## 2

#### CP: The United States should submit an environmental impact assessment of the appropriation of outer space by private entities to the UN Office of Outer Space Affairs for public comment, modification, and approval. The United States federal government should implement the approved version of the submitted proposal.

**Counterplan competes and creates the least environmentally damaging version of the aff.**

William R. **Kramer**, PhD Polisci/Futures Studies @ U of H Manoa, Currently HDR Inc. Extraterrestrial Environmental Analyst, **’14**, “Extraterrestrial environmental impact assessments A foreseeable prerequisite for wise decisions regarding outer space exploration, research and development” Space Policy 30 (2014) 215-222

To be most effective, all spacefaring nations and enterprises would voluntarily participate in assessing their extraterrestrial environmental impacts prior to undertaking actions in space. A hypothetical chronology of such a process might include: (1) Impact assessments are prepared by the action proponent and submitted to an impartial international panel or board; (2) The panel determines the assessment's sufficiency; (3) The assessment is published in an electronic or other format accessible to the public followed by a comment period; (4) The action proponent addresses comments and submits responses to the panel; (5) The panel publishes its approval or concerns; (6) The action proceeds, is **modified or is abandoned**; and (7) should the action proceed, periodic reports of the action's progress and impacts are filed for future reference in a digital format to allow broad access. The process would support the spirit of both **NEPA** to “fulfill the responsibilities of each generation as trustee of the environment for succeeding generations” (42 USC x4331(b)(1)) and Article 4(1) of the Moon Agreement's directive that “due regard shall be paid to the interests of present and future generations.” Given the likelihood that all states would appreciate the need for maintaining extraterrestrial environments and landscapes for both future research and exploitation, pressure from peer states and space industries may be sufficient to **encourage a trend of compliance**.

Such a review and approval system (perhaps similar to NEPA's relationship with the Council on Environmental Quality and its oversight function) could be attempted within the structure of the UN, such as within the **UN Office of Outer Space Affairs**. The spirit of an extraterrestrial environmental assessment program would be likely to fit within the mandate of the organization. However, amending the Outer Space Treaty or otherwise developing an administrative UN capacity to achieve the goals proposed in this paper would require a level of international commitment and cooperation that may be both lengthy and difficult to achieve. Spacefaring nations and international organizations are already invited to submit annual reports on their space activities and research to the UN Committee on the Peaceful Uses of Space, **so a precedent for reporting exists.** **Presently, however, reports tend to document positive actions and research, not details of extraterrestrial environmental impacts**.

**Extinction. EIA is key to preserve space resources, stop resource wars, and extra-terrestrial environmental damage.**

William R. **Kramer**, Hawaii Research Center for Futures Studies @ University of Hawaii, **'17**, In dreams begin responsibilities – environmental impact assessment and outer space development, ENVIRONMENTAL PRACTICE, VOL. 19, NO. 3, 128–138

**Benefits of extraterrestrial environmental impact assessment** Most publications regarding outer space resources maintain that those resources are nearly limitless, and many business models for exploitation do not imagine that resources on Mars, for example, will ever be exhausted (Lewis, 1996; Zubrin, 1996; Renstrom, 2016). Ever is a long time. While the statement may be figuratively true for some mineral ores that may last through an individual company’s project timeline, it is not necessarily true for long-term planning. **There will likely be competition for the rarest (most valuable) minerals**. Without some form of planning and regulation, they may be extracted in an inefficient and environmentally damaging manner and be **quickly depleted** (as exemplified by hydraulic mining for gold on Earth, which wasted much of the resource and resulted in extensive environmental damage) (Merchant, 1998).

How might resources be put to their highest and best use unless regulated? Both the Moon and Mars have water ice which will be **crucial for human survival**, but water also has lucrative industrial uses; it is potentially the raw material for manufacturing both rocket fuel and oxygen. **Conflicts over resource allocation** may be better addressed during an **assessment process** that seeks to balance highest and best use with discovery and first use. Who gains access to specific areas for mining becomes more problematic in that the Outer Space Treaty does not allow “ownership” of extraterrestrial territory; there is no guarantee that companies such as those listed previously will gain access to the most productive sites. The China National Space Administration is planning to place a crew on the Moon by 2024, so **competition for the best sites will be intense** (Kramer, 2015b; China Digital Times, 2012).

Space industries generally are not considering that their proposed actions may preclude alternative uses such as scientific research and human settlement. There will be a stream of not yet imagined uses that could be adversely affected or foreclosed. Many of the same conflicts between land use and human habitation experienced on Earth may emerge on extraterrestrial sites. On the Moon, for example, there are preferable sites for collecting solar energy. These “peaks of eternal light” are areas nearly always or constantly exposed to sunlight at the poles. They are very limited in both distribution and size (Elvis, Milligan, and Krolikowski, 2016). If a mining operation were to determine such areas suitable for their operations, or if mining created a constant plume of dust that would diminish the effectiveness of solar panels, how might such a situation be resolved?

Should potentially dangerous industries such as fuel manufacturing or storage be located near living areas? Would hydraulic fluid pipelines be closely monitored for leaks that may affect subsurface ice deposits mined for drinking water? How might vibrations from detonations affect unrelated structures or scientific instrumentation, such as telescopes? And how might a search for life, whether extinct or still living, be affected by human presence and our trail of bacteria and organic wastes? Humans’ biological pollution of Mars, for example, may greatly affect the results of any search for extraterrestrial life there (Kramer, 2009; McKay, 2009). Peter Doran of the Planetary Protection Subcommittee of the NASA Advisory Council offered, “The big issue with all missions to Mars is we don’t want to create a situation where we are impacting future life-detection science. Picture humans … walking around shedding microbes everywhere we go. Space suits as we know them do not take care of this problem (Mack, 2016).”

## Case

### Solvency

#### 1] Licensing only works in an ideal world – squo is not

**Leepuengtham 17**, Tosaporn. "International Space Law and Its Implications for Outer Space Activities." Elgar Online: The Online Content Platform for Edward Elgar Publishing, Edward Elgar Publishing, 27 Jan. 2017, [https://www.elgaronline.com/view/9781785369612/06\_chapter1.xhtml //](https://www.elgaronline.com/view/9781785369612/06_chapter1.xhtml%20/) recut by VS

However, the situation might be more complex if an intellectual property work created involved using outer space resources as a component of its output. Take, as a hypothetical example: Scientist A, a national of the United States, discovers a process to produce nuclear power using Helium-3 as its major constituent. Helium-3 is known to be a valuable resource for generating nuclear power which is rare on earth, but abundant on the Moon.80 The production of nuclear power using this process would be cost-effective if produced in outer space. But would the process of producing this nuclear power violate the non-appropriation principle if the Moon’s natural resources are taken as part of this process? A strict interpretation would see use of Helium-3 as a type of appropriation of the Moon’s resources, and so a breach of the non-appropriation obligation. But, if neither the production of such nuclear power nor intellectual property rights protecting the process are allowed, the world community would lose the benefit of this additional source of power. However, a compromise **could** be put forward which would allow exploitation of this intellectual property work based upon licensing. Any such licensing scheme **would need to ensure** third parties **fair and equitable access** to this process in order to uphold the principle of freedom of exploration and use, but with (need) **appropriate safeguards** in place, exploitation via licensing would guarantee Scientist A an opportunity to enjoy some benefit from his effort and investment.

### Mining

#### T/L – vote neg if we prove no conflicts OR deterrence solves – that means squo mining solves impacts

#### [1] Space norms fail and the plan doesn’t establish consensus, it just adds a conflicting interpretation to an already fractured set of ideas about space

Dr. Steven Lambakis 18, Director of Space Studies and Senior Defense Analyst at the National Institute for Public Policy, Ph.D. at Catholic University, and Managing Editor of Comparative Strategy, “Foreign Space Capabilities: Implications for U.S. National Security”, Comparative Strategy, Volume 37, Issue 2, p. 135

A recent unclassified national security space strategy report provides no indication that the Obama Administration was preparing to actively counter the space capabilities of adversaries; rather, the Obama Administration apparently was attempting to balance its highly idealistic language with the potential realities of conflict. Yet it must be pointed out that U.S. leadership in the world today is predicated heavily on its military might. Leading by example without strength to bear against those who would transgress U.S. interests would most likely lead the nation to retreat from the defense of its interests. Moreover, such a display of weakness could lead to attacks on the United States. History does not tell us that merely leading by example through living responsibly and peacefully is the best way to defend the nation. Why would we expect this tactic to work in space? Today, counter-space operations against U.S. assets are getting attention, but there seems to be no attention given to providing the United States with capabilities to counter the hostile space activities of other nations.

There is significant discussion in official circles today about bolstering behavioral norms in space. But to whose “norms” will nations adhere? As the U.S. Deputy Assistant Secretary of Defense for Space, Doug Loverro put it, “we don’t want people shooting at satellites, we don’t believe that’s a good thing for mankind.”280 It has also been said that the establishment of norms “serves as a reminder that any battle for control over the use of space to support military operations begins well before forces begin to mobilize on Earth.”281

We cannot assume, however, that the norms which other states adopt will be those norms we deem appropriate to ensure peaceful actions and safe behavior in space. The last decade is replete with examples of other countries, some of which are potential adversaries of the United States, practicing direct ascent ASAT maneuvers; one of these was destructive, demonstrating co-orbital ASAT operations, and practicing reversible interference through jamming of radio signals or dazzling infrared sensors. The norm of self-serving behavior that advances national goals is the norm that has been most obvious in international relations for centuries. And, this norm has been reflected in space over the past 10 years. Are efforts to create benign “rules of the road” likely to replace this norm? While possible in principle, it seems extremely unlikely, and would be highly imprudent to assume as a basis for defense planning.

Another norm that characterizes the current age and should inform our thinking about space is invasion of sovereign nations. In February 2014, Russia’s president Vladimir Putin invaded Ukraine, starting with the annexation of Crimea (part of Ukraine). Since the invasion, more than 10,000 Ukrainians have been killed. This has happened despite international norms, treaties, and agreements that condemn such aggressive behavior and consider it to be politically shameful; indeed, international agreements and shaming speeches have been entirely ineffectual. The Ukrainians either did not consider that such a transgression could occur, or believed that the world would rally to their side to push back the invasion. Neither belief, of course, was based in reality. All that matters today are the facts on the ground—i.e., the nature of the regimes confronting us and the strategies they are pursuing.

There are broad national security implications of not having access to space. On land, at sea, and in the air, the United States customarily strives for peaceful, safe, and responsible behavior to avoid accidents, ensure international tensions do not flare up, and essentially collaborate with other states to ensure a stable, predictable environment—but it does so armed all the same, prepared to defend interests in each of those environments. Why? Because history is replete with violations of broken conventions and international agreements, and because peace does not last.

#### [2] That turns case – increased agreements cause increased tensions – triggering lashout from countries ie china and russia

#### [3] Violations are inevitable in the U.S. and globally, but there’s no impact because i-law’s toothless

Luke Hiken 12, JD, Attorney Who Has Engaged in the Practice of Criminal, Military, Immigration, and Appellate Law, and Marti Hiken, Former Associate Director of the Institute for Public Accuracy and Former Chair of the National Lawyers Guild Military Law Task Force, “The Impotence of International Law”, Foreign Policy in Focus, 7/17/2012, https://fpif.org/the\_impotence\_of\_international\_law/

Whenever a lawyer or historian describes how a particular action “violates international law” many people stop listening or reading further. It is a bit alienating to hear the words “this action constitutes a violation of international law” time and time again – and especially at the end of a debate when a speaker has no other arguments available. The statement is inevitably followed by: “…and it is a war crime and it denies people their human rights.” A plethora of international law violations are perpetrated by every major power in the world each day, and thus, the empty invocation of international law does nothing but reinforce our own sense of impotence and helplessness in the face of international lawlessness.

The United States, alone, and on a daily basis violates every principle of international law ever envisioned: unprovoked wars of aggression; unmanned drone attacks; tortures and renditions; assassinations of our alleged “enemies”; sales of nuclear weapons; destabilization of unfriendly governments; creating the largest prison population in the world – the list is virtually endless.

Obviously one would wish that there existed a body of international law that could put an end to these abuses, but such laws exist in theory, not in practice. Each time a legal scholar points out the particular treaties being ignored by the superpowers (and everyone else) the only appropriate response is “so what!” or “they always say that.” If there is no enforcement mechanism to prevent the violations, and no military force with the power to intervene on behalf of those victimized by the violations, what possible good does it do to invoke principles of “truth and justice” that border on fantasy?

The assumption is that by invoking human rights principles, legal scholars hope to reinforce the importance of and need for such a body of law. Yet, in reality, the invocation means nothing at the present time, and goes nowhere. In the real world, it would be nice to focus on suggestions that are enforceable, and have some potential to prevent the atrocities taking place around the globe. Scholars who invoke international law principles would do well to add to their analysis, some form of action or conduct at the present time that might prevent such violations from happening. Alternatively, praying for rain sounds as effective and rational as citing international legal principles to a lawless president, and his ruthless military.

#### [4] their conflicts scenario is just a claim without a warrant – they say that increased mining leads to conflict over ownership – no – there are so many asteroids containing minerals – cross apply their doshi ev – proves no conflict

#### [5] theyre doshi ev is wrong – the legal barriers are costs for transporting and fuel for shipping materials back to earth – proves no mining in aff world

### Space War

#### This is the thesis of their advantage –ASAT weaponization and space militarization will happen in SPACE now to protect PRIVATE assets; they have said this is casual; without these commerical and private objects in space, States will demilitarize and remove ASATs, thereby resolving tensions that lead to war. We’ll impact turn that:

#### ASATs are key to deterrence and asymmetric escalation capabilities---that caps conflicts from going nuclear---independently, solves Chinese DEWs.

Kartik Bommakanti 19. Associate Fellow with the Strategic Studies Program. 11-15-2019. “‘Soft Kill’ or ‘Hard Kill’? The requirements for India’s space and counter-space capabilities.” ORF Occasional Paper. https://www.orfonline.org/research/soft-kill-or-hard-kill-the-requirements-for-indias-space-and-counter-space-capabilities-57832/

II. KEWs: India’s Space Weapons and Balance of Power

A key justification for the development of space weapons is preserving the balance of power, which requires a state’s active effort to enhance its power and secure its interests against the dominant or near-dominant states in the international system. “Balancing” involves engineering a shift in the existing distribution of power, away from the dominant state in the system or region.[3]

India currently faces two adversarial states—China and Pakistan—both of them with active space military capabilities and having a history of strategic cooperation. To achieve a balance of power, India must improve its hard-kill and soft-kill capabilities in the space domain and work towards “internal balancing,” i.e. accumulating capabilities through domestic effort, instead of “external balancing,” i.e. relying on the power of other states.[4] Internal balancing gives a state the power to prevent the escalation of conflict and war. American realist scholar John J. Mearsheimer observed, “…the balance of power is largely synonymous with military power.”[5]

The success of India’s ASAT test of March 2019 demonstrated the country’s ground-launched KEW capability. However, the country’s kinetic capabilities are not without limitations vis-à-vis its situation with Pakistan and China. The challenge is summarised by Vipin Narang: “If Pakistan starts hitting Indian satellites, India can knock out Pakistan’s very few satellites whereas India cannot do the same to China. So it’s kind of a weird balance for India if it’s interested in getting into the anti-satellite deterrence game [because] it doesn’t really have an advantage in either of its dyads.”[6]

While Pakistan, too, does not have a confirmed kinetic capability, it could develop one with China’s assistance, which is consistent with Narang’s observation. According to another scholar, “…the number of countries able to undertake such intercepts is much larger…”[7] and Pakistan is one of them. While its space programme is not as expansive as India’s, Pakistan has an extensive missile programme and is in a position to undertake a KEW test in the not-so-distant future. (The barriers to entry in KEW-related space technology for states such as Pakistan, which is otherwise not a leading spacefaring nation, are not too high.)

Another legitimate concern is that a conventional war can escalate to a nuclear war, involving space as a domain and a medium. A potential two-front attack is one of the major reasons that India must develop triadic KEWs, since it gives the country asymmetric escalation capabilities, allowing it to put at considerable and direct risk both Chinese and Pakistani space assets. According to a 2015 Indian study, which ties partially into Narang’s reference to the two-front military challenge facing India, “There is also little doubt that space, nuclear weapons, conventional weapons and strategies of war and deterrence are now inextricably connected with each other.”[8] However, this statement is not entirely accurate, and in the context of India’s conflictual relationships with China and Pakistan, alternative scenarios are equally plausible. For example, in the event of a China–India war or an India–Pakistan war, traditional weapons and space weapons could be used without the involvement of nuclear arms. The Kargil conflict is an example of a “limited-aims conventional war,” fought under the cover of nuclear weapons.[9] Similar conflicts in the future, however, are likely to involve the space segment, especially in the case of a Sino-Indian military conflagration. On the other hand, a joint attack by China and Pakistan could potentially escalate to the nuclear level, as the 2015 study suggests. However, it is equally likely to remain confined to conventional and space warfare, for terrestrial territorial gains. The study also ignores the fact that a two-front war against India will be a function of the common objectives pursued by China and Pakistan against India, and vice versa. An inextricable link between space, nuclear and conventional deterrence and warfighting strategies is limited and conditional, if not tenuous.

According to Narang’s assessment, India lacks an “advantage” in the two conflict dyads. However, what India needs primarily is not an advantage but parity (especially if Pakistan tests its own KEW), which will enable it to militarily balance the collaborative space power of the People’s Republic of China (PRC) and Pakistan. Due to the vulnerabilities created by the two-front ASAT challenge and the absence of a robust capability, let alone a distinct advantage, India will need a triadic ground-, air- and sea-launched KEW capability to maintain a credible space deterrent. As one important study observed, “Though its [India’s] space assets are smaller than those of the other major powers they are not insignificant. At the least they may need to be protected against the direct and indirect consequences of actions taken by the other space powers.”[10] Former Indian National Security Adviser Shiv Shankar Menon, alluding to the differential in strength recently, observed, “The basic reason is the power gap between the two [China and India]…”[11] Consequently, creating a triad-based KEW capability assumes considerable importance, since it creates mutual risks and threats. In the event of deterrence breakdown, it gives New Delhi the option to escalate during the course of a military confrontation.

American strategic studies scholar Ashley J. Tellis argues, “India’s ASAT test was perhaps necessary, but it will not suffice to protect India’s space assets during any major conflict with China.”[12] While this is a valid point, Tellis overlooks the fact that India does not have kinetic capabilities that can be launched from diverse platforms, which can boost flexibility and offer redundancy to the extent that adversaries will need to contend with a larger “menu” of targets. Thus, it provides a diverse array of hard-kill capabilities. A kinetic ASAT capability may be a last-resort weapon, as Tellis correctly asserts, but the 27 March 2019 test was only a ground-launched projectile adapted from a missile-defence interceptor and launched from the Interim Test Range (ITR). The test is, therefore, insufficient to sustain the Indian space deterrent posture vis-à-vis China, and additional tests from sea- and air-launched platforms are required. The Peoples Liberation Army Navy (PLAN) has undertaken a prototype laser weapon test, which is a Directed Energy Weapon (DEW) from presumably surface vessel.[13] Beijing has also invited bids for a nuclear powered ship-breaking vessel,[14] which could potentially enable the PLAN to develop nuclear-powered aircraft carriers serving as future platforms for the employment DEWs such as laser weapons against space targets.[15]

Indeed, Tellis’ claim that India’s ASAT amounted to an “incomplete success” is accurate, but not for the reasons he believes. His prescription specifically requires moving away from “debris-generating kinetic tests” and emulating China in developing non-kinetic capabilities.[16] On the contrary, the March test was incomplete because it did not fully test India’s kinetic capabilities from diverse platforms. KEW tests from diverse platforms will make India’s space deterrent more robust, inject caution into India’s adversaries, and create shared risks essential to sustaining credible deterrence. Tellis also leaves unexplained why Beijing, despite the debris-related risks that accompany any direct ascent KEW tests, pursues the acquisition of KEWs such as the SC-19, DN-1 and DN-3, which are capable of striking Indian space assets in GEO in parallel with its development and deployment of DEWs and other non-kinetic counter space capabilities.

The point to underline here is that India will need standalone kinetic capabilities as well as non-kinetic means to deter China. India’s Defence Research and Development Organisation (DRDO) appears to have foreclosed the option of further kinetic tests, with G. Satish Reddy declaring, “Though we tested the interceptor missile for an altitude below 300 km as a responsible nation after multiple simulations, it has the technical capability to go beyond 1,000 km. That will cover most of the orbiting satellites in LEO. For the same purpose we don’t need more tests.”[17] This misses the point about survivability, redundancy and flexibility, which can only be assured if additional tests are conducted from sea- and air-launched platforms. However, the DRDO chief’s statement is revealing in terms of the altitude of the test, which is important inasmuch as future tests must not be conducted beyond an altitude of 300 km, to prevent the creation of longer-lasting space debris. In 2012, the DRDO declared that simulated electronic tests were sufficient to meet India’s ASAT requirements.[18] However, the Modi government decided to carry out an actual test, rejecting the view that simulated tests were sufficient. For a credible space-deterrent posture, which Reddy conceded was important, a diversified kinetic capability appears not integral to that effort. Moreover, taking into account the two-front ASAT challenge, it would be unwise to forego the additional tests required for establishing a KEW triad.

A 2017 Indian study recommended the creation of a KEW triad, albeit without explaining the military-operational and technical reasons for the same.[19] Another analysis draws attention to the vulnerability of Indian satellites—radar, earth-observation (EO), cartographic and navigation satellites—particularly in low-earth orbit (LEO), where a large number of India’s satellites are concentrated. The study proposes several soft-kill capabilities, including counter-measures such as building a more robust Space Surveillance Network (SSN), hardening satellites and making them stealthier to avoid detection, thus reducing their vulnerability to Chinese KEWs.[20] It further recommends developing resilient satellites against electronic countermeasures and geographically spread static and mobile telemetry, tracking and command (TTC) facilities as critical mitigatory measures against soft-kill attacks. However, the study precludes the development of whole categories of weapons. For instance, hard-kill weapons or KEWs have not been included in the mix of capabilities India should possess. Interestingly, the paper does acknowledge that pure soft-kill capabilities in the form of cyber weapons, electronic-warfare capabilities and DEWs are insufficient.[21] As a solution, however, it recommends policy, normative and legal restraints against space weapons, instead of R&D or the deployment of space weapons.[22]

Distant Indian space targets, such as the Indian Regional Navigation Spacecraft System (IRNSS), in geosynchronous orbit (GEO), are difficult to strike kinetically. However, China does possess the capabilities for doing so.[23] In May 2013, China tested the SC-19 ASAT system that can hit targets in GEO.[24] Its successor missile, the DN-3, too is ASAT capable and is likely a ballistic missile interceptor meant for intercepting targets in LEO.[25] Both these capabilities represent significant and critical advances in hit-to-kill kinetic capabilities to strike space assets well beyond LEO. In 2010, 2013 and 2014, China conducted ASAT non-debris-generating tests using adapted land-based ballistic missile interceptors.[26] Co-orbital ASATs are another arrow in China’s space quiver. In 2008, the BX-1, a miniature imaging satellite was deployed in-orbit close to its mother satellite and passed within 45 km of the International Space Station (ISS). While this is speculative, the BX-1 was likely released from a spring-loaded device, which does not conclusively prove counter-space capability but does establish China’s ability to undertake a co-orbital ASAT.[27] As a follow-up to their BX-1 test in 2008, China launched the SJ-12 satellite, which is believed to possess counter-space capabilities such as jamming.[28] In 2011, the SJ-12 undertook a close manoeuvre to test docking capabilities, possibly as a test run for the actual docking of the Shenzhou capsule with the Tiangong-1 space station. In 2013, China tested a robotic arm, which grabbed one satellite from another. These tests demonstrate China's ability to conduct orbital proximity operations, allowing it to execute microwave attacks against enemy satellite systems. While of the technologies and capabilities tested by China are seemingly for civilian applications, given the dual nature of space technology, they are potentially applicable in the military arena.

Thus, China have developed a whole slew of kinetic capabilities that can target Indian satellites in LEO, sun-synchronous orbit (SSO), medium-earth orbit (MEO) and GEO (See Figure 1). These include cyber weapons to attack space assets, co-orbital attack capabilities, as well as kinetic earth-to-space and air-to-space kinetic capabilities.[29] In light of China’s expertise, India cannot afford to confine itself to passive means of defending against Chinese space assets and infrastructure.

#### AND, solves Chinese A2AD expansion.

Stephen Biddle 16. Professor of Political Science and International Affairs at George Washington University and Adjunct Senior Fellow for Defense Policy at the Council on Foreign Relations; and Ivan Oelrich, served as Vice President for the Strategic Security Program at the Federation of American Scientists and is Adjunct Professor of International Affairs at George Washington University, Summer 2016, “Future Warfare in the Western Pacific: Chinese Antiaccess/Area Denial, U.S. AirSea Battle, and Command of the Commons in East Asia,” International Security, Vol. 41, No. 1, p. 7-48

The United States must also be able to neutralize any satellite-based sea surveillance systems China may deploy. Neutralization may be possible with cyber or other soft-kill approaches, but it will probably be necessary to maintain a hard-kill ASAT capability for this purpose. If Chinese space-based radars are allowed to function, continued growth of Chinese long-range missile capabilities will eventually enable an A2/AD system that really could threaten targets out to the Second Island Chain. A U.S. capability to deny this is thus critical if Chinese A2/AD range is to be constrained to the limits presented above.

#### Chinese A2AD collapses global FON norms.

Prashanth Parameswaran 15. Visiting Fellow at the ASEAN Studies Center at American University, Ph.D. Candidate and Provost Fellow at the Fletcher School of. Law and Diplomacy at Tufts University, “US Commander Warns China Against ‘Revising’ International Law in the South China Sea”, The Diplomat, 10-9, http://thediplomat.com/2015/10/us-commander-warns-china-against-revising-international-law-in-the-south-china-sea/

Swift was referring to manifestations of Chinese assertiveness in the South China Sea over the past few years, including the erection of an Air Defense Identification Zone (ADIZ) in the East China Sea and the construction of artificial islands. If such efforts went uncontested, Swift argued in his speech to the Royal Australian Navy Seapower Conference, seen by The Diplomat, it would be a setback for global norms.

“If even one of these restrictions were successful, it would be a major blow to the international rules-based system with ramifications well beyond the maritime domain,” Swift said.

Restricting freedoms, values and rights that all actors enjoy in the international rules-based system through ‘might makes right’ approaches, Swift argued, would undermine global economic prosperity and return us to a world of mercantilism and protectionism that benefits only a handful of powerful states.

“If we are not willing to commit to resolve these differences peacefully, leveraging the tools of the international rules-based system that has served us so well, for so long, in an multilateral, inclusive way; then are we willing to accept the likelihood that imposed solutions to these national differences at sea, will seek us out in our supposed sanctuaries ashore?” Swift said.

#### Extinction.

Dr. James Kraska 11. Professor in the Stockton Center for the Study of International Law at the U.S. Naval War College, Maritime Power and the Law of the Sea: Expeditionary Operations in World Politics, Oxford University Press, Google Books

What do the issues of global politics and grand strategy have to do with oceans policy? Oceans policy should be connected to and serve grand strategy, which should be implemented by national strategy. The United States and its friends and allies face a common set of strategic risks and threats in the global system, and a policy for the legal order of the oceans should be pursued that meets the major challenges of the day. In some respects, U.S. oceans policy has been at the forefront of reducing military risk to the United States. The U.S.-sponsored post- 9/11 counter-terrorism initiatives introduced by the United States and other nations at the International Maritime Organization reflect this strategic purpose. Amendments adopted in the fall of 2005 to the 1988 Convention on the Suppression of Unlawful Acts against the Safety of Maritime Navigation tighten rules to counter maritime terrorism and the transport of weapons of mass destruction on a ship. Similarly, the International Shipping and Port Facility Security (ISPS) Code, which amends the 1974 Safety of Life at Sea Convention, established tougher standards for seaside and vessel security, reducing the vulnerability of the maritime system to terrorist attack. At the same time, however, the United States has been surprisingly lax in maintaining awareness of military risks posed by peer state rivals, and the relationship between grand strategy and oceans policy. What are the greatest military risks in the international system?

First, the greatest military threat to a stable order comes from China, which is rising on a wave of economic, scientific, and military power. Success in these spheres is producing political power for the first time, creating in Beijing a heady atmosphere of arrival. China is a trendsetter in Asia, and is marketing its illiberal perspective on oceans policy, both in the Pacific region and at the IMO. Following behind China, nations such as Brazil and Iran are becoming dominant in their respective geographic and political spheres. Brazil is filling a power vacuum on the continent of South America; Iran is filling a void created by the toppling of Saddam Hussein and subsequent civil war in Iraq. Second, a resurgent autocratic Russia could further destabilize Europe. Moscow’s heavy hand has frightened the states on its western border, and encumbered better relations with NATO and the EU. Empowered with energy wealth to rebuild its military forces, Russia still suffers from a decayed infrastructure and an unhealthy and declining population base. But Moscow aspires to be a naval power once again, so there may be opportunity to engage with Russia more effectively. The United States has more in common with Russia on oceans policy than any other issue, and the two states worked closely to achieve the navigational regimes in UNCLOS. But instead of working in tandem with Moscow at the IMO, the United States and Russia have been more inclined to butt heads. For the United States, the goal is to reassure European allies and curry favor with the EU nations; for Russia, the objective has been to myopically define its foreign policy in terms of opposition to whatever the U.S. is promoting. Both nations share essential interests in a liberal order of the oceans, and should work together closely to maintain and stabilize the system of rules in UNCLOS that they created.

Third, the Middle East is under a grave threat from an aggressive and dedicated assault by an irreconcilable wing of Islam, funded by radical Shiites and Sunnis. The extremists seek to attack the West in order to weaken its resolve and dilute its institutions, destroy Israel, and impose a caliphate dictatorship throughout the Middle East. The states in the region — Syria, Iran, Egypt, Saudi Arabia — are caught in the crosshairs, and any one of them could erupt into chaos, anarchy, or war. Whereas Egypt and Saudi Arabia care so much about stability that they stamp out all dissent, breeding a seething anger that could explode, Syria and Iran are breeding instability by conducting secret, irregular wars through proxy forces throughout the Levant and beyond. Iran’s “split personality” between the more professional Iranian Navy on the one hand and the Iranian Revolutionary Guard Navy (IRGCN) on the other, keeps the Persian Gulf in a constant state of high tension.

Fourth, there are a growing number of rogue regimes eager to acquire weapons of mass destruction, mass murder, and mass disruption. These regimes, including North Korea, are developing chemical, biological, and nuclear weapons in order to limit the flexibility of the democratic states to challenge them, to deter neighborhood policing by the United States and its allies, and to be able to impose their will on their neighbors. Iran is the most unpredictable nation in the Middle East, and Tehran has exported instability into both Gaza and Lebanon.

Fifth, the Pakistan-Afghanistan problem has lit South Asia from the coast of Gwadar to the peaks of the Hindu Kush. Even more so than Egypt and Saudi Arabia, Pakistan teeters on anarchy, and it is not implausible to worry about the nation descending into a jihad autocracy. The Pakistani military and intelligence service are both essential partners in the fight against terrorism, as well as collaborators that are not entirely reliable. While Islamabad remains focused inward toward the continent, it also bristles at Delhi’s grip on the Indian Ocean. Pakistan, like its neighbor India, purports to restrict foreign military activities in its EEZ.

Finally — particularly relevant for this study — there is an emerging international governance system of pseudo-legality sustained by bureaucratic international elites and anti-American and anti-Western states, which weakens the democracies, “protects the vicious and the evil, and absorbs the energy of decent countries into endless maneuvers of utter impotence and dishonesty.” 29 In the maritime context, the tribulations of international law are exposed in the application of UNCLOS. The international law of the sea is pulled in so many different, even contradictory directions, by dissimilar domestic and international constituencies that it is becoming unmoored from its roots as a system for international peace and stability. As a global system, the law of the sea is becoming less coherent, not more. By working at cross-purposes to obfuscate international law of the sea in a bureaucratic web of contradictory transnational, foreign, and domestic rules, oceans law risks being an agent of disorder rather than order. 30

These six global threats are evolving in parallel and sometimes in synergistic coordination. American grand strategy should take into account the six threats; democratic states should implement a foreign policy that is designed to overmatch all of these challenges. As an adjunct of grand strategy, oceans policy should be attached to and promote the defeat of these six threats. Freedom of the seas, particularly in the EEZ, is a crucial element for meeting each of these challenges.

**Bad China India relations inevitable, try or die for deterrence which works**

**Rana 21** (Kishan, 6-16, "What does the future of India-China ties look like? 8 experts speak," ThePrint, https://theprint.in/diplomacy/what-does-the-future-of-india-china-ties-look-like-8-experts-speak/678377/, Ambassador Kishan S. Rana is Professor Emeritus, and a Senior Fellow at DiploFoundation. MA in economics, St Stephens College Delhi. He was in the Indian Foreign Service (1960-95); and worked in China (1963-65, 1970-72). He was Ambassador and High Commissioner for Algeria, Czechoslovakia, Kenya, Mauritius, and Germany; and consul general in San Francisco. He served as a joint secretary on the staff of PM Indira Gandhi (1981-82). Amb. Rana is an Honorary Fellow of the Institute of Chinese Studies, Delhi (book review editor, China Report); an Archives By-Fellow, Churchill College, Cambridge; a Public Policy Scholar, Woodrow Wilson Centre, Washington DC; guest faculty at the Diplomatic Academy, Vienna; and Commonwealth Adviser, Namibia Foreign Ministry, 2000-01. He has lectured in about 20 countries to diplomats at foreign ministry training institutions, and at ambassador conferences in several countries, DRS)

On 15 June 2020, India lost 20 soldiers at the Galwan river valley in Ladakh. While India and China have had several border standoffs since the 1962 India-China War, this was the first time, since 1975, that a face-off had turned violent — albeit without the actual use of firearms, in line with the confidence-building measures in place for a long time now. Since the clash, India and China have held several discussions at the level of senior ministers, military commanders and diplomats, and yet disengagement and de-escalation processes have not taken the direction that both sides had planned for. While disengagement did take place in the Pangong Tso area where India had strategic advantage, the situation in rest of the areas remains the same. India has now taken a stance that unless there is peace and tranquility in the border areas, the bilateral ties will not go back to normalcy. ThePrint spoke to eight experts on how they view the Galwan Valley clash, one year later, and what it means for the future of India-China bilateral ties: ‘New low will push Asia into divisive, uncertain scenario’ “Expectations about India and China reaching a mutual accommodation of interests at the regional and global level have evaporated. The loss of the most significant achievement since the mid-1980s — a peaceful border — has come in the wake of worrisome power asymmetry. Nationalist sentiments and mistrust are rising and the strategic discourse is hardening. “India’s continuing economic dependence on China jostles uneasily with China’s enlarging footprint in India’s neighbourhood. While geopolitical equations between the major and middle powers have yet to crystallise, between India and China also falls the shadow of the US. In the short to medium term, the wisdom and sagacity of leaders on both sides will be on test. This new ‘low’, if not resolved at the earliest, will push Asia and its much vaunted century, into a highly divisive and uncertain scenario.” — Alka Acharya, Professor of Chinese Studies, Centre for East Asian Studies, Jawaharlal Nehru University ‘Indian ocean new theatre of India-China competition’ “The Galwan clash was a pivot that revealed China’s readiness to bear the enormous cost of bilateral damage, by using duplicitous means to coerce India. Incidentally, Galwan flagged off China’s active coercion campaigns against Australia, Hong Kong and Taiwan. “China’s failure to enforce coercion and increased troop deployment and infrastructure at the LAC points to a permanent stalemate of deployment. Since not much headway can be made in the Himalayas, China exploits other dimensions. Revelations on Wuhan labs and brief power shutdowns in Indian cities are indications of bio and cyber warfare. “India-China bilateral ties will be defined more by power balance in a divided Indo-Pacific. China has increased its leverage in the subcontinent — Sri Lanka and Nepal are examples. India feels a need for greater external balancing to counter China. Post Galwan, India shed pretensions of neutrality and grew closer to the US and QUAD. Indo-Pacific is a playground of future global tussles, with India as the fulcrum. The Indian ocean is the new theatre of India-China competition, given China’s naval expansion plans and India’s strategic alliance with an active America.” — Probal Dasgupta, Army veteran and author of ‘Watershed-1967: India’s Forgotten Victory Over China’ ‘Time and effort wasted in informal summits led to Galwan’ “One year after the Chinese incursions there has been nothing by way of an accountability exercise by the government. Clearly a series of mistakes were made in China policy. Instead of keeping China under pressure during and post-Doklam by banning Chinese apps and 5G then, the government gave Beijing an out with the ‘informal summits’. This betrayed a lack of understanding of how the Chinese system worked. “China subsequently built up around the face-off site with New Delhi now ignoring the development. It is clear that the time and effort wasted in the informal summits led to Galwan. Current negotiations over disengagement and de-escalation show the government as too eager to reach a compromise with China. The government’s lack of both options and strategy is the result of a long-term process of blanking out and undermining critical voices and of the preference to focus on the more familiar issue of Pakistan.” — Jabin T. Jacob, Associate Professor, Department of International Relations and Governance Studies, Shiv Nadar University Also read: A year since Galwan, China drags its feet on disengagement at four friction points in Ladakh ‘India, China must find alternate equilibria in their hugely transformed equation’ “Remembering Galwan incidents teaches us how our conventional mechanisms and mannerisms of resolving border standoffs have become ineffective and outdated. After dozen-plus long-drawn interactions between India and China at the level of military core commanders and senior ministers, we have not yet achieved even full military disengagement on the LAC to our satisfaction. We achieved disengagement only on the Pangong Lake area where India had managed to clinch critical strategic advantage on the South bank of the Pangong Tso whereas other points of confrontation still remain militarised with heavy deployment from both sides. “History teaches us that such episodes were resolved only by structural changes plus bold initiatives by strong and ambitious leaders. This time again untying these knots would require direct intervention from the very top. The upcoming BRICS Summit in September could be that important occasion to find a breakthrough in disengagement followed by early demobilisation at the LAC to return to the peace and tranquillity template of their border management. But learning from Doklam and Galwan, both sides must explore building a new set of confidence-building measures to find alternate equilibria in their hugely transformed India-China equation.” — Swaran Singh, Professor and Chair, Centre for International Politics, Organization and Disarmament, School of International Studies, Jawaharlal Nehru University ‘Chinese hawks and doves seem to agree there is no need as of now to turn India into a distinct enemy’ “An influential section within the Chinese strategic community believes that China’s ‘cooperative approach’ towards India in the past years has failed to deliver desired benefits, particularly reduction in strategic pressure on China in the southwest direction, so that it can concentrate on facing its main strategic opponent, the United States. And therefore, China’s India policy from hereon should focus on an occasional show of strength or an assertion of China’s strength advantage vis-a-vis India from time to time so as to effectively check and balance a rising and more confident India and undercut what is considered as its strategic opportunity period induced by the geopolitics of Indo-Pacific. “However, there is also widespread concern within China if such a muscular approach will eventually lead to a rupture in China-India ties and what implications it will have for China in the present not-so-friendly international environment. Interestingly, Chinese hawks and doves seem to agree on one point that as of now there is no need to turn India into a distinct ‘enemy’. Rather, having India as an occasional partner on specific issues continues to serve the Chinese interest better — and hence China’s all-out effort to de-link the border issue from the rest of the relationship. — Antara Ghosal Singh, Research Associate, Centre for Social and Economic Progress (CSEP) ‘India must engage proactively with its neighbours’ “With it being one year since the Galwan Valley clash between Indian and Chinese troops, there is a need to reflect on the continuous implications of the tragic event. China’s incursions in Ladakh represent a dissatisfied revisionist rising power bent on altering the geopolitical landscape of the Eastern Hemisphere in accordance to its narrowly defined interests. As China will continue to grow in terms of military and economic capability, more of these incursions will be expected despite the presence of cooperative agreements such as those in 1993 and 1996. India must realise that China’s assertive activities along the LAC represent a bigger picture. China views India as a major competitor in its strategic designs in the Indian Ocean Region. Thus, it will be inevitable for the former to craft measures to constrain India’s influence in the region. This is quite evident with Beijing’s increase in strategic engagements with states throughout the region. “Moreover, as India is faced with the challenges brought by the Covid-19 pandemic, its preoccupation with containing that disease has provided China with a golden opportunity to alter the region’s architecture

#### Top-Level –

#### 1] read the Impact Ev in this Advantage – it’s power-tagged, conflates “conflicts” with all-out war, and lacks a single credible impact scenario for Space War.

#### 2] 0 private key warrant – all of their resource conflcits warrants are about state conflict – 1AC duke proves – it’s about nations taking action

#### AT Zeisl 19 - about how a conflict over “space assets” is inevitable –

#### 1] No External Internal Link – they didn’t highlight a card about how governments would intervene – especially true since many companies are trans-national

#### 2] “Space Assets” refers to thinks like Orbital Satellites and Lunar Resources, not just Asteroid Mining – Thumps the Aff.

#### No miscalc or escalation - deterrence

James Pavur 19, Professor of Computer Science Department of Computer Science at Oxford University and Ivan Martinovic, DPhil Researcher Cybersecurity Centre for Doctoral Training at Oxford University, “The Cyber-ASAT: On the Impact of Cyber Weapons in Outer Space”, 2019 11th International Conference on Cyber Conflict: Silent Battle T. Minárik, S. Alatalu, S. Biondi, M. Signoretti, I. Tolga, G. Visky (Eds.), <https://ccdcoe.org/uploads/2019/06/Art_12_The-Cyber-ASAT.pdf>

A. Limited Accessibility Space is difficult. Over 60 years have passed since the first Sputnik launch and only nine countries (ten including the EU) have orbital launch capabilities. Moreover, a launch programme alone does not guarantee the resources and precision required to operate a meaningful ASAT capability. Given this, one possible reason why space wars have not broken out is simply because only the US has ever had the ability to fight one [21, p. 402], [22, pp. 419–420]. Although launch technology may become cheaper and easier, it is unclear to what extent these advances will be distributed among presently non-spacefaring nations. Limited access to orbit necessarily reduces the scenarios which could plausibly escalate to ASAT usage. Only major conflicts between the handful of states with ‘space club’ membership could be considered possible flashpoints. Even then, the fragility of an attacker’s own space assets creates de-escalatory pressures due to the deterrent effect of retaliation. Since the earliest days of the space race, dominant powers have recognized this dynamic and demonstrated an inclination towards de-escalatory space strategies [23]. B. Attributable Norms There also exists a long-standing normative framework favouring the peaceful use of space. The effectiveness of this regime, centred around the Outer Space Treaty (OST), is highly contentious and many have pointed out its serious legal and political shortcomings [24]–[26]. Nevertheless, this status quo framework has somehow supported over six decades of relative peace in orbit. Over these six decades, norms have become deeply ingrained into the way states describe and perceive space weaponization. This de facto codification was dramatically demonstrated in 2005 when the US found itself on the short end of a 160-1 UN vote after opposing a non-binding resolution on space weaponization. Although states have occasionally pushed the boundaries of these norms, this has typically occurred through incremental legal re-interpretation rather than outright opposition [27]. Even the most notable incidents, such as the 2007-2008 US and Chinese ASAT demonstrations, were couched in rhetoric from both the norm violators and defenders, depicting space as a peaceful global commons [27, p. 56]. Altogether, this suggests that states perceive real costs to breaking this normative tradition and may even moderate their behaviours accordingly. One further factor supporting this norms regime is the high degree of attributability surrounding ASAT weapons. For kinetic ASAT technology, plausible deniability and stealth are essentially impossible. The literally explosive act of launching a rocket cannot evade detection and, if used offensively, retaliation. This imposes high diplomatic costs on ASAT usage and testing, particularly during peacetime. C. Environmental Interdependence A third stabilizing force relates to the orbital debris consequences of ASATs. China’s 2007 ASAT demonstration was the largest debris-generating event in history, as the targeted satellite dissipated into thousands of dangerous debris particles [28, p. 4]. Since debris particles are indiscriminate and unpredictable, they often threaten the attacker’s own space assets [22, p. 420]. This is compounded by Kessler syndrome, a phenomenon whereby orbital debris ‘breeds’ as large pieces of debris collide and disintegrate. As space debris remains in orbit for hundreds of years, the cascade effect of an ASAT attack can constrain the attacker’s long-term use of space [29, pp. 295– 296]. Any state with kinetic ASAT capabilities will likely also operate satellites of its own, and they are necessarily exposed to this collateral damage threat. Space debris thus acts as a strong strategic deterrent to ASAT usage.

#### It doesn’t go nuclear---resilience, deterrence, and low-level attacks are empirically denied.

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Until recently, resilience in space was largely an afterthought. It was assumed that a conflict in space would likely lead to or precede a major nuclear exchange. Therefore, the focus was on cost-effective architectures that maximized satellite capabilities, often at the cost of resilience. Recently, however, some have hoped that new architectures could enhance resilience and prevent critical military operations from being significantly impeded in an attack. Although resilience can be expensive, American investments in smaller satellites and more distributed space architectures could minimize adversary incentives to carry out first strikes in space. In the late 20th century, minor escalations against space systems were treated as major events, since they typically threatened the superpowers’ nuclear architectures. Today, the proliferation of counter-space capabilities and the wide array of possible types of attacks means that most attacks against U.S. space systems are unlikely to warrant a nuclear response. It is critical that policymakers understand the likely break points in any conflict involving space systems. Strategists should explore whether the characteristics of different types of attacks against space systems create different thresholds, paying particular attention to attribution, reversibility, the defender’s awareness of an attack, the attacker’s ability to assess an attack’s effectiveness, and the risks of collateral damage (e.g., orbital debris). Competitors may attempt to use non-kinetic weapons and reversible actions to stay below the threshold that would trigger a strong U.S. response.