# Speech 1NC Emory Rd 1 vs Presentation 1-28 10AM

### 1

#### Interpretation: Debaters must disclose affirmative frameworks, advocacy texts, and advantage areas thirty minutes before round.

#### Violation – ss in doc

Graphical user interface, text, application, email

Description automatically generated

#### Standards:

#### 1] Clash- Not disclosing incentivizes surprise tactics and poorly refined positions that rely on artificial and vague negative engagement to win debates. Their interpretation discourages third- and fourth-line testing by limiting the amount of time we have to prepare and forcing us to enter the debate with zero idea of what the affirmative is. Negatives are forced to rely on generics instead of smart contextual strategies destroying nuanced argumentation.

#### 2] Reciprocity – They get an infinite amount of time to frontline their aff to write the most efficient and effective answers to anything we could say against it while we get only four minutes in round. This gives them a tremendous advantage over us that makes it impossible to win substance.

#### 3] Shiftiness- Not knowing enough about the affirmative coming into round incentivizes 1ar shiftiness about what the aff is and what their framework/advocacy entails. That means even if we could read generics or find prep, they’d just find ways to recontextualize their obscure advocacy in the 1ar.

### 2

#### 1] Interp - Mega-constellations aren’t appropriation – 2 warrants.

**Johnson summarizes 20** Johnson, C. D. (2020). *The Legal Status of MegaLEO Constellations and Concerns About Appropriation of Large Swaths of Earth Orbit*. Promoting Cooperative Solutions for Space Sustainability | Secure World. <https://swfound.org/media/206951/johnson2020_referenceworkentry_thelegalstatuso> (Chris Johnson is the Space Law Advisor for Secure World Foundation and has nine years of professional experience in international space law and policy.) //Recut Xu

No, This Is Not Impermissible Appropriation An opposite conclusion can also be reasonably arrived at when approached along the following lines. The counter argument would assert that the deployment and operation of these global constellations, such as SpaceX’s Starlink, OneWeb, Kepler, etc., are aligned with and in full conformity with the laws applicable to outer space. These constellations are merely the exercise and enjoyment of the freedom of exploration and use of outer space and do not constitute any impermissible appropriation of the orbits that they transit. Freedom of Access and Use Permits Constellations Rather than being a violation of other’s rights to access and explore outer space, the deployment of these constellations is more correctly viewed as the exercise and enjoyment of the right to access and use outer space. Article I of the Outer Space Treaty establishes a right to access and use space without discrimination. Not allowing an actor to deploy spacecraft, regardless of their number or destination, would be infringing with the exercise of their freedom. It would be discriminatory. Additionally, actors do not need permission from any other State, or group of States, to access and explore outer space. Aligned with the Intentions of the Outer Space Treaty This use of outer space by constellations in LEO, while not explicitly mentioned by the drafters of the Outer Space Treaty or other space law, actually is the fulfillment of their visions for the use of outer space. The preamble to the Outer Space Treaty (which contains the subject matter and purpose of the treaty and can be used for interpreting the operative articles of the treaty) speaks of the aspirations of humanity in exploring and using outer space. It is easy to see constellations that will provide Internet access to the world as fulfilling the visions of the drafters: The States Parties to this Treaty, Inspired by the great prospects opening up before mankind as a result of man’s entry into outer space, Recognizing the common interest of all mankind in the progress of the exploration and use of outer space for peaceful purposes, Believing that the exploration and use of outer space should be carried on for the benefit of all peoples irrespective of the degree of their economic or scientific development, Desiring to contribute to broad international cooperation in the scientific as well as the legal aspects of the exploration and use of outer space for peaceful purposes, Believing that such cooperation will contribute to the development of mutual understanding and to the strengthening of friendly relations between States and peoples, As such, subsequent article of the Outer Space Treaty should be read in a permissive light, as permitting constellations, rather than a restrictive light which only sees potential negative aspects of constellations. Due Regard and Harmful Contamination Will be Addressed Operators in LEO are well aware of the challenges to space sustainability that their constellations will pose and will be taking efforts to mitigate the creation of debris. OneWeb is keenly focused on space sustainability and has even argued that the current norm, whereby spacecraft are not in space for longer than 25 years and are deorbited from lower orbits at the end of their lifetime (aka post mission disposal), is not sufficient to keep outer space clean and that shorter lifespan limits should be imposed on operators, especially operators in LEO, and operators of small satellites. Additionally, these systems will be able to cooperate with emerging space safety and space traffic management plans and can operate in ways that do not restrict or impinge on other users of the space domain. Because due regard is therefore displayed for the space domain, and to the interests of others, these constellations do not prejudice or infringe upon the freedoms of use and exploration of the space domain and are therefore not occupation, or possession, much less appropriation.

#### OST is the standard for space law.

Wikipedia No Date [Wikipedia. “Outer Space Treaty.” No Date. Accessed 12/18/21. <https://en.wikipedia.org/wiki/Outer_Space_Treaty> //Xu]

The Outer Space Treaty, formally the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, is a multilateral treaty that forms the basis of international space law. Negotiated and drafted under the auspices of the United Nations, it was opened for signature in the United States, the United Kingdom, and the Soviet Union on 27 January 1967, entering into force on 10 October 1967. As of February 2021, 111 countries are parties to the treaty—including all major spacefaring nations—and another 23 are signatories.[1][5][note 1]

#### Semantics o/w –

#### a] Precision – they can arbitrarily jettison words which decks ground and preparation because there is no stasis point

#### b] Jurisdiction – the judge doesn’t have the authority to vote aff if it wasn’t legitimate

#### c] Durability – grammatical correctness makes debaters effective academics and professionals

#### d] Legal ed –

Heath 06 Brad, reporter at USA Today. “Small mistakes cause big problems” November 21, 2006. http://usatoday30.usatoday.com/news/nation/2006-11-20-typo-problems\_x.htm IB

In the legislative world**, such** small errors**, while uncommon, can** carry expensive consequences. **In a few cases** around the nation **this year,** typos and **other** blunders have redirected millions of tax dollars or threatened to invalidate new laws.

#### Vote for predictable limits – their aff explodes the object of the resolution to include random space activities from tourism to research to satellite surveillance – that allows them to cherry-pick the best aff with no neg ground – also kills predictable advocacies which decks prepared engagement.

#### Fairness – it’s a prereq to judge evaluation

#### Education – it’s the only portable impact

#### CI – a) brightlines are arbitrary and self-serving which doesn’t set good norms b) it collapses since weighing between brightlines rely on offense defense

#### DTD – its key to deter future abuse

#### No RVI’s- a) chilling effect – people will be too scared to read theory because RVI’s encourage baiting theory b) clash – people go all in on theory which decks substance engagement

### 3

#### Outer space isn’t value neutral but has always been a question of militarization – debates between civilian and military use are two sides of the same coin that affectively polices society, culminating in total war.

Craven 19 [Brackets Original. Matt Craven (Professor of International Law, SOAS University of London, United Kingdom). “‘Other Spaces’: Constructing the Legal Architecture of a Cold War Commons and the Scientific-Technical Imaginary of Outer Space”. European Journal of International Law, Volume 30, Issue 2, May 2019, Pages 547–572, Accessed 1/12/22. <https://academic.oup.com/ejil/article/30/2/547/5536739> //Xu]

There was little doubt to any of the observers of the launch of Sputniks I and II in 1957 that, despite their overtly ‘scientific’ purposes, the arms race had taken a decisive new turn. The exploration of outer space clearly offered a range of potential benefits; alongside the possibility of research into the physics of the atmosphere, it also would facilitate the collection of a host of meteorological, geophysical and cartographic data, enable enhanced capacity for radio communication and television broadcasting, facilitate safe navigation and, finally, open up the possibility of experimental flights to the moon and beyond. No one, however, was blind to the military implications.60 Within the USA, in particular, there was a widespread belief that command over outer space was an imperative that could not be missed: ‘[W]hoever controls outer space’, it was often said, ‘controls the world’.61 In the wilder speculations, thus, it was imagined that a nuclear power might be in a position to launch guided missiles from a space platform to any point on earth with barely any possibility of response, that outer space would be filled with ‘orbiting bombers’ or that the moon would become the site of military rocket installations. ‘Control’ of outer space, thus, was immediately conceived as being vital as a matter of security. Such concerns seemed to place a premium upon ensuring that the ‘use’ of outer space was exclusively peaceful – a view that seemed to be affirmed not merely by the establishment of COPUOS and successive proposals put to the UN by both the USA and Soviet Union. It was also recognized in the US National Aeronautics and Space Act of 1958, which created a civilian space agency (NASA) and declared, in the process, that ‘it is the policy of the United States that activities in space should be devoted to peaceful purposes for the benefit of all mankind’.62 This theme was carried through into the code for outer space – UN General Assembly Resolution 1962 recognizing ‘the common interest of all mankind in the progress of the exploration and use of outer space for peaceful purposes’ and the Outer Space Treaty that added in Article 4 that states should not place nuclear weapons or weapons of mass destruction in orbit and that the moon and other celestial bodies shall be used by all states parties ‘exclusively for peaceful purposes’ (military bases and fortifications, in particular, being prohibited). Indeed, President Lyndon B. Johnson described the Outer Space Treaty as ‘the most important arms-control development since the limited test-ban treaty of 1963’.63 In an immediate sense, then, outer space was configured as a space radically distinct from atmospheric space and was placed at once beyond the field of both sovereignty and of war. These, however, were by no means co-terminous. The preferred analogy when discussing the status of outer space was often that of the high seas – like the seas, outer space should be marked by the principle of freedom of access and movement, a res communis incapable of being ‘enclosed’. In fact, this was the analogy used by the USA when defending its use of satellites for reconnaissance purposes; ‘reconnaissance’ from space, it was argued, was the functional equivalent of surveillance from the high seas.64 It is clear, however, that this analogy was problematic precisely because the high seas themselves were not immune from being brought within the field of military conflict.65 And, with that in mind, alternative modes of analysis were often proffered to ensure that the ‘commons’ was not to be equated with a potential field of battle.66 Nevertheless, there was always a certain equivocation running through discussions within the UN and elsewhere as to whether the military/non-military distinction was one that could be effectively held in place. Not only were the Declaration on Outer Space and Outer Space Treaty silent on certain vital matters – on the equipping of satellites, for example, with conventional weaponry or the militarization of the ‘extracelestial void’ – but the inclusion of Article 3, which instructed states to ‘carry on activities’ in accordance with international law and the UN Charter ‘in the interest of maintaining international peace and security’, gave expression to the idea, vaunted at various moments, that outer space may nevertheless be the site of military action in self-defence.67 ‘Peaceful’ use, on such a measure, was not to be calibrated by reference to the equipment or personnel put into space – whether military or civilian – but, rather, by reference to the ends or motivation of the actors in question.68 In the case of the USA, this was to resolve itself in the idea that ‘peaceful use’ should not be equated with ‘non-military use’ but, instead, with ‘non-aggressive’ use. As Senator Albert Gore was to put it, when speaking before the UN First Committee in 1962: [i]t is the view of the United States that outer space should be used only for peaceful – that is, non-aggressive and beneficial – purposes. The question of military activities in space cannot be divorced from the question of military activities on earth. To banish these activities in both environments we must continue our efforts for general and complete disarmament with adequate safeguards. Until this is achieved, the test of any space activities must not be whether it is military or non-military, but whether or not it is consistent with the United Nations Charter and other obligations of law.69 The same general tenor was maintained in the discussion over Article 4 of the Outer Space Treaty concerning the demilitarization of the moon and celestial bodies. In this treaty, it was admitted that the use of military personnel ‘for scientific research or other peaceful purposes shall not be prohibited’, largely in recognition of the fact that for both space powers it was the military, not civilian agencies, who were responsible for developing rocket and other outer space capabilities. What one might see in this is a straightforward determination, on the part of both space powers, to continue the practice of exploiting outer space for purposes of defence whilst holding on, at the same time, to the general idea that outer space was a space of peaceful endeavour. Defensive militarization, here, was to be conceptualized as the functional equivalent of total demilitarization. Yet ‘defence’ was also an unstable category in circumstances of a bipolar military standoff that depended upon a balance of forces. For not only might an effective defence depend upon first strike capability (as the doctrine of ‘mutually assured destruction’ was to suggest),70 but also, as was later to become evident following the announcement of the US Strategic Defense Initiative in 1983,71 even the construction of an overtly ‘defensive’ system could assume an offensive cast if only one party possessed that capacity.72 There was, however, also a much deeper problematic at work here, which related to the persistence of a governmental rationality that was held over from the earlier decades of the 20th century, that understood the necessity of bringing all social resources – economic, technical, scientific and human – to bear in defence of the state against an existential threat. This was articulated in the interwar years in the theories of total war developed by the likes of Erich Ludendorff73 and Ernst Jünger,74 but was carried forward, well into the aftermath of World War II.75 Even if, at Nuremberg, the tribunal had associated the practice of total war with the pathologies of National Socialism,76 as the likes of Georg Schwarzenberger and Josef Kunz were to observe, it was a method of waging war that was only, in small part, to be associated with the problem of totalitarianism. For both, the phenomenon of total warfare was a much more general one – associated with technological developments in arms, indiscriminate modes of warfare and the mobilization of the civilian population – and was as much in play in the 1950s as it had been in earlier decades.77 If the prospect of nuclear annihilation meant that no element of society would be spared, so also, it seemed to follow, no element of society should be excluded from preparations to ward off that eventuality. Whilst, in the case of the Soviet Union, the ethos of centralized planning and a party bureaucracy equipped with an ideology of collective ownership and class warfare naturally dissolved any operative distinctions between the civil and the military establishment,78 the same was also apparent in the USA where, as was recognized as early as 1945, the ongoing development of new technologies of offence and defence, in conditions of competition, would require ‘the participation of every element of the civilian population’ and, in particular, the enlistment of the countries research capabilities.79 Alongside the development of what Dwight Eisenhower later described as a ‘military-industrial complex’, guided by a ‘scientific-technological elite’,80 the rationalities of the Cold War were to envelop US society in a much more profound way – from the mobilization of the media in defence of free thought, the enlistment of corporations, unions and research establishments in defence of national security and the co-option of cultural institutions (from Hollywood to the universities81) in the affective management and policing of public life.82 The significance of this in the context of outer space was the almost total loss of any way to distinguish effectively between military and civilian activities. Just as the requirements of resourcing a technologically dependent military armature increasingly depended upon a civilian infrastructure of research, industry and economic management,83 so also was it clear that prospective civilian and scientific activities in space (such as meteorology, remote sensing, navigation systems and telecommunications) all had military dimensions. If, for example, developments in meteorological knowledge and environmental science seemed to open up the possibility of weather control for the purposes of combating drought, improving agriculture or the avoidance of natural disasters, so also could that same science assist in the development of military communications and ballistic missile capability (which depended upon information about the lower and upper atmosphere, ionospheric behaviour, geodesy and geomagnetism).84 Such knowledge also opened up new possibilities for manipulating weather systems in order to procure military advantage (such as the manipulation of thunderstorms to disable communication systems or the creation of fog or cloud).85 But it was not just about scientific knowledge enabling new avenues of military innovation; it was also about the purposes to which the same technology might be put. Thus, for example, the camera-equipped satellite programmes (Tiros, CORONA), with the auxiliary systems of information recovery and reproduction, were virtually identical (give or take a few degrees of resolution) whether they were used for the purposes of geodetic measurement and weather prediction or military reconnaissance. In some cases, furthermore – such as the US Galactic Radiation Background satellite – intelligence-gathering electronics was incorporated within the same instrument used for the measurement of solar radiation.86

#### Representations are utilized in reifying militaristic control – outer space policy must interrogate its epistemologies.

Havercroft and Duvall 09 [Jonathan Havercroft (Associate Professor in the Department of Politics and International Relations at the University of Southampton) and Raymond Duvall (Professor of Political Science and Associate Director of the Interdisciplinary Center for the Study of Global Change/MacArthur Interdisciplinary Program on Global Change, Sustainability, and Justice at the University of Minnesota). “Critical astropolitics The geopolitics of space control and the transformation of state sovereignty”. Securing Outer Space. 2009. Accessed 1/26/2022. https://www.taylorfrancis.com/chapters/edit/10.4324/9780203882023-8/critical-astropolitics-geopolitics-space-control-transformation-state-sovereignty-jonathan-havercroft-raymond-duvall //Xu]

In the broad intellectual tradition of geopolitics, advocates of a critical perspective – particularly Simon Dalby, John Agnew, and Gearóid Ó Tuathail – have challenged mainstream geopolitical theory for assuming and validating power relations implicit in the production of geopolitical knowledge, and for a tendency to be a reifying and totalizing discourse that erases difference and political contestation from processes of representing space (Agnew 2003, 2005; Dalby 1991; Dalby and Ó Tuathail 1998; Ó Tuathail 1996). Ó Tuathail has criticized earlier forms of geopolitics for their ocularcentrism and what he terms the “geopolitical gaze.” Drawing on the work of Michel Foucault, he reads geopolitical discourse as power/knowledge, such that knowledge of spaces produces subjects empowered for expansive control. Geopolitical representations – what Ó Tuathail terms geo-power – are in a mutually supportive relation with the imperial institutions in which they are produced (Ó Tuathail 1996: 6–20). Empires cannot function without clear representations that explore, chart, and bring under control cartographic spaces. The spatial imaginary of the “geopolitical gaze,” then, is immanent to empire. In a related vein, Simon Dalby, too, has studied the role that geographical representations play. He has examined official policy documents and academic analyses of U.S. strategic thinking in both Cold War strategies and the Bush doctrine to determine how geographical representations of the earth shape U.S. imperial strategy (Dalby 2007). Additionally, John Agnew’s work examines how a particular geopolitical imagining – a global order constituted by sovereign states – “arose from European–American experience but was then projected on to the rest of the world and in to the future in the theory and practice of world politics” (Agnew 2003: 2). Such scholarly work of critical geopolitics makes two crucial contributions. First it draws on the interpretive strategies of various theorists – from Foucault to Derrida and others – to critique the assumptions of mainstream geopolitical analysis. Second it moves toward a reformulation of geopolitics in a form that is more conscious of how power operates in the theory and practice of world politics. In the first two parts of this chapter we have drawn on the first of those contributions for our critical reading of realist and liberal-republican astropolitics, albeit without our making explicit reference to specific social theorists. Thus, just as Mackinder’s geopolitics re-presented how the world operated in a way that could be understood and controlled by British imperialists, it can be argued, following Agnew’s, Ó Tuathail’s and Dalby’s lead, that the kinds of representations of space proffered by Dolman (as orbits, regions, and launching points of strategic value) make the exercise of control over space intelligible from an American imperialist perspective. The “astropolitical gaze” and its cartographic representations are mutually productive with the current U.S. policy of attempting to secure control over orbital space. As we saw, realist astropolitics celebrates the ways in which extending U.S. military hegemony into space could amplify America’s imperial power. Yet, Dolman’s realist astropolitik leaves under-theorized the normative implication of space-based imperialism. Instead, Dolman merely asserts that America would be a benevolent emperor without explaining what checks on U.S. power might exist to prevent it from using the “ultimate high ground” to dominate all the residents of the Earth. Conversely, Deudney focuses on the potential for inter-state collaboration to produce a federalrepublican global political order. However, Deudney leaves under-theorized the very real possibility that a unilateral entry into space by the U.S. could create an entirely new mode of protection and security.

#### The 1AC is a misdiagnosis of debris – wargames and coverups whitewashes militarism’s recreation of debris.

Reno 20 [Joshua O. Reno (Associate Professor of Anthropology at Binghamton University). February 2020. Accessed 1/15/22. “Military Waste: The Unexpected Consequences of Permanent War Readiness”. UC Press. <https://www.ucpress.edu/book/9780520316027/military-waste> //Xu]

As I write this, in the atmosphere miles above me, hundreds of millions of tiny artificial particles and larger fragments are circling the planet, mostly undetected, moving as fast as speeding bullets. This is orbital space debris—artificial objects and materials launched into orbit that no longer serve a purpose—and it has been accumulating in the sixty years since the Soviet Union sent Sputnik into space and transformed the stakes of the Cold War. In this chapter, I review various attempts to witness and revalue space debris, which expose the historical and ongoing militarization of outer space. At first glance, space debris would seem very different from the other objects discussed in this book. On the one hand, they are not as clearly linked to the military and permanent war preparation, because this connection has been actively foreclosed from public awareness by the US security state. Every space mission creates some debris, and many space missions had covert and classified goals that were not disclosed until later, and some never were. One famous example is the cover story used to account for the U2 incident in 1960. Shot down while conducting covert surveillance of suspected Russian ICBM development from Soviet airspace, the U2 spy plane was initially characterized as a NASA weather vessel. However, two days after the cover story was released, a photo was wired to the US government of Khrushchev holding aerial photographs the U2 had taken, proving the NASA story was a lie.1 If one problem with examining space debris as military waste is a history of secrecy, another concerns the undetectability immanent to space debris as a material object. It is one thing to write with authority about orbital space debris. It is quite another to bear witness to space debris, as one can other forms of American military waste. “To witness,” Michael Taussig writes, “as opposed to see, is to be implicated in a process of judgement. . .such that the mere act of seeing tilts the cosmos and deranges the eyeball” (2011, 71). Yet, with this most cosmic of wastes, witnessing is hard to come by. I cannot swear that I have seen orbital space debris (in orbit, that is) and haven’t met many who can. Amateur astronomers sometimes think they have seen space debris, but do not know for certain if they ever will again or if they’ll even know when they do. And, more importantly, they probably will not care if they do. If this book is about finding people who bear witness to military waste, who not only see it but become invested in this act of perception, then in that sense at least this chapter is premised on a failure. Those I spent the most time with—amateur astronomers and a ham radio operator in the Southern Tier of New York—were not already interested or invested in space debris. I did not trace a preexisting network linking nonhumans with humans (Latour 2005). I did not locate a public affected by an act of contamination, slow violence, or environmental injustice (Marres 2012). That is to say, with few exceptions, I did not succeed in finding a group for whom this object matters and using their interest to direct my own. Instead, I found a problematic object and tried to recruit people who might care to do so. One reason space debris is not very interesting for the people I got to know is that anything so labeled is uninteresting almost by definition. Space debris is perhaps the truest expression of what Mary Douglas (1966) meant when she labeled dirt, “matter out of place.” Almost anything can be considered space debris if it was launched into orbit and people think it should not be there anymore. It may refer to satellites that have aged and become obsolete or can no longer be contacted or controlled from the ground, thus rendering them useless. Space debris also consists of materials of varying size and substance that were purposely released or jettisoned by vessels and satellites to facilitate their ascent or as part of their ongoing maintenance. But whether something counts as space debris depends on who is making this judgment and how. Part of the reason that amateur astronomers might not care about space debris is that anything they do care about may no longer be recognized as debris. Consider NASA’s Cassini probe, which entered Saturn’s atmosphere after completing its twenty-year mission on September 15, 2017. I began hearing about Cassini’s final descent weeks earlier from the members of the Kopernik Astronomical Society (KAS). Cassini was being discarded, but it was difficult to find anyone characterizing it as debris. In early September, KAS members were still sharing their best photographs of the solar eclipse that had captivated the country in August. But soon they began posting links on the group’s public Facebook page related to Cassini’s last mission: September 14: #Live #Coverage: NASA Monitors #Cassini’s #Dive Into #Saturn Friday morning, NASA & #JPL will monitor the Cassini #Spacecraft as it ends its #mission by diving into the #clouds of Saturn. #NASATV and NASA & JPL #Internet #web-sites will provide live #steaming coverage as #scientists #monitor Cassini’s “#GrandFinale,” as well as #news#conferences before (Thursday afternoon) & after (Friday morning) the #event. September 16: A fantastic overview of the Cassini Mission, including it’s [sic] very last image. Such an amazing mission just to tease our wonder a little bit.#FarewellCassini Explore More! September 20: NOVA: Death Dive to Saturn These posts provided hashtags and links one could use to learn about Cassini’s final mission, witness live broadcasts, and honor the lost spacecraft. Cassini was singled out for so much praise by astronomy enthusiasts for good reason. Many knew it had been responsible for some of the best pictures of the solar system ever captured. As a writer for a science and technology website put it: While many uncrewed spacecraft have done an incredible job of revealing our solar neighborhood to us, honestly, none did it better than NASA’s Cassini probe. After exploring Saturn for 13 years, on September 15th at 4:55am PDT, the probe will plunge itself into the planet’s atmosphere, becoming one with the very object of its fascination. (Paoletta 2017) As in many examples that appeared around this time, on- and offline, this writer treats Cassini like a person. It is as if the probe itself were intentionally doing the “exploring,” plunging “itself,” and intentionally merging with “the very object of its fascination.” Such eulogistic prose could be found among many techno-science and astronomy feeds and sites at the time. Consequently, what otherwise might have been seen as just an expensive, floating camera became instead a subject of interest akin to Saturn itself. But objects never mean just one thing, even within the same community of practitioners.2 From another point of view, the disposal of Cassini on Saturn was more like an act of cosmic littering disguised as a funeral. One small but vocal group of Cassini-truthers claimed that there was another, more nefarious purpose behind the destruction of the probe. NASA was, they claimed, trying to accomplish its decade-old goal of creating another sun by detonating a nuclear payload on Saturn. Known as “Project Lucifer,” such a claim had been made before in relation to other space missions. But for every so-called conspiracy theory, there are even more people who delight in debunking and deconstructing them. A decade before Cassini’s final dive, an author for the online publication Universe Today had already set about deconstructing Project Lucifer’s assertions (see O’Neill 2008). It is worth noting, however, that claims and counterclaims such as these, much like narratives of UFO sightings and abductions, are about more than what “really happened.” They are more centrally concerned with whether or not hidden powers are operating in the shadows, just beneath awareness. If they exist, such powers are only visible in momentary glimpses and if one looks carefully enough to see the pattern.3 Whether Cassini is seen as a mournful loss or a frightening conspiracy, it is still not quite “debris” since it has greater purpose than something merely drifting, colliding, orbiting. In other words, whether something counts as debris depends on how astronomical observers (and conspiracists) think about and act towards the things that populate outer space. More than just claims to debunk, conspiracy theories like Project Lucifer raise ethical and political questions surrounding what is otherwise accepted as relatively innocent and harmless civilian science. More to the point, they point toward forgotten and troublesome understories associated with the exploration and exploitation of outer space. It is not so strange to suspect that NASA is concealing the true motivations behind its projects, as it has done in the past and as its less-wellknown sister agency, the National Reconnaissance Office (NRO), has done for the entirety of its existence. Fantasies of hidden nuclear reactions on Saturn are not just conspiratorial paranoia, therefore, but manifestations of a general mistrust around state secrets concerning the militarization of space, which did not end with the Cold War. This chapter explores space debris as openended rubbish (Thompson [1979] 2017) and as an object of militarized fantasies, past and present. The example of Cassini is telling because it represents a situation where what might otherwise be thought of as mere space debris is instead revalued as a sign of discovery and scientific achievement or, alternately, of conspiratorial, cosmic destruction. The intentional generation of space debris becomes more apparent by linking it with the historical and ongoing militarization of space. My argument is not that the US military is directly responsible for all space debris (a claim thatwould be difficult to definitively prove in any case). That being said, antisatellite weapons testing has by all accounts made the problem of space debris worse; furthermore, defense agencies have been at the forefront of studying and proposing solutions to space debris.4 In this chapter, I link both the historical and ongoing creation of space debris, as a problem, and current proposals to solve it to a common source: a tendency to imagine expert knowledge and technical practice as a form of mastery, despite the fact that they lead to new and unanticipated accidents and risks. Here I draw from the Aristotelian argument of Paul Virilio (2007, 5) that the accident reveals the substance. In other words, the invention of any substance is equally the invention of any of its accidental manifestations. The shipwreck is the invention of the ship (see chapter 3) just as the Chernobyl meltdown is the invention of the nuclear power station. So, too, space debris is the invention of the Cold War space race, an invention distinctly different from the way planets ordinarily shed and reabsorb materials. Clearly, orbital space debris is very different from things like planes, ships, and guns. Yet, it is productive to think of all forms of military waste not only as different kinds of things, but as associated with different microworlds of action connected with permanent war preparation. For this reason all of these forms, as rubbish, have elements of indeterminacy associated with them, which lead to disputes about their social and material potential. After all, what is difficult to represent clearly can be even more disturbing to imagine, since this usually makes it harder to control and predict.5 Is space debris polluted and polluting or valuable and meaningful? Is it raw material for a radical new vision or heritage that should be preserved? When objects are simultaneously rare and abundant like space debris, hard to relate to, yet ubiquitous in orbital environments, these questions pose even greater challenges. Acknowledging the militaristic origins of space debris does not make it more accessible or amenable to reuse and rethinking by civilians. As I will explain, even astronomers might only encounter space debris fleetingly, and only for a brief moment as it quickly vanishes out of sight. In some ways, this makes space debris both less visible and more threatening than the other forms of military waste I discuss in this book. When it comes to astronomical phenomena, seeing is believing. But believing is also seeing, insofar as imagined evidence of aliens or government conspiracy involves prior and ongoing attunement toward that which lies concealed beyond familiar experience and official explanation. The idea of cultivating ethical attunement of the senses, especially to listen for signs of otherworldly beings and designs, has been dis-cussed for religious subjects (Luhrmann and Morgain 2012; Hirschkind 2015; Zani 2019). I extend this to include visual attunement of lay astronomers. Astronomical attunement can involve searches for alien life, but it can also be more modest in its scope, associated with wise use of and participation in the Earth’s orbital environment. I was unsuccessful finding many people who already cared about space debris, but getting to know them I came to see their practices of attunement as an alternative to the dominant strategies to address space debris. Unlike the attunement of amateurs, space agencies represent space debris as a problem to address through techno-solutionism. This is a way of valuing the technical fix as an end in itself, and it is deeply connected to the militarization of space and the problem of space debris. the color out of space Space debris comes in the form of subsidiary materials intentionally or inadvertently discarded after helping satellites escape Earth’s gravity, as well as the satellites themselves. Some of these objects are broken down by interactions with other bits of debris and physical processes while in orbit, but may continue orbiting the Earth all the same. There are good records of the over six thousand satellites that have been launched since 1957. But they can be difficult to locate and identify from the ground all the same. Depending on the altitude, lost and disused satellites and their accompanying materials either circle the planet at low Earth orbit (LEO), medium Earth orbit (MEO), or geostationary orbit (GEO), and this also affects their relative velocity, with objects further away moving more slowly. The ISS is located about 250 miles above the surface of the Earth in LEO and moves about 17,500 miles per hour, whereas satellites in GEO are located about a hundred times further above the Earth and travel at less than half that velocity. The difference is that disused space junk has lost attitude control, meaning that its orientation becomes more haphazard as it tumbles through space.6 As different forms of space debris move, sometimes at tens of thousands of miles per hour, they occasionally collide with one another and splinter into additional, smaller fragments. There are an estimated half a million pieces today, a fraction of which can be tracked by space agencies like NASA. Using the publicized data from the DoD’s Space Surveillance Network, there have been numerous models generated to display the problem of space debris as it has accumulated over time. One of the problems with depicting space debris accurately has to do with the conditions of orbital environments. In time-lapse videos, one can visualize the Earth as if it were sloughing off dandruff—hundreds of thousands of tiny flecks that encircle it at various distances. This metaphor is actually more appropriate than it might seem. Like an animal’s scalp, the Earth routinely sheds materials that continue to orbit it or are jettisoned into the universe. As part of this metabolic process orbital environments “self-clean,” meaning that various planetary forces allow materials to leave and rejoin the surface, as well as capture that which other planetary bodies have jettisoned. In a certain sense, for something to be called “orbital space debris” depends entirely on human beings deciding something is no longer valuable, useful, or notable. Yet, what becomes of space debris depends on the power of the Earth itself.7 After all, debris is not something that troubles planets, but defines them. According to Lisa Messeri, the prevailing definition of a planet is an object that is “large enough to have either captured or expelled the debris to other orbits” (2016, 8). If not for Earth’s gravitational force, bending spacetime as it does, it would not require so much expenditure to escape its orbit, nor would so much material fall back to Earth or remain in orbit after the fact. As Lisa Ruth Rand notes, “the geophysical world of outer space” is “a historical actor of equivalent importance to astronauts, engineers, governments, and publics” (2016, 13). The planet’s metabolic relationship to debris is not simply a threat to life, but may help spread it across the cosmos.8 Anthropogenic space debris mixes with the naturally occurring debris of orbital environments to generate new risks and possibilities. Unlike functional satellites, which can be manipulated and brought more or less in sync with the designs of those on the ground, the alternative spatial and temporal rhythms of space debris represent a distinct risk to other things (and persons) in orbit. As such, they also represent a potential barrier to further human exploration and exploitation of space. To begin with, space debris is potentially dangerous to spacecraft. Space debris is partly assessed by treating returning spacecraft in a way they were never intended, as a “hypervelocity impact capture medium” as they are dented more by artificial objects than natural meteorites (Bernhard, Christiansen, and Kessler 1997). The impetus for tracking and modeling space debris thus comes from the temporal possibilities it threatens. This includes a hypothetical feedback process whereby objects continually collide and spread out, converting Earth orbits, especially in LEO, into a hazardous environment filled with tiny fragments. Space debris would then circle eternally overhead like a cloud of bullets awaiting a target, trapping us in fear on the surface. This was used to produce a new element of space horror in the recent science fiction film Gravity (2013), where space debris played a key role and was depicted as a monstrous threat—like a swarm of abiotic locusts—that cycled the Earth with an alien regularity. In this film, without warning debris hurtles into view to annihilate spacecraft or slaughter hapless astronauts.9 Whether this sort of possibility is a likely scenario or not, it reflects anxiety about the unexpected and emergent spacetime of materials orbiting the Earth. The time they threaten is not only the immediate present but future plans, which are increasingly incorporated into fantasies of space travel. At least one of the astronomers I spoke with considered space debris a broader environmental problem. One of the older staff members at the Kopernik Observatory was Nicholas, who grew up in the Southern Tier and designed computer hardware for IBM. When I interviewed Nicholas, he was preparing a talk for the public on the search for life and its creation from inorganic materials, a subject of great personal interest. This gave him a unique view on the ecological risks of space exploration, “I think of debris as sort of garbage. Stuff that’s out there, you don’t know what to do with it so you just leave it laying around, it’s like cluttering on a highway. You know?” For Nicholas, depositing leftover materials from missions, like the Cassini probe, on a foreign planet is about more than the technical junk itself. Even the most sanitized bit of space equipment might carry remnants of the living world it came from. Nicholas had pictures in his Facebook feed of tardigrades (or water bears), the peculiar microbes that seem capable of withstanding the vacuum of space. “To me that’s one of the areas that you could contaminate, if you’re searching for life, you don’t want to contaminate it. NASA scientists are aware of these concerns, which are normally glossed as planetary protection and were included as part of the Outer Space Treaty of 1967. This stipulates the necessity of protecting the Earth from organisms that might exist beyond it, and protecting other planets from contamination by human and nonhuman earthlings. For instance, Cassini was positioned to collide with Saturn so that it would not inadvertently contaminate life that might exist on one of the gas giant’s moons (life which, many astronomical enthusiasts would be quick to point out, Cassini’s photographs had helped demonstrate might exist). And Nicholas was also not alone in thinking that enthusiasm for space exploration could lead to denial about its unforeseen consequences.10 Not everyone agrees, however. In 2018, the SETI institute sponsored a debate over planetary protection between a member of NASA and founder of the Mars Society and author Robert Zubrin. During the debate, Zubrin accused planetary protection of being nonsensical, since planets exchange substances all the time on their own, and dangerous, since it could limit human exploitation and exploration of the universe. Space debris is meaningful as both barrier and bridge to desirable futures. These hoped-for futures involve, for instance, further exploration and exploitation beyond LEO and into the very valuable and legally contested domain of geostationary orbit, where satellites can more easily analyze from and transmit data to the entire planet. This also includes NewSpace initiatives that seek to extend capitalism and empire beyond the limits of the Earth, whether to mine asteroids or colonize Mars.11 Such initiatives demonstrate a clear motivation to clean up the polluted and risk-filled environment in the vicinity of Earth. From this admittedly interested perspective, the presence of space debris limits the utilization of LEO, MEO, and GEO, creating risks for any state and/or capital investment. Insofar as space debris influences assessments concerning the utilization of outer space for various ends, it directly mediates the futures that space agencies and industries imagine possible and desirable. It may be that the risks of orbital debris are being somewhat amplified by filmmakers and the media more broadly. After all, most chunks of space debris burn up completely before descending to Earth, posing little threat to life on the surface. And only those nations and corporations powerful enough to summon the resources to escape the planet’s gravitational pull, to operate the ISS for example, place themselves directly at risk. In this regard, space debris is somewhat analogous to floating Pacific garbage patches in the world’s oceans (see chapter 6). While troubling and aesthetically striking, space debris and garbage patches are located in little-used borderlands rather than directly inhabited landscapes. They would seem to lack an affected public, that is, a collective of interested social actors directly impacted by the problem and thus likely to organize to bring the problem to light. The analogy between the garbage patches and space debris is more than incidental. At the opposite side of the Pacific from the first garbage patch to be discovered is another dumping zone. Known as Point Nemo—the place in the ocean furthest from any land—this stretch of ocean has been used for decades as a convenient place to deposit space debris, when such a thing is possible for space agencies.12 But debris does not always land where one would expect. And the threat of damage from orbital space debris is real. Space debris represents a clear barrier to the continued use of orbital environments. The ISS had to perform approximately eight evasive maneuvers during its first decade of operation in order to avoid collisions with debris. Calculations are normally performed at least three times a day to determine risks of collision over the subsequent seventy-two hours; if the chance of collision with a large enough object is determined to be greater than one in ten thousand, then maneuvers are planned and executed. In late August of 2008, the ISS had to engage in a collision avoidance maneuver when it was nearly struck by just one piece of more than five hundred cataloged bits of debris that resulted from Kosmos 2421’s planned fragmentation earlier that summer (see Johnson and Klinkrad 2009, 5). In this case, the ISS was not dodging anonymous debris, but the specific fragments that are attributable to a Russian spy satellite that was launched in 2006 and began fragmenting two years later. According to widely agreed-upon space policy, if old satellites cannot be sent to the “parking zones” above LEO, then they are sent crashing into the atmosphere to hopefully disintegrate.13 In some ways, concerns over orbital debris can be related to the discourse around climate change, sociologist and historian of science Lisa Ruth Rand argues, insofar as both are global in scope and have been associated with “tipping points” toward certain and perpetual disaster. “With no control over where surviving fragments might land, orbital space became a site from which pollutants could cross geographic boundaries and extraterritorial regions” (Rand 2016, 11). In this sense, orbital regions are not some sort of beyond, disconnected from terrestrial life. Like the atmosphere itself, planetary borderlands are dynamically entangled with life on Earth. Moreover, like the seemingly never-ending threat of nuclear annihilation, they are also associated with the rise of the national security state in the twentieth century.14 When specific entities generate fragments or are threatened by them, orbital space debris begins to resemble other pollution events where there is an alleged perpetrator and a documented victim. More often than not, it is not just any perpetrator accused. Discussions of space debris events frequently single out America’s adversaries as being responsible, as in the episode above, despite the fact that Americans contaminate orbital environments as well and that other countries are frequently responding to and imitating the ongoing American militarization of space. Politicizing space debris in this way fits easily into previous Cold War–era assessments of risk and blame where it is only national rivals to the United States and Europe who break rules and incur risks, namely China and Russia, which implies that Americans are blameless by contrast.15 Space Debris as Military Waste All of the information provided in the section above, outlining orbital space debris as a problem, can be considered entirely without reference to the US military. This not only leaves out an important part of the story of space exploration and exploitation; it also helps further distinctions between civilian science and defense projects, as if the two were completely separate spheres of social action and imagination. In fact, they are continuous. The launch of Sputnik I by the Soviet Union was the beginning of space exploration and the age of satellites. It also set the stage for a new alliance between scientific experts, the federal government, and the DoD. Prior to Sputnik, it was widely believed throughout the US that its Soviet rivals were incapable of launching a satellite into space. When they did, it not only demonstrated a flaw in this chauvinist presumption, but made clear that the Soviet Union had the capacity to launch intercontinental missiles as well. Even though the Eisenhower administration knew, by this time, that there was no “bomber gap” between the two countries, this real embarrassment and virtual threat radically altered relationships between scientists and government and military officials, which had previously been strained by McCarthyism and the Korean War. At least some Americans felt vulnerable to attack, and Eisenhower, who had hoped to reduce what he regarded as wasteful military spending, reevaluated his position on the matter and helped foster the military industrial complex he would later name and criticize.16 If an interpretation of space exploration as militarization is often foreclosed from consideration, one of the reasons is that the intentions behind space discovery have been successfully represented in different ways over the course of NASA’s history. Outer space and space agencies are more popularly represented in terms of discovery, invention, and wonder. This has been a deliberate effort on the part of civilian scientists, government officials, and media organizations to differentiate NASA from military projects. Though NASA was created to be a civilian space agency, the end result of the initial shock and panic surrounding the launch of Sputnik, this was not a foregone conclusion. At the time, all of the technology that might have been used for possible space exploration was in the hands of the US military; consequently, some prominent members of the government scientific advisory, as well as Eisenhower himself, were initially in favor of folding all space exploration within the DoD as part of ARPA. ARPA had itself been recently created in order to consoli- date and reduce waste from interdepartmental competition. Consequently, it only stood to reason that it would also absorb the space agenda, which also had enormous implications for the future of defense. The reason NASA emerged, instead, was the result of fears of the militarization of space, both because of the dangers this would raise for people on Earth but also because it went against the utopian internationalism of many American scientists of the time. It was decided that there would be a civilian space agency, but one that would remain funded by and deeply connected to the military, for fear that the loss of military relevance in space missions would cause it to die on the vine.17 While NASA is a civilian agency, stories of its rise and contemporary relevance illustrate the longstanding relationship its people and projects have had with the DoD. Near-continuous war games in space go back to when the first satellites entered near-Earth orbit and generated ever more debris. According to Rand, “Both superpowers carried out high altitude and exoatmospheric nuclear weapons tests beginning in 1958 and ending in 1963 with the Partial Nuclear Test Ban Treaty” (2016, 10). Secrecy regarding military-related space missions (and the debris they have caused) is most clearly associated with the National Reconnaissance Office (NRO), the “other space agency” that was created in 1961 but kept a secret until 1992 (Paglen 2009, 20–31). As an author from Wired magazine puts it, debris is a legacy of militaristic statecraft: In 2007. . .China decided to de-orbit one of its defunct weather satellites...by firing a missile at it. That certainly took the sat out of its path—but it also created a flume of debris that flung toward the Space Station in 2011. In February 2008, the US Navy launched its own projectile at a spy satellite toward its own satellite. The government claimed to worry that if it let the satellite fall back intact, its hydrazine fuel could release toxic vapors at breathing level. But some, at the time and still, interpret the action militarily. (Scoles 2017) Debris from the NRO was not necessarily from weapons testing, moreover, because weapons are not the only space projects of great military interest. As Rand explains: New kinds of satellites—from giant, shiny inflatable balloons to a ring of hundreds of millions of tiny copper fibers—tested the use of space for communications while spurring controversy over whether such satellites could interfere with astronomy, crowd the electromagnetic spectrum, or present a collision hazard to other spacecraft. (2016, 10) Official histories of space exploration as civilian science tend to demilitarize its relevance. Moreover, when a cover story is needed—as with the U2 spy plane debacle—the official narrative can be called upon to distract or misinform inquiring Americans, allies or rivals. The activities of ARPA and especially the NRO are shrouded in mystery, though that has not stopped amateur astronomers from successfully tracking their activity.18 From the beginning of the space race, nation-states with property in orbit worked out the basic terms of space law (see Beery 2016), which among other things does not allow for the practices of salvage characteristic of maritime law. Instead of seeing these materials as property to be protected, astronomers were historically the first group to mobilize against the contamination of the planetary borderlands with space debris. Sputnik’s launch also began a wave of UFO sightings of all kinds, which would continue over the ensuing decades. As Americans watched the night skies, it was as if their apprehension and mistrust of Soviets somehow turned on their own government. And why not? Space exploration was begun in earnest by competing US and Soviet militaries during the Cold War and continues to be central to the machinations of securitizing states today.19 The ability for anyone with a telescope to track near-Earth objects makes complete secrecy all but impossible. Most recently, space enthusiasts were the first to raise awareness about the possibility of China’s Tiangong-1 space lab tumbling out of the sky, before the Chinese state admitted this was happening. In essence, it was amateur astronomers who first noticed that the space lab was acting more like space debris, against the wishes of a government hoping to keep this from public knowledge. The first story reclassifying the space lab as space debris appeared in June 2016, and was quoted from for the next year and a half by the Guardian and the Washington Post. Eventually the Chinese state admitted that it had lost control of the lab and that it would likely fall to Earth sometime in late 2017 or early 2018 (see David 2016).20

#### Satellites are not value neutral and 1AC undseth’ claim about “climate and weather prediction” is a ruse – innovation is conscripted as a tool to further militaristic ends.

Craven 19 [Matt Craven (Professor of International Law, SOAS University of London, United Kingdom). “‘Other Spaces’: Constructing the Legal Architecture of a Cold War Commons and the Scientific-Technical Imaginary of Outer Space”. European Journal of International Law, Volume 30, Issue 2, May 2019, Pages 547–572, Accessed 1/12/22. <https://academic.oup.com/ejil/article/30/2/547/5536739> //Xu]

For the most part, the integrated utility of scientific and military technology came to be expressed through the language of ‘dual use’; just as nuclear science was capable of use for both pacific and military purposes, so also were satellites, rockets and space stations equally capable of deployment in pursuit of scientific, as well as military, ends.87 Overtly, of course, the notion of dual use took as its starting point an idea of ‘pure science’ being concerned with the discovery or production of politically innocent knowledge, which might then be put to ‘use’ or be ‘applied’ for either civilian or military purposes. Aside from the fact that the degree of control and influence exercised by defence establishments over the direction of science within research institutions put in question any idea of there being such a thing as ‘innocent’ scientific knowledge,88 it was, as Marcuse has observed, a conception of science that was already fully instrumentalized. Its very claim to objectivity was a sign of its subordination to technology and to an instrumental logic of ends. As he put it: True, the rationality of pure science is value-free and does not stipulate any practical ends, it is ‘neutral’ to any extraneous values that may be imposed upon it. But this neutrality is a positive character. Scientific rationality makes for a specific societal organization precisely because it projects mere form … which can be bent to practically all ends.89 Whilst the scientific method allowed nature to be brought under human domination through the medium of an enabling technology, it was, in the same measure, a means for the domination ‘of man by man’ insofar as the human subject would always appear before it as a mere ‘object of organization’. Both the human and the natural worlds would thus become the calculable objects of a technological rationality that knew no limits – ‘in which society and nation, mind and body are kept in a state of permanent mobilization for the defense of this universe’.90 Marcuse’s critique of the totalitarian rationalities of what he saw to be the Cold War regimes of ‘total administration’ found particular expression in the fact that scientific knowledge itself was understood to be a facet of ideological competition in its own right.91 What was at stake was not just ballistic missiles and warheads but also a capacity for scientific or technological innovation that would, itself, demonstrate to the world at large the superior social merits of capitalism or communism, respectively. The shock experienced at the launch of Sputnik I, after all, was not that the Soviet Union had suddenly acquired command over outer space or imminently threatened the USA with annihilation but, rather, that it demonstrated the superiority of its scientific and technical expertise. It was apparent to both powers at that moment that such spectacular demonstrations of scientific achievement92 were an essential part of a competitive ideology of rule that required the broad enlistment of the population to enable it to function.93 Science had its part to play, in that sense, in the affective production of fear, awe and loyalty, all of which were necessary for the operations of the Cold War to remain in place.94

#### Claiming 1AC spencer

exploration for humanity’s sake

#### ” is a trojan horse for instilling militaristic control – this managerial lens renders nature and humanity fungible.

Craven 19 [Matt Craven (Professor of International Law, SOAS University of London, United Kingdom). “‘Other Spaces’: Constructing the Legal Architecture of a Cold War Commons and the Scientific-Technical Imaginary of Outer Space”. European Journal of International Law, Volume 30, Issue 2, May 2019, Pages 547–572, Accessed 1/12/22. <https://academic.oup.com/ejil/article/30/2/547/5536739> //Xu]

* link t/s case – conceptualizing of commons imposes exploitation
* reps matter – shift in conceptiaoztaoins

With these considerations in mind, Argentina, France and Poland submitted a proposal in the following year,110 leading the legal sub-committee of COPUOS to embark upon a ten-year project to draft what was to become the, largely abortive, Moon Treaty of 1979. Whilst much of the text of the Moon Treaty tracked the parallel provisions in the Outer Space Treaty, the main area of contention concerned the question of resource exploitation. As early as 1967, the Argentinian representative, Aldo Armando Cocca, had argued that the wealth and natural resources of the moon and other celestial bodies could be used ‘solely for the benefit of mankind as a whole’,111 and had subsequently submitted a draft agreement to COPUOS proclaiming such resources to be the ‘common heritage of all mankind’.112 What this was generally understood to mean was not that outer space resources should be free from ownership or exploitation (as an early Soviet draft proposed113) but, rather, that, as and when they were exploited, it should be for the benefit of the entirety of humanity.114 From that point on, the debate stabilized around two alternative schemes: whether, on the one hand, states should be entitled to exploit the resources individually subject only to an obligation to distribute the benefits ‘to all’ or whether, in the alternative, the exploitation of resources was only to take place through the medium of an international regime/agency and, pending its establishment, be subject to a moratorium.115 The final agreement offered support for both positions.116 On the one hand, it declared the moon and its natural resources to be the common heritage of mankind and that the resources ‘in place’ should not become the property of any state, international organization, non-governmental entity or natural person. It also committed parties to ‘undertake to establish an international regime’ to govern exploitation as soon as it became feasible.117 On the other hand, by limiting the prohibition on ownership of surface and subsurface resources to those ‘in place’, it offered the possibility that they might nevertheless be claimed once removed. The absence of a vaunted ‘moratorium’ on extraction, furthermore, was to suggest that exploitation might proceed subject only to the principle of ‘equitable sharing’ until the moment at which the international regime came to be established.118 In the end, however, the Moon Treaty remained largely unratified as many of its vocal opponents in the USA objected to the way in which it appeared to inaugurate a ‘system of international socialism’,119 foreclosing ‘the commercial uses of outer space by American enterprise’.120 What is worth bringing out here is not the surface-level disagreement as to the relationship between collective and individual modes of extraction or, indeed, the way in which an ‘east–west adversarialism’ appeared to have given way to a dynamic of ‘north–south resource disparity’ but, rather, to the conditions under which the formation of the outer space commons was to appear.121 In the first place, as the Nigerian representative in COPUOS noted, the language of the ‘common heritage of mankind’ had facilitated a subtle shift from a language of exploration to that of exploitation.122 Outer space was no longer simply a site of speculative scientific endeavour or open to projects of exploration and discovery, but it had become a resource or, indeed, as Myres McDougal and others were to explain, a myriad of resources of varying kinds, in which everything from solar radiation, magnetic and gravitational forces, wave lengths, geostationary locations123 through to meteors tracking through the solar system came to be conceptualized in terms of their ultimate ‘value’ or ‘utility’.124 Once again, thus, one sees the presence of a particular technological rationality undergirding the outer space regime, in which the natural and human environments were to be understood to be the objects of an instrumental reasoning that concerned itself with how they might be manipulated, controlled, exploited and, ultimately, commodified, and in which the technology through which those ends were to be both conceived and achieved (space rockets, probes, telescopes, satellites, planetary rovers and so on) would take the form of a passive, neutral, medium – as mere machines and mechanisms or as ways of doing things.125 The embrace of this rationality may, on the face of it, be seen to have been utterly perverse: the ultimate outcome of a desire to avoid a competitive stripping of the resources of the moon and other celestial bodies, resolving itself in the creation of a regime in which that objective, and that way of thinking about our planetary environment, was not just dominant but also subordinate to everything else. The technology through which those projects were to be made thinkable, furthermore, was clearly only ‘neutral’ to the extent that one could separate its existence from the fact of its (largely exclusive) possession and control by two violent, competitive, superpowers.126 As Marcuse observed, however, that same rationality – common to both Western and Soviet state forms127 – cut deeper than this. On the one hand, the technologies of mass communication, surveillance and warfare were to profoundly shape the perception, experience and apprehension of everyday life, creating a ‘technological reality’ of an ‘object world’ conceived ‘as a world of instrumentalities’.128 On the other hand, however, that same rationality would serve to alienate the subject from their life world through their incorporation into the ‘technological community of the administered population’.129 The domination of nature that technology appeared to enable was thus only one side of a formation that had, as its complement, a human domination propagated through the technological ‘administration’ of the subject and the manufacture of human desires, needs and interests.130 To the extent, then, that the Moon Treaty embraced this rationality, it was one that was ultimately pacifying in effect, swallowing up and repulsing all alternatives, bringing all within the sway of the same totalitarian tendency. In the second place, and as an apparently countervailing measure, was the idea that access to, and the use of, outer space resources should be subject to an international regime, the ‘purposes’ of which were set out in Article 11(7). Just as the International Telecommunication Union managed the ‘technical’ distribution of wavelengths and frequencies, allocating slots in the geostationary orbit, and just as the World Meteorological Organization coordinated the collection and dissemination of meteorological data, so also it was envisaged that the resources of the moon should similarly be subject to the oversight of an international regime of rational administration. The anticipated regime, it was explained, would concern itself with the ‘orderly and safe development of the natural resources’, their ‘rational management’, ‘the expansion of opportunities in the use of those resources’ and an ‘equitable sharing of the benefits’. The model of administration imagined here was one clearly designed to displace the possibility of unrestricted pillage or of primitive accumulation, and the language deployed elicited a sense of distance from precisely those ideas. No mention is made of the practices of extraction, commodification or exploitation that might be enabled; rather, it is faintly suggested, the moon might be ‘improved’ through its ‘development’, terraformed perhaps into a site fit for tourism or colonization? Yet, by the same token, the arrangements seemed to be concerned merely with the transfiguration of relations of power into bureaucratic technique and, in doing so, maintained in place the very same conditions that underpinned the practices to which it was opposed. Certainly, it was clearly envisaged that a further agreement would follow, setting out in more detail the administrative arrangements required for the purposes of the ‘equitable sharing of benefits’. Certainly, it was also possible that such arrangements might include the transfer of technology, the sharing of science and the distribution of profits. But no measure of administration could avoid the observation that the regime was to authorize in space precisely the same operations that had been productive of the material inequalities on earth, albeit this time it was ‘colonization’ or ‘conquest’ in the name of humanity (‘mankind’) rather than some small subset of the same. Finally, and related to this, the very ‘commonness’ of humanity to which the regime gave expression was ultimately a vestigial one. Humanity was to be represented here, not as a universal community of free-willing subjects or as a set of values – of rights or needs – but, rather, through the mediate category of material ‘interests’; the exploration and use of the moon, as Article 4 puts it, ‘shall be carried out for the benefit and in the interests of all countries’. What humanity had in common, thus, and what defined it once one took away the categories of rule and ownership, was a fluid, economy of ‘interests’,131 the fulfilment of which was always more or less and which was open to be bargained, traded, sacrificed and exchanged. These ‘interests’ assumed the same metaphorical function of assets and liabilities in double-entry bookkeeping – as abstract quantities capable of being compiled, indexed, managed, balanced and administered in the same way as the material resources to which they appeared to relate. Whilst undoubtedly central to the foundations of both capitalism132 and liberal democratic thought,133 they bespoke, in the same measure, of a natural social mechanism or instinct that transcended time and place, that was universally operable and ascribable equally to ‘future generations’ as much as to those of the present. They were/are, in that sense, always ‘common’ and everywhere present, even if the plea to ‘commonness’ would frequently arrive in the form of a demand for their moderation. Their function, however, has been to rationalize social relations, describe their operative mechanics and authorize sovereignty, all in a manner akin to the market – in which human life, qua interests, is the formal subject matter of processes of transaction and exchange. If then the ultimate telos of the regime was to turn, by some bewitching magic, something that was not capable of being owned into something that might become so (through its removal), so also it seemed to imagine that this was also the case with respect to the category of ‘humanity’ that it ushered into existence. Humanity comes to be expressed, ultimately, in a metaphorically commodified form of life identified in and through its relationship to the resources over which it seeks to have control. To be human is to partake of the ‘interests’ in the resources of the moon and other planetary bodies in which all are deemed to share. Just as outer space was a site in which the distinction between peace and war became blurred so as to make warfare itself an illegible part of the regime, so also we might observe, in this context, another similar construction. Here, the regime takes on the character of that which it seeks to prevent or avoid – a system of resource extraction and of primitive accumulation, through which every other relationship humankind might have with the outer space environment, and, indeed, with itself, comes to be mediated. As the instrumental object of a regime of management that has the ‘use’ of nature as its operative configuration, outer space becomes enmeshed within the one-dimensional dynamics of the total administrative state that was central to its formation and, with it, the very meaning of what it is to be human in space.

#### This is part and parcel with a global system of fractal policing – the will to peace produces endless violence through shadow forms of engagement that are located beyond the cognitive maps of their conception of space policy as a solely material process

Öberg 14 (Dan Öberg, senior lecturer of war studies at the Swedish National Defence College, PhD from Yokohama National University, May 2014, “Introduction: Baudrillard and War,” *International Journal of Baudrillard Studies* Volume 11 Number 2, footnote 5 included in curly braces)

Up to now we have seen that Baudrillard’s critique illustrates how the Cold War, due to nuclear arms and deterrence, the changing role of media and IT, and high-tech weaponry force war to split into a real and a virtual mode. One important example of this is the way the Gulf War, waged as a business or advertising campaign, enables simulated models and technological processing to appropriate war’s being. The end of the Cold War therefore signifies how particular aspects of deterrence continue through other means and in so doing give rise to new effects. To Baudrillard, one of the most important effects is a constant policing of singularities, events, or any kind of potential political subversion. Baudrillard first identified this tendency in the Vietnam War (see below) but a more recent example which is equally relevant is the alleged shift from ‘enemy centric’ to ‘population centric’ counter-insurgency (see Kilcullen 2007). This illustrates an overlap between his thought and recent discussions on policing in critical War Studies. This discussion has engaged with the way war and policing intersects in contemporary Western interventions. It particularly focuses on understanding war as ordering, othering, and spatializing logics which force the distinction between war and policing to break down (Holmqvist 2014 and Bachmann et.al. 2014). So what is Baudrillard’s take on war as policing in relation to this particular debate? Baudrillard identified the Vietnam War as a means to violently reshape the social (a “generative” aspect of war which has also been debated in critical War Studies, see Barkawi and Brighton 2011). To him the Vietnam War was interesting first and foremost in how it masked both a peaceful coexistence between two blocks (East and West) and how it aimed to liquidate ‘savage’ and archaic societal structures. He argues that the war took place as long as there was a wild subversive element to the uprising (illustrated by the Viet Cong). But as soon as Vietnam as a country ‘showed’ the world that it was no longer unpredictable, the war ended (Baudrillard 1994a: 36-37). Therefore, the war in Vietnam masks not only the status quo of the Cold war but also the fact that: (B)ehind this simulacrum of fighting to the death and of ruthless global stakes, the two adversaries are fundamentally in solidarity against something else, unnamed, never spoken, but whose objective outcome in war, with the equal complicity of the two adversaries, is total liquidation. Tribal, communitarian, precapitalist structures, every form of exchange, of language, of symbolic organization, that is what must be abolished, that is the object of murder in war – and war itself, in its immense, spectacular death apparatus, is nothing but the medium of this process of the terrorist rationalization of the social – the murder on which sociality will be founded, whatever its allegiance, Communist or capitalist. Total complicity, or division of labor between two adversaries…for the very end of reshaping and domesticating social relations (Baudrillard 1994a: 37, my emphasis). Baudrillard therefore reads the Vietnam War as one illustration of a kind of global policing which not so much revolved around the two adversaries opposing each other but rather on the way in which deterrence enabled liquidating, reshaping, and domesticating social relations. This is also evident in the Gulf War as the aim there was to ‘impose a general consensus by deterrence’ (Baudrillard 1995: 83) which is no longer the bipolar deterrence of the Cold War but a monopolistic deterrence ‘under the aegis of American power’ (Ibid.: 84). Such a policing through war works as a way to eradicate the possibility of subversion in everyday life and thereby police not only the Gulf but also the heart of Europe (Ibid.: 52). More than anything this is a matter of policing the simulation of democratic consensus as consensus. A matter which Baudrillard ominously invokes as a continuation of war through a violent conditioning of the social: ‘…(T)omorrow there will be nothing but the virtual violence of consensus, the simultaneity in real time of the global consensus: this will happen tomorrow and it will be the beginning of a world with no tomorrow’ (Ibid.: 84). And here we might pause and ask, are the Russian wars in Chechnya or Georgia, the second Israeli war in Lebanon or interventions in Gaza, the interventions in Afghanistan (2001-) and Libya in 2011, not possible to see in terms of such policing? This would indicate a breakdown of the distinction of peace and war in which the same police-style violence is evident in both (Baudrillard,1998a: 17). But also, it would indicate that these are wars which aim to police the simulacrum of liberal order itself. If seen in this way we might appreciate how Baudrillard outlines a type of policing which goes towards the spatial through controlling a population and an area (linking it to the debate on policing in critical War Studies). But, more importantly, Baudrillards critique of war as policing points to the way interventions attempt to (1) police *the* *past* by whitewashing events so as to justify them retrospectively and (2) police *the* *future* through policing the consensus. Baudrillard reads the invasions in Iraq and Afghanistan as having 9/11 as focal point and thereby becoming what he calls ‘rituals of exorcism’ which tries to justify the event and the trauma of the past. But also in the sense that interventions aim to police the future through a systematic reprogramming and neutralization of not only possible crimes (or subversive movements) but of every possible future friction that might challenge the order of things (2005a: 118-119; 2007a: 114, 118). If war continues through policing, one of its “side effects” – Abu Ghraib – also, perhaps, suggests that “war as policing” necessarily gives rise to “war as incarceration”. Andreja Zevnik’s ‘War Porn: an image of perversion and desire in modern warfare’ (2014, this special issue) picks up on Baudrillard’s analysis of Abu Ghraib and the images of torture which became overexposed in the media around 2005. She engages with Baudrillard’s essay ‘War Porn’ (2005b: 205-209) by looking at the way underlying ideologies and logics make such simulations possible, as well as help to reproduce them. By coupling notions of porn and obscenity with the Lacanian notions of law and perversion, the article illustrates how war’s violence has a tendency to perpetuate its own principle. And indeed, if we follow Baudrillard’s diagnosis, it is precisely as a mirror and an allergy to the violence perpetuated by this ‘unbearable power’ (Baudrillard, 2002a: 18, 5) that events like 9/11 occur. Terrorism would thereby be a virus caused by the sickness of globalism, indicating a type of war: ‘no longer between peoples, states, systems, and ideologies, but rather, of the human species against itself (Interview with Baudrillard in *Der Speigel* 2004). Baudrillard argues: With each succeeding war we have always moved close to a single world order. Today that world order, which has virtually reached its end, finds itself grappling, in all the current convulsions, with the antagonistic forces spread throughout the global dimension itself. A fractal war of all cells, of all singularities, rebelling in the form of antibodies. A clash so elusive that the idea of war has to be rescued from time to time by spectacular set-pieces like the Gulf War (Baudrillard 2003: 63, my emphasis).5 {5.Baudrillard’s statements might be far-fetched for the mainstream student of war. But paradoxically, the idea that the system creates the condition for possible retaliation is also evident in military science. For example, it is often stated in theory on insurgency and counterinsurgency that warfare is an *assymetric* phenomenon which aims at ‘targeting vulnerabilities and of doing the radically different’ (Thornton 2007: 2).} The suggestion that contemporary wars function as masquerades to obscure the fractal war against a “globalist” world order might be the most overtly political aspect of Baudrillard’s thought on war. If the appropriation of the real through the virtual indicated a shift in Baudrillard’s thinking from war as a derivative of the capitalist system (the Marxist view) to war as its own simulation (as outlined in part II of this introduction), this would indicate that this simulation hides a war which ‘haunts every world order, all hegemonic domination…for it is the world, the globe itself which resists globalization’ (Baudrillard 2002a: 12).6 Several articles in this special issue engage with this fractalization of war. William Pawlett (2014, this special issue) provides a reading of Baudrillard’s position on complicity and collusion particularly in relation to the notion of (and as a means to defy) hegemonic domination. Samuel Strehle (2014, this special issue) argues for a War Studies that take the undecidability of thinking (and the challenge to theory that this implies) as its founding principle, and in the epilogue Gerry Coulter (2014, this special issue) discusses Baudrillard’s war against cultural homogenization and sameness. Arguably Pawlett, Strehle, and Coulter all elucidate aspects of how to think ‘fractal war’ in relation to global policing of events and singularities. Moreover, Astrid Nordin (2014, this special issue) further investigates the implications of Baudrillard’s challenge as she inquiries into whether his thought might be extended to understanding the wars of “Others”. Engaging with China’s participation in the global “war on terror”, particularly the way contemporary Chinese rhetoric places itself as a (peaceful) alternative to the West and represents itself through war in relation to its neighbors, Nordin shows convincingly that there is no respite from our problems in the thought of ‘the Other’. Following Nordin and Coulter we realize that dividing lines between self and other do not run between the West and China, but rather in relation to the fractal particles at war in each and every one of us. As the texts illustrate, regardless of whether we agree with, or oppose Baudrillard’s critique against western globalism, it is important to notice (Coulter 2014, this special issue) that this critique is not a matter of simple ‘anti-Americanism’. William Merrin argues that Baudrillard in his challenge sets his eyes on a wider target: the entire Western semiotic culture (2005: 106). However, as Nordin convincingly shows this target might be less ‘Western’ than Baudrillard would acknowledge.

#### Vote to reject their singular disruption in presence as presence. Understanding war as instrument of policy/ the appeal to particularity disavows the structural nature of warfare. Only the development of an ontology of war that problematizes the project of military modernization can solve. True violence is the grid of subject construction- we must begin there.

Barkawi and Brighton ’11(Tarak, Department of IR at University of Cambridge, Shane, Department of IR at University of Sussex, “Powers of War: Fighting, Knowledge, and Critique”, International Political Sociology (2011) 5, gender modified, [SG])

So, what can be said of the ontology of war, that fundamental character which manifests itself in each instance of war and is true of war in general? As a phenomenon, war presents itself in historically specific ways and most writing about it reflects this. Military historians begin with the archive and the particularity of testimony. Strategic analysts attend to specific alignments of forces and the effect of engagements on the course of a war. Those who experience a war encounter its particular violences and their cumulative impact. Despite this, the question of the fundamental character of war beyond its finite, historical manifestation recurs: just as war poets frequently intimate transcendent human truth, strategists and policy makers seek to recover eternal verities from narratives of past battles and campaigns. A proper approach to the ontology of war does not seek to resolve this discomforting tension, as though some decision were possible between ‘‘war’’ and ‘‘wars’’ as the correct object of inquiry. Rather, we propose to take it as a basic framework from which to proceed. We are not the first to do so. Clausewitz, tellingly described as both historically specific to the point of irrelevance (van Creveld 1991:ix; Kaldor 1999:13-30) and a source of timeless insight (Gray 1999:75-112), also grapples with the universal and the historically contingent character of war, what we call its historicity. We consider his efforts below and mark the recurrence of this conceptual tension in Etienne Balibar’s recent work (Balibar 2008). He discusses the continually transformative effect of ‘‘this war’’—the war we are in or may be subject to—upon efforts to think about ‘‘war’’ as such. The historicity of war, in the first instance, consists of the urgent grasp of ‘‘this war’’ on politics and society, of its ordering effects on thought and knowledge about war. What is it about ‘‘this war,’’ most fundamentally, that demands attention to the exclusion of other perspectives? Note a difference between accounts produced by strategists, commanders, staff officers, soldier poets, and memorialists, on the one hand, and much of the academic literature mentioned earlier. Participant perspectives, with varying degrees of directness, center on fighting, past, current, or potential. Fighting is that which thematically unifies war in general and in particular—‘‘war’’ with ‘‘wars’’—and no ontology of war can exclude it. Attention to fighting is that which marks out war-centered analysis from that reducing war to a secondary effect. Fighting and the violence of war exercise a profound grasp on the imagination, constituting the practical test to which strategic thought is oriented and the conventional mode for the achievement of victory. Fighting is dwelt upon in representations of war in popular literature and cinema. Even Sun Tsu’s aphorism that true strategic excellence consists in ‘‘[subduing] the enemy without fighting’’ (Sun 1971:77) derives its power from a paradoxical relation to this basic truth, perhaps best articulated in Clausewitz’s much quoted observation that fighting is as definitive for war as cash exchange for economy (Clausewitz 1976:97). However, what fighting is, how it might be understood and positioned within a fundamental theory of war, cannot be taken for granted. Clearing the ground for a new ontology of war requires recognition that fighting understood instrumentally, as the Clausewitzian duel, the test of arms, as ‘‘kinetic exchange,’’ misses its wider implication and importance. But as we saw above, fighting, or more broadly military operations, is the site of a decisive divide in inquiry that can be characterized as ‘‘war or society,’’ between a focus on war as fighting and on its impact on society. The former’s limitation of focus, we suggest, is not an intellectual failure but, rather, an outcome of the historicity of war. For those who focus on war as fighting, its reality as an actual and potential presence compels an instrumental relation to it, such that knowledge about war is never fully exterior to an order war itself creates. Fighting always entailsthe problem of how to survive and prevail, and the question of the appropriate instruments and means by which to do so occupies the minds of soldiers, strategists, and political leaders who embark on war**.** The question is what is occluded by such instrumentalization—by the order of knowing and being war creates—and what might be said of the wider ontological significance of fighting? Economics as a discipline after all has not been limited to or necessarily centered upon the study of cash exchange. War studies as the study of warfighting surely apprehends that most definitive of war, but rarely escapes from the limits of historic particularity and thereby constrains its own potential utility for a wider analysis of war. Fully developing our point about the instrumentalization that fighting demands would require attention to the broad and disparate literatures concerning the experience of war and its effects, something we do only in a limited fashion here. But it enables a preliminary observation on the ontology of war: war is defined by fighting or its immanent possibility and—as an historical, existential, issue in the lives of those who seek to understand it—this definitive element resists disinterested analysis, while tending to instrumentalize knowledge about war. One work that describes the powerful grasp of war on thought is Emmanuel Levinas’s Totality and Infinity. An extended essay on the relationship between ontology and ethics, Levinas’s work begins from the proposition that the proximity between war and knowing is fundamental, asking rhetorically whether or not ‘‘…lucidity, the mind’s openness on the true consist[s] in catching sight of the permanent possibility of war?’’ (Levinas 1969:21) His point is the pervasive, but not always recognized or acknowledged, influence of war on knowledge, the ‘‘truth’’ of which functions within public rationality and institutions as a basis for the flourishing and survival of the polity. War for such rationality and institutions serves as a reality against which their truths are tested. Despite dissimulations by political figures and official organs, ‘‘the trial by force is the test of the real’’: a point of vindication or failure for those who might speak truth about the realities of war (ibid.). So far, Levinas appears to offer an imperative for instrumentalized strategic thought, for getting it right or facing ruin on the battlefield. But he quickly goes further to suggest there can be no rational comprehension of politics, no political calculation at all without understanding how ‘‘in advance [war’s] shadow falls over the actions of men.’’ Vitally, this imbrication of war and truth goes beyond the narrow framework of strategic thought and public rationality. That it does so is revealed in the reality of war itself, the violence of which ‘‘does not consist so much in injuring and annihilating persons as in interrupting their continuity, making them play roles in which they no longer recognize themselves’’ in ‘‘an order from which no one can keep [their] distance.’’ While fighting remains a kinetic exchange, the Clausewitzian Schlacht, and the most fundamental element of war, it is also an event and process with the ability to draw in and disrupt wider certitudes and coordinates of human life, to shape and accelerate the transitory and mutable in human affairs. It is a ‘‘casting into movement of beings hitherto anchored in their identity… by an objective order from which there is no escape…’’ (ibid.). War might, as Heraclitus tells us, make kings, gods, and slaves, but it also retains the power to unmake them, sometimes irrespective of their own actions. This transformative effect, the capacity to rework the reality of social and political existence, is, of course, the objective of waging war. War forces change, strategy being both the science of its management and the means to a putatively superior peace. But Levinas’ point, and the basis of his ethical intervention, is that irrespective of their being rendered such in strategic calculus and destroyed as such in fighting, people are not only, or even primarily, brute facts, strategic datum. Rather, they are, among other things, bearers of meaning and manifestations of contemporary truths. They are the authors and outcomes of social, political, and economic processes. Reinvested with full meaning, fighting marks the disruption of this wider order and the people and other entities which populate it, the unmaking and remaking of certainties, of meaning, of—potentially—the very coordinates of social and political life. ‘‘Since [Napoleon], all campaigns have produced such comet like vibrations that they can scarcely be thought of as only military because they involve the whole of society’’ (Clausewitz quoted in Bucholz 1985:25). As the basic element of the ontology of war then, fighting presents itself as a duality. First, it drives the intellectual instrumentality of truth about—and in—war, through its historicity and immediacy. But second, it also exceeds the terms of that immediacy. This ‘‘excess’’ is the capacity of organized violence to be more than kinetic exchange, to be constitutive and generative, to ‘‘cast into motion’’ subjects who are then alienated from themselves and come to know themselves and the world in new ways. For us, this ‘‘excess,’’ lying beyond the compelling, immanent socio-political logics of combatants, is at the core of the ontology of war. It is both that which gives war its status as an ontological event for politics and society and a problematizing framework from which a critical approach to war studies might begin. It is an ontology that retains the power of war-centered analysis without limiting inquiry to a focus on warfighting. We hold on to the ontological primacy of fighting, but wrest it from the instrumentality its historicity demands. In doing so, we note the material and intellectual importance of this historicity. War, like a societal centrifuge, has the power to draw in resources—intellectual, scientific, social, economic, cultural, and political—and unmake and re-work them in ways that cannot be foreseen. This disordering and reordering in part determines the dynamics of strategic thought, the rise and fall of various theories and paradigms of warfighting, as well as the more general subjective violence, the violence to meaning, to which Levinas testifies. We note also that this violence undoes many traditional enframements of war: in its contingency and destruction, it exceeds the strategic calculi of war as an instrument of policy; in its generative power of re-making, it exceeds reduction to its destructive consequences alone. Having offered these observations on the ontology of war, we now illustrate and expand upon them with particular reference to the problem of knowledge in and about war.

# 1AC

## Framing

### Megacon

#### Circumvention

#### Starlink operated by SpaceX.

Wikipedia No Date [Wikipedia. No Date. Accessed 1/16/22. “Starlink”. <https://en.wikipedia.org/wiki/Starlink> //Xu]

Starlink is a satellite internet constellation operated by SpaceX[1][2] providing satellite Internet access to most of the Earth.[3][4] The constellation has grown to over 1,700 satellites through 2021, and will eventually consist of many thousands of mass-produced small satellites in low Earth orbit (LEO), which communicate with designated ground transceivers. While the technical possibility of satellite internet service covers most of the global population, actual service can be delivered only in countries that have licensed SpaceX to provide service within any specific national jurisdiction. As of January 2022, the beta service offering is available in 24 countries.

#### NASA partners with SpaceX

Sheetz 19 [Michael Sheetz (Space Reporter for CNBC.com). “How NASA is evolving through partnerships with private space companies.” CNBC. NOV 30 2019. Accessed 1/16/22. <https://www.cnbc.com/2019/11/30/how-nasa-is-evolving-through-partnerships-with-private-space-companies.html> //Xu]

Each batch of tipping point awards are divided among multiple programs. The most recent awards, announced in September, saw 14 U.S. companies win a combined $43 million to develop technologies that will help NASA's "Moon to Mars" initiative. The contracts went to a wide variety of companies — from SpaceX to Blue Origin to Astrobotic – for a variety of purposes — from producing cryogenic production, to developing sustainable energy generators or building affordable propulsion systems for small spacecraft. SpaceX and Boeing to fly NASA astronauts Another one of the agency's top focuses is a program called Commercial Crew, which is the agency's solution to end reliance on Russian Soyuz spacecraft to send astronauts to the space station. NASA has awarded SpaceX and Boeing more than $3.1 billion and $4.8 billion, respectively, since 2014 to develop capsules capable of launching U.S. astronauts multiple times per year. SpaceX and Boeing are close to completing work on their respective Crew Dragon and Starliner capsules, while Bridenstine said in October that the first launches with crew on board may happen as early as the first months of 2020. Commercial Crew is representative of a shift within NASA, where the agency buys services rather than hardware from companies. While delays have plagued the program, both companies are in the final stages of testing the capsules. Boeing expects to conduct its uncrewed test flight of Starliner on Dec. 17, which will be much like SpaceX's Demo-1 mission earlier this year. And, after SpaceX completed a key test of its Crew Dragon capsule, the company expects to conduct a test of the capsule's emergency escape system during a launch in December. NASA expects to pay about $90 million per seat to fly with Boeing and $55 million to fly with SpaceX. A seat on a Russian Soyuz spacecraft would cost about $82 million per person currently.

#### Black’s Law Dictionary defines private as “Affecting or belonging to private individuals, as distinct from the public generally. Not official.”

[“What is PRIVATE?” Black’s Law Dictionary. No Date. Accessed 1/4/21. <https://thelawdictionary.org/private/> //Xu]

#### Merriam Webster defines entity as “something that has separate and distinct existence and objective or conceptual reality”

[“entity”. Merriam Webster. No Date. Accessed 1/7/22. <https://www.merriam-webster.com/dictionary/entity> //Xu]

#### Proves partnerships and collaborations aren’t topical.

#### Squo debris thumps

**Wall 21** [Mike Wall, Michael Wall is a Senior Space Writer with [Space.com](http://space.com/) and joined the team in 2010. He primarily covers exoplanets, spaceflight and military space. He has a Ph.D. in evolutionary biology from the University of Sydney, Australia, a bachelor's degree from the University of Arizona, and a graduate certificate in science writing from the University of California, Santa Cruz. 11/15/21, "Kessler Syndrome and the space debris problem," Space, [https://www.space.com/kessler-syndrome-space-debris accessed 12/10/21](https://www.space.com/kessler-syndrome-space-debris%20accessed%2012/10/21)] Adam

Earth orbit is getting more and more crowded as the years go by. Humanity has launched about 12,170 satellites since the dawn of the space age in 1957, [according to the European Space Agency](https://www.esa.int/Safety_Security/Space_Debris/Space_debris_by_the_numbers) (ESA), and 7,630 of them remain in orbit today — but only about 4,700 are still operational. That means there are nearly 3,000 defunct spacecraft zooming around Earth at tremendous speeds, along with other big, dangerous pieces of debris like upper-stage rocket bodies. For example, orbital velocity at 250 miles (400 kilometers) up, the altitude at which the ISS flies, is about 17,100 mph (27,500 kph). At such speeds, even a tiny shard of debris can do serious damage to a spacecraft — and there are huge numbers of such fragmentary bullets zipping around our planet. ESA estimates that Earth orbit harbors at least 36,500 debris objects that are more than 4 inches (10 centimeters) wide, 1 million between 0.4 inches and 4 inches (1 to 10 cm) across, and a staggering 330 million that are smaller than 0.4 inches (1 cm) but bigger than 0.04 inches (1 millimeter). These objects pose more than just a hypothetical threat. From 1999 to May 2021, for example, the ISS conducted 29 debris-avoiding maneuvers, including three in 2020 alone, [according to NASA officials](https://www.nasa.gov/mission_pages/station/news/orbital_debris.html). And that number continues to grow; the station performed [another such move in November 2021](https://www.space.com/space-station-dodging-chinese-space-junk-spacex-crew-3), for example. Many of the smaller pieces of space junk were spawned by the explosion of spent rocket bodies in orbit, but others were more actively emplaced. In January 2007, for instance, China intentionally destroyed one of its defunct weather satellites in a much-criticized test of anti-satellite technology that generated [more than 3,000 tracked debris objects](https://swfound.org/media/9550/chinese_asat_fact_sheet_updated_2012.pdf) and perhaps 32,000 others too small to be detected. The vast majority of that junk remains in orbit today, experts say. Spacecraft have also collided with each other on orbit. The most famous such incident occurred in February 2009, when Russia's defunct Kosmos 2251 satellite slammed into the operational communications craft Iridium 33, producing [nearly 2,000 pieces of debris](https://swfound.org/media/6575/swf_iridium_cosmos_collision_fact_sheet_updated_2012.pdf) bigger than a softball. That 2009 smashup might be evidence that the Kessler Syndrome is already upon us, though a cataclysm of "Gravity" proportions is still a long way off. "The cascade process can be more accurately thought of as continuous and as already started, where each collision or explosion in orbit slowly results in an increase in the frequency of future collisions," [Kessler told Space Safety Magazine in 2012](http://www.spacesafetymagazine.com/space-debris/kessler-syndrome/don-kessler-envisat-kessler-syndrome/).

#### Collision risk is infinitesimally small

Fange 17 Daniel Von Fange 17, Web Application Engineer, Founder and Owner of LeanCoder, Full Stack, Polyglot Web Developer, “Kessler Syndrome is Over Hyped”, 5/21/2017, http://braino.org/essays/kessler\_syndrome\_is\_over\_hyped/

The orbital area around earth can be broken down into four regions. Low LEO - Up to about 400km. Things that orbit here burn up in the earth’s atmosphere quickly - between a few months to two years. The space station operates at the high end of this range. It loses about a kilometer of altitude a month and if not pushed higher every few months, would soon burn up. For all practical purposes, Low LEO doesn’t matter for Kessler Syndrome. If Low LEO was ever full of space junk, we’d just wait a year and a half, and the problem would be over. High LEO - 400km to 2000km. This where most heavy satellites and most space junk orbits. The air is thin enough here that satellites only go down slowly, and they have a much farther distance to fall. It can take 50 years for stuff here to get down. This is where Kessler Syndrome could be an issue. Mid Orbit - GPS satellites and other navigation satellites travel here in lonely, long lives. The volume of space is so huge, and the number of satellites so few, that we don’t need to worry about Kessler here. GEO - If you put a satellite far enough out from earth, the speed that the satellite travels around the earth will match the speed of the surface of the earth rotating under it. From the ground, the satellite will appear to hang motionless. Usually the geostationary orbit is used by big weather satellites and big TV broadcasting satellites. (This apparent motionlessness is why satellite TV dishes can be mounted pointing in a fixed direction. You can find approximate south just by looking around at the dishes in your northern hemisphere neighborhood.) For Kessler purposes, GEO orbit is roughly a ring 384,400 km around. However, all the satellites here are moving the same direction at the same speed - debris doesn’t get free velocity from the speed of the satellites. Also, it’s quite expensive to get a satellite here, and so there aren’t many, only about one satellite per 1000km of the ring. Kessler is not a problem here. How bad could Kessler Syndrome in High LEO be? Let’s imagine a worst case scenario. An evil alien intelligence chops up everything in High LEO, turning it into 1cm cubes of death orbiting at 1000km, spread as evenly across the surface of this sphere as orbital mechanics would allow. Is humanity cut off from space? I’m guessing the world has launched about 10,000 tons of satellites total. For guessing purposes, I’ll assume 2,500 tons of satellites and junk currently in High LEO. If satellites are made of aluminum, with a density of 2.70 g/cm3, then that’s 839,985,870 1cm cubes. A sphere for an orbit of 1,000km has a surface area of 682,752,000 square KM. So there would be one cube of junk per .81 square KM. If a rocket traveled through that, its odds of hitting that cube are tiny - less than 1 in 10,000.

#### Low risk of collisions – it’s overhyped

Albrecht 16 [Mark Albrecht, chairman of the board of USSpace LLC, head of the White House National Space Council from 1989 to 1992, and Paul Graziani, CEO and founder of Analytical Graphics, a company that develops software and provides mission assurance through the Commercial Space Operations Center (ComSpOC), Congested space is a serious problem solved by hard work, not hysteria, 2016, https://spacenews.com/op-ed-congested-space-is-a-serious-problem-solved-by-hard-work-not-hysteria/]

Popular culture has embraced the risks of collisions in space in films like Gravity. Some participants have dramatized the issue by producing graphics of Earth and its satellites, which make our planet look like a fuzzy marble, almost obscured by a dense cloud of white pellets meant to conceptualize space congestion. Unfortunately, for the sake of a good visual, satellites are depicted as if they were hundreds of miles wide, like the state of Pennsylvania (for the record, there are no space objects the size of Pennsylvania in orbit). Unfortunately, this is the rule, not the exception, and almost all of these articles, movies, graphics, and simulations are exaggerated and misleading. Space debris and collision risk is real, but it certainly is not a crisis. So what are the facts? On the positive side, space is empty and it is vast. At the altitude of the International Space Station, one half a degree of Earth longitude is almost 40 miles long. That same one half a degree at geostationary orbit, some 22,000 miles up is over 230 miles long. Generally, we don’t intentionally put satellites closer together than one-half degree. That means at geostationary orbit, they are no closer than 11 times as far as the eye can see on flat ground or on the sea: That’s the horizon over the horizon 10 times over. In addition, other than minute forces like solar winds and sparse bits of atmosphere that still exist 500 miles up, nothing gets in the way of orbiting objects and they behave quite predictably. The location of the smallest spacecraft can be predicated within a 1,000 feet, 24 hours in advance. Since we first started placing objects into space there have been 11 known low Earth orbit collisions, and three known collisions at geostationary orbit. Think of it: 135 space shuttle flights, all of the Apollo, Gemini and Mercury flights, hundreds of telecommunications satellites, 1,300 functioning satellites on orbit today, half a million total objects in space larger than

### Corporate

#### The AFF is a form of green governmentality that subjects the environment world and people to managerial regulation – 1AC Mccormick’s valorzination of requiring “Government space agencies have gone to great lengths to keep the scientific and social benefits of publicly funded exploration intact” marks states and the liberal western order as the stewards of a sustainable future and expands green capitalism.

Adelman 15 (Sam, School of Law, University of Warwick, June 2015, “Tropical forests and climate change: a critique of green governmentality”, International Journal of Law in Context, 11, pp 195-212)

I. Green governmentality Michel Foucault coined the neologism ‘governmentality’ as shorthand for mentalities of governance that link knowledge and power to government and rationality. Foucault analysed the ways by which neoliberal governmentality becomes a pervasive way of thinking (Foucault, 2008, p. 219), but warned that neoliberalism should ‘not be identified with laissez-faire, but rather with permanent vigilance, activity and intervention’ (p. 132). Foucault argues that neoliberal economists are fully aware that ‘free’ markets require extensive state intervention and regulation – the ‘rules of the game’ (p. 174). Extensive governance is indispensable for market rule and best achieved through ‘a minimum of economic interventionism, and maximum legal interventionism’ (p. 167). The growing literature on green governmentality uses Foucault’s insights to analyse the significance of neoliberal rationalities and discourses in climate and environmental governance.2 One example is the highly contested concept of sustainable development, which suggests that it is possible to achieve endless economic growth and social justice while protecting the environment.3 Holmgren (2013, p. 370) regards sustainable development as a discourse characterised by a managerial notion of regulation. Wolfgang Sachs (1999) justifiably described the notion as an oxymoron, but such criticism did not deter delegates at the 2012 Rio+20 conference from reincarnating the concept as ‘green economy in the context of sustainable development and poverty reduction’. Green governmentality frames climate change as a technical problem that can be solved by science-driven forms of governmentality associated with the nation state, multilateral institutions such as the UN Framework Convention on Climate Change (UNFCCC) and the IPCC, and transnational capital (Bäckstrand and Lövbrand, 2007, pp. 126–131; Oels, 2005). Luke (1997) describes the intensified governmentalisation of nature through market mechanisms and legal measures that extend neoliberalism into international regulatory systems. This is based on a particular conception of nature bounded within the techniques and rationalities of green governmentality that legitimises governmental interventions as the responsible stewardship of nature: ‘Corporations, all levels of government, scientists, United Nations organizations, and global think tanks have all inserted themselves into the game of speaking for nature. Typified by the sustainable development discourse, these different actors work to produce knowledge about the earth and its resources that cast it as manageable.’ (Luke, 1999, p. 129). In a similar vein, Rutherford (2007, p. 295) argues that environmental discourses emerge through the production of ‘truths’ about nature that require and justify its regulation, management and governance. For Holmgren, global climate governance is a compromise between ecological modernisation and green governmentality, the dominant discourses of forest governance that have shaped neoliberal environmental policies. Ecological modernisation promotes ‘market based solutions, good governance, flexibility and cost efficiency’, whereas green governmentality is based on centralised multilateral regimes to administer the climate, such as the Kyoto Protocol (Holmgren, 2013, p. 370). Oels argues that advanced liberal government in the West leads to the framing of climate change primarily as an economic problem susceptible to governance under legal frameworks like the UNFCCC and the Kyoto Protocol, which are predicated on the effectiveness of market mechanisms and technological solutions. Climate change is thus perceived not as ‘a moral issue but instead a matter of cost-benefit analysis. If the costs of destruction caused by climate change exceed the costs of preventing it, taking action is legitimate’ (Oels, 2005, p. 201). States are still important because they are necessary to facilitate market mechanisms, but they operate alongside a growing number of non-state actors to induce or discipline individuals into behaviour that conforms with market rationality (Paterson and Stripple, 2010).5 Humphreys (2006, p. 215) argues that in many respects the state is now as much a taker as a maker of standards in governance regimes increasingly characterised by market rationalities and ‘voluntary alternatives to state regulation and intergovernmental regimes’ (p. 223).