposition](#).

**The issue: Rogozin is not a typical space-agency official. He’s an outspoken nationalist and a former deputy prime minister to Vladimir Putin who was [sanctioned](#) by the United States in 2014 for his involvement in the Ukraine crisis.**

Those strictures bar Rogozin from entering the United States, **and here was Bridenstine, inviting Rogozin to an American campus and [telling](#) Russian media that he had convinced the Treasury Department to temporarily lift the sanctions.**

“Rice University is located on the same street as the Johnson Space Flight Center, so I think everything will work out,” Bridenstine said while in Russia, according to TASS, the state-run Russian news agency. Earlier in 2018, another sanctioned Russian official, Sergey Naryshkin, the head of Russia’s foreign-intelligence service, [had come to Washington](#) for a secretive meeting with then-CIA Director Mike Pompeo. Democratic lawmakers protested, accusing Donald Trump’s administration of undermining U.S. policy. But a meeting about space exploration must have seemed less fraught than one on counterterrorism. According to *The Washington Post*, Bridenstine, a former member of Congress himself, [said](#) he didn’t consult with the White House about inviting—and disinviting—Rogozin. He had hoped they could have “a strong working relationship that was kept separate from geopolitics,” he said. Space exploration is indeed insulated at times from politics, but it is not immune. In the middle of the 20th century, when nations began trying to reach orbit, space policy was foreign policy, thanks to the [two-faced nature of the effort](#); rockets could launch both science instruments and bombs. But even as the focus of space policy has shifted to scientific discovery, world events and political changes have often derailed the United States’ and Russia’s best intentions. As early as 1962, at the height of the space race between the United States and the Soviet Union, President John F. Kennedy and Premier Nikita Khrushchev exchanged letters about [working together](#) on uncomplicated space matters, such as weather satellites. But earnest cooperation didn’t emerge until 1970, after Americans had landed on the moon and there was little left to compete over. President Richard Nixon had a new policy of closer relations with the Soviet Union, and he thought an international space project would be a political winner. (The world may have Hollywood to thank for this, too: According to historians, the Soviets warmed up to the idea after U.S. officials invoked *Marooned*, the 1969 film in which Soviet cosmonauts help rescue stranded American astronauts.) Soon, talks led to a high-flying maneuver between American and Soviet spacecraft in 1975. Two capsules launched 10,000 miles apart, rendezvoused in space, and locked onto each other somewhere over the Atlantic Ocean. Astronauts and cosmonauts on either side opened the hatches and exchanged handshakes. The mission was heralded as a historic moment of unity between spacefaring nations, and plans for collaboration picked up. Officials discussed the possibility of docking an American launch vehicle, the Space Shuttle, to the Russian space station, Salyut. But the election of Jimmy Carter slowed these plans. Unlike his predecessor, Carter [disliked the idea of exchanging technical information](#). Then, in 1979, the Soviet Union invaded Afghanistan, and by the next summer the U.S. government was [boycotting](#) the Olympic Games in Moscow instead of

brainstorming space missions. Only after the dissolution of the Soviet Union did the most significant partnerships begin to take shape. **In the early 1990s, the United States sought to build an international space station and invited Russia to join,** along with Japan, Canada, and nine European nations. **It was a self-serving decision; while showing support for a country in crisis, the United States would also gain access to impressive space technology, reduce costs, and employ former Soviet scientists** and engineers who might otherwise work for enemy governments. That politically motivated choice, though, has led to decades of productive collaboration. Today the International Space Station has been continuously occupied,

by rotating crews from both nations, [for 18 years](#). **The American-Russian partnership was tested in the spring of 2014, though. After Russia's unlawful annexation of Crimea,** the United States cut Putin out of global meetings and imposed punitive measures against his cronies. **The disintegrating diplomatic relations raised concerns** about the International Space Station. By then, the space shuttles that had transported Americans to space for decades were sitting in museums. **The U.S. government now relied on the Russian Soyuz system,** which cost American taxpayers \$70 million a seat. NASA officials, flooded with questions, tried to assuage concerns, while Rogozin, in response to U.S. sanctions prohibiting work with Russian aerospace companies, [wrote](#), "After analyzing the sanctions against our space industry, I suggest the U.S. delivers its astronauts to the ISS with a trampoline." Before he traveled to Russia last year, Bridenstine was asked about this and other inflammatory tweets, including one in which Rogozin, annoyed that the United States had asked Romania to bar his plane from entering the country's airspace, joked that he would fly in on a bomber next time. **Bridenstine downplayed Rogozin's combative remarks as the grit of any elected official, whether in the House of Representatives or the Duma. "Some of his language has historically been aggressive about the United States," he [told SpaceNews](#). "Some of my language has been aggressive about activities of Russia."**

## **F: Russia Conflict**

**Dyer-Witthford and Matviyenko, 19** [Nick Dyer-Witthford is an author, and associate professor at the University of Western Ontario in the Faculty of Information and Media Studies. His area of study primarily focuses on the rise of technology and the internet, as well as their continuous impact on modern society and Svitlana Matviyenko is an Assistant Professor of Critical Media Analysis in the School of Communication, "Cyberwar and Revolution: Digital Subterfuge in Global Capitalism," 2019, University of Minnesota Press]/Townes

Although China has loomed large in U.S. cyberwar preparations, **the Russian Federation** recently displaced it as military *bête noire*; the **exercise** of its **cyberwar** capacities has certainly been more dramatic. Despite the USSR's overall failure to match U.S. networked computing capacities, **it had** strong electronic battlefield training, outstanding **espionage** and special operations units, **and** an important body of **military doctrine on** the importance of propaganda and **psychological warfare** in conflict with imperialist powers (Thomas 2000). Following the collapse of the Soviet regime and "shock therapy" marketization, Russia's armed forces were demoralized and debilitated. However, with Putin's reassertion of state powers and nationalist ideology, this legacy of information warfare was reactivated, encouraged by the security-force background of the president and many of his regime's "new nobility," as Putin's successor on the position of director of the Federal Security Service (FSB) described the members of the principal security agency of Russia (Soldatov and Borogan 2011, 4–5). **This took place in a context of an intensifying friction with** the United States and **NATO over** military and economic **influence**, most notably **in the former Soviet republics** but also more widely.

In 2013, a paper by the chief of Russia's General Staff, General Valery Gerasimov (2013), gave consolidated expression to Russian military anxieties about U.S. expansion in the preceding decade. It depicts this as proceeding not only through regime-changing interventions in Yugoslavia in 1991, Afghanistan in 2001, and Iraq in 2003 but also through **"color revolutions" in which pro-Russian governments were ejected by** nationalist, but also broadly **pro-Western**, liberal **uprisings**. These revolutions—in Eastern Europe, Central Asia, and, during the Arab Spring, the Middle East—are in the eyes of Gerasimov and other senior Russian military officials **fostered by** the United **States** and NATO **through** media such as the BBC and **CNN**; NGOs and social movements assisted by the U.S. **State Department**, the U.S. Agency for International Development (**USAID**), **and** the National Endowment for Democracy; and, most recently, social media in **"Facebook Revolutions"** (Cordesman 2014; Bartles 2016). While Gerasimov's proposed answer includes a buildup by Russia of high-technology weaponry similar to that of the United States, it places special emphasis on combining conventional forces with special operations, diplomatic and economic pressures, and activities in "information space," with the latter elements predominating over the purely military ones in a ratio of four to one, a mix that has been widely dubbed "hybrid" or "nonlinear" warfare (Galeotti 2014).

The so-called Gerasimov doctrine articulates a gradual evolution of Russian military practice, through a series of events that in Western eyes are often seen as flaming beacons of approaching cyberwar: the 2007 cyberattack on Estonia, precipitated by a conflict over the removal of the Bronze Soldier monument; the Soviet World War II memorial in Tallinn; digital attacks combined with military operations in the 2008 Russian intervention in Georgia (Deibert and Rohozinski 2012); and (shortly after the publication of Gerasimov's paper) a stream of hacks and digital propaganda operations in the long crisis of Ukraine, from the 2013 Maidan uprising through the 2014 annexation of Crimea and the protracted war in the Donbas (Darczewska 2014a, 2014b; Greenberg 2017b). Although in the West, this sequence is often interpreted as a manifestation of

carefully thought out Machiavellian strategy, its development may have been more haphazard and experimental (Patrikarakos 2017);<sup>11</sup> however, a characteristic repertoire of tactics, variously permuted, is recognizable.

These include the digital dissemination of pro-Russian information and disinformation, closely orchestrated with that on other media outlets, such as Russia Today and Sputnik News, by “troll armies” either by paid (albeit at arm’s length) state employees, most notoriously from the St. Petersburg Internet Research Agency, or by patriotic hackers for whom the Russian state could disavow any direct responsibility (Morozov 2008). These human agents are often combined with chatbots for automated propagation of messages. Alongside these operations, harder forms of hacking occur, including defacements of government and corporate websites, intrusions into and information thefts from networks of governmental and private-sector institutions, or disabling malware attacks on media systems or electricity grids. All of **this can occur alongside** conventional, paramilitary, or proxy **military actions, which digital propaganda** denies, **justifies**, or mystifies with an indecipherable multiplication of conflicting stories. These external manifestations of information or cyberwar are set alongside the Russian Federation’s authoritarian regime of domestic governmental information control that, while not as comprehensive as China’s, combines extensive targeted internet surveillance of dissenters and investigative journalists (at high risk from state security forces and shadow assassins) with blacklisting of selected websites for “extreme content” and the self-censorship and regime promotion of private media outlets owned by state-aligned oligarchs (Soldatov and Borogan 2011; Maréchal 2017).

The relations between the U.S., Chinese, and Russian states are not symmetrical: for all the West’s loud alarms about Russia’s trolls or China’s hackers, it is unlikely that those states’ resources currently match the long-accumulated and deeply budgeted technoscientific cyberwar expertise of the United States, so **strikingly demonstrated with Stuxnet. Moreover, the clashes of the United States, China, and Russia by no means cover the rapidly expanding “dark territory” of contemporary interstate cyberwar (Kaplan 2016). Their conflicts intersect with those of their respective allies: Israel, Saudi Arabia, Iran, Palestine, North Korea, Pakistan, India, and other nations engaged in invisible battles with autonomous and independently dangerous dynamics.** Nonetheless, our survey of the three great cyberwar powers gives some sense of the arsenals of virtual weaponry states currently deploy, the interdependence of cyberoffense and cyberdefense, and the intensifying fusion of cyber- and conventional warfare.

It also charts a triangle of state relations from which many today fear there is emerging the long-unthinkable possibility of armed conflict between great powers, “the next war” (Economist 2018), to which today’s cyberwars would be a prelude. As we have already indicated, characterization of the current situation as a “New Cold War,” with its invocation of an ideological collision of rival world projects, is misleading. The contenders are capitalist regimes, or regimes fast becoming capitalist, including both the victors of the old Cold War and the postsocialist states in which the communist project, widely corrupted by ruling elites who turned the state apparatus against their own people, capitulated to or compromised with the world market. They are encounters between a still dominant imperial hegemon (the United States) and rising (China) or declining (Russia) rivals.<sup>12</sup> If cyberwar is cold war, it is intercapitalist cold war, a semicovert manifestation of hostilities fought out, no longer between imperial capital and state socialism, but between differently nuanced but commonly oligarchic blocs of neoliberal (the United States), kleptocratic (Russia), and authoritarian state (China) capital, in which the **cybernetic weapons that once gave the United States its dominance are turned** against it **by competitors**, ascending or descending, in conflicts that spectrally **reanimate** the sentiments of the capitalist/socialist **hostility**, even while the protagonists are commonly **subsumed within** a system of global **commodification**. It is a harvest of dragon’s teeth.

## **H: Space weapons heighten potential for escalation and make perceptions of US-Russia space conflict key.**

Alexey Arbatov et al <sup>17</sup>, head of the Center for International Security at the Primakov National Research Institute of World Economy and International Relations, Major General Vladimir Dvorkin, a principal researcher at the Center for International Security at the Primakov National Research Institute of World Economy and International Relations and Peter Topychkanov, fellow at the Carnegie Moscow Center’s Nonproliferation Program, <sup>17</sup> “Russian And Chinese Perspectives On Non-Nuclear Weapons And Nuclear Risks” *Carnegie Endowment for International Peace Publications*, [https://www.russiamatters.org/sites/default/files/media/files/Entanglement\\_interior\\_FNL.pdf](https://www.russiamatters.org/sites/default/files/media/files/Entanglement_interior_FNL.pdf)

Against this background, **Russian military and technical experts are** currently **engaged in efforts to elaborate strategies for fighting an air-space war**. The following is an attempt to frame such an integrated doctrine by one of **its main theoreticians, Colonel Yuri Krinitsky from the Military Air-Space Defense Academy**: “The integration of aerial and space-based means of attack has transformed airspace and space into a specific field of armed conflict: an air-space theater of military

operations. United, systematically organized actions of [U.S.] air-space power in this theater should be countered with united and systematically organized actions by the Russian Air-Space Defense Forces. This is required under the National Security Strategy of the Russian Federation and Air-Space Defense Plan approved by the Russian president in 2006.<sup>26</sup> This document goes on to list the tasks of the Air-Space Defense Forces as “monitoring and reconnaissance of the airspace situation; identifying the beginning of an aerial, missile, or space attack; informing state organs and the military leadership of the Russian Federation about it; repelling air-space attacks; and defending command sites of the top levels of state and military command authorities, strategic nuclear forces’ groupings, and the elements of missile warning systems.”<sup>27</sup> While picking apart in detail the organizational, operational, and technical aspects of the Air-Space Defense Forces (now part of the Air-Space Forces),<sup>28</sup> military analysts step around the basic question of what constitutes “the means of air-space attack” (SVKN in Russian, MASA in English). This term and “air-space attack” are broadly used in official documents (including the Military Doctrine) and statements, as well as in the new names of military organizations (such as the Air-Space Forces), and in a seemingly infinite number of professional articles, books, and pamphlets. If MASA refers to aircraft and cruise missiles, then what does space have to do with it? To be sure, various military communication and intelligence, reconnaissance, and surveillance satellites are based in space, but these assets also serve the Navy and Ground Forces without the word “space” tacked onto their names. If MASA refers to long-range ballistic missiles, which have trajectories that pass mostly through space, then this threat is not new but has existed for more than sixty years. There was—and still is—no defense against a massive ballistic missile strike, and none is likely in the future in spite of U.S. and Russian efforts at missile defense. In the past (and possibly now), one of the possible tasks of ballistic missiles was to break “corridors” in the enemy’s air-defense system to enable bombers to penetrate it. But with ballistic missiles being armed with more warheads with improved accuracy, and with the advent of longrange air-launched cruise missiles, it is increasingly unnecessary for bombers to be able to penetrate enemy air defenses. Coordination between air and notional “space” systems has apparently moved to the background of strategic planning. Anyway, this tactic was never considered as air-space warfare before now. MASA may be used in reference to potential hypersonic boost-glide weapons, which are discussed below. But their role and capabilities are not yet known, so it would clearly be premature to build the theory of air-space war on them, and even more so to start creating defenses against them. In any case, referring to those weapons as MASA is farfetched: besides a short boost phase, their entire trajectory is in the upper atmosphere at speeds greater than airplanes but lower than ballistic missiles. It is, therefore, even less apt to describe such systems as space arms than it is to refer to traditional long-range ballistic missiles as such. Finally, as for theoretically possible space-based weapons that would conduct strikes against targets on the ground, at sea, and in the air, they do not yet exist, and their future viability is far from clear. Even if the concept of air-space war is ill-defined, **the military and technical experts who propound it reach a predictable conclusion with regard to the capabilities needed to fight one.** They typically argue that **Russia needs** “to counter the air-space attack system with an air-space defense system. . . . A prospective system for destroying and suppressing MASA should be **a synergy of anti-missile, anti-satellite, and air-defense missiles, and air units, and radio-electronic warfare forces. And** its composition should be multilayered.”<sup>29</sup> Such calls **are being translated into policy.** Most notably, the air-space defense program, for which the military’s top brass and industrial corporations lobbied, is the single largest component of the State Armaments Program through 2020, accounting for about 20 percent of all costs when the program was first announced in 2011—about 3.4 trillion rubles (\$106 billion at the time).<sup>30</sup> Along with the modernization of the missile early-warning system by the development and deployment of new Voronezh-type land-based radars and missile-launch detection satellites, the program envisages the deployment of twenty-eight missile regiments of S-400 Triumph air-defense systems (about 450 to 670 launchers), and thirty-eight battalions equipped with the next-generation S-500 Vityaz (recently renamed Prometey) systems (300 to 460 launchers).<sup>31</sup> In total, the plan is to manufacture up to 3,000 missile interceptors of the two types, for which three new production plants were built. A new integrated and fully automatic command-and-control system is being created to facilitate operations by the Air-Space Defense Forces. **The Moscow A-135 missile defense system** (now renamed A-235) **is being modernized** with non-nuclear kinetic interceptors to engage incoming ballistic missiles (previously the interceptors were armed with nuclear warheads).<sup>32</sup> The current Russian economic crisis, which has resulted in defense budget cuts in fiscal year 2017, may slow down the air-space armament programs and the scale of arms procurement, but the underlying momentum will be unaffected unless stopped or redirected by a major change in Russia’s defense posture. In a sense, **Russian policy may be explained by the visceral desire** of the military **to break out from the deadlock**—the “strangling effect”—**of mutual assured nuclear destruction, which has made further arms development,** high-technology competition, and supposedly fascinating global war scenarios senseless (indeed, it prompted U.S. and Soviet leaders of the 1970s and 1980s to agree that, as then U.S. president Ronald Reagan put it, “a nuclear war cannot be won and must never be fought.”<sup>33</sup>) During the four decades of the Cold War, several generations of the Soviet military and defense industrial elite had learned and become accustomed to competing with the most powerful possible opponent, the United States, and such competition became their *raison d’être*. The end of the Cold War and of the nuclear arms race in the early 1990s deprived them of this supposedly glorious quest, and opposing rogue states and terrorists was not a noble substitute. U.S. and NATO operations in Yugoslavia and Iraq, however, provided a new hightechnology challenge, defined in Russia as air-space warfare, which was eagerly embraced as a new and fascinating domain of seemingly endless competition with a worthy counterpart. Besides, **this new dimension of warfare** doubtless **gave the military** and associated defense industries, **an opportunity to impress political leadership with** newly discovered esoteric and **frightening threats, justifying the prioritization of national defense, and hence arms procurement programs and large defense budgets.** In any case, the Russian strategy for air-space war is directly connected to the problem of entanglement. Astonishingly—and this makes the concept look quite scholastic—its framers shed no light on the single most important question: Is the context for air-space war a global (or regional) nuclear war, or a non-nuclear war that pits Russia against the United States and NATO? If it is the former, then in the event of the large-scale use of ballistic missiles armed with nuclear warheads (and in the absence of effective missile defense systems), the Russian Air-Space

Forces would be unlikely to function effectively. Except for issuing warnings about incoming missile attacks, they would not be able to fulfill the tasks assigned to them by Russia's Military Doctrine, including "rusepelling air-space attacks and defending command sites of the top levels of state and military administration, strategic nuclear forces' units, and elements of missile warning systems."<sup>14</sup> Alternatively, if air-space war assumes a non-nuclear conflict, then the concept raises serious doubts of a different nature. Russian state and military leaders have regularly depicted terrifying scenarios of large-scale conflicts being won through non-nuclear means. Former deputy defense minister General Arkady Bakhin, for example, has described how "leading world powers are staking everything on winning supremacy in the air and in space, on carrying out massive air-space operations at the outbreak of hostilities, to conduct strikes against sites of strategic and vital importance all across the country."<sup>15</sup> It is difficult to imagine, however, that such **a conflict, in reality, would not quickly escalate to a nuclear exchange**, especially as strategic forces and their C3I systems were continually attacked by conventional munitions. Right up until the mid-1980s, the military leadership of the USSR believed that a major war would likely begin in Europe with the early use by Warsaw Pact forces of hundreds of tactical nuclear weapons "as soon as [they] received information" that NATO was preparing to launch a nuclear strike.<sup>16</sup> After that, Soviet armies would reach the English Channel and the Pyrenees in a few weeks, or massive nuclear strikes would be inflicted by the USSR and the United States on one another, and the war would be over in a few hours, or at most in a few days, with catastrophic consequences.<sup>17</sup> After the end of the Cold War, the task of elaborating probable major war scenarios was practically shelved because such a war had become unthinkable in the new political environment. However, strategic thinking on the next high-technology global war apparently continued in secret (and probably not only in Russia). Now, at a time of renewed confrontation between Russia and the West, the fruits of that work are finally seeing the light of day. In all likelihood, the authors of the strategy imagine that over a relatively long period of time—days or weeks—the West would wage a campaign of air and missile strikes against Russia without using nuclear weapons. Russia, in turn, would defend against such attacks and carry out retaliatory strikes with long-range conventional weapons. Notably, in 2016, Russian Defense Minister Sergei Shoigu stated that "by 2021, it is planned to increase by four times the combat capabilities of the nation's strategic non-nuclear forces, which will provide the possibility of fully implementing the tasks of non-nuclear deterrence."<sup>18</sup> In other words, the basic premise is that the U.S.-led campaigns against Yugoslavia in 1999 or Iraq in 1990 and 2003 (which are often cited by experts in this context) may be implemented against Russia—but with different results, thanks to the operations of the Russian Air-Space Forces, the Strategic Rocket Forces, and the Navy against the United States and its allies. The emphasis on defensive and offensive strategic non-nuclear arms does not exclude, but—on the contrary—implies the limited use of nuclear weapons at some point of the armed conflict. Sergei Sukhanov, one of the most authoritative representatives of the defense industries as the constructor general of the Vimpel Corporation, which is responsible for designing strategic defense systems, has exposed the whole panorama of Russia's contemporary strategic logic on the interactions between offensive and defensive systems and between nuclear and non-nuclear systems: If we cannot exclude the possibility of the large-scale use of air-space attacks by the U.S. and other NATO countries (i.e., if we accept that the Yugoslavian strategy might be applied against Russia), then it is clearly impossible to solve the problem by fighting off air-space attacks with weapons that would neutralize them in the air-space theater, since this would require the creation of highly effective air- and missile defense systems across the country. Therefore, the strategy for solving the air-space defense tasks faced in this eventuality should be based on deterring the enemy from large-scale air-space attacks by implementing the tasks facing air-space defense in this eventuality at a scale that would avoid escalation but force the enemy to refrain from further airspace attack.<sup>19</sup> (Emphasis added.) In other words, because of the inevitable limitations in Russia's ability to defend against air-space attacks, Sukhanov argues that Russia may have to resort to the limited use of nuclear weapons in order to compel the United States and its allies into backing down. This basic logic is widely accepted in Russia. Judging by the available information, the United States does not have—and is not expected to have for the foreseeable future—the technological means or the operational plans to wage non-nuclear air-space warfare against Russia. However, the fact that a major war with the United States and NATO is *seen* in contemporary Russian strategic thinking as a prolonged endeavor involving an integrated technological and operational continuum of nuclear and non-nuclear operations, defensive and offensive capabilities, and ballistic and aerodynamic weapons creates a breeding ground for entanglement. The result could be the rapid escalation of a local non-nuclear conflict to a global nuclear war. The remainder of this chapter discusses how new and emerging military technologies might contribute to such an escalation.

## **I: It's existential.**

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

The bombings of Hiroshima and Nagasaki demonstrated the unprecedented destructive power of nuclear weapons. However, even **in an all-out nuclear war between the United States and Russia**, despite horrific casualties, neither country's population is likely to be completely destroyed by the direct effects of the blast, fire, and radiation.<sup>8</sup> **The aftermath could be much worse:** the

**burning** of **flammable materials could send massive amounts of smoke into the atmosphere**, which would absorb sunlight and cause sustained global cooling, severe ozone loss, and agricultural disruption — **a nuclear winter**. According to one model 9, **an all-out exchange of 4,000 weapons could** lead to a drop in global temperatures of around 8°C, making it impossible to grow food for 4 to 5 years. This could **leave some survivors** in parts of Australia and New Zealand, **but they would be in a very precarious situation and the threat of extinction from other sources would be great. An exchange on this scale is only possible between the US and Russia who have more than 90% of the world's nuclear weapons**, with stockpiles of around 4,500 warheads each, although many are not operationally deployed.<sup>11</sup> Some models suggest that even a small regional nuclear war involving 100 nuclear weapons would produce a nuclear winter serious enough to put two billion people at risk of starvation,<sup>12</sup> though this estimate might be pessimistic.<sup>13</sup> Wars on this scale are unlikely to lead to outright human extinction, but this does suggest that conflicts which are around an order of magnitude larger may be likely to threaten civilisation. It should be emphasised that there is very large uncertainty about the effects of a large nuclear war on global climate. This remains an area where increased academic research work, including more detailed climate modelling and a better understanding of how survivors might be able to cope and adapt, would have high returns. It is very difficult to precisely estimate the probability of existential risk from nuclear war over the next century, and existing attempts leave very large confidence intervals. According to many experts, the most likely nuclear war at present is between India and Pakistan.<sup>14</sup> However, given the relatively modest size of their arsenals, **the risk of human extinction is plausibly greater from a conflict between the United States and Russia**. Tensions between these countries have increased in recent years and it seems unreasonable to rule out the possibility of them rising further in the future.

## **(IF TIME) Underview – Theory**

First, affirming is harder, a) time skew – neg has a 13-7 advantage on all NC offs plus 2NR collapse means 6 min to recontextualize in the 2NR where the 2AR is too short to recover, b) negatives enjoy an 11% win advantage controlling for other factors. Henson & Dorasil. (Dorasil, Paul and Clifford Henson. "Judging bias in competitive academic debate: the effects of region, side, and sex." Con-temporary Economic

Policy, July 4 2013.) **Two implications: a) neg must quantify abuse against the advantage to demonstrate a sufficient violation. Absent quantification I meet on theory since I meet if there's no violation, b) presume aff because in the absence of offense I've performed better by 11%.**

Second, if I have offense on theory or an I meet, you affirm, a) the NC can dump shells – I need to engage and force clash on one shell otherwise they win substance if I overcover theory and they can collapse if I undercover – I lose either way, b) time skew- theory precluding the AC moots 6min of speech time – this is the only way to equalize the structural inequality, c) 2NR collapse – they can go 6min on one shell and the 2AR can't keep up – also a reason to err aff on theory- if they couldn't win even with more time that's their fault.

Third, neg must concede that aff gets 1AR theory and that it's drop the debater and no RVI, and competing interps – a) solves infinite abuse, I don't have time to check abuse in the NC and win substance- you could just kick the arg so I need the ability to go all in on theory, b) you can collapse in the 2N on theory and get away with abuse because you can go all in for the RVI which means I lose every round, c) reasonability allows the 2N . Fairness comes before everything else – if you can't evaluate the round from an equal starting point, there's no way to determine who's ahead on substance. Also, aff theory outweighs neg theory or T: the aff reading theory is a much larger strategic loss because 1 minute of it is  $\frac{1}{4}$  of the 1AR versus  $\frac{1}{7}$  of the 1NC which means that there is probably more abuse if I'm willing to devote that much more time. 1AR theory outweighs T – theory sets norms for the rest of time while T only sets norms to this topic.