# 1NC

## 1

### OFF

#### Interpretation: Debaters must disclose all broken constructive positions with underlining and highlighting on open source on the 2021-2022 NDCA LD wiki and under their own name within 30 minutes before the round for every round they’ve debated this season.

#### Violation – they haven’t open sourced at all for TOC

A screenshot of a computer

Description automatically generated with medium confidence

#### A. Debate resource inequities—you’ll say people will steal cards, but that’s good—only way to level the playing field for students like novices in under-privileged programs – key to inclusion and its an independent voter and outweighs because you can’t debate if you aren’t included

#### B. Depth of clash – open source allows debaters to come up with more nuanced researched objections to their opponent’s case. Leads to highest quality evidence comparison – outweighs – thinking on your feet is non-unique but the best quality responses will come from full access to a case.

#### Fairness is a voter—judge’s constitutive role is to evaluate the better debater which is impossible if the round’s skewed.  Education – voter

#### DTD – deterrence, and dta makes no sense

#### Use competing interps – (a) reasonability invites arbitrary judge intervention since we don’t know your bs meter, (b) collapses to competing interps – we justify 2 brightlines under an offense defense paradigm just like 2 interps.

#### No RVIs— (a) logic (b) baiting (c) topic education

## 2

### OFF

#### The meta-ethic is procedural moral realism - substantive realism holds that moral truths exist independently of that in the empirical world. Prefer procedural realism –

#### [1] Uncertainty – our experiences are inaccessible to others which allows people to say they don’t experience the same, however a priori principles are universally applied to all agents.

#### [2] Naturalistic fallacy – experience only tells us what is since we can only perceive what is, not what ought to be, this means experience may be generally useful but should not be the basis for ethical action.

#### Practical Reason is that procedure. To ask for why we should be reasoners concedes its authority since it uses reason – anything else is nonbinding and arbitrary which is the problem of regress.

#### Moral law must be universal—our judgements can’t only apply to ourselves any more than 2+2=4 can be true only for me – any non-universalizable norm justifies someone’s ability to impede on your ends.

Korsgaard ’83 (Christine M., “Two Distinctions in Goodness,” The Philosophical Review Vol. 92, No. 2 (Apr., 1983), pp. 169-195, JSTOR) // LEX JB [brackets for gendered language]

The argument shows how Kant's idea of justification works. It can be read as a kind of regress upon the conditions, starting from an important assumption. The assumption is that when a rational being makes a choice or undertakes an action, [they] supposes the object to be good, and its pursuit to be justified. At least, if there is a categorical imperative there must be objectively good ends, for then there are necessary actions and so necessary ends (G 45-46/427-428 and Doctrine of Virtue 43-44/384-385). In order for there to be any objectively good ends, however, there must be something that is unconditionally good and so can serve as a sufficient condition of their goodness. Kant considers what this might be**:** it cannot be an object of inclination, for those have only a conditional worth, "for if the inclinations and the needs founded on them did not exist, their object would be without worth" (G 46/428). It cannot be the inclinations themselves because a rational being would rather be free from them. Nor can it be external things, which serve only as means. So, Kant asserts, the unconditionally valuable thing must be "humanity" or "rational nature," which he defines as "the power set to an end" (G 56/437 and DV 51/392). Kant explains that regarding your existence as a rational being as an end in itself is a "subjective principle of human action." By this I understand him to mean that we must regard ourselves as capable of conferring value upon the objects of our choice, the ends that we set, because we must regard our ends as goo**d**. But since "every other rational being thinks of his existence by the same rational ground which holds also for myself' (G 47/429), we must regard others as capable of conferring value by reason of their rational choices and so also as ends in themselves. Treating another as an end in itself thus involves making that person's ends as far as possible your own (G 49/430). The ends that are chosen by any rational being, possessed of the humanity or rational nature that is fully realized in a good will, take on the status of objective goods. They are not intrinsically valuable, but they are objectively valuable in the sense that every rational being has a reason to promote or realize t hem. For this reason it is our duty to promote the happiness of others-the ends that they choose-and, in general, to make the highest good our end.

#### Thus, the standard is consistency with liberty. Prefer:

#### 1] The state is obligated to prioritize freedom.

Otteson 09 [(James R., professor of philosophy and economics at Yeshiva University) “Kantian Individualism and Political Libertarianism,” The Independent Review, v. 13, n. 3, Winter, [2009](https://link.springer.com/article/10.1007/s10790-015-9506-9)] TDI

It is difficult to imagine a stronger defense of the “sacred” dignity of individual agency. Kantian individuality is premised on its rational nature and its entailed inherent dignity, and the rest of his moral philosophy arguably is built on this vision.1 Kant relies on a similarly robust conception of individuality in work other than his explicitly moral philosophy. The 1784 essay “An Answer to the Question: ‘What Is Enlightenment?’” (Kant 1991), for example, emphasizes in strong terms the threat that paternalism poses to one’s will. Kant argues that “enlightenment” (Aufklärung) involves a transition from moral and intellectual immaturity, wherein one depends on others to make one’s moral and intellectual decisions, to maturity, wherein one makes such decisions for oneself. One cannot effect this transition if one remains under another’s tutelage, and, as a corollary, one compromises another’s enlightenment if one undertakes to make such decisions for the other person—which, as Kant argues, is the case under a paternalistic government. Kant also writes in his 1786 essay “What Is Orientation in Thinking?” that “To think for oneself means to look within oneself (i.e. in one’s own reason) for the supreme touchstone of truth; and the maxim of thinking for oneself at all times is enlightenment” (1991, 249, italics and bold in the original). These passages are consistent with the position he takes in Grounding that a person who depends on others is acting heteronomously, not autonomously, and is to that extent not exercising a free moral will. These passages also help to clarify Kant’s notion of personhood and rational agency by indicating some of their practical implications. For example, on the basis of his argument, one would expect him to argue for setting severe limits on the authority that any group of people, including the state, may exercise over others: because individual freedom is necessary both to achieve enlightenment and to exercise one’s moral agency, Kant should argue that no group may impinge on that freedom without thereby acting immorally. Kant expressly draws this conclusion in his 1793 essay “On the Common Saying: ‘This May Be True in Theory, but It Does Not Apply in Practice’”: Right is the restriction of each individual’s freedom so that it harmonises with the freedom of everyone else (in so far as this is possible within the terms of a general law). And public right is the distinctive quality of the external laws which make this constant harmony possible. Since every restriction of freedom through the arbitrary will of another party is termed coercion, it follows that a civil constitution is a relationship among free men who are subject to coercive laws, while they retain their freedom within the general union with their fellows. (1991, 73, emphasis in original) Kant insists on the protection of a sphere of liberty for each individual to self-legislate under universalizable laws of rationality, consistent with the formulation of the categorical imperative requiring the treatment of others “always at the same time as an end and never simply as a means” (1981, 36). This formulation of the categorical imperative might even logically entail the position Kant articulates about “right,” “public right,” and “freedom.” Persons do not lose their personhood when they join a civil community, so they cannot rationally endorse a state that will be destructive of that personhood; on the contrary, according to Kant, a person enters civil society rationally willing that the society will protect both his own agency and that of others. Robert B. Pippen rightly says that for Kant “political duties are a subset of moral duties” (1985, 107–42), but the argument here puts it slightly differently: political rights, or “dignities,” derive from moral rights, which for Kant are determined by one’s moral agency. Thus, the only “coercive laws” to which individuals may rationally allow themselves to be subject in civil society are those that require respect for each others’ moral agency (and provide for the punishment of infractions thereof) (see Pippen 1985, 121). When Kant comes to state his own moral justification for the state in the 1797 Metaphysics of Morals, this claim is exactly the one he makes: the state is necessary for securing the conditions of “Right”—in other words, the conditions under which persons can exercise their autonomous agency (see 1991, 132–35). Consistent with this interpretation, Kant elsewhere endorses free trade and open markets on grounds that make his concern for “harmony” in the preceding passage reminiscent of Adam Smithian invisible-hand arguments. In his 1784 essay “Idea for a Universal History with a Cosmopolitan Purpose,” Kant writes: “Individual men and even entire nations little imagine that, while they are pursuing their own ends, each in his own way and often in opposition to others, they are unwittingly guided in their advance along a course intended by nature. They are unconsciously promoting an end which, even if they knew what it was, would scarcely arouse their interest” (1991, 41). This statement is similar to Smith’s statement of the invisible-hand argument.2 Kant proceeds to endorse some of the same laissez-faire economic policies that Smith advocated—for example, in his discussion in his 1786 work “Conjectures on the Beginning of Human History” of the benefits of “mutual exchange” and in his claim that “there can be no wealth-producing activity without freedom” (1991, 230–31, emphasis in original), as well as in his claim in the 1795 Perpetual Peace that “the spirit of commerce” is motivated by people’s “mutual self-interest” and thus “cannot exist side by side with war” (1991, 114, emphasis in original).3 Finally, although Kant argues that we cannot know exactly what direction human progress will take, he believes we can nevertheless be confident that mankind is progressing.4 Thus, in “Universal History” he writes: The highest purpose of nature—i.e. the development of all natural capacities—can be fulfilled for mankind only in society, and nature intends that man should accomplish this, and indeed all his appointed ends, by his own efforts. This purpose can be fulfilled only in a society which has not only the greatest freedom, and therefore a continual antagonism among its members, but also the most precise specification and preservation of the limits of this freedom in order that it can co-exist with the freedom of others. The highest task which nature has set for mankind must therefore be that of establishing a society in which freedom under external laws would be combined to the greatest possible extent with irresistible force, in other words of establishing a perfectly just civil constitution. (1991, 45–46, emphasis in original) Kant’s argument in this essay runs as follows: human progress is possible, but only in conditions of a civil society whose design allows this progress; because the progress is possible only as individuals become enlightened, and individual enlightenment is in turn possible only when individuals are free from improper coercion and paternalism, human progress is therefore possible only under a state that defends individual freedom. Kant believes that individuals have the best chance to be happy under a limited civil government, and he therefore argues that even such a laudable goal as increasing human happiness is not a justifiable role of the state: “But the whole concept of an external right is derived entirely from the concept of freedom in the mutual external relationships of human beings, and has nothing to do with the end which all men have by nature (i.e. the aim of achieving happiness) or with the recognized means of attaining this end. And thus the latter end must on no account interfere as a determinant with the laws governing external right” (“Theory and Practice,” 1991, 73, emphasis in original). The Kantian state is hence limited on the principled grounds of respecting agency; the fact that this limitation in his view provides the conditions enabling enlightenment, progress, and ultimately happiness is a great but ancillary benefit. Thus, the positions Kant takes on nonpolitical issues would seem to suggest a libertarian political position. And Kant explicitly avows such a state. In “Universal History,” he writes: Furthermore, civil freedom can no longer be so easily infringed without disadvantage to all trades and industries, and especially to commerce, in the event of which the state’s power in its external relations will also decline. . . . If the citizen is deterred from seeking his personal welfare in any way he chooses which is consistent with the freedom of others, the vitality of business in general and hence also the strength of the whole are held in check. For this reason, restrictions placed upon personal activities are increasingly relaxed, and general freedom of religion is granted. And thus, although folly and caprice creep in at times, enlightenment gradually arises. (1991, 50–51, emphasis in original) In “Theory and Practice,” Kant writes that “the public welfare which demands first consideration lies precisely in that legal constitution which guarantees everyone his freedom within the law, so that each remains free to seek his happiness in whatever way he thinks best, so long as he does not violate the lawful freedom and rights of his fellow subjects at large” and that “[n]o-one can compel me to be happy in accordance with his conception of the welfare of others, for each may seek his happiness in whatever way he sees fit, so long as he does not infringe upon the freedom of others to pursue a similar end which can be reconciled with the freedom of everyone else within a workable general law” (1991, 80, emphasis in original, and 74). In a crucial passage in Metaphysics of Morals, Kant writes that the “Universal Principle of Right” is “‘[e]very action which by itself or by its maxim enables the freedom of each individual’s will to co-exist with the freedom of everyone else in accordance with a universal law is right.’” He concludes, “Thus the universal law of right is as follows: let your external actions be such that the free application of your will can co-exist with the freedom of everyone in accordance with a universal law” (1991, 133, emphasis in original).5 This stipulation becomes for Kant the grounding justification for the existence of a state, its raison d’être, and the reason we leave the state of nature is to secure this sphere of maximum freedom compatible with the same freedom of all others. Because this freedom must be complete, in the sense of being as full as possible given the existence of other persons who demand similar freedom, it entails that the state may—indeed, must—secure this condition of freedom, but undertake to do nothing else because any other state activities would compromise the very autonomy the state seeks to defend. Kant’s position thus outlines and implies a political philosophy that is broadly libertarian; that is, it endorses a state constructed with the sole aim of protecting its citizens against invasions of their liberty. For Kant, individuals create a state to protect their moral agency, and in doing so they consent to coercion only insofar as it is required to prevent themselves or others from impinging on their own or others’ agency. In his argument, individuals cannot rationally consent to a state that instructs them in morals, coerces virtuous behavior, commands them to trade or not, directs their pursuit of happiness, or forcibly requires them to provide for their own or others’ pursuits of happiness. And except in cases of punishment for wrongdoing,6 this severe limitation on the scope of the state’s authority must always be respected: “The rights of man must be held sacred, however great a sacrifice the ruling power may have to make. There can be no half measures here; it is no use devising hybrid solutions such as a pragmatically conditioned right halfway between right and utility. For all politics must bend the knee before right, although politics may hope in return to arrive, however slowly, at a stage of lasting brilliance” (Perpetual Peace, 1991, 125). The implication is that a Kantian state protects against invasions of freedom and does nothing else; in the absence of invasions or threats of invasions, it is inactive.

#### 2] Hijacks every FW – they contain conditional value on other objects but that presupposes an agent has the unconditional worth to confer value on objects

Korsgaard 98 [CHRISTINE M. KORSGAARD, 1998, “Introduction”, Groundwork of the Metaphysics of Morals] AG

This is the sort of thing that makes even practiced readers of Kant gnash their teeth. A rough translation might go like this: the categorical imperative is a law, to which our maxims must conform. But the reason they must do so cannot be that there is some further condition they must meet, or some other law to which they must conform. For instance, **suppose** someone proposed **that one must keep** one's **promises because it is the will of God** that one should do so - **the law would** then **"contain the condition" that our maxims should conform to the will of God. This would yield only a conditional requirement to keep one's promises — if you would obey the will of God,** then **you must keep your promises - whereas the categorical imperative must** give us an **unconditional** requirement. **Since there can be no such condition, all that remains is that the categorical imperative should tell us that our maxims themselves must be laws - that is, that they must be universal, that being the characteristic of laws**. There is a simpler way to make this point. What could make it true that we must keep our promises because it is the will of God? **That would be true only if** it were true that we must indeed obey the will of God, that is, if "**obey the will of God" were itself a categorical imperative. Conditional requirements give rise to a regress; if there are unconditional requirements, we must at some point arrive at principles on which we are required to act, not because we are commanded to do so by some yet higher law, but because they are laws in themselves. The categorical imperative**, in the most general sense, **tells us to act on those principles**, principles which are themselves laws.

#### Contention –

#### 1] Libertarianism mandates a market-oriented approach to space—that negates

Broker 20 [(Tyler, work has been published in the Gonzaga Law Review, the Albany Law Review and the University of Memphis Law Review.) “Space Law Can Only Be Libertarian Minded,” Above the Law, 1-14-20, <https://abovethelaw.com/2020/01/space-law-can-only-be-libertarian-minded/>] TDI

The impact on human daily life from a transition to the virtually unlimited resource reality of space cannot be overstated. However, when it comes to the law, a minimalist, dare I say libertarian, approach appears as the only applicable system. In the words of NASA, “2020 promises to be a big year for space exploration.” Yet, as Rand Simberg points out in Reason magazine, it is actually private American investment that is currently moving space exploration to “a pace unseen since the 1960s.” According to Simberg, due to this increase in private investment “We are now on the verge of getting affordable private access to orbit for large masses of payload and people.” The impact of that type of affordable travel into space might sound sensational to some, but in reality the benefits that space can offer are far greater than any benefit currently attributed to any major policy proposal being discussed at the national level. The sheer amount of resources available within our current reach/capabilities simply speaks for itself. However, although those new realities will, as Simberg says, “bring to the fore a lot of ideological issues that up to now were just theoretical,” I believe it will also eliminate many economic and legal distinctions we currently utilize today. For example, the sheer number of resources we can already obtain in space means that in the rapidly near future, the distinction between a nonpublic good or a public good will be rendered meaningless. In other words, because the resources available within our solar system exist in such quantities, all goods will become nonrivalrous in their consumption and nonexcludable in their distribution. This would mean government engagement in the public provision of a nonpublic good, even at the trivial level, or what Kevin Williamson defines as socialism, is rendered meaningless or impossible. In fact, in space, I fail to see how any government could even try to legally compel collectivism in the way Simberg fears. Similar to many economic distinctions, however, it appears that many laws, both the good and the bad, will also be rendered meaningless as soon as we begin to utilize the resources within our solar system. For example, if every human being is given access to the resources that allows them to replicate anything anyone else has, or replace anything “taken” from them instantly, what would be the point of theft laws? If you had virtually infinite space in which you can build what we would now call luxurious livable quarters, all without exploiting human labor or fragile Earth ecosystems when you do it, what sense would most property, employment, or commercial law make? Again, this is not a pipe dream, no matter how much our population grows for the next several millennia, the amount of resources within our solar system can sustain such an existence for every human being. Rather than panicking about the future, we should try embracing it, or at least meaningfully preparing for it. Currently, the Outer Space Treaty, or as some call it “the Magna Carta of Space,” is silent on the issue of whether private individuals or corporate entities can own territory in space. Regardless of whether governments allow it, however, private citizens are currently obtaining the ability to travel there, and if human history is any indicator, private homesteading will follow, flag or no flag. We Americans know this is how a Wild West starts, where most regulation becomes the impractical pipe dream. But again, this would be a Wild West where the exploitation of human labor and fragile Earth ecosystem makes no economic sense, where every single human can be granted access to resources that even the wealthiest among us now would envy, and where innovation and imagination become the only things we would recognize as currency. Only a libertarian-type system, that guarantees basic individual rights to life, liberty, and the pursuit of happiness could be valued and therefore human fidelity to a set of laws made possible, in such an existence.

#### 2] Property rights in space can be consistent with international law

Simberg 12 [(Rand, MSE in technical management from West Coast University, recognized as an expert in space transportation by the Office of Technology Assessment) “Homesteading the Final Frontier A Practical Proposal for Securing Property Rights in Space,” Competitive Enterprise Institute, April 2012, <https://cei.org/wp-content/uploads/2012/04/Rand-Simberg-Homesteading-the-Final-Frontier.pdf>] TDI

But is it true that any recognition of off-planet property claims is de facto a violation of the Outer Space Treaty? Not necessarily. For instance, one could argue that the existence of the Moon Treaty is in and of itself a refutation of the notion that the Outer Space Treaty outlaws private property in space, or else there would be no need for another treaty that essentially explicitly does so. And there is at least one potential loophole that could be exploited by appropriately worded legislation. There are two key assumptions in the legal argument used by opponents of off-planet property claims: 1) that the recognition by a government would only recognize claims by its own citizens; and 2) that it would defend them by force. That need not necessarily be so. Under the treaty, it would in fact be possible for a government, or group of governments, to recognize the property claims of anyone who met specified conditions, regardless of their citizenship or nationality. Such cooperation would obviate the need for physical force to defend claims. The argument that the treaty permits individual property rights was actually made from the very beginning. In 1969, two years after the treaty went into force, the late distinguished space-law professor, Stephen Gorove, noted that under it, “[A]n individual acting on his own behalf or on behalf of another individual or a private association or an international organization could lawfully appropriate any part of outer space, including the [M]oon and other celestial bodies.”32 This clearly provides support for the concept of individual claims off planet under Article II.

#### 3] Space appropriation and exploration originates from private companies such as Space X and Blue Origin. Preventing such is a restriction on the ability of companies to set and pursue their ends and these companies gain contracts with the government for projects which turns promise breaking offense.

## 3

### OFF

#### CP Text: Space faring nations should establish a multilateral agreement that restricts asteroid mining done by private entities except for on asteroid Kamo’oalewa.

#### Kamo’oalewa is NEO asteroid comprised of lunar material

Devlin 21 [Hannah Devlin is the Guardian's science correspondent, having previously been science editor of the Times. “Near-Earth asteroid is a fragment from the moon, say scientists.” November 11, 2021. https://www.theguardian.com/science/2021/nov/11/near-earth-asteroid-is-a-fragment-from-the-moon-say-scientists]

Scientists have identified what appears to be a small chunk of the moon that is tracking the Earth’s orbit around the Sun. The asteroid, named Kamo`oalewa, was discovered in 2016 but until now relatively little has been known about it. New observations suggest it could be a fragment from the moon that was thrown into space by an ancient lunar collision. Kamo`oalewa is one of Earth’s quasi-satellites, a category of asteroid that orbits the Sun, but remains relatively close to the planet – in this case about 9m miles away. Despite being close in astronomical terms, the asteroid is about the size of a ferris wheel and about 4m times fainter than the faintest star that can be seen with the naked eye. Consequently, the Earth’s most powerful telescopes are needed to make observations. Using the Large Binocular Telescope on Mount Graham in southern Arizona, astronomers found the spectrum of reflected light from Kamo`oalewa closely matched lunar rocks from Nasa’s Apollo missions, suggesting it originated from the moon. They had initially compared the light with that reflected off other near-Earth asteroids, but drawn a blank. “I looked through every near-Earth asteroid spectrum we had access to, and nothing matched,” said Ben Sharkey, a PhD student at the University of Arizona and the paper’s lead author. After missing the chance to observe Kamo`oalewa in April 2020 owing to a shutdown of the telescope during the coronavirus pandemic, the team found the final piece of the puzzle in 2021. “This spring, we got much needed follow-up observations and went, ‘Wow it is real,’” Sharkey said. “It’s easier to explain with the moon than other ideas.”

#### Space based solar power is being developed and transitions to 100% clean energy, but lunar regolith is key

O’Neill 13 [Ian O'Neill is a media relations specialist at NASA's Jet Propulsion Laboratory (JPL) in Southern California. Prior to joining JPL, he served as editor for the Astronomical Society of the Pacific‘s Mercury magazine and Mercury Online and contributed articles to a number of other publications, including Space.com, Space.com, Live Science, HISTORY.com, Scientific American. Ian holds a Ph.D in solar physics and a master's degree in planetary and space physics. “How to Turn the Moon Into a Giant Space Solar Power Hub.” December 3, 2013. https://www.space.com/23810-moon-luna-belt-solar-power-idea.html]

When it comes to space and energy, we need to think big. That's what one Japanese company is doing — and they're reaching for the moon, literally. The best thing about the moon is that one lunar hemisphere is constantly bathed in sunlight (except for the occasional eclipse), so using solar arrays to generate power may not seem like such a stretch. Take China's recently-launched Chang'e 3 Yutu rover for example, it's solar powered. Also, Apollo astronauts set up solar-powered experiments on the lunar regolith. But how about wrapping the moon's equator in a 250 mile wide band of solar panels and beaming the power generated back to Earth? That's exactly what Shimizu Corporation is proposing and they reckon their concept could harness a steady stream of 13,000 terawatts of power. According to Business Insider, "the total installed electricity generation summer capacity in the United States was 1,050.9 gigawatts." Such a vast energy resource could be transformative for our civilization. As Obi-Wan might say: "That's no moon. It's a space (solar power) station." "A shift from economical use of limited resources to the unlimited use of clean energy is the ultimate dream of all mankind," says the company's website. "The LUNA RING, our lunar solar power generation concept, translates this dream into reality through ingenious ideas coupled with advanced space technologies." Indeed, advanced space technologies will be needed, not only to harvest solar energy and efficiently beam it back to Earth, but its very construction will require several leaps in robotic technology development. Also, this mother of all engineering tasks will need to see some significant changes in international space treaties before it sees light of day. Resembling a moon born from science fiction, the LUNA RING is just that, a ring around the moon. The ring, stretching 6,800 miles around the moon's circumference, will be constructed by robots that will "perform various tasks on the lunar surface, including ground leveling and excavation of hard bottom strata." The entire project will be overseen by a team of humans while the bulk of the robotic tasks can be teleoperated from Earth. [Moon Base Visions: How to Build a Lunar Colony (Photos)] It’s all very well building a huge array of solar panels around the moon, but how would the power be sent to Earth? As our atmosphere is virtually transparent to microwaves and lasers, Shimizu envisages solar energy being fed through microwave/laser transmitters located around the Earth-facing side of the moon. As the moon orbits the Earth and the Earth rotates, international receiving stations will feed electricity grids with plentiful lunar solar power as the moon rises to when it sets. The designers are keen to point out that this is a green energy resource that could benefit the whole of mankind. What's more, when the infrastructure is set up, other resources can be exploited — such as mining for precious minerals and fabricating products from regolith. One could imagine an international consortium of nations and/or companies that buy a stake in the LUNA RING to aid its construction. Each partner would then have rights to construct receiving stations in their geographical location of choice, weaning us off polluting sources of power. Japan, which was hurt by the devastating Fukushima meltdown in 2011, is actively seeking out alternative power resources to wean itself off nuclear energy — it doesn't get more "alternative" than this.

#### Climate change causes extinction.

Specktor 19 [Brandon; writes about the science of everyday life for Live Science, and previously for Reader's Digest magazine, where he served as an editor for five years; "Human Civilization Will Crumble by 2050 If We Don't Stop Climate Change Now, New Paper Claims," livescience, 6/4/19; <https://www.livescience.com/65633-climate-change-dooms-humans-by-2050.html>]

The current climate crisis, they say, is larger and more complex than any humans have ever dealt with before. General climate models — like the one that the [United Nations' Panel on Climate Change](https://www.ipcc.ch/sr15/) (IPCC) used in 2018 to predict that a global temperature increase of 3.6 degrees Fahrenheit (2 degrees Celsius) could put hundreds of millions of people at risk — fail to account for the **sheer complexity of Earth's many interlinked geological processes**; as such, they fail to adequately predict the scale of the potential consequences. The truth, the authors wrote, is probably far worse than any models can fathom. How the world ends What might an accurate worst-case picture of the planet's climate-addled future actually look like, then? The authors provide one particularly grim scenario that begins with world governments "politely ignoring" the advice of scientists and the will of the public to decarbonize the economy (finding alternative energy sources), resulting in a global temperature increase 5.4 F (3 C) by the year 2050. At this point, the world's ice sheets vanish; brutal droughts kill many of the trees in the [Amazon rainforest](https://www.livescience.com/57266-amazon-river.html) (removing one of the world's largest carbon offsets); and the planet plunges into a feedback loop of ever-hotter, ever-deadlier conditions. "Thirty-five percent of the global land area, and **55 percent of the global population, are subject to more than 20 days a year of** [**lethal heat conditions**](https://www.livescience.com/55129-how-heat-waves-kill-so-quickly.html), beyond the threshold of human survivability," the authors hypothesized. Meanwhile, droughts, floods and wildfires regularly ravage the land. Nearly **one-third of the world's land surface turns to desert**. Entire **ecosystems collapse**, beginning with the **planet's coral reefs**, the **rainforest and the Arctic ice sheets.** The world's tropics are hit hardest by these new climate extremes, destroying the region's agriculture and turning more than 1 billion people into refugees. This mass movement of refugees — coupled with [shrinking coastlines](https://www.livescience.com/51990-sea-level-rise-unknowns.html) and severe drops in food and water availability — begin to **stress the fabric of the world's largest nations**, including the United States. Armed conflicts over resources, perhaps culminating in **nuclear war, are likely**. The result, according to the new paper, is "outright chaos" and perhaps "the end of human global civilization as we know it."

## Case

### FW

### Adv

Grego 18 is underhighlighted says its offense dominant but doesn’t explain why it is – prefer studies

#### Interdependence checks space war.

**Hall 15** [Luke Penn-Hall 15, Analyst at The Cipher Brief, M.A. from the Johns Hopkins School for Advanced International Studies, B.A. in International Relations and Religious Studies from Claremont McKenna College, “5 Reasons “Space War” Isn’t As Scary As It Sounds”, The Cipher Brief, 8/18/2015, <https://www.thecipherbrief.com/article/5-reasons-%E2%80%9Cspace-war%E2%80%9D-isn%E2%80%99t-scary-it-sounds>] recut Adam

1. If you are also reading the Pavur evidence then unhighlight the debris stuff

The U.S. depends heavily on military and commercial satellites. If a less satellite-dependent opponent launched an anti-satellite (ASAT) attack, it would have far greater impact on the U.S. than the attacker. However, it’s not as simple as that – for the following reasons:

1. An ASAT attack would likely be part of a larger, terrestrial attack. An attack on space assets would be no different than an attack on territory or other assets on earth. This means that no space war would stay limited to space. An ASAT campaign would be part of a larger conventional military conflict that would play out on earth.

2. Every country with ASAT capabilities also needs satellites. While the United States is the most dependent on military satellites, most other countries need satellites to participate in the global economy. All countries that have the technical ability to play in this space – the U.S., Russia, China and India - also have a vested interest in preventing the militarization of space and protecting their own satellites. If any of those countries were to attack U.S. satellites, it would likely hurt them far more than it would hurt the United States.

3. Destruction of satellites could create a damaging chain reaction. Scientists warn that the violent destruction of satellites could result in an effect called an ablation cascade. High-velocity debris from a destroyed satellite could crash into other satellites and create more high-velocity debris. If an ablation cascade were to occur, it could render certain orbital levels completely unusable for centuries.

4. Any country that threatened access to space would threaten the global economy. Even if a full-blown ablation cascade didn’t occur, an ASAT campaign would cause debris, making operating in space more hazardous. The global economy relies on satellites and any disruption of operations would be met with worldwide disapproval and severe economic ramifications.

5. International Prohibits the Use of ASAT Weapons. Several international treaties expressly prohibit signatory nations from attacking other countries’ space assets. It is generally accepted that space should be treated as a global common area, rather than a military domain.

While it remains necessary for military planners to create contingency plans for a, space war it is a highly unlikely scenario. All involved parties are incentivized against attacking. However, if a space war did occur, it would be part of a larger conflict on Earth. Those concerned about the potential for war in space should be more concerned about the potential for war, period.

#### Deterrence solves.

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More important, U.S. policymakers should avoid making decisions on the basis of a possible, though highly improbable, space Pearl Harbor. They should recognize that latent counterspace capabilities—as exemplified in 2008’s Operation Burnt Frost, which saw the United States repurpose a ballistic missile interceptor to destroy a satellite—are more than sufficient to deter adversaries from launching a major surprise attack in almost all scenarios, especially in light of the aforementioned deep interdependence in the space domain. Adding to the deterrence effect are uncertain offensive cyber capabilities. The United States continues to launch incursions into geopolitical competitors’ critical systems, such as the Russian power grid, and has demonstrated a willingness to employ cyberattacks in the wake of offline incidents, as it did after Iran shot down a U.S. drone last week. Unlike in the nuclear arena, where anything short of the prospect of nuclear retaliation holds limited dissuasive power, space deterrence can stem from military capabilities in various domains. For this reason, an attack on a U.S. satellite could elicit any number of responses. The potential for cross-domain retaliation, combined with the high strategic value of space assets, means that any adversary risks extreme escalation in launching a major assault on American space architectures. Again, well-conceived diplomatic efforts are useful in averting such scenarios altogether.

#### Uncertainty from space creates restraint – regulation

MacDonald 16, B., et al. "Crisis stability in space: China and other challenges." Foreign Policy Institute. Washington, DC (2016). (senior director of the Nonproliferation and Arms Control Project with the Center for Conflict Analysis and Prevention)//Elmer

In any crisis that threatens to escalate into major power conflict, political and military leaders will face uncertainty about the effectiveness of their plans and decisions. This uncertainty will be compounded when potential conflict extends to the space and cyber domains, where weapon effectiveness is largely untested and uncertain, infrastructure interdependencies are unclear, and damaging an adversary could also harm oneself or one’s allies. Unless the stakes become very high, no country will likely want to gamble its well-being in a “single cosmic throw of the dice,” in Harold Brown’s memorable phrase. 96 The novelty of space and cyber warfare, coupled with risk aversion and worst-case assessments, could lead space adversaries into a situation of what can be called “hysteresis,” where each adversary is restrained by its own uncertainty of success. This is conceptually shown in Figures 1 and 2 for offensive counter-space capabilities, though it applies more generally. 97 These graphs portray the hypothetical differences between perceived and actual performance capabilities of offensive counter-space weapons, on a scale from zero to one hundred percent effectiveness. Where uncertainty and risk aversion are absent for two adversaries, no difference would exist between the likely performance of their offensive counter-space assets and their confidence in the performance of those weapons: a simple, straight-line correlation would exist, as in Figure 1. The more interesting, and more realistic, case is notionally presented in Figure 2, which assumes for simplicity that the offensive capabilities of each adversary are comparable. In stark contrast to the case of Figure 1, uncertainty and risk aversion are present and become important factors. Given the high stakes involved in a possible large-scale attack against adversary space assets, a cautious adversary is more likely to be conservative in estimating the effectiveness of its offensive capabilities, while more generously assessing the capabilities of its adversary.