## OFF

### NC – T

#### The ISS isn’t outer space – this is clear

Hinterman 16 [Engineer & PhD in Astronautics-MIT. Eric Hinterman, Engineer, PhD in Astronautics-MIT, Is the International Space Station outside Earth's atmosphere?, 2016, <https://www.quora.com/Is-the-International-Space-Station-outside-Earths-atmosphere>]

As others have stated, the ISS is technically still within the Earth's atmosphere. Here is an illustration to help put it into perspective:

Chart, funnel chart

Description automatically generated

The ISS orbits at 400 km.

The Thermosphere ends at 690 km.

The exact altitude of the transition into outer space is not well defined, but it is generally understood to exist somewhere in the Exosphere. Therefore, we can comfortably say that the ISS orbits within the atmosphere because it resides in the thermosphere, which is below the exosphere.

#### Vote neg – limits and ground – negative DAs assume space, we do tons of stuff in the atmosphere, their interp makes the topic include every plane helicopter weapon and every other thing that occurs more than an inch off the ground, it makes the entire topic incoherent

#### Topicality is a voting issue that should be evaluated through competing interpretations – it tells the negative what they do and do not have to prepare for—there’s no way for the negative to know what constitutes a “reasonable interpretation” when we do prep – reasonability is arbitrary and causes a race to the bottom, proliferating abuse

#### No RVIs—it’s your burden to be topical.

## OFF

### NC – K

#### Their use of an ethical frame of “injustice” presumes a metaphysics of discrete individuals for injustice to be acted by and on – that’s both conceptually incorrect and leads us to egoistic violence

Carpenter 17 Carpenter, Amber, works in ancient Greek and classical Indian philosophy, with a topical focus on the metaphysics, epistemology and moral psychology underpinning Plato’s ethics and Indian Buddhist ethics, taught or held visiting research appointments at the University of York, St Andrews, Cornell, Oxford, the University of Melbourne and Yale University. BA (Yale), PhD (Kings College London). "Ethics without Justice." A Mirror Is for Reflection: Understanding Buddhist Ethics (2017).

This study in the Buddhist claim that we ought to eliminate anger, and the distinctively Buddhist mode of doing so, has shown that the link between injustice and anger presumes a metaphysics. The moral perspective that picks out injustice as a special and additional kind of harm requires a metaphysics of discrete individuals, doing and “being done to” in turn, with a clear distinction between the two. But such a metaphysics and its moral categories engender in turn certain typical modes of thought—in particular, obsessing about Who is to Blame. Particularly in our victim-status-claiming age, we should wonder whether this is especially fruitful—or apt.

The Buddhist cannot show that their view will confirm or conform to all our intuitions about injustice because their basic metaphysical presumptions do not support the centrality of autonomous agency as a distinctive sort of cause, nor the violation of that by such free agents as a distinctive sort of harm. This is not, however, just an oversight or a morally horrifying omission. The proposal of an alternative metaphysics is the proposal of an alternative way of conceiving the moral. For every exercise in appreciating what no-self means, and what its implications are, is simultaneously an exercise in detachment, in recognizing the impulse to blame and resent as harmful assertions of oneself over and against others. Removing the conceptual structures for righteous indignation strips our evaluations of situations and persons of its self-assertiveness. Rather than being enervating, or blinding us to what moral responsiveness demands, this outlook is resolutely practical. None of this denies the no-self anger-eliminativist the resources necessary for forensics: we can see that some sets of conditions have intentions among them, and we can recognize that under some circumstances, these are more effectively engaged with in modes that differ from how we would engage with a forest fire.30 To regard someone’s raging violence as a forest fire does not mean that we turn the fire hose on it; it means that we consider the enabling conditions and defeating conditions and seek to eliminate the one and enhance the other.31

At the same time, as no-self introduces fluidity into our practices of individuation, it presents us with the entangled mutual causation of all factors and the simultaneous suffering. To see no-self, Buddhist-wise, just is to see that everything is conditioned and conditioning. Released from the demands of indignation, we are left with the only attitude that is appropriate in the face of suffering—a practically oriented care to relieve that suffering. Karuṇā is not an additional feature of a Buddhist outlook or the next thing on the list of dogmata. Care just is the affective and practical recognition of no-self metaphysics. Without discrete individuals to appeal to in any situation—these the perpetrators, these the victims—we have only efficacy in removing suffering as the standard preventing us from nihilism. Where before there were culprits to blame, and myself to exonerate or assert in retaliation, there is now only suffering, for which care to alleviate it is simply what is left when I am no longer distracted by righteous indignation.

#### Delusional egoism collapses the biosphere and produces rampant nationalism – extinction

Loy 17 David R Loy, former Besl Professor of Ethics/Religion and Society at Xavier University, teacher in Sanbo Kyodan Buddhism. M.A. in Asian philosophy from the University of Hawaii in 1975, and Ph.D. in philosophy in 1984 from the National University of Singapore. “Are Humans Special?” Tikkun, Vol. 32, No. 1, Winter 2017, <http://www.davidloy.org/downloads/Loy%20Are%20Humans%20Special.pdf>.

One uniquely human characteristic, emphasized by Buddhism, is that we can develop the ability to “dis-identify” from anything and everything, letting go not only of the individual sense of separate self but also of collective selves: dissociating from dualisms such as patriarchy, nationalism, racism, even species-ism (“we’re human, not lower animals”). Meditation develops such nonattachment, yet the point of such letting-go is not to dissociate from everything but to realize our nonduality with everything.

That human beings are the only species (so far as we know) that can know it is a manifestation of the entire cosmos opens up a possibility that may need to be embraced if we are to survive the crises that now confront us. Instead of continuing to exploit the earth’s ecosystems for our own supposed benefit, we can choose to work for the well-being of the whole. That we are not separate from the rest of the biosphere makes the whole earth our body, in effect, which implies not only a sp cial understanding but also a special role in response to that realization. As the Metta Sutta declares: “Let one’s thoughts of boundless love pervade the whole world— above, below, and across — without any obstruction, without any hatred, without any enmity.”

To ask whether the universe itself is objectively meaningful or meaningless is to miss the point— as if the universe were outside us, or simply there without us. When we do not erase ourselves from the picture, we can see that we are meaning- makers, the beings by which the universe introduces a new scale of significance and value.

The Responsibility of Being Special

If we are special because of our potential, we must choose. We are free to derive the meaning of our lives from delusions about who we are—from dysfunctional stories about what the world is and how we fit into it—or we can derive that meaning from insight into our nonduality with the rest of the world. In either case, there are consequences.

The problem with basing one’s life on delusions is that the consequences are unlikely to be good. As well as producing poetry and cathedrals, our creativity has recently found expression in world wars, genocides, and weapons of mass destruction, to mention a few disagreeable examples. We are in the early stages of an ecological crisis that threatens the natural and cultural legacy of future generations, including a mass extinction event that may lead to the disappearance of half the earth’s plant and animal species within a century, according to E. O. Wilson—an extinction event that may include ourselves.

What needs to be done so that our extraordinary co-creative powers will promote collective well-being (collective in this case referring to all the ecosystems of the biosphere)? Must we evolve further—not biologically but culturally—in order to survive at all? From a Buddhist perspective our unethical tendencies ultimately derive from a misapprehension: the delusion of a self that is separate from others, a big mistake for a species whose well-being is not separate from the well-being of other species. Insofar as we are ignorant of our true nature, individual and collective self-preoccupation naturally motivates us to be selfish. Without the compassion that arises when we feel empathy—not only with other humans, but with the whole of the biosphere—it is likely that civilization as we know it will not survive many more generations.

In either case, we seem fated to be special. If we continue to devastate the rest of the biosphere, we are arguably the worst species on earth: a cancer of the biosphere. If, however, humanity can wake up to become its collective bodhisattva—undertaking the long-term task of repairing the rupture between us and Mother Earth—perhaps we as a species will fulfill the unique potential of precious human life.

#### Planetary interdependence uniquely extends into space – the alternative is a shift away from individuation towards a politics of care that recognizes our mutual interdependence

Gál 20 Réka Gál, PhD student at the Faculty of Information and a Fellow at the McLuhan Centre for Culture and Technology, work unites feminist media theory and postcolonial studies with the history of science and environmental studies and explores how technological tools and scientific methods are employed to purportedly solve socio-political problems. B.A American and Media Studies, Humboldt Universität zu Berlin, M.A Cultural Studies, Humboldt Universität zu Berlin. "Climate Change, COVID-19, and the Space Cabin: A Politics of Care in the Shadow of Space Colonization." mezosfera.org, Oct, 2020, mezosfera.org/climate-change-covid-19-and-the-space-cabin-a-politics-of-care-in-the-shadow-of-space-colonization.

As much as dominant cultural narratives encourage us to entertain the idea that humans stand separate from and above their environments, the planetary crises of climate change and COVID-19 are painful reminders of the ways in which human and nonhuman ecologies are perpetually entangled. It is well-known that industrialized human-nonhuman relations, based on the capitalist extraction of what are considered natural resources, stand at the root of numerous environmental problems that are contributing to climate change. Animal industries – specifically the livestock industry – are one of the largest contributors to deforestation, greenhouse gas emission, and species extinctions.17 COVID-19’s believed origins in the Huanan wild animal markets and its eventual spread to humans is further testament to the ways in which our ecologies are always inseparable, with their intertwined nature here manifesting violently towards humans. Moreover, the spread of the coronavirus lays bare how local exploitation of nature can have global repercussions: the wildlife industry in China exists to this day because wildlife is considered a natural resource owned by the state, and the breeding, domestication, and trading of wildlife is encouraged by law.18

What must be made clear to those who are entertaining the idea that space habitats could provide a solution to such crises is that leaving Earth does not render these entanglements null and void. As much as spacecraft have been positioned as examples of subordinating the rules of nature to human control, their material reality only further consolidates the reciprocity of human and nonhuman, including human-machine, relations. 19 Our dependence on our surroundings intensifies in outer space. The inhospitality of space makes even the most physically fit astronauts dependent on numerous life support systems: oxygen and food supplies, waste management, and humidity control are all technologically operated but require continuous maintenance by humans. As such, ensuring the normal operation of a spacecraft is a relevant analogy for how a relationship of care with the diverse life support systems on Earth could be established.20

However, governments and private companies have been selling people the dream of human spaceflight ever since the Cold War, and the origins of this project in a military enterprise have made a significant mark on its implications for care work. The world of the 1960-70s astronauts was extremely segregated: the popular narrative was that of the hypermasculine astronaut, able to cope with danger and pain without complaint, with a brave wife at home waiting for his return.21 This segregation has had a remarkable impact on the types of work which have been considered “worthy” of these hypermasculine astronauts. In fact, the first American to travel to space, Alan Shepard, explicitly objected to having to learn maintenance techniques. As historian David Mindell put it, “the hottest test pilots didn’t want to be repairmen in space.”22 Similarly, data collected from NASA’s Skylab and the International Space Station’s 4-8 expeditions reveal that the time needed to complete maintenance activities on the Environmental Control and Life Support Systems was vastly underestimated, and in some cases even completely left out of operations plans.23 Even as late as the 2000s, the gendered view of care activities aboard spacecraft persisted: regarding the first female commander of a Space Shuttle, Eileen Collins, NASA made sure that her public persona was level-headed but also “pleasing.” She was referred to as “nice.” She took care of her fellow astronauts on board, taking on emotional labor by “providing support in ways that ease[d] the long hours and tension of training.” Her Air Force nickname was Mom.24

When this article calls for a feminist critique of outer space colonization, the argument is not that banishing technology and returning to a “pristine” nature or some other type of utopian primitivism is going to solve our planetary crises. Nor is it the point that more women need to be hired. What is being critiqued here is what Debbie Chachra has pointed out as a masculinist-capitalist obsession with progress and technological innovation that casts all maintenance, repair, and care work as inferior to creation.25 Much as our current experience of physical isolation during COVID-19 has exhibited, only during breakdowns are such taken-for-granted services made visible anew.26 The privileging of production obscures the societal understanding of the very real relationality of living, and the ongoing care and maintenance work required to keep human life running smoothly both on Earth and in outer space.

Therefore, the problem with extraplanetary colonization is not solely that this escape reinforces an enduring gendered opposition between exit and care, privileging the former over the latter, but also that machines only give the illusion of providing humans with independence from care work. Orsolya Ferencz, the Hungarian Secretary of Space Affairs, claims that Hungarian machines in outer space do not break down27 but the truth is that machines, just like our “natural” environments, do repeatedly break down. They require maintenance. Humans whose lives are intimately intertwined with technology are all too aware of this. Social scientist Laura Forlano writes about her experience as a diabetic who uses various technologies to monitor and maintain her blood glucose levels: “With respect to my insulin pump and glucose monitor, often, I am not really sure whether I am taking care of them, or they are taking care of me.”28 This interdependence additionally applies to the care for “natural” environments which can be regularly observed, for example, in the relationship of Indigenous communities to the environment. In the Hā’ena community in Hawaii, for instance, not only do they always return some of the fish caught to the water as a way of thanking the ocean, but they also managed to impose a ten-year fishing moratorium around their island in 2019, which will both help the renewal of the ecosystem and the recovery of the immediate environment, allowing future generations to fish sustainably.29 With this moratorium, the Hā’ena are providing care-based, restorative justice: the ocean ecosystem has fallen victim to injustice (overfishing), and remedying this ought to help heal the party wounded by the injustice, which is in this case the ocean.30

The extractive industry practices deeply embedded within Western social systems clearly propel us toward unsustainable development. Escaping Earth will not solve these problems. Rather, the solution requires a fundamental onto-epistemological shift, one that will enable us to move away from the exploitative Western-colonialist worldview and towards one that prioritizes care and sustainability. The works of feminist and Indigenous thinkers can inspire us to imagine and understand such a worldview. Numerous pre-colonial Indigenous cultures were sustainability-centric: the acceptance of the reciprocity between humans and their environment and the enforcing of the ethics of care in all areas of life were essential parts of several nations’ worldviews. Indigenous epistemologies see humans and nature as members of an ecological family in which humans, the nonhuman beings around them (for example, badgers, antelopes) and materials (for example, water, clay) all form part of their kinship structures.31 In Indigenous cultures that have survived colonization, such teachings and ethical approaches are passed down to this day.32 Research by Potawatomi scholar Kyle P. Whyte and Chris Cuomo demonstrate that Indigenous conceptions of care emphasize the importance of recognizing that humans, nonhumans (animals) and collectives (e.g. forests) exist in networks of interdependence. Indigenous care ethics manifest also in the fact that mutual responsibility is seen as the moral basis of relationships.33 An important part of this mutual responsibility is that care-based justice is not punishment-centered but recovery-centered: as in the example of the fishing moratorium of the Hā’ena, it seeks to promote restorative justice for those wounded by injustice. This restoration is aimed not only at people and communities, but also at nature.34 Similarly, an ethics of care in feminist philosophy treats the state of interdependence of human and nonhuman beings as a moral foundation.35

Since all infrastructures break, they require continuous maintenance. Information scientist Steven Jackson therefore proposes that the starting point to our thinking on the human relationship to technology has to be a contemplation of “erosion, breakdown, and decay, rather than novelty, growth, and progress.”36 If we accept that our world is “always-almost-falling-apart,”37 then instead of simply focusing on technological innovation as the vessel of our salvation,38 we need to look at the ways in which the world is constantly fixed, cared for, and maintained. This, of course, does not only translate to humans’ relationship to machines, but also to our relationship to our environment –in fact, feminist scholars have already made this point about dealing with our environmental problems: historian of science Donna Haraway’s concept of “staying with the trouble”39 explicitly pleads for the foregrounding of the inherent interconnectedness and interdependence of living, and for working on restoring our broken systems. What we are looking at here is a promising paradigm shift in human-machine and human-nature relations that promotes the recognition that the processes of care and maintenance are foundational to the way humanity relates to our biotic and abiotic environments.40

Both life during the social isolation of COVID-19 and life in the space cabin highlight our perpetual interdependence with our environments. Our life support systems are in a state of continuous decay, but the solution to this is not building more and more invasive risk-mitigation machines based on individualization, isolation and an imperative of absolute, one-directional control. Instead, a better, safer, more sustainable future starts with acknowledging one’s place in a web of interdependent relationships.41 Among other steps, this means that instead of acting as though our biotic and abiotic infrastructures can endlessly care for us, we need to care for them in return. This entails not only planting new forests and cleaning up shorelines, but also policy decisions such as the fishing moratorium mentioned above. As anthropologist Gökçe Günel indicates, even the technologies used for the harvesting of renewable energies require maintenance: solar panels, for example, need to be wiped clean of dust and sand regularly.42 Thinking through the lens of maintenance and care also means providing infrastructures for effectively repairing machines as opposed to producing e-waste and continuously buying new ones which are thrown away once a smarter version is released. Additionally, it means respecting and paying theworkers who are cleaning our hospitals, nursing our sick and harvesting food – most of them immigrants, predominantly women43 – better, as they are the reason we have clean hospitals, transport, and food on our tables, even during a global pandemic.44

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### NC – CP

#### States ought to extend the lifespan of the International Space Station, including continuing cyclical modernization and upgrades of the international space station to indefinitely extend its lifespan.

#### Solves without regulating private industry

Jean-Christophe Mauduit 17. The Fletcher School of Law and Diplomacy at Tufts University. “Collaboration around the International Space Station: science for diplomacy and its implication for U.S.-Russia and China relations.” https://swfound.org/media/205798/sais-conference-jcmauduit-paper.pdf

7. The stability of ISS on the political level

Despite the recent crisis and political skirmishes, the U.S. and Russia still maintained regular talks and diplomatic interactions around common space exploration. In March 2015, only a year after the derogatory comments by Russian Deputy Prime Minister Dmitry Rogozin, Igor Komarov, the current Head of Roscosmos, announced that the Russian space agency and NASA would extend the operation of ISS until 2020 and would be “working together on the program of a future space station” 55 . NASA Administrator Charles Bolden also said that there would also be a joint mission to Mars. Recent talks around a common Moon base, called “Luna 27”, also show E.U. interest and participation to the Russian collaboration proposal56 . On March 1 st 2016, Russian cosmonaut Mikhail Kornienko and American astronaut Scott Kelly, returned from their historic one year long stay aboard the ISS, a collaboration aimed at studying the effect of long-duration missions on the human body57 . To a certain extent it could also be argued that, when President G.W. Bush and his advisors took the initiative to retire the Space Shuttle program back in 2004, the U.S. administration knew it would imply relying on the Russians for sending astronauts in space and saw no issue with it. Furthermore, this dependency was not considered an issue of concern by the administrations in the following years, as the decommissioning of the program was kept on track (the Space Shuttle was eventually retired after the last flight of space shuttle Atlantis, on July 21st , 2011).

As can be seen through those examples, it is therefore reasonable to conclude that, even though politicians and diplomats made rash public statements, space collaboration between the U.S. and Russia remained tight at the level of space agency administrators, astronauts and scientists. If it is to be believed that during the Cold War, astronauts and cosmonauts as well as scientists from both sides of the superpowers could discuss freely enough to come up with diplomatic breakthroughs of such importance as the ASTP and later the ISS, it would be plausible to say that after more than 15 years of collaboration on the ISS, those same actors have forged even stronger links that potentially go well beyond the realm of politics. In a recent interview, NASA Administrator Charles Bolden said that “our relationship with Russia right now is tenuous. Our relationship with Roscosmos is beautiful. The way we cooperate with them, the way we train with them in Houston and Moscow and Star City, we launch out of Baikonur, that’s the model that you want for the future of humanity” 58 . U.S. astronaut Michael Hopkins also recently said that “the cooling relations between Moscow and Washington over Ukraine isn’t felt in space at all”. In turn, the Russian Commander of the ISS Expedition, Oleg Kotov, stated that “the people who work on this program – engineers, constructors, those, who manage the flights – are far from politics and work to achieve one common goal” 59.

What happens when such a highly visible and prestigious endeavor is carried out together by nations? Could it provide added diplomatic stability to the overall relationship?

8. International scientific collaboration around space: interlocked.

The longstanding ISS collaboration between the U.S. and Russia has led to the creation of solid ties between the two agencies and locked their respective scientists in an interdependent, collaborative relationship to the point of becoming an anchor point while geopolitical tensions run high. Indeed, once such a large and prestigious collaboration like the ISS has been started, it is difficult for a nation to unilaterally put an end to it, for several reasons. In their “Case for Managed International Cooperation in Space Exploration” 60 , Broniatowski et al. (2006) highlight that space collaboration saves money and that it generates diplomatic prestige as well as increases political stability.

One of the first reasons is indeed an economic one. After all, the cost of the Space Race had always been a problem for politicians at home, and one of the reason why they actively sought collaboration around space. As early as 1963, President Kennedy had already acknowledged this overlapping interest: “Why should the United States and the Soviet Union, in preparing for such expeditions, become involved in immense duplication of research, construction and expenditure?” 61 . The estimated price tag for the U.S. contribution to the ISS program is a total of $75 billion, of which $30.7 billion consists of Shuttle flights, a costly program62 . This undeniably requires sharing the cost burden among nations. Sharing knowledge and technology therefore also makes sense financially.

The ISS program, with its high visibility worldwide, carries undeniable diplomatic prestige; it is important for nations engaged in space collaboration to show the world that they are contributing to the greater good of humanity and showcase peaceful relationships. Disengaging from the ISS would be seen as an extreme move, one could argue even stronger than the current economic sanctions, and a country leaving the collaboration would suffer negative public repercussions. Storming out of a peaceful room where the greater good is being discussed is never perceived as wise. The continuation of the collaboration is therefore a mandatory act of public diplomacy. At a recent event (5 March 2013) discussing NASA’s role in diplomacy, Kent G. Bress, the Director of Aeronautics and Cross Agency Support Division at NASA’s Office of International and Interagency Relations, declared that “many NASA programs that start out by filling a mission requirement also aid in diplomatic relations, and eventually play a role in public diplomacy” 63 . It is also worthwhile to note that NASA’s main twitter account has more than 3.5 million followers, making it the second largest twitter feed after the White House. Hence space collaboration around the ISS is also a way to show that the disagreements could only be temporary, and that long-term investments in peaceful collaboration are worthwhile and durable, signifying that this “all-time low” is only a lull, and that there is hope for change if politics are reversed on Earth.

#### ISS retirement ends coop with Russia in space – private sector alternatives will exclude the Kremlin

Nayf Al-Rodham 18. Honorary Fellow, St. Antony’s College, Oxford University. “This is what the future holds for the International Space Station.” https://www.weforum.org/agenda/2018/04/as-the-international-space-station-nears-the-end-of-its-life-what-will-space-exploration-look-like-in-the-future/

If this scheme was not viable economically, the ISS may be finally decommissioned. Its structure would be guided in a controlled manner into the Earth’s atmosphere, so that it burns up over large sections of ocean. In any case the ISS will leave an impressive legacy for research and international cooperation.

At the beginning of 2018, the ongoing mission is Expedition 54, which constitutes the 54th rotation of the permanent ISS crew of six astronauts. NASA has an extensive list of experiments, which will benefit from extension of the life of the ISS for a few more years. For example, the Alpha Magnetic Spectrometer, NASA’s particle physics detector, is researching dark matter in a setting that would not be possible on Earth.

What happens after the ISS?

At the two-day International Symposium for Personal and Commercial spaceflight in October 2016, the decommissioning of the ISS was one of the major talking points. Charles Bolden, then head of NASA, announced that private companies would soon have the possibility of docking modules at the ISS, confirming an expectation that there will be a shift towards privately-funded ISS crews and missions, with the possible development of commercial space stations after decommissioning.

In fact, the foundations for private actor involvement in space are quite established. Bigelow Aerospace, an American space technology company, has already developed habitat modules, or expandable habitats (the Bigelow Expandable Activity Module, or BEAM), which are able to provide radiation and thermal protection and serve as a facility in which astronauts can operate in space.

The first launch was in April 2016, from SpaceX’s Dragon spacecraft CRS-8 on a resupply mission to the ISS, which represented the first step private actors have made towards a replacement ‘station’ located in space.

Other private corporations such as Orbital Sciences, Lockheed Martin and Sierra Nevada Corp are all developing new technologies to be used on future missions, and Axiom Space is seeking to establish the world’s first private, international, commercial space station by 2020 – the Axiom International Commercial Space Station.

Supporters of commercial space stations point to significant cost reductions for state space agencies. Space agencies would rather be able to lease an expandable orbiting habitat at a relatively affordable price – perhaps at $1 million for a one to two month visit. While the ISS has cost over $100 billion to develop, BEAM was constructed for $17.8 million.

Such cost reductions could increase the accessibility of space exploration for countries with less experience and financial resources. Private space stations could not only serve as a base for scientific research, but also a hub for those travelling to the moon or to Mars, or to support the activities of emerging space actors, such as asteroid mining companies. Public-private partnerships for space station cooperation are also likely to gain traction, due to the cost reduction benefits.

Such concepts fit well within the new space policy framework setup by the US Federal Administration in 2017.

But states are also preparing for life after the ISS. For example, Russia apparently considers the creation of its own space station, and after 2024 it may detach its ISS modules with the aim of constructing of a new Russian habitable space station – dubbed the Russian Orbital Station (ROS). Roscomos sees the creation of an autonomous space station as a necessary prerequisite for fulfilling its ambitions in space, including the establishment of a Moon base.

In addition, China is planning its own permanent space station – the Tiangong Space Station. In October 2016, the Chinese space agency successfully launched two taikonauts (a term for Chinese astronauts) to board the experimental space laboratory (Tiangong 2). These developments constitute integral steps in achieving China’s plans to complete the space station by 2022. China was unable to cooperate on the ISS due to refusal by the US. Currently, China’s space station plans are among the most comprehensive of any nation and with a successful completion of the Tiangong Space Station, China could potentially challenge US dominance.

The possible fragmentation of outer space research activities in the post-ISS period would constitute a break-up of an international alliance that has fostered unprecedented cooperation between engineers and scientists from rival geopolitical powers – aside from China. The ISS represents perhaps the pinnacle of post-Cold War cooperation and has allowed for the sharing and streamlining of work methods and differing norms. In a current period of tense relations, it is worrying that the US and Russia may be ending an important phase of cooperation.

#### US-Russia cooperation over the ISS is dangerous appeasement – Russia will leverage the plan to build their military and solidify land grabs

Dinerman 14 [Taylor Dinerman, writer for The National Review, April 15, 2014. “The U.S. and Russia: No Better Together in Space Than on Land.” https://www.nationalreview.com/2014/04/us-and-russia-no-better-together-space-land-taylor-dinerman/]

As the crisis in Ukraine drags on, it becomes more and more evident that Vladimir Putin intends to grab as much of Stalin’s old empire as possible. In spite of the 2009 “reset” and all the Obama administration’s efforts to appease the ruler of the Kremlin, Putin and his team really are America’s worst “geopolitical enemy,” as Mitt Romney explained during the 2012 campaign. One of the most sensitive aspects of the Russia–U.S. relationship — the one concerning what the two countries launch into space — is being urgently reexamined in Washington and throughout the U.S. space industry. Today, Russia, with its Soyuz rocket-and-capsule combination, has total control over human access to the International Space Station (ISS), and unless plans change that will remain the case until at least 2017. The U.S. relies on Russian space technology in other important ways as well. Carrying on without Russian cooperation is an unpleasant prospect for NASA, for our military, and for our space industry. But our political, military, and space-industry leaders need to start examining their options without delay. Almost from the beginning of the Space Age, shortly after the Soviet launch of Sputnik in October 1957, some Americans (especially liberals) promulgated the idea that the U.S. and the USSR should cooperate rather than compete in the realm of space exploration. In creating NASA as a civilian agency, Eisenhower wanted to avoid giving the impression that the U.S. was in a “space race” with the USSR, while at the same time forging ahead with his No. 1 priority, the world’s first spy satellite, the Corona. This program completed its first successful mission in the summer of 1960, at the same time that JFK and the Democrats were complaining about the “missile gap.” The Corona failed to see any of the hundreds of missile bases that the Democrats claimed existed. After winning the 1960 election, Kennedy made the first major gesture toward space cooperation with the Soviet Union when he wrote to Khrushchev, in March of 1962, that “the exploration of space is a broad and varied activity and the possibilities for cooperation are many.” The president proposed cooperation in weather satellites, earth-science satellites, communications satellites, and unmanned probes to the moon, Mars, and Venus. Khrushchev wrote back — accepting the idea but adding, ominously, “Both you and we know, Mr. President, that the principles for designing and producing military rockets and space rockets are the same.” No one in Moscow is ever likely to forget that truth. All of Russia’s space activities are carried out with an eye to their military and politico-military value. Americans, by contrast, often seem to regard space operations as a type of international psychotherapy. This was most famously on display when, in 2010, NASA Administrator Charles Bolden claimed that one of the most important missions he had been given by President Obama was to make Muslims feel good about themselves. During the era of “détente” in the 1970s, the Nixon administration, which had little interest in space, promoted the 1975 Apollo–Soyuz mission, a handshake in space that did little other than to emphasize that the U.S. was no longer in the moon-rocket business. That mission was the last time any of the hardware built for the moon race flew into space. While the U.S. pursued the Space Shuttle, largely because of Nixon’s supposed reluctance to “be the president who grounded the astronauts,” Russia continued to build a series of Salyut orbital outposts, one of which was equipped with a 23mm automatic cannon, which, according to space legend, was fired once, with nearly disastrous effect. The possibly apocryphal story is that the recoil from the cannon caused the whole station to do a backflip in orbit. NASA, meanwhile, had wanted its own space station since shortly after its founding in 1958. Between May 1973 and February 1974, Skylab, a station cobbled together from surplus Apollo hardware, was manned by three-astronaut crews. Then it was abandoned, and in 1979 it was destroyed as it crashed to Earth uncontrolled. However, NASA and its political and industrial allies did not give up. After the shuttle’s first flight in 1981, NASA set to work convincing Ronald Reagan to support a space-station program. In 1984 it succeeded, and with a classic Reagan quip to the cabinet about Queen Isabella (who, the story has it, hocked her jewels to fund Christopher Columbus’s trip to America), he authorized the venture. President Reagan invited America’s friends and allies to join the program, which was called “Space Station Freedom.” NASA, moving at the speed of government, had accomplished nothing other than a set of design studies by 1993, when Bill Clinton was inaugurated. Under pressure from the New York Times, which was on a jihad against so-called “big science,” Clinton canceled the Superconducting Super Collider, which was then being built in Texas, and he nearly canceled the space station. But with his usual sharp political instincts, President Clinton realized the space program had more supporters than particle physics, and that, in any case, he didn’t have much to fear from the physicists: They would, on the whole, burn Isaac Newtons’ and Albert Einsteins’ collected works in a bonfire in Harvard Yard before they would vote Republican. So he killed their program and kept NASA’s space station. At the same time, in order to satisfy his liberal base, he recast the space station as “outreach” to Russia. #page#Space Station Freedom was dead and buried, and in its place Clinton ordered NASA to work with Russia to build the International Space Station. NASA also agreed to fly a number of shuttle missions to the existing Russian orbital station Mir (the Russian word both for “world” and for “peace”). The first shuttle flight to Mir arrived in July 1995 and the final one in June 1998. All this was accompanied by large dollops of U.S. money, some of which disappeared into the pockets of various Russian officials. Many Americans actually believed that it was somehow helpful to treat Russia as an equal in space while paying its space professionals to remain engaged in theoretically civil space programs. The condescending U.S. and Western attitude toward ex-Soviet space officials didn’t make things easy. In particular, the officials resented NASA pressure to abandon Mir and let it crash, rather than allow it to be privatized by Walt Anderson, an eccentric American libertarian tycoon. #ad#While most Russians may have been happy to drop the Communism that had impoverished their lives, they deeply and bitterly detested the loss of Moscow’s superpower status. Depending on the U.S. to keep their cherished national space program alive was galling, and this showed up in the nasty ways that the first American astronauts who trained at Star City outside Moscow were treated. It may very well be that former NASA administrator Mike Griffin was thinking of that experience in Russia when, in 2006, he said: “On many occasions since assuming my role as administrator I have been asked about opportunities for ‘partnership’ when what is really being sought is American investment in the aerospace industries of other nations. I must be clear on this; ‘partnership’ for us is not a synonym for ‘helping NASA to spend its money.’” Today, after the end of the shuttle program, and without an operational American manned-space-transport system, NASA pays Russia something like $70 million each time an American astronaut flies to the ISS onboard the Soyuz. If the U.S. has not by then built a new spacecraft to get people back and forth to the ISS, it will have to go negotiate a new deal when the current one expires at the end of 2017. Aside from the ISS, the U.S. uses Russian-made rocket engines on two of its space-launch vehicles, the Antares, built by the Orbital Sciences Corporation, and, even more importantly, the Atlas V. It’s a lesson in how internationalism and cost control can override national-security interests. After a series of failed military space launches, most notably the crash of a Titan IV with a very expensive spy satellite on board in 1998, the U.S. Air Force put in place the Evolved Expendable Launch Vehicle (EELV) program. This was designed to give the military two separate and highly reliable rockets that could carry national-security payloads into orbit without relying on the unpredictable shuttle or on dangerous existing systems. This program produced the all-American Delta IV family of launch vehicles, including the heavy rocket that is now used to put America’s biggest and most capable intelligence-gathering satellites into orbit, but it also created the Atlas V rocket, which has become the vehicle of choice for NASA’s science missions and is often used for military missions as well. However, the Atlas V relies for its effectiveness on a Russian-made RD-180 rocket engine, which is fueled by liquid oxygen and kerosene. The engine is superbly efficient, a good example of how the Russians have come to produce genuinely world-class hardware. As a precaution, the U.S. tries to keep at least two years’ worth of RD-180s on hand and has bought the rights to manufacture them domestically. Building rocket engines is, however, an art as well as a science, and the art part of manufacturing RD-180s was not transferred. According to one knowledgeable source, an American company did try to build a copy of the engine once, but it failed because of overheating. The Russians are masters of the metallurgy involved, and the U.S. has not, so far, made the effort to match their expertise. So, today, the U.S. relies on Russia for human access to the ISS and for the rocket engines for one of its most important space-launch systems. This situation is largely due to the ultimate failure of the space-shuttle program, especially the Columbia disaster of February 2003. After decades of trying to do too much with too few resources, NASA has become, at least in some ways, an old and tired organization. America does have some alternatives and could, with the right leadership, reduce its reliance on Russia. Back in the George W. Bush years, NASA implemented a program called Commercial Orbital Transportation Services (COTS). This program sought to develop a pair of vehicles that could deliver cargo and fuel to the ISS on a commercial basis, bypassing NASA’s cumbersome regulatory and bureaucratic system. This program could be the key to bringing people into space without help from Russia. Today, two companies have had notable success through COTS. SpaceX, based in California and controlled by Elon Musk, has already sent two Dragon capsules to resupply the station. Another one was scheduled to launch on a SpaceX Falcon 9 rocket yesterday, but the launch has been postponed till Friday; it might yet be further delayed. Meanwhile, Orbital Sciences, based in Virginia, has successfully launched the first of its Cygnus cargo ships from Wallops Island on an Antares rocket, and hopes to launch another one in May or June. Under a Bush-era “COTS D” plan, SpaceX hoped to sign a deal with NASA to carry people to and from the station, and the company has never lost sight of this goal. The Dragon capsule may have carried only cargo so far, but it is equipped with a porthole and will eventually be capable of carrying seven astronauts into orbit. After the Obama administration canceled NASA’s return-to-the-moon Constellation program, it reworked the COTS D idea into the current Commercial Crew Program. This program is funding the development of three manned spacecraft, the SpaceX Dragon, the Boeing CST capsule, and the Sierra Nevada mini-shuttle Dreamchaser. Of these, the Dragon is by far the furthest along. According to current plans, NASA and SpaceX hope to fly the first manned Dragon sometime in 2017. It might be possible to accelerate this program, but that would of course take money — from NASA’s already-reduced budget, from another agency, or through increased spending. Meanwhile, the Air Force will have to find the money to replicate the RD-180. This will not be easy; it is estimated that $1 billion will be needed. It would be surprising if the job could be done in less than two years. Fortunately, the SpaceX Falcon 9, which is in the process of being certified to carry national-security payloads into space, is available. It should even be cheaper than the Atlas V, through it still lacks the excellent safety and reliability of the older rocket. Shifting future Defense Department satellites from the Atlas to the Falcon can be done, but only if the decision to make the change is made soon; otherwise we will have to radically adjust our carefully planned launch program. America’s space engagement with Russia has been, like so many other foreign-policy initiatives, beset by wishful thinking and by the desire to ignore the hard facts of power politics. No party or faction in Washington comes out of this looking good: not the George H. W. Bush realists who made Moscow’s space program dependent on U.S. funds; not the policymakers from the Clinton and Bush II eras, who embedded Russia into the ISS and the EELV programs; and certainly not the current administration, which seems to be even more lost in space than its predecessors.

#### Appeasing Russia shreds the NPT and causes Ukraine nuke prolif – extinction

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A major foreign policy challenge for the incoming U.S. administration will be how to deal with Russia’s new international assertiveness and foreign military adventures. Some signs in recent weeks, especially regarding the ongoing confrontation between Russia and Ukraine, point to a friendlier U.S. approach toward Moscow. Such a shift would have very serious consequences for the rest of the world.

A new rapprochement between Washington and Moscow may go far beyond the attempt by the administration of outgoing U.S. President Barack Obama to reset Russian-U.S. relations after the Russian-Georgian War in 2008. Supposedly, a dovish American approach toward the Kremlin would put U.S. concerns before those of countries and peoples currently in conflict with Russia.

To be sure, a number of probable members of the new administration, like Rex Tillerson, Mike Pompeo, and James Mattis, have voiced hawkish views on Russian imperialism. Yet apparently, U.S. President-elect Donald Trump and some of those advising him specifically on Russia, like Michael Flynn, Paul Manafort, and Carter Page, hope that U.S. tolerance of Russian freedom of movement in the former Soviet space—in particular, in Ukraine—would make the Kremlin more cooperative in other fields, such as the fight against Islamist terrorism, and in other regions, such as Syria or the Arctic.

However, one wonders whether Trump and other so-called Putinversteher in the incoming administration fully understand the stakes. The risks do not only concern the fundamental national interests of such pro-American countries as Ukraine, Estonia, Georgia, or Poland. The U.S. administration’s tolerance of Russia’s violation of Ukrainian territorial integrity would have larger implications for the future of humanity.

In view of the security assurances that the United States gave Ukraine under the 1994 Budapest Memorandum, a move by Washington to appease Moscow would be another crack in the splintering international nuclear nonproliferation regime. Acquiescence to Russia’s territorial gains in Ukraine would further undermine the already-shattered 1968 Nuclear Non-Proliferation Treaty (NPT), one of the world’s most important multilateral agreements.

Under the Budapest Memorandum, three official nuclear-weapons states under the NPT—Russia, the UK, and the United States—assured the inviolability of Ukraine’s borders. In two simultaneous but separate declarations, the other two official nuclear-weapons states, China and France, also expressed their respect for Ukraine’s political sovereignty. This was the core of a shrewd deal between the five guarantor states of the NPT and Ukraine (as well as Belarus and Kazakhstan), which had inherited parts of the Soviet nuclear arsenal. In exchange for Kyiv’s readiness to give up its weapons of mass destruction and join the NPT, the world’s five major nuclear powers explicitly acknowledged their obligation to observe and protect Ukraine’s territorial integrity.

But since 2014, if not before, Moscow has manifestly violated the Budapest Memorandum. As the agreement forms an important annex to the NPT, its violation through continuing Russian occupation of Ukraine’s territory undermines the logic of the international mechanism to prevent the spread of atomic weapons. That not only harshly punishes a country that voluntarily agreed to give up its nuclear weapons in exchange for security assurances. It also demonstrates how an official nuclear-weapons state can use its nuclear deterrence potential to implement and secure territorial expansion with military means.

Worse, two other official nuclear powers, Beijing and Paris, have implicitly assisted Russia in its subversion of the nonproliferation regime. Despite having expressed its respect for Ukraine’s territorial integrity, China did not support a 2014 UN General Assembly resolution against Russia’s annexation of Crimea. And several prominent French center-right parliamentarians have visited Crimea since its annexation by Russia, even though the French government that in 1994 declared its respect for Ukraine’s sovereignty was also a center-right administration (albeit under Socialist president François Mitterrand).

U.S. appeasement of Russia regarding its annexation of Crimea and interference in Ukraine’s eastern Donbas region would compound the effects of these earlier aberrations. The United States would be disregarding its earlier statements about Ukraine’s accession to the NPT and voluntary nuclear disarmament. The UK would be the only guarantor state of the NPT left that behaves more or less in line with the logic of the world’s nonproliferation regime with regard to Ukraine.

To be sure, against the background of other international crises, nuclear proliferation is currently not a salient topic of international affairs. Yet, preventing the spread of atomic weapons is one of the most sensitive issues for preserving world peace and securing human survival. The long-term repercussions of U.S. acquiescence to Russia’s annexation of Crimea for the international order would be grave.

## OFF

### NC – DA

#### Unpredictable shifts ruin biz con AND overall growth

Sarah Chaney Cambon 21, Reporter on The Wall Street Journal's Economics Team, BA in Business Journalism from the University of North Carolina-Chapel Hill, “Capital-Spending Surge Further Lifts Economic Recovery”, Wall Street Journal, 6/27/2021, https://www.wsj.com/articles/capital-spending-surge-further-lifts-economic-recovery-11624798800

Business investment is emerging as a powerful source of U.S. economic growth that will likely help sustain the recovery.

Companies are ramping up orders for computers, machinery and software as they grow more confident in the outlook.

Nonresidential fixed investment, a proxy for business spending, rose at a seasonally adjusted annual rate of 11.7% in the first quarter, led by growth in software and tech-equipment spending, according to the Commerce Department. Business investment also logged double-digit gains in the third and fourth quarters last year after falling during pandemic-related shutdowns. It is now higher than its pre-pandemic peak.

Orders for nondefense capital goods excluding aircraft, another measure for business investment, are near the highest levels for records tracing back to the 1990s, separate Commerce Department figures show.

“Business investment has really been an important engine powering the U.S. economic recovery,” said Robert Rosener, senior U.S. economist at Morgan Stanley. “In our outlook for the economy, it’s certainly one of the bright spots.”

Consumer spending, which accounts for about two-thirds of economic output, is driving the early stages of the recovery. Americans, flush with savings and government stimulus checks, are spending more on goods and services, which they shunned for much of the pandemic.

Robust capital investment will be key to ensuring that the recovery maintains strength after the spending boost from fiscal stimulus and business reopenings eventually fades, according to some economists.

Rising business investment helps fuel economic output. It also lifts worker productivity, or output per hour. That metric grew at a sluggish pace throughout the last economic expansion but is now showing signs of resurgence.

The recovery in business investment is shaping up to be much stronger than in the years following the 2007-09 recession. “The events especially in late ’08, early ’09 put a lot of businesses really close to the edge,” said Phil Suttle, founder of Suttle Economics. “I think a lot of them said, ‘We’ve just got to be really cautious for a long while.’”

Businesses appear to be less risk-averse now, he said.

After the financial crisis, businesses grew by adding workers, rather than investing in capital. Hiring was more attractive than capital spending because labor was abundant and relatively cheap. Now the supply of workers is tight. Companies are raising pay to lure employees. As a result, many firms have more incentive to grow by investing in capital.

Economists at Morgan Stanley predict that U.S. capital spending will rise to 116% of prerecession levels after three years. By comparison, investment took 10 years to reach those levels once the 2007-09 recession hit.

Company executives are increasingly confident in the economy’s trajectory. The Business Roundtable’s economic-outlook index—a composite of large companies’ plans for hiring and spending, as well as sales projections—increased by nine points in the second quarter to 116, just below 2018’s record high, according to a survey conducted between May 25 and June 9. In the second quarter, the share of companies planning to boost capital investment increased to 59% from 57% in the first.

“We’re seeing really strong reopening demand, and a lot of times capital investment follows that,” said Joe Song, senior U.S. economist at BofA Securities.

Mr. Song added that less uncertainty regarding trade tensions between the U.S. and China should further underpin business confidence and investment. “At the very least, businesses will understand the strategy that the Biden administration is trying to follow and will be able to plan around that,” he said.

#### It’s perception-based---the possibility that precedent could be applied crumbles confidence and spirals into global decline

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The surge in business and consumer sentiment reflects an assumption that is deeply rooted in the American psyche: that deregulation and tax cuts always unleash transformative pro-growth entrepreneurship. (To some outside the US, it is an assumption that sometimes looks a lot like blind faith.)

Of course, sentiment can go in both directions. Just as a “pro-business” stance like Trump’s can boost confidence, perhaps even excessively, the perception that a leader is “anti-business” can cause confidence to fall. Because sentiment can influence actual behavior, these shifts can have far-reaching impacts.

In his groundbreaking General Theory of Employment, Interest, and Money, John Maynard Keynes referred to “animal spirits” as “the characteristic of human nature that a large proportion of our positive activities depend on spontaneous optimism, rather than mathematical expectations, whether moral or hedonistic or economic.” Jack Welch, who led General Electric for 20 years, is a case in point: he once stated that many of his own major business decisions had come “straight from the gut,” rather than from analytical models or detailed business forecasts.

But sentiment is not always an accurate gauge of actual economic developments and prospects. As the Nobel laureate Robert J. Shiller has shown, optimism can evolve into “irrational exuberance,” whereby investors take asset valuations to levels that are divorced from economic fundamentals. They may be able to keep those valuations inflated for quite a while, but there is only so far that sentiment can take companies and economies.

So far, the exuberant reaction of markets to Trump’s victory – all US stock indices have reached multiple record highs – has not been reflected in “hard data.” Moreover, economic forecasters have made only modest upward revisions to their growth projections.

It is not surprising that equity investors have responded to the surge in animal spirits by attempting to run ahead of a possible uptick in economic performance. After all, they are in the business of anticipating developments in the real economy and the corporate sector. In any case, they believe that they can quickly reverse their portfolio positions should their expectations change.

That is not the case for companies investing in new plants and equipment, which are less likely to change their behavior until announcements begin to be translated into real policies. But the longer they wait, the weaker the stimulus to economic activity and income, and the more consumers must rely on dissaving to translate their positive sentiment into actual purchases of goods and services.

It is in this context that the economy awaits a solid timeline for policy announcements to evolve into detailed design and durable implementation. While there is often some delay when political negotiations and trade-offs are involved, in this case, the sense of uncertainty may be heightened by policy-sequencing decisions. By deciding to begin with health-care reform – an inherently complicated and highly divisive issue in US politics – the Trump administration risks losing some of the political goodwill that could be needed to carry out the kinds of fiscal reform that markets are expecting.

Even if a bump in the economic data does arrive, it may not last, unless the Trump administration advances policies that enhance longer-term productivity, through, for example, education reform, apprenticeship programs, skills training, and labor retooling. The Trump administration would also have to refrain from pursuing protectionist trade measures that would disrupt the “spaghetti bowl” of cross-border value chains for both producers and consumers.

If improved confidence in the US economy does not translate into stronger hard data, unmet expectations for economic growth and corporate earnings could cause financial-market sentiment to slump, fueling market volatility and driving down asset prices. In such a scenario, the US engine could sputter, causing the entire global economy to suffer, especially if these economic challenges prompt the Trump administration to implement protectionist measures.

#### Decline cascades---nuclear war

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Various scholars and institutions regard global social instability as the greatest threat facing this decade. The catalyst has been postulated to be a Second Great Depression which, in turn, will have profound implications for global security and national integrity. This paper, written from a broad systems perspective, illustrates how emerging risks are getting more complex and intertwined; blurring boundaries between the economic, environmental, geopolitical, societal and technological taxonomy used by the World Economic Forum for its annual global risk forecasts. Tight couplings in our global systems have also enabled risks accrued in one area to snowball into a full-blown crisis elsewhere. The COVID-19 pandemic and its socioeconomic fallouts exemplify this systemic chain-reaction. Onceinexorable forces of globalization are rupturing as the current global system can no longer be sustained due to poor governance and runaway wealth fractionation. The coronavirus pandemic is also enabling Big Tech to expropriate the levers of governments and mass communications worldwide. This paper concludes by highlighting how this development poses a dilemma for security professionals.

Key Words: Global Systems, Emergence, VUCA, COVID-9, Social Instability, Big Tech, Great Reset

INTRODUCTION

The new decade is witnessing rising volatility across global systems. Pick any random “system” today and chart out its trajectory: Are our education systems becoming more robust and affordable? What about food security? Are our healthcare systems improving? Are our pension systems sound? Wherever one looks, there are dark clouds gathering on a global horizon marked by volatility, uncertainty, complexity and ambiguity (VUCA).

But what exactly is a global system? Our planet itself is an autonomous and selfsustaining mega-system, marked by periodic cycles and elemental vagaries. Human activities within however are not system isolates as our banking, utility, farming, healthcare and retail sectors etc. are increasingly entwined. Risks accrued in one system may cascade into an unforeseen crisis within and/or without (Choo, Smith & McCusker, 2007). Scholars call this phenomenon “emergence”; one where the behaviour of intersecting systems is determined by complex and largely invisible interactions at the substratum (Goldstein, 1999; Holland, 1998).

The ongoing COVID-19 pandemic is a case in point. While experts remain divided over the source and morphology of the virus, the contagion has ramified into a global health crisis and supply chain nightmare. It is also tilting the geopolitical balance. China is the largest exporter of intermediate products, and had generated nearly 20% of global imports in 2015 alone (Cousin, 2020). The pharmaceutical sector is particularly vulnerable. Nearly “85% of medicines in the U.S. strategic national stockpile” sources components from China (Owens, 2020).

An initial run on respiratory masks has now been eclipsed by rowdy queues at supermarkets and the bankruptcy of small businesses. The entire global population – save for major pockets such as Sweden, Belarus, Taiwan and Japan – have been subjected to cyclical lockdowns and quarantines. Never before in history have humans faced such a systemic, borderless calamity.

COVID-19 represents a classic emergent crisis that necessitates real-time response and adaptivity in a real-time world, particularly since the global Just-in-Time (JIT) production and delivery system serves as both an enabler and vector for transboundary risks. From a systems thinking perspective, emerging risk management should therefore address a whole spectrum of activity across the economic, environmental, geopolitical, societal and technological (EEGST) taxonomy. Every emerging threat can be slotted into this taxonomy – a reason why it is used by the World Economic Forum (WEF) for its annual global risk exercises (Maavak, 2019a). As traditional forces of globalization unravel, security professionals should take cognizance of emerging threats through a systems thinking approach.

METHODOLOGY

An EEGST sectional breakdown was adopted to illustrate a sampling of extreme risks facing the world for the 2020-2030 decade. The transcendental quality of emerging risks, as outlined on Figure 1, below, was primarily informed by the following pillars of systems thinking (Rickards, 2020):

• Diminishing diversity (or increasing homogeneity) of actors in the global system (Boli & Thomas, 1997; Meyer, 2000; Young et al, 2006);

• Interconnections in the global system (Homer-Dixon et al, 2015; Lee & Preston, 2012);

• Interactions of actors, events and components in the global system (Buldyrev et al, 2010; Bashan et al, 2013; Homer-Dixon et al, 2015); and

• Adaptive qualities in particular systems (Bodin & Norberg, 2005; Scheffer et al, 2012) Since scholastic material on this topic remains somewhat inchoate, this paper buttresses many of its contentions through secondary (i.e. news/institutional) sources.

ECONOMY

According to Professor Stanislaw Drozdz (2018) of the Polish Academy of Sciences, “a global financial crash of a previously unprecedented scale is highly probable” by the mid- 2020s. This will lead to a trickle-down meltdown, impacting all areas of human activity.

The economist John Mauldin (2018) similarly warns that the “2020s might be the worst decade in US history” and may lead to a Second Great Depression. Other forecasts are equally alarming. According to the International Institute of Finance, global debt may have surpassed $255 trillion by 2020 (IIF, 2019). Yet another study revealed that global debts and liabilities amounted to a staggering $2.5 quadrillion (Ausman, 2018). The reader should note that these figures were tabulated before the COVID-19 outbreak.

The IMF singles out widening income inequality as the trigger for the next Great Depression (Georgieva, 2020). The wealthiest 1% now own more than twice as much wealth as 6.9 billion people (Coffey et al, 2020) and this chasm is widening with each passing month. COVID-19 had, in fact, boosted global billionaire wealth to an unprecedented $10.2 trillion by July 2020 (UBS-PWC, 2020). Global GDP, worth $88 trillion in 2019, may have contracted by 5.2% in 2020 (World Bank, 2020).

As the Greek historian Plutarch warned in the 1st century AD: “An imbalance between rich and poor is the oldest and most fatal ailment of all republics” (Mauldin, 2014). The stability of a society, as Aristotle argued even earlier, depends on a robust middle element or middle class. At the rate the global middle class is facing catastrophic debt and unemployment levels, widespread social disaffection may morph into outright anarchy (Maavak, 2012; DCDC, 2007).

Economic stressors, in transcendent VUCA fashion, may also induce radical geopolitical realignments. Bullions now carry more weight than NATO’s security guarantees in Eastern Europe. After Poland repatriated 100 tons of gold from the Bank of England in 2019, Slovakia, Serbia and Hungary quickly followed suit.

According to former Slovak Premier Robert Fico, this erosion in regional trust was based on historical precedents – in particular the 1938 Munich Agreement which ceded Czechoslovakia’s Sudetenland to Nazi Germany. As Fico reiterated (Dudik & Tomek, 2019):

“You can hardly trust even the closest allies after the Munich Agreement… I guarantee that if something happens, we won’t see a single gram of this (offshore-held) gold. Let’s do it (repatriation) as quickly as possible.” (Parenthesis added by author).

President Aleksandar Vucic of Serbia (a non-NATO nation) justified his central bank’s gold-repatriation program by hinting at economic headwinds ahead: “We see in which direction the crisis in the world is moving” (Dudik & Tomek, 2019). Indeed, with two global Titanics – the United States and China – set on a collision course with a quadrillions-denominated iceberg in the middle, and a viral outbreak on its tip, the seismic ripples will be felt far, wide and for a considerable period.

A reality check is nonetheless needed here: Can additional bullions realistically circumvallate the economies of 80 million plus peoples in these Eastern European nations, worth a collective $1.8 trillion by purchasing power parity? Gold however is a potent psychological symbol as it represents national sovereignty and economic reassurance in a potentially hyperinflationary world. The portents are clear: The current global economic system will be weakened by rising nationalism and autarkic demands. Much uncertainty remains ahead. Mauldin (2018) proposes the introduction of Old Testament-style debt jubilees to facilitate gradual national recoveries. The World Economic Forum, on the other hand, has long proposed a “Great Reset” by 2030; a socialist utopia where “you’ll own nothing and you’ll be happy” (WEF, 2016).

In the final analysis, COVID-19 is not the root cause of the current global economic turmoil; it is merely an accelerant to a burning house of cards that was left smouldering since the 2008 Great Recession (Maavak, 2020a). We also see how the four main pillars of systems thinking (diversity, interconnectivity, interactivity and “adaptivity”) form the mise en scene in a VUCA decade.

ENVIRONMENTAL

What happens to the environment when our economies implode? Think of a debt-laden workforce at sensitive nuclear and chemical plants, along with a concomitant surge in industrial accidents? Economic stressors, workforce demoralization and rampant profiteering – rather than manmade climate change – arguably pose the biggest threats to the environment. In a WEF report, Buehler et al (2017) made the following pre-COVID-19 observation:

The ILO estimates that the annual cost to the global economy from accidents and work-related diseases alone is a staggering $3 trillion. Moreover, a recent report suggests the world’s 3.2 billion workers are increasingly unwell, with the vast majority facing significant economic insecurity: 77% work in part-time, temporary, “vulnerable” or unpaid jobs.

Shouldn’t this phenomenon be better categorized as a societal or economic risk rather than an environmental one? In line with the systems thinking approach, however, global risks can no longer be boxed into a taxonomical silo. Frazzled workforces may precipitate another Bhopal (1984), Chernobyl (1986), Deepwater Horizon (2010) or Flint water crisis (2014). These disasters were notably not the result of manmade climate change. Neither was the Fukushima nuclear disaster (2011) nor the Indian Ocean tsunami (2004). Indeed, the combustion of a long-overlooked cargo of 2,750 tonnes of ammonium nitrate had nearly levelled the city of Beirut, Lebanon, on Aug 4 2020. The explosion left 204 dead; 7,500 injured; US$15 billion in property damages; and an estimated 300,000 people homeless (Urbina, 2020). The environmental costs have yet to be adequately tabulated.

Environmental disasters are more attributable to Black Swan events, systems breakdowns and corporate greed rather than to mundane human activity.

Our JIT world aggravates the cascading potential of risks (Korowicz, 2012). Production and delivery delays, caused by the COVID-19 outbreak, will eventually require industrial overcompensation. This will further stress senior executives, workers, machines and a variety of computerized systems. The trickle-down effects will likely include substandard products, contaminated food and a general lowering in health and safety standards (Maavak, 2019a). Unpaid or demoralized sanitation workers may also resort to indiscriminate waste dumping. Many cities across the United States (and elsewhere in the world) are no longer recycling wastes due to prohibitive costs in the global corona-economy (Liacko, 2021).

Even in good times, strict protocols on waste disposals were routinely ignored. While Sweden championed the global climate change narrative, its clothing flagship H&M was busy covering up toxic effluences disgorged by vendors along the Citarum River in Java, Indonesia. As a result, countless children among 14 million Indonesians straddling the “world’s most polluted river” began to suffer from dermatitis, intestinal problems, developmental disorders, renal failure, chronic bronchitis and cancer (DW, 2020). It is also in cauldrons like the Citarum River where pathogens may mutate with emergent ramifications.

On an equally alarming note, depressed economic conditions have traditionally provided a waste disposal boon for organized crime elements. Throughout 1980s, the Calabriabased ‘Ndrangheta mafia – in collusion with governments in Europe and North America – began to dump radioactive wastes along the coast of Somalia. Reeling from pollution and revenue loss, Somali fisherman eventually resorted to mass piracy (Knaup, 2008).

The coast of Somalia is now a maritime hotspot, and exemplifies an entwined form of economic-environmental-geopolitical-societal emergence. In a VUCA world, indiscriminate waste dumping can unexpectedly morph into a Black Hawk Down incident. The laws of unintended consequences are governed by actors, interconnections, interactions and adaptations in a system under study – as outlined in the methodology section.

Environmentally-devastating industrial sabotages – whether by disgruntled workers, industrial competitors, ideological maniacs or terrorist groups – cannot be discounted in a VUCA world. Immiserated societies, in stark defiance of climate change diktats, may resort to dirty coal plants and wood stoves for survival. Interlinked ecosystems, particularly water resources, may be hijacked by nationalist sentiments. The environmental fallouts of critical infrastructure (CI) breakdowns loom like a Sword of Damocles over this decade.

GEOPOLITICAL

The primary catalyst behind WWII was the Great Depression. Since history often repeats itself, expect familiar bogeymen to reappear in societies roiling with impoverishment and ideological clefts. Anti-Semitism – a societal risk on its own – may reach alarming proportions in the West (Reuters, 2019), possibly forcing Israel to undertake reprisal operations inside allied nations. If that happens, how will affected nations react? Will security resources be reallocated to protect certain minorities (or the Top 1%) while larger segments of society are exposed to restive forces? Balloon effects like these present a classic VUCA problematic.

Contemporary geopolitical risks include a possible Iran-Israel war; US-China military confrontation over Taiwan or the South China Sea; North Korean proliferation of nuclear and missile technologies; an India-Pakistan nuclear war; an Iranian closure of the Straits of Hormuz; fundamentalist-driven implosion in the Islamic world; or a nuclear confrontation between NATO and Russia. Fears that the Jan 3 2020 assassination of Iranian Maj. Gen. Qasem Soleimani might lead to WWIII were grossly overblown. From a systems perspective, the killing of Soleimani did not fundamentally change the actor-interconnection-interaction adaptivity equation in the Middle East. Soleimani was simply a cog who got replaced.

## OFF

### NC – DA

#### Bipartisan anti-china momentum ensures COMPETES passes now and maintains tech leadership, but its narrow

Sayers & Kanapathy 2/15 [ Eric Sayers, a senior vice president at Beacon Global Strategies, and Ivan, a vice president at Beacon Global Strategies, both guest contributors for Foreign Policy magazine “America is Showering China with New Restrctions” https://foreignpolicy.com/2022/02/15/us-china-economic-financial-decoupling-controls-restrictions-sanctions/]

In recent years, Washington’s China policies have expanded rapidly into technology sectors such as telecommunications, semiconductors, data security, and financial services. Growing bipartisan concern about Beijing’s actions and intentions have fueled these developments, with little difference between the Trump and Biden administrations or between the White House and Congress.

The result has been a flurry of new restrictions—including on exports, imports, direct investment, and financial securities—that are fundamentally reshaping the U.S.-China economic relationship. Cross-border business travel between the United States and China, essentially halted for the past two years due to the COVID-19 pandemic, is unlikely to fully rebound because of increased caution and suspicion on both sides of the Pacific.

At the same time as this more defensive approach to economic and technology competition with China has taken root, Congress has also gone on the offensive by moving to appropriate new funding to areas deemed critical to maintaining U.S. competitive advantages in technology, manufacturing, and defense. The current depth and breadth of these approaches were hard to imagine just a few years ago. The corporate sector, besides facing increased government action with respect to doing business with China, must also contend with shifting public opinion and increased investor scrutiny—for example, on human rights issues along companies’ supply lines in China. Looking ahead, 2022 promises a continuation of these trends, which will have far-reaching impacts across multiple business sectors.

In just the last three years, Washington has enacted a raft of policy changes and regulation related to economic competition with China. In early 2018, the Trump administration applied and expanded tariffs on Chinese goods in response to Beijing’s unfair practices, including industrial subsidies, forced technology transfer, and state-sponsored intellectual property theft. Leveraging new laws passed in 2018, Washington expanded the use of export controls in defense technology, imposed stricter vetting of foreign investments in strategic U.S. industries, and restricted the procurement of equipment and services from five Chinese information technology companies, the most prominent of which was Huawei.

The pace and scope of Washington’s policymaking have accelerated in ways not previously considered possible.

In addition, U.S. border agencies shifted their sights from primarily countering terrorists to screening for nontraditional intelligence collectors—for example, journalists, researchers, and businesspeople, who are frequently used by Beijing to gather information—as well as counterfeit goods and goods produced with forced labor. Using presidential emergency powers, the Trump administration also created regimes to remove untrusted contractors from U.S. IT infrastructure projects and block Americans from investing in companies that work with the Chinese military.

To Beijing’s consternation, the Biden administration has signaled its general agreement with all these approaches—and even expanded the investment ban to include Chinese surveillance technology companies. While close U.S. allies in Europe and Asia have been reluctant to impose a similarly broad sweep of policies, the Biden administration has achieved significant rhetorical alignment on defining the challenges posed by Beijing. Under pressure from the Trump administration, several U.S. allies turned away from Huawei, blocked inbound Chinese technology investments, and held up the shipment of critical semiconductor manufacturing equipment to China. However, Europe has yet to follow the United States in imposing real costs on China for its ongoing human rights violations, even though this is a declared point of convergence between the United States and the European Union.

For its part, Congress has passed a slew of China-related bills. Among other actions, legislators have reformed inbound investment screening, forced the delisting of Chinese stocks that do not comply with U.S. accounting practices, expanded requirements for the U.S. Defense Department to list Chinese companies assisting the People’s Liberation Army, strengthened sanctions authorities in response to atrocities in Xinjiang and repression in Hong Kong, presumed that all goods produced in Xinjiang are made with forced labor (and thus banned as imports), and prohibited the federal purchase of Chinese telecommunications equipment.

While Washington mainly focused on defensive measures in recent years, Congress began in 2020 to balance its approach with a more offensive agenda. Efforts to invest in semiconductor manufacturing, accelerate the adoption of 5G telecommunications capabilities, and reorganize the National Science Foundation to focus on increasing U.S competitiveness were all added to the Senate’s U.S. Innovation and Competition Act. The House of Representatives, in turn, recently passed a similar bill—the America COMPETES Act of 2022—so the prospects for final passage of a bipartisan competitiveness bill sometime this spring look strong.

This flurry of activity raises the question of what comes next. Looming issues such as rising inflation, possible new variants of COVID-19, and Russian aggression toward Ukraine could take Washington’s attention away from China policy, at least temporarily. At the same time, there is a strong bipartisan consensus—between the White House and Congress—on China. In particular, there are five policy areas where further action appears imminent this year.

#### **The plan creates a massive ideological battle over the private sector that derails the agenda**

Weeden 13 [Brian Weeden, Technical Advisor for Secure World Foundation, served 9 years on active duty as an officer in the United States Air Force working in space and (ICBM) operations, Vice-Chair of the World Economic Forum’s Global Agenda Council on Space Security, September 2013. “U.S.-China Cooperation in Space: Constraints, Possibilities, and Options.” https://www.files.ethz.ch/isn/170907/Anti-satellite\_Weapons.pdf]

There are also strong disadvantages working against human spaceflight as a feasible area of US-China cooperation. The political importance and prestige associated with human spaceflight is accompanied by elements of nationalism and protectionism. The Chinese technical community is justifiably proud about its accomplishments in human spaceflight, without what might be perceived as “help” from other countries, especially the United States. Some US legislators believe that the prestige of human spaceflight cooperation should not be offered until China has made tangible progress on areas such as human rights and freedom of religious practices. Large, collaborative human spaceflight programs are also likely to engender strong pushback from powerful constituencies. Some would oppose it on ideological grounds, including those who view human spaceflight as wasteful government spending on something that should be done by the private sector, with government funding better spent on tackling social problems such as education or poverty. Political leaders may be unwilling or unable to absorb this pressure, especially if it results in obstacles being created on other high-priority political initiatives.

#### The bill is uniquely key to solve Chinese and Russian tech supremacy

Seattle 2/16 [Seattle Times, leading newspaper serving the greater Seattle area. “Congress must unite behind China competitiveness bill” https://www.hawaiitribune-herald.com/2022/02/16/opinion/congress-must-unite-behind-china-competitiveness-bill/]

Under the shadow of growing tensions with Beijing, the U.S. House of Representatives has approved a bill that would help the United States remain economically competitive with China. It will now need to be reconciled with similar legislation that passed the Senate last year.

Congress must not allow partisan squabbles to scuttle this vital proposal.

Republicans, who supported the U.S. Senate’s United States Innovation and Competition Act, have so far turned their back on the House version, known as the America COMPETES Act, saying the bill includes unacceptable provisions related to labor, foreign policy and climate change.

While differences exist — and their merits are worth debating — both bills promise to fund the critical need to address supply-chain vulnerabilities and increase computer chip production in the U.S. They also include a major investment in ensuring America’s place as the leader in scientific research and innovation.

These similarities should be the focus, said U.S. Sen. Maria Cantwell, D-Wash., who heads the Senate Committee on Commerce, Science and Transportation. Both bills call for a $52 billion investment in the semiconductor industry, about $160 billion for research and development agencies such as the National Science Foundation and the Department of Energy, as well as funding to reduce STEM workforce gaps.

“This would be the largest five-year commitment to public R&D in our nation’s history,” Cantwell said. “We need it for the job growth. We need it to stay competitive.”

The legislation would also create some manufacturing jobs in the U.S., but the benefit to American workers may be strongest in improved protection from global market volatility, said Jeffrey Kucik, an associate professor at the University of Arizona.

“It’s about insulating the domestic market from unpredictable global forces,” he said. “Whether that’s the pandemic, or the Great Recession, or shocks associated with the escalation of the U.S.-China trade war.”

For their part, Chinese officials have repeatedly labeled these legislative efforts as the product of a “Cold War mentality.”

It was ironic, then, to see President Xi Jinping of China and Russian President Vladimir Putin warmly meet on the sidelines of the Winter Olympics in Beijing. Even more so was their joint statement, which sent a message of cooperation between the two countries not seen since Josef Stalin and Mao Zedong.

Their statement, which includes support for each other’s foreign policies, underlines the precarious situation surrounding existential threats to Ukraine and Taiwan. It also underlines the need for Congress to act.

#### Authoritarian tech lead is an S-Risk of irreversible, constant suffering. That outweighs extinction

Minardi 20 [Di Minardi, "The grim fate that could be ‘worse than extinction’", 10/15/20, https://www.bbc.com/future/article/20201014-totalitarian-world-in-chains-artificial-intelligence]

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

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

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

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

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

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

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

Singleton hypothesis

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

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

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

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

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

AI and authoritarianism

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

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

## Case

### Advantage

#### No spillover card that indicates sufficiency – also Mason indicates many alt causes, including bad governance and realist policymaking

#### Multilat sucks –

#### Ineffective laws.

Michael Williams 2021 [Filling the Void: Why Existing International Law is Not Suited to Mitigating Space Debris] [DS] [http://www.mjilonline.org/filling-the-void-why-existing-international-law-is-not-suited-to-mitigating-space-debris/]

Space and the sea have long been paralleled, each seen as a type of res communis. There has been a push to try to understand the former through a similar lens as the latter. Space, however, provides new and complex issues that do not lend themselves well to being approached through existing frameworks. One such issue forthcoming is addressing the fear of the Kessler syndrome[1]. The Kessler syndrome, also known as ablation cascade or collision cascading, is a theoretical scenario in which a high density of space debris pollution increases the density of space debris as objects collide. As objects collide, more objects are produced generating a positive feedback loop and the likelihood of collisions increases exponentially. The fear is that as the density of space debris in low earth orbits (LEO) is increased, our ability to access space is diminished. Rockets traversing in a LEO can be rendered inoperable, or even destroyed, by pieces of debris no larger than golf balls. This fear has risen drastically as states, such as China beginning in 2007, have begun testing anti-satellite missiles which turn one item of space debris into several thousands.[2] The Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies applies international law to space, but current international law – absent a new treaty – is insufficient to address the Kessler syndrome.[3] As it currently stands, soft law, customary international law, and existing treaties do not sufficiently address the issue of space debris. The strongest argument for a soft law approach to space debris mitigation is the Space Debris Mitigation Guidelines, drafted by the Committee on the Peaceful Uses of Outer Space and endorsed by the United Nations General Assembly in 2007.[4] As part of these guidelines, member states are encouraged to utilize rockets that limit debris produced during normal operations and that any manmade object placed in LEO should only reside there so long as they remain operational and should be removed from orbit in a controlled fashion following termination of operation. As these requirements are all soft law, none of them are mandatory and member states are encouraged to comply on their own initiative. This approach fails to solve the issue for the same host of reasons that soft law has proven largely insufficient to address large scale tragedies of the common issues. Spacefaring member states have no incentive to comply, no penalty for noncompliance, and, perhaps more uniquely, the technology is still undeveloped that allows for full compliance. The recently signed Artemis Accords, however, holds that NASA and member states shall act in a manner that is consistent with the Space Debris Mitigation Guidelines, but it remains unclear to what extent member states will regulate the rapidly growing number of space fairing corporations.[5] Customary international law faces several hurdles when addressing this issue and ultimately stumbles, proving insufficient. When drafting the United Nations Convention on the Law of the Sea (UNCLOS), there were thousands of years of seafaring to look to for what the existing customary law was at that time.[6] This is not the case with spacefaring, and parallels that can be established – if any – do not provide a strong enough foundation to build on. The Debris Mitigation Guidelines could either be a codification of customary international law in 2007 or could have become customary international law through practice and opinio juris since endorsement. It is unlikely that it codified customary international law as there is such a short window of time and so few states participated in this process of space debris mitigation before 2007. Equally unlikely is that it has become customary international law since 2007. Customary international law requires the practice of states engaged in the action – a small number here – but there has been hardly any compliance with the guidelines beyond verbal promises and guarantees. There has been zero opinio juris on the subject, unsurprising given the lack of state practice. Even if we viewed the Debris Mitigation Guidelines as binding member states through customary international law, this would again fail to address the debris left in space by corporations. The Space Liability Convention, in conjunction with Article 31 of the Vienna Convention on the Law of Treaties, could be seen as addressing the issue of manmade space debris, but this stretches the bounds of treaty interpretation to its uttermost limits.[7] There has only been one claim under the Space Liability Convention so it can hardly be argued there is sufficient subsequent practice.[8] The definitions contained within the Space Liability Convention have, to some academics and scholars, been viewed as covering space debris. This interpretation is only possible due to the wide array of tracking of space debris and its origins.[9] Absent being able to understand where space debris originated it would be impossible to assign liability to the launching state or party. Even with tracking, fault-based liability hardly addresses space debris that is the result of a true accident. The Outer Space Treaty and the Registration Convention, the two other major treaties in the international space law regime create a patchwork framework that is nearly too vague to be usable.[10] To truly address this issue, and others, in this new frontier, a treaty of the magnitude of UNCLOS is needed. A treaty of this scale is necessary, compared to a mere framework convention, to protect the rights of all mankind, including nations who have not yet ventured into space. To truly address the issue, such a treaty would need to hold member states strictly liable for the acts committed by private entities within their borders. As with natural resources in the high seas, we cannot let the first nations to reach space pollute it beyond usability before other nations are able to partake as well. Space, and access to it, must be a resource for all mankind.

#### Bad voting procedures.

Hugo Peter 4/23/2021 [THE IMPORTANCE OF THE UN COPUOS IN THE SPACE DEBRIS MITIGATION: WHAT EVOLUTION FOR THE UN COPUOS?] [DS] [https://conference.sdo.esoc.esa.int/proceedings/sdc8/paper/194/SDC8-paper194.pdf]

REFLECTION ON THE VOTING PROCEDURE IN THE UN COPUOS 2.1 REFLECTION ON THE CONSENSUS The voting procedure of the UN COPUOS is the consensus and it seems quite complicated to change it. The history of the UN COPUOS explains the adoption of the vote by consensus against the unanimity vote on the one hand – which was championed by the USSR (the Union of Soviet Socialist Republics) and the majority vote on the other hand – which was supported by the USA. A compromise was finally reached through the adoption of the consensus voting procedure [21]. However, as Eilene Galloway mentions: “That meant that every member of the Committee had a veto right” [22]. As a result, it allows each State to sink any project they disagree with. Although similar to the unanimity procedure, the consensus procedure should not be confused with the former. While unanimity is the expression of the agreement of each voting member to a proposal - which means that if one does not agree, the proposition will not be validated. When the vote happens, if no States opposes it, then the proposal is passed. As a consequence, in the case of consensus, States do not express their full agreement. Some may not agree but not to the extent of opposition which would signify the failure to adopt the text [23]. From a formal perspective if these two procedures are quite similar, their legal consequences are widely different. Instruments adopted by unanimity will have a stronger impact and States will be morally more bound by such instruments whereas consensus instruments, while easier to adopt, will have a lighter impact on the behaviour of States. Consensus was chosen so as to avoid permanent blockage as the Committee was built during the Cold War and the opposition between the two blocs was so strong that each one would have blocked any initiative coming from the opposite camp. Considering the current context and composition of the UN COPUOS and the fact that the Committee does not rely on the opposition between two blocs any longer but instead operates on multilateral rivalry, it may be time to think about an evolution of the voting procedure. Unanimity appears to be a utopic voting procedure, considering the many oppositions between States. Consequently, it would not allow the UN COPUOS to be more effective or reliable. The main goal of such a change would be to allow member States to adopt stronger instruments that could better address the current challenges, primarily space debris. The UN COPUOS could move towards the adoption of a qualified majority procedure. While the simple majority would not be strong enough and would create the risk that only half the members respect the adoption of legal instruments, a qualified majority, at the 2/3 or 3/5 for example, could be a reasonable solution. It would both allow to enforce instruments with a stronger base that reveals the clear agreement of a large majority and at the same time enable those who disagree to clearly express their opposition without blocking the adoption of the instrument. 2.2 REFLECTION ON THE ‘ONE VOTE PER STATE’ PRINCIPLE Concerning the vote, another debatable point is discussed by Bin Cheng: ’the one vote per State’ principle, which is directly inspired by the UN Charter and its article 18 paragraph 1 [24]. In his analysis of domestic law, Professor Cheng states that this rule is not the most democratic one. From the State’s point of view, it appears democratic as each State is equal no matter what its size or capabilities are. From the population’s and citizens’ perspective however – which is the analysis of Bin Cheng, it is not the case any longer. Indeed, in this case, it means that while each State has the same importance, their citizens are not in any case taken into consideration. Even though this reflection is worth discussing, it seems complicated to individualize the vote according to the number of citizens or, for example, according to the capabilities of each State. In a global context, such as the UN’s, to favour population size instead of State equality seems inequal as it would mean that large countries will always have a preponderant vote and will weigh more on the world forum. The principle of ‘one vote per State’ establishes legal equality in law which is already disturbed by factual inequalities linked to the importance and weight of the economies, the diplomacy, and the technology that some States enjoy. Hence, it seems counterproductive to bring changes that could lead to more disequilibrium. In the case of the UN COPUOS and space matters, such an idea of considering the population or any other means could make the UN COPUOS disappear. The ‘one vote per State’ rule in the Committee guarantees equality between States, no matter whether they have space capabilities or not, and no matter how developed these capabilities are. 2.3 FINAL REFLECTION Finally, while the voting procedure should be reviewed and maybe updated to the current situation (end of the Cold War, more member States, development of space capabilities all over the world), the ‘one vote per State’ rule should remain unchanged to guarantee equality between States within the UN COPUOS and between spacefaring and non-spacefaring nations. Keeping hold of this rule will allow States and the UN COPUOS to carry on with negotiations without taking the risk of losing the interest of smaller States. It will also guarantee the same weight to every State on the global work carried out by the Committee and its SubCommittees. And lastly, it will allow States with capacities in development as well as the ones which do not have any yet, to focus on developing them. Conversely, the consensus rule could be the object of a serious reflection within the Committee and particularly within its Legal Sub-Committee so as to examine how it could evolve and what the consequences of such a medication could be. Moreover, the UN COPUOS creates a precedent which could lead other organs of the UN to adopt the consensus rule, even though article 18 of the United Nations Charter only mentions majority or qualified majority. The passage from consensus to qualified majority could help the UN COPUOS to grow and gather more States from all over the world, just like the UNGA and its 193 member States. Such a modification could allow the UN COPUOS to reconnect with its great past. While hard law was established as a predominant model for space law, the blockages within the Committee and its SubCommittees render them useless and unable to adopt new hard law instrument. The tendency nowadays in the UN COPUOS and space law in general turns towards soft law even though it is non-binding. The traditional opposition between hard and soft laws needs to change, generally speaking but more specifically in the case of the UN COPUOS if it wants to be relevant in the next decades.

#### Tons of alt causes to militarization.

Jaramillo et al 11 [Cesar Jaramillo, Project Ploughshares. ­Researchers based at the McGill University Institute of Air and Space Law and at George Washington University’s Space Policy Institute were supervised on site by, respectively, Dr. Ram Jakhu and Dr. Peter Hays. ­e research team included: Timiebi Aganaba, McGill University; Laura Delgado, George Washington University; Catherine Doldirina, McGill University; Diane Howard, McGill University; David McArthur, George Washington University; Brian Weeden, Technical Advisor, Secure World Foundation. Space Security. August 2011. Download it here: https://careersdocbox.com/76784525-US\_Military/Space-security.html]

Protecting satellites, ground stations, and communications links depends on the nature of the space negation threat that such systems face, but, in general terms, threats can include cyber-attacks against space system computers, electronic attacks on satellite communications links, conventional or nuclear attacks on the ground- or space-based elements of a space system, and directed energy attacks such as dazzling or blinding satellite sensors with lasers.

#### But no war

Zarybnisky 18 [Eric J. Zarybnisky, MA in National Security Studies from the Naval War College, PhD in Operations Research from the MIT Sloan School of Management, Lt Col, USAF. Celestial Deterrence: Deterring Aggression in the Global Commons of Space. March 28, 2018. <https://apps.dtic.mil/dtic/tr/fulltext/u2/1062004.pdf>]

PREVENTING AGGRESSION IN SPACE

While deterrence and the Cold War are strongly linked in the public’s mind through the nuclear standoff between the United States and the Soviet Union, the fundamentals of deterrence date back millennia and deterrence remains relevant. Thucydides alludes to the concept of deterrence in his telling of the Peloponnesian War when he describes rivals seeking advantages, such as recruiting allies, to dissuade an adversary from starting or expanding a conflict.6F 6 Aggression in space was successfully avoided during the Cold War because both sides viewed an attack on military satellites as highly escalatory, and such an action would likely result in general nuclear war.7F 7 In today’s more nuanced world, attacking satellites, including military satellites, does not necessarily result in nuclear war. For instance, foreign countries have used highpowered lasers against American intelligence-gathering satellites8F 8 and the United States has been reluctant to respond, let alone retaliate with nuclear weapons. This shift in policy is a result of the broader use of gray zone operations, to which countries struggle to respond while limiting escalation. Beginning with the fundamentals of deterrence illuminates how it applies to prevention of aggression in space.

#### No arms racing

Lopez 12 [LAURA DELGADO LO´ PEZ, Institute for Global Environmental Strategies, Arlington, Virginia. Astropolitics. "Predicting an Arms Race in Space: Problematic Assumptions for Space Arms Control." https://www.tandfonline.com/doi/full/10.1080/14777622.2012.647391]

The previous discussion demonstrates that although a globalized space arms race could follow U.S. deployment of space weapons, it is also plausible and more likely that it may not happen at all. As Mueller states: ‘‘In the end, most of the inevitability arguments are weak.’’62 The assumptions discussed here break the argument into a series of debatable maxims that other scholars have also considered. Hays, for instance, counters the inevitability argument by pointing out that previous ASAT tests did not have this purported destabilizing effect, to which we can add that even after the Chinese ASAT test, neither Russia nor the United States, who would be both capable and more politically likely to launch space weapons, moved forward in that direction.63 Although some may draw attention to the recent wake-up calls in order to underline a sense of urgency, one should also recall that when it seemed truly inevitable before, it did not happen either. In his detailed account of military space developments from 1945 to 1984, Paul Stares described how superpowers’ assessment of the value of space weapons shifted, with a ‘‘hiatus in testing’’ reflecting the attractiveness of satellites as military targets.64 In this changed landscape, Stares also assumed the inevitability argument, claiming that ‘‘the chances of space remaining a ‘sanctuary’ [absence of weapons] into the 21st century appear today to be remote.’’65 Perhaps the conditions are more conducive now, but the important point to be reiterated is that the outcome is not inevitable, and that any such prediction must be undertaken with caution.

One of the most prominent theorists to propose an alternate picture and pair it with an aggressive pro-space weapons stance is Everett Dolman. In his Astropolitik theory, Dolman summarizes the steps that the United States must take to assume control of space, particularly through withdrawal from the current space regime.66 This move, he argues, would benefit not only the United States, but also the rest of the world, since having a democracy controlling space is a catalyst for peace.67 Elsewhere, he writes: ‘‘Only a liberal world hegemon would be able to practice the restraint necessary to maintain its preponderant balance of hegemonic power without resorting to an attempt at empire.’’68 Accordingly, he believes that this strategy would be ‘‘perceived correctly as an attempt at continuing U.S. hegemony,’’69 but that other countries, correctly assessing U.S. leadership in space, would not seek to deploy their own systems. Having the ability to prevent the stationing of foreign weapons systems in space, he writes, ‘‘makes the possibility of large-scale space war and a military space race less likely, not more.’’70 In fact, he says, ‘‘to suggest that the inevitable result is a space arms competition is the worst kind of mirror-imaging.’’71 Dolman argues that the weaponization of space by the United States would ‘‘decrease the likelihood of an arms race by shifting spending away from conventional weapons systems,’’ which would reduce U.S. capabilities in territorial occupation and would thus be perceived as less threatening to other countries.72

#### No space war – it’s hype and systems are redundant

Johnson-Freese and Hitchens 16 [Dr. Joan Johnson-Freese is a member of the Breaking Defense Board of Contributors, a Professor of National Security Affairs at the Naval War College and author of Space Warfare in the 21st Century: Arming the Heavens. Views expressed are those of the author alone. Theresa Hitchens is a Senior Research Scholar at the Center for International and Security Studies at Maryland (CISSM), and the former Director of the United Nations Institute for Disarmament Research (UNIDIR) in Geneva, Switzerland. Stop The Fearmongering Over War In Space: The Sky’s Not Falling, Part 1. December 27, 2016. https://breakingdefense.com/2016/12/stop-the-fearmongering-over-war-in-space-the-skys-not-falling-part-1/]

In the last two years, we’ve seen rising hysteria over a future war in space. Fanning the flames are not only dire assessments from the US military, but also breathless coverage from a cooperative and credulous press. This reporting doesn’t only muddy public debate over whether we really need expensive systems. It could also become a self-fulfilling prophecy. The irony is that nothing makes the currently slim possibility of war in space more likely than fearmongering over the threat of war in space.

Two television programs in the past two years show how egregious this fearmongering can get. In April 2015, the CBS show 60 Minutes ran a segment called “The Battle Above.” In an interview with General John Hyten, the then-chief of U.S. Air Force Space Command, it came across loud and clear that the United States was being forced to prepare for a battle in space — specifically against China — that it really didn’t want.

It was explained by Hyten and other guests that China is building a considerable amount of hardware and accumulating significant know-how regarding space, all threatening to space assets Americans depend on every day. If viewers weren’t frightened after watching the segment, it wasn’t for lack of trying on the part of CBS.

Using terms like “offensive counterspace” as a 1984 NewSpeak euphemism for “weapons,” it was made clear that the United States had no choice but to spend billions of dollars on offensive counterspace technology to not just thwart the Chinese threat, but control and dominate space. While it didn’t actually distort facts — just omit facts about current U.S. space capabilities — the segment was basically a cost-free commercial for the military-industrial complex.

In retrospect though, “The Battle Above” was pretty good compared to CNN’s recent special, War in Space: The Next Battlefield. The latter might as well have been called Sharknado in Space – because the only far-out weapons technology our potential adversaries don’t have, according to the broadcast, seems to be “sharks with frickin’ laser beams attached to their heads!”

First, CNN needs to hire some fact checkers. Saying “unlike its adversaries, the U.S. has not yet weaponized space” is deeply misleading, like saying “unlike his political opponents, President-Elect Donald Trump has not sprouted wings and flown away”: A few (admittedly alarming) weapons tests aside, no country in the world has yet weaponized space. Contrary to CNN, stock market transactions are not timed nor synchronized through GPS, but a closed system. Cruise missiles can find their targets even without GPS, because they have both GPS and precision inertial measurement units onboard, and IMUs don’t rely on satellite data. Oh, and the British rock group Pink Floyd holds the only claim to the Dark Side of the Moon: There is a “far side” of the Moon — the side always turned away from the Earth — but not a “dark side” — which would be a side always turned away from the Sun.

More nefariously, the segment sensationalized nuggets of truth within a barrage of half-truths, backed by a heavy bass, dramatic soundtrack (and gravelly-voiced reporter Jim Sciutto) and accompanied by sexy and scary visuals.

Make no mistake there are dangers in space, and the United States has the most to lose if space assets are lost. The question is how best to protect them. Here are a few facts CNN omitted.

The Reality

The U.S. has all of the technologies described on the CNN segment and deemed potentially offensive: maneuverable satellites, nano-satellites, lasers, jamming capabilities, robotic arms, ballistic missiles that can be used as anti-satellite weapons, etc. In fact, the United States is more technologically advanced than other countries in both military and commercial space.

That technological superiority scares other countries; just as the U.S. military space community is scared of other countries obtaining those technologies in the future. The U.S. military space budget is more than 10 times greater than that of all the countries in the world combined. That also causes other countries concern.

More unsettling still, the United States has long been leery of treaty-based efforts to constrain a potential arms race in outer space, as supported by nearly every other country in the world for decades. Indeed, under the administration of George W. Bush, the U.S. talking points centered on the mantra “there is no arms race in outer space,” so there is no need for diplomat instruments to constrain one. Now, a decade later, the U.S. military – backed by the Intelligence Community which operates the nation’s spy satellites – seems to be shouting to the rooftops that the United States is in danger of losing the space arms race already begun by its potential adversaries. The underlying assumption — a convenient one for advocates of more military spending — is that now there is nothing that diplomacy can do.

However, it must be remembered that most space-related technologies – with the exception of ballistic missiles and dedicated jammers – have both military and civil/commercial uses; both benign — indeed, helpful — and nefarious uses. For example, giving satellites the ability to maneuver on orbit can allow useful inspections of ailing satellites and possibly even repairs.

Further, the United States is not unable to protect its satellites, as repeated during the CNN broadcast by various interviewees and the host. Many U.S. government-owned satellites, including precious spy satellites, have capabilities to maneuver. Many are hardened against electro-magnetic pulse, sport “shutters” to protect optical “eyes” from solar flares and lasers, and use radio frequency hopping to resist jamming.

Offensive weapons, deployed on the ground to attack satellites, or in space, are not a silver bullet. To the contrary, U.S. deployment of such weapons may actually be detrimental to U.S. and international security in space (as we argued in a recent Atlantic Council publication, Towards a New National Security Space Strategy). Further, there are benefits to efforts started by the Obama Administration to find diplomatic tools to restrain and constrain dangerous military activities in space.

These diplomatic efforts, however, would be undercut by a full-out U.S. pursuit of “space dominance.” This includes dialogue with China, the lack of which Gen. William Shelton, retired commander of Air Force Space Command, lamented in the CNN report.

Given CNN’s “cast,” the spin was not surprising. Starting with Ghost Fleet author Peter Singer set the sensationalist tone, which never altered. The apocalyptic opening, inspired by Ghost Fleet, posited a scenario where all U.S. satellites are taken off-line in nearly one fell swoop. Unless we are talking about an alien invasion, that scenario is nigh on impossible. No potential adversary has such capabilities, nor will they ever likely do so. There is just too much redundancy in the system.

#### No internal – Johnson ev admits private sector is better, aff doesn’t solve anyways

#### China wins anyways

Fabian 21 — (Chris Fabian, Capt. Chris Fabian, U.S. Space Force, is a crew commander in the 3rd Space Operations Squadron supporting the Delta 9 mission. , “A call to action for strategic space competition with China“, TheHill, 6-22-2021, Available Online at https://thehill.com/opinion/national-security/558979-a-call-to-action-for-strategic-space-competition-with-china?rl=1, accessed 1-12-2022, HKR-AR)

To compete with China’s space power, the United States needs ambitious visions, not business as usual. China aims to be a dominant space power by 2045, raising concerns that it seeks to establish itself as a space hegemon. The meteoric rise of China’s space program and its lofty ambitions could result in China outpacing the United States in space. China understands that a vibrant space industry is critical infrastructure for economic development, would achieve potent soft-power effects, and provide vital capabilities to Chinese national security and economic development.

China sent its first astronaut into orbit in 2003, yet in 2018 conducted more space-oriented operations than any other nation. Last December, China landed on the moon, planted its flag, collected moon rock samples, returned to Earth, and plans to install a permanent lunar space station by 2031. Months after China reached Mars’ orbit, its Zhurong rover landed on the red planet surface in May. China has begun talks with Russia to secure partnership for a lunar base project. Between 2036-2045, China plans to have a long-term human presence at the Lunar South Pole. These are amazing accomplishments and an ambitious vision for a nation that launched its first satellite only recently, in 1970.

China’s space diplomacy and science efforts are biased toward exploring and exploiting natural resources in near-Earth objects and on the moon. China’s behavior in space may mirror its patterns of resource nationalism on Earth — that is to say, spending incredible political and economic capital to secure exclusive access to strategic resources. As Earth-based resources become scarce and technology makes space-mining feasible, space will become a frontier for strategic competition, especially resource nationalism. Mining even a single asteroid could disrupt global iron, nickel, platinum group metals (PGM) and precious metal-based economies, markets and industry supply chains, especially if controlled by a single state and used for in situ manufacturing and re-supply. Establishing a presence in cislunar space, as China clearly intends, provides capabilities and capacity for space mining, positioning, navigation and timing (PNT), and first-mover locational advantages for space settlement.

This emerging competition differs from the Cold War-era race for symbolic space milestones that sought to prove the superiority of the U.S. market-based economic system for the benefit of unaligned nations. Today’s space race is about the actual economics of space-derived capabilities, access to space resources, and the technologies for acquiring and controlling them. The United States is at a crossroads: It can either prepare itself for this new paradigm, or be relegated to second-class status and look back on what could have been. Efficient and advantageous strategic investment now is better than doubling down later with a patchwork of expensive, rushed space programs.

#### No “counter heg pushes”

Shifrinson 19 [Joshua Shifrinson is an Assistant Professor of International Relations with the Pardee School of Global Affairs at Boston University. Should the United States Fear China’s Rise? Winter 2019. www.bu.edu/pardeeschool/files/2019/01/Winter-2019\_Shifrinson\_0.pdf]

In short, limited predation—not an overt and outright push to overtake and challenge the United States—is the name of China’s current and highly rational game. As significantly, it appears Chinese leaders are aware of the structural logic of the situation. Despite ongoing debate over the extent to which China has departed from its long-standing “hide strength, bide time” strategy first formulated by Deng Xiaoping in favor a more assertive course seeking to increase Chinese influence in world affairs, Chinese leaders and China watchers have been at pains to point out that Chinese strategy still seeks to avoid provoking conflict with the United States.49 As one analyst notes, China’s decision to carve out a more prominent role for itself in world politics has been coupled with an effort to reassure and engage the United States so as to avoid unneeded competition while facilitating stability.50 Chinese leaders echo these themes, with one senior official noting in 2014 that Chinese policy focused on “properly addressing] conflicts and differences through dialogue and cooperation instead of confrontational approaches.”51 Xi Jinping himself has underlined these currents, arguing even before taking office that U.S.-Chinese relations should be premised on “preventing conflict and confrontation,” and more recently vowing that “China will promote coordination and cooperation with other major countries.”52 Ultimately, as one scholar observes, there is “hardly evidence that [... China has] begun to focus on hegemonic competition.”53 Put another way, China’s leaders appear aware of the risks of taking an overly confrontational stance toward a still-potent United States and have scoped Chinese ambitions accordingly.

#### Space not k2 heg

Cheng 17 [Dean Cheng, Senior Research Fellow, Asian Studies Center, Davis Institute for National Security and Foreign Policy Heritage. The U.S.-Japan Alliance and Deterring Gray Zone Coercion in the Maritime, Cyber, and Space Domains. Chapter 6. Space Deterrence, the U.S.-Japan Alliance, and Asian Security: A U.S. Perspective. Rand Corporation. 2017]

But while there may be clashes in space, the actual source of any Sino-American conflict will remain earthbound, most likely stemming from tensions associated with the situation in the East China Sea, the Taiwan Strait, or the South China Sea. This suggests that U.S. and allied decisionmakers (both in Asia and Europe) should be focusing on deterring aggression in general, rather than concentrating primarily on trying to forestall actions in space. Indeed, there is little evidence that Chinese military planners are contemplating a conflict limited to space. While there may be actions against space systems, Chinese writings suggest that they would either be limited in nature, as part of a signaling and coercive effort, or else would be integrated with broader terrestrial military operations.

#### No heg impact

Fettweis 17 [Christopher Fettweis, associate professor of political science at Tulane University. Unipolarity, Hegemony, and the New Peace. May 8, 2017. http://www.tandfonline.com/doi/pdf/10.1080/09636412.2017.1306394?needAccess=true]

After three years in the White House, Ronald Reagan had learned something surprising: “Many people at the top of the Soviet hierarchy were genuinely afraid of America and Americans,” he wrote in his autobiography. He continued: “Perhaps this shouldn’t have surprised me, but it did … I’d always felt that from our deeds it must be clear to anyone that Americans were a moral people who starting at the birth of our nation had always used our power only as a force for good in the world…. During my first years in Washington, I think many of us took it for granted that the Russians, like ourselves, considered it unthinkable that the United States would launch a first strike against them.” 100 Reagan is certainly not alone in believing in the essential benevolent image of his nation. While it is common for actors to attribute negative motivations to the behavior of others, it is exceedingly difficult for them to accept that anyone could interpret their actions in negative ways. Leaders are well aware of their own motives and tend to assume that their peaceful intentions are obvious and transparent.

Both strains of the hegemonic-stability explanation assume not only that US power is benevolent, but that others perceive it that way. Hegemonic stability depends on the perceptions of other states to be successful; it has no hope to succeed if it encounters resistance from the less powerful members of the system, or even if they simply refuse to follow the rules. Relatively small police forces require the general cooperation of large communities to have any chance of establishing order. They must perceive the sheriff as just, rational, and essentially nonthreatening. The lack of balancing behavior in the system, which has been puzzling to many realists, seems to support the notion of widespread perceptions of benevolent hegemony.101 Were they threatened by the order constructed by the United States, the argument goes, smaller states would react in ways that reflected their fears. Since internal and external balancing accompanied previous attempts to achieve hegemony, the absence of such behavior today suggests that something is different about the US version.

Hegemonic-stability theorists purport to understand the perceptions of others, at times better than those others understand themselves. Complain as they may at times, other countries know that the United States is acting in the common interest. Objections to unipolarity, though widespread, are not “very seriously intended,” wrote Kagan, since “the truth about America’s dominant role in the world is known to most observers. And the truth is that the benevolent hegemony exercised by the United States is good for a vast portion of the world’s population.” 102 In the 1990s, Russian protests regarding NATO expansion—though nearly universal—were not taken seriously, since US planners believed the alliance’s benevolent intentions were apparent to all. Sagacious Russians understood that expansion would actually be beneficial, since it would bring stability to their western border.103 President Clinton and Secretary of State Warren Christopher were caught off guard by the hostility of their counterparts regarding the issue at a summit in Budapest in December 1994.104 Despite warnings from the vast majority of academic and policy experts about the likely Russian reaction and overall wisdom of expansion itself, the administration failed to anticipate Moscow’s position.105 The Russians did not seem to believe American assurances that expansion would actually be good for them. The United States overestimated the degree to which others saw it as benevolent.

Once again, the culture of the United States might make its leaders more vulnerable to this misperception. The need for positive self-regard appears to be particularly strong in North American societies compared to elsewhere.106 Western egos tend to be gratified through self-promotion rather than humility, and independence rather than interdependence. Americans are more likely to feel good if they are unique rather than a good cog in society’s wheel, and uniquely good. The need to be perceived as benevolent, though universal, may well exert stronger encouragement for US observers to project their perceptions onto others.

The United States almost certainly frightens others more than its leaders perceive. A quarter of the 68,000 respondents to a 2013 Gallup poll in sixty-five countries identified the United States as the “greatest threat to world peace,” which was more than three times the total for the second-place country (Pakistan).107 The international community always has to worry about the potential for police brutality, even if it occurs rarely. Such ungratefulness tends to come as a surprise to US leaders. In 2003, Condoleezza Rice was dismayed to discover resistance to US initiatives in Iraq: “There were times,” she said later, “that it appeared that American power was seen to be more dangerous than, perhaps, Saddam Hussein.” 108 Both liberals and neoconservatives probably exaggerate the extent to which US hegemony is everywhere secretly welcomed; it is not just petulant resentment, but understandable disagreement with US policies, that motivates counterhegemonic beliefs and behavior.

To review, assuming for a moment that US leaders are subject to the same forces that affect every human being, they overestimate the amount of control they have over other actors, and are not as important to decisions made elsewhere as they believe themselves to be. And they probably perceive their own benevolence to be much greater than do others. These common phenomena all influence US beliefs in the same direction, and may well increase the apparent explanatory power of hegemony beyond what the facts would otherwise support. The United States is probably not as central to the New Peace as either liberals or neoconservatives believe.

In the end, what can be said about the relationship between US power and international stability? Probably not much that will satisfy partisans, and the pacifying virtue of US hegemony will remain largely an article of faith in some circles in the policy world. Like most beliefs, it will remain immune to alteration by logic and evidence. Beliefs rarely change, so debates rarely end.

For those not yet fully converted, however, perhaps it will be significant that corroborating evidence for the relationship is extremely hard to identify. If indeed hegemonic stability exists, it does so without leaving much of a trace. Neither Washington’s spending, nor its interventions, nor its overall grand strategy seem to matter much to the levels of armed conflict around the world (apart from those wars that Uncle Sam starts). The empirical record does not contain strong reasons to believe that unipolarity and the New Peace are related, and insights from political psychology suggest that hegemonic stability is a belief particularly susceptible to misperception. US leaders probably exaggerate the degree to which their power matters, and could retrench without much risk to themselves or the world around them. Researchers will need to look elsewhere to explain why the world has entered into the most peaceful period in its history.

The good news from this is that the New Peace will probably persist for quite some time, no matter how dominant the United States is, or what policies President Trump follows, or how much resentment its actions cause in the periphery. The people of the twenty-first century are likely to be much safer and more secure than any of their predecessors, even if many of them do not always believe it.