Astroimpolitic

Organizing Outer Space by the Sword

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Such mystical conservatism was particularly detestable, since it seemed to him to evade the central question by merely restating it, concealed in a cloud of pompous rhetoric, as the answer.

—Isaiah Berlin, *The Hedgehog and the Fox*

This article is a rejoinder to "New Frontiers, Old Realities" by Dr. Everett Dolman, published in the Spring 2012 edition of this journal, in which he portends, "the coming war with China will be fought for control of outer space." In support of this argument, Dolman divines the lessons of history as viewed through the inseparable lenses of neo-classical geopolitical theory and realist theory.[1] The proposed solution is the disquieting nostrum advanced a decade earlier in his book *Astro-politik*; namely, the United States should preemptively seize low Earth orbit, weaponize and dominate the domain, and thereafter reign as a benign space hegemon—a global police force for the heavens (hereinafter, "space hegemony").[2] What is novel about "New Frontiers, Old Realities" is the perceived problem driving this solution—an ascendant China and the hegemonic war with the United States that will inevitably result.[3] It is with this connection that the seductively simple, yet deeply flawed, logic of inevitability triggers a dangerous orthodoxy—one that could lead to an entirely unnecessary and preventable self-fulfilling prophecy.[4] While future Sino-US relations will likely be marked by intense competition, war with China is *not* inevitable, whether for control of outer space or otherwise.

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The Tyranny of Small Decisions

John Sheldon and Colin Gray have rightly described space hegemony as "implausible."[5] To be sure, it gained little traction during the Bush administration despite a US withdrawal from the 1972 Anti-Ballistic Missile (ABM) Treaty and the pro-weaponization findings of Donald Rumsfeld's 2001 National Security Space Commission.[6] So why respond to "New Frontiers, Old Realities"? Isn't the fortress being attacked already in ruins?[7] Arguably not.

First, space hegemony is instantiated by the discourse and numbers among the panoply of space security strategies the United States could pursue. Indeed, while not all serious treatments of the subject acknowledge it as a strategy worthy of consideration, others most certainly do.[8] Thus, implausible or not, space hegemony remains a potential Trojan horse within the proverbial gates of the broader US space security enterprise.[9]

Second, as Air University's first "space theorist" and a faculty member of the School of Advanced Air and Space Studies (SAASS), Dolman is directly influencing the next generation of Air Force leaders.[10] Given the complexity of our world, military planners and advisors crave simplicity. As such, the deus ex machina for outer space offered in "New Frontiers" could garner acolytes within these circles. Three decades ago, President Reagan's military advisors convinced him of the need to weaponize space to tip the balance against the Soviets.[11] It is not inconceivable a similar scenario could play out with some future president balancing against the Chinese.

Third, the Chinese regularly track the ongoing space weaponization debate within the United States—particularly when that debate invokes a war in which they are the belligerent. It is likely a People's Liberation Army (PLA) strategist has read "New Frontiers," attempting to elicit some "truer version" of intent for outer space than is indicated in US declaratory policy.[12] US commentators certainly seize upon the most bellicose comments of Chinese officials for this purpose, as when Gen Xu Qiliang, PLA, indicated during a 2009 trip to the United States that weapons in space were an inevitability, or words to that effect.[13] While then-president Hu Jintao swiftly repudiated the remarks, Dr. Peter Hays and Dennis Danielson nonetheless noted that "the general's statements . . . undoubtedly reflect the position of the PLA and other important stakeholders within the Chinese government, and represent an inherent part of the context for space security about which the US and China must develop better shared understanding."[14] Mirror-imaging aside, it follows

that certain segments of the Chinese security establishment could be saying precisely the same thing about Dolman's space hegemony strategy.

On this issue, Henry Kissinger notes, "[China and the United States] would do well to recognize that their rhetoric, as much as their actual policies, can feed into the other's suspicions."[15] Clearly, words matter in this relationship—whether those words are uttered or written by a policymaker, uniformed military member, or military academic.[16] Bellicose statements afford ideologues on both sides the opportunity to draw context-free conclusions about the other to support preferred or predetermined arguments—whether involving inevitable war, space weaponization, or otherwise. At all events, to borrow a diplomatic phrase from now-retired Gen Norton Schwartz, statements of this variety are "unhelpful."[17]

Finally, space is the domain of experts. Here, the potential exists for a lay reader to be overwhelmed (epistemically) by the arguments of an expert.[18] This potential is increased in "New Frontiers," as its thesis operates in three expert domains simultaneously: space, military strategy, and international relations theory. This rather unique intersection of domains makes Dolman's scholarship difficult to unpack and critique. It is imperative to do so, however, as both his diagnosis (inevitable war) and prescription (space hegemony) are flawed.[19]

The Dog that Did Not Bark

This "coming war with China" over control of outer space—which Dolman suggests "may already have begun"—what is it about?[20] This is arguably the first question to be asked of anyone portending war. The answer should prompt a series of deductive questions that expose the theory behind, and theoretical assumptions of, the portent. It can be a tedious process, obscurum per obscurius, depending on the sophistication of the argument. But to the extent that theory and theoretical assumptions ultimately reveal no plausible purpose for the war, the usefulness of the portent must be called into question. Michael Howard illustrated this point perfectly in his Cold War–era essay, *On Fighting Nuclear War*:

> When I read the flood of scenarios in strategic journals about first-strike capabilities, counterforce or countervailing strategies, flexible response, escalation dominance and the rest of the postulates of nuclear theology, I ask myself in bewilderment: this war they are describing, *what is it about*? The defense of Western Europe? Access to the Gulf? The protection of Japan? If so, why is this

> goal not mentioned, and why is the strategy not related to the progress of the conflict in these regions? But if it is not related to this kind of specific object, what are we talking about? Has not the bulk of American thinking been exactly what Clausewitz described—something that, because it is divorced from any political context, is "pointless and devoid of sense?"[21]

If we accept this Clausewitzian notion, the question then becomes, what is the political end sought by either China or the United States in this space war that may or may not already have begun? Within the answer lies the keystone theory supporting Dolman's entire thesis: the war he describes need not have a political end because it is "inevitable." He claims, "whenever an extant international order is challenged by a rising power, the reigning hegemonic authority is obligated to respond."[22] In other words, and in the tradition of neoclassical geopolitical and realist theories, the United States, as the "reigning hegemonic authority," is somehow preordained to respond militarily to an ascendant China.[23] No "or else" is contemplated. The only solution—the one temporary respite from this inevitable clash—is space hegemony. As recounted by Dolman, "Almost 2,500 years ago Thucydides foresaw the inevitability of a disastrous Peloponnesian war due to 'the rising power of Athens and the fear it caused in Sparta.' "[24] And so it will be, he contends, for the United States and China, thanks largely to this impenetrable analogy and its progeny.

This begs the question, is the fourth-century-BC world of Pericles an appropriate exemplar for our own? Dolman believes so. Espousing a realist internationalist point of view, he identifies modern-day "geopolitical forces" and "less venerable theories of conflict and cooperation" favoring continued peaceful Sino-US relations but finds these wanting, in light of "theories that have survived millennia in their basic forms" and the purportedly irreconcilable interests facing the United States and China in the "incompatible, uncompromising realm of outer space."[25]

To be sure, great-power wars have occurred since the emergence of the Westphalian system and despite the presence of varying degrees of "internationalism," including the Crimean War, the Franco-Prussian War, and both world wars.[26] But noted international relations theorist G. John Ikenberry considers our post–World War II Western order "historically unique." He posits, "The rise of China does not have to trigger a wrenching hegemonic transition. The U.S.–Chinese power transition [were it to occur] can be very different from those of the past because China faces an international order that is fundamentally different from

those that past rising states confronted."[27] This is an order "built around rules and norms of non-discrimination and market openness" in which national interests are, at times, tempered by international interests and the vast array of supranational organizations that give voice to the latter: the United Nations (UN), its organs, and specialist agencies; the World Trade Organization; the International Monetary Fund; the International Atomic Energy Agency; the Conference on Disarmament; the North Atlantic Treaty Organization; the European Union; and the Association of Southeast Asian Nations, among many, many others.[28] This order, with its concomitant treaties, agreements, and understandings, offers both off-ramps to and structural bulwarks against war. So, while states may continue to grapple with seemingly irreconcilable interests, war (to state the obvious) is not the only recourse toward resolution of these interests. Causation-correlation issues aside, the absence of great-power wars during the last seven decades tends to support Ikenberry's thesis.

Reconciliation of the purportedly irreconcilable is also not without precedent—even within the "incompatible, uncompromising realm of outer space," as Cold War commentator Peter N. James sounded precisely the same irreconcilable interest alarm with regard to the implacably secretive Soviets in his 1974 book, *Soviet Conquest from Space*.[29] The Soviet space technology, that so worried James, is today shuttling US astronauts to the International Space Station and powering the first stage of the Atlas V rockets that propel National Reconnaissance Office and USAF payloads into orbit.

More fundamentally, however, ours is not a world in which the alternative to victory in war is "immediate slavery," as Pericles so vividly described it to the Athenian polis;[30] neither is ours a world of nineteenth-century "Bismarckian politics."[31] Indeed, slavery and empire building are as counter-modern as the policies and polities that urged great-power wars of the past. The same can be said for the inherently racist (and, in the case of Nazi Germany, genocidal) aims of the Tripartite Pact signatories during World War II.[32] Again, that the consequences and aims of these wars appear anachronistic to present-day thinking and divorced from present-day great-power politics tends to support Ikenberry's thesis. Our ever-shrinking and increasingly interconnected world *is* historically unique; it simply defies strained analogies to the past.

This is equally true in terms of the stakes of modern hegemonic conflict. The fact that no two nuclear-armed states have ever engaged in a

"full-scale war" against each other would seem a rather important consideration for anyone portending war between the United States and China.[33] That the issue of nuclear weapons and deterrence is avoided entirely in "New Frontiers" is evidence of the analytical weight Dolman affords the inevitability postulate and historical determinism more broadly. Yet a history impervious to modernity is tyranny, and "history is not tyranny."[34]

Anticipating this liberal internationalist line of rebuttal, Dolman gives voice to his supposed ideological opposites, indicating, "The cruelly consistent narrative of history need not be eternally retold. Nothing is inevitable, counter the idealists. The world can be made different; the world today *is* different."[35] This rather clever straw man argument is intended to persuade readers to accept his argument as their own, based on a perceived a priori ideological linkage; to disagree with Dolman is to side with the "idealists." He obscures the fact that there is sufficient room for disagreement with the inevitability postulate within the realist school. As Charles Glaser contends, "a more nuanced version of realism provides grounds for optimism. China's rise need not be nearly as competitive and dangerous as the standard realist argument suggests, because the structural forces driving major powers into conflict will be relatively weak. . . . Conflict is not preordained."[36] Kissinger agrees, arguing that "the rise of powers has historically often led to conflict with established countries. But conditions have changed."[37] Nothing is inevitable, counter the *realists*!

Eschewing the sober assessments of Ikenberry, Glaser, Kissinger, and others is essential for the remainder of Dolman's arguments, which are afforded great latitude as a result of being untethered from modernity or the rational or reasonable political aims of either China or the United States. It is likely the same latitude afforded those described by Michael Howard, who, and with just as much apparent reason, also believed war with the Soviets was inevitable.

Chance's Strange Arithmetic

> *[W]hen it comes to predicting the nature and location of our next military engagements, since Vietnam, our record has been perfect. We have never once gotten it right, from the* Mayaguez *to Grenada,*

> *Panama, Somalia, the Balkans, Haiti, Kuwait, Iraq, and more—we had no idea a year before any of these missions that we would be so engaged.*
>
> —Secretary of Defense Robert M. Gates (February 2011)

Employing Kepler's laws, one can accurately predict the ephemeris of an orbiting space object with a high degree of certainty. Employing the tenets of political science, one cannot accurately predict the path of world politics or the probabilities of war and peace with any reasonable degree of certainty. The reasons are fairly straightforward: the former system is linear, characterized by "its predictability and the low degree of interaction among its components, which allows the use of mathematical methods that make forecast reliable;" the latter system, in contrast, is complex and characterized by "an absence of visible causal links between the elements, masking a high degree of interdependence and extremely low predictability."[38] This is not to say that political science, with its emphases in both historical study and theory, is not useful in understanding world politics or the probabilities of war and peace. It is only to say there are limits to its usefulness. The error, therefore, is not in attempting to make sense of complex systems utilizing any and all available analytical tools appropriate for the system. Rather, it is in believing the relative certitude of linear systems is translatable or transferrable to complex systems.

"War," Clausewitz insists, is "the realm of chance."[39] Yet, with his assertion that "the coming war with China will be fought for control of outer space," Dolman erroneously conflates the linear and the complex. Such is the fatal flaw of historical determinism and the notion of inevitability—the course of world politics and the probabilities of war or peace cannot be reduced to mere variables in an equation.

But for the advice of McGeorge Bundy, President Kennedy reportedly would have ordered an airstrike rather than a naval blockade during the Cuban missile crisis. What was the advice that potentially averted World War III? Simply that the president had more time than was first anticipated to make a decision; namely, seven days rather than two.[40] That fateful estimate may—among an infinite number of other minute and undiscoverable causes—be the only reason hundreds of millions of Americans, Europeans, and Russians lived to see 1963. These are the stakes, both then and now, and no *immutable lesson of history*, no *venerated*

theory could have predicted Bundy's estimate or Kennedy's reaction to it. In this realm, there are decision points for leaders, not inevitabilities. To this precise point, but in the realm of space weaponization, Dr. Karl Mueller has warned, "anybody who tells you with absolute certainty that they know what is going to happen if we build space weapons doesn't know what they are talking about or hasn't thought the problem through very clearly."[41] It is with this admonition in mind that we turn our attention to theory.

The Unifying Theory Trap

"Understanding that ordinary explanations, predictions, and evaluations are inescapably theory-based is fundamental to self-consciousness about knowledge."[42] Likewise, understanding that the assumptions of a theorist underpin the theory he or she is marshaling to explain, predict, and evaluate is fundamental to self-consciousness about theory. These are critical points, as the inscrutable language of scholarship can mask the reality that no theory produces revealed truths and no theorists make pure intellectual judgments in crafting the assumptions underpinning their theory. Neoclassical geopolitics or orthodox geopolitics, the theory Dolman employs to portend a Sino-US space war wears just such a mask. What it conceals is the face of Machiavelli and the notion that all means, given a worthwhile end, are ultimately justifiable.[43] Orthodox geopolitics *is* power politics.[44]

Dr. Gearóid Ó Tuathail describes geopolitics' adherents as those who "attempt to reduce the irredeemably global problems of a risk society to an 'either-or' logic and represent risks as enemies, draw boundaries against this enemy, and then apply instrumental rationality to 'solve' the threat they pose."[45] He adds that "the contemporary geopolitical condition exceeds 'either/or' reasoning of orthodox geopolitics with its proclivity for us/them, inside/outside, domestic/foreign, near/far binaries and its reliance on mythic binaries from the geopolitical tradition like the heartland/rimland, land power/sea power and East/West."[46] Yet just such binaries support the theoretical assumptions underpinning Dolman's thesis, which then proceed exactly as Ó Tuathail describes: representing an imagined risk to space as the Chinese enemy; drawing boundaries against the Chinese at the undefined edge of sovereign airspace; and then applying instrumental rationality to "solve" the Chinese

threat to space by preemptively seizing, weaponizing, and dominating the domain.

Dolman's first binary is "Western Action versus Eastern Timing." He argues, "The Western strategist too often seeks to force changes through positive steps," whereas "the Eastern strategist bides time until the moment to strike is ripe." He restricts his theoretical assumption, without explanation, to the space domain, arguing a lack of transparency and engagement by the Chinese (East) will heighten the security dilemma for the United States (West).[47] Arguing that this assumption is helpful, there is no explanation as to why this particular ideological impasse will lead to a Sino-US space war where others have not. There is no discussion of the fact that *space itself is transparent* and with the right sensors it is difficult to conceal nefarious activities, thus reducing the severity of the security dilemma—particularly for the United States which operates the most robust and geographically distributed space surveillance network in the world. There is no analogy as to how today's lack of transparency is different than the lack of transparency in the space domain displayed by the United States and Soviet Union during all but a few years of the Cold War. Most importantly, there is no explanation as to the political ends either the United States or China might seek to achieve via a war in space. But again: this is the convenience of the inevitability postulate—we need not trouble ourselves with such complexities if war is inevitable.

The second binary is less nuanced, harkening back to the most horrible, and ultimately unfounded, imaginings of the Cold War. Dolman avers, "To those who would argue that China is as eager to avoid a damaging war in space as any other space-faring state, especially given its increasing integration into the world economy and dependence on foreign trade for its continuing prosperity, do not discount the capabilities of its authoritarian leadership. This is the same regime that embraces the deprivations of government-induced cyclical poverty to spare its populace the moral decadence of capitalist luxury."[48] The implication, one has to assume, is that the leaders of the Chinese Communist Party are neither rational nor reasonable—nor is the party "a risk-prone opportunity maximizer . . . motivated primarily by its external situation."[49] This argument, unaccompanied by any analysis and in light of four decades of countervailing evidence, is underdeveloped, to say the least.

The third binary attaches malign motives to Chinese activities in space—this in spite of the fact the United States has engaged in the

same activities, all peaceably, for more than six decades. According to this worldview, imitation is not the sincerest form of flattery—it is a threat. Dolman claims, "China's increasing space emphasis and its cultural antipathy to military transparency suggest a serious attempt at seizing control of space."[50] Two proofs are offered in support of this argument.

The first proof offered is the 2007 Chinese antisatellite (ASAT) test.[51] In the past, Dolman has called this test "criminal."[52] While it was shortsighted, irresponsible, and counterproductive, it was not criminal. Yet, neither was it exceptional. The United States, often against the advice of scientists, engaged in environmentally destructive activities in space throughout the Cold War (e.g., Starfish Prime, Project West Ford, destructive ASAT tests).[53] The critical distinction between US space activities during the first three decades of the space age and the Chinese ASAT test, aside from the development of international law that would now proscribe some of these activities, is the contemporary appreciation for the fact that the space environment cannot afford for emerging spacefaring nations to make the mistakes made by its earliest adopters. Orbital debris issues aside, Kissinger rightly points out that "if the United States treats every advance in Chinese military capability as a hostile act, it will quickly find itself enmeshed in an endless series of disputes on behalf of esoteric aims."[54] Space hegemony is arguably just such an esoteric aim.

The second proof offered in support of this binary is the empirical equivalent of the inevitability postulate: "Technology *X*." Dolman describes it as "an unknown capability . . . that would allow a hostile state to place multiple weapons into orbit quickly and cheaply."[55] Like the inevitability postulate, Technology *X* is wholly imagined and therefore unfalsifiable. It is also offered as a justification for the United States to pursue a space hegemony strategy now—before it is too late. The pattern emerging is this: if the reader does not accept the factual theoretical assumptions offered in "New Frontiers," then an unfalsifiable proof is offered as a fallback. Either way the theory appears to be supported—a fait accompli.

"New Frontiers" thus endeavors to identify a threat as an enemy that is at once "the other," potentially irrational and unreasonable in conducting foreign intercourse and developing into a threatening space power—all to justify a preemptive US space hegemony strategy. To the extent these assumptions are not accepted by the reader, the inevitability postulate, or Technology *X*, seeks to force the same conclusion. By all

appearances, however, an enemy has been conjured up to support a preordained military solution—a solution that, in Dolman's own writings, predates the supposed Chinese threat by a decade or more.

Sovereignty and Imperialism

The most paradoxical line of argument within "New Frontiers" relates to the conceptual cousins, sovereignty and imperialism. What is immediately striking about Dolman's approach is that he is as optimistic about the world's reception to US space hegemony as he is pessimistic about the future of Sino-US relations. Indeed, he views benign US space hegemony as neither imperialistic adventurism nor a threat to the sovereignty of other nations, positing that

> the cost to weaponize space effectively will be immense. . . . It will come at the expense of conventional military capabilities on the land and sea and in the air. . . . And most importantly, it will come from personnel reduction—from ground troops currently occupying foreign territory. In this way, the United States will retain its ability to use force to influence states around the world, but it will atrophy the capacity to occupy their territory and threaten their sovereignty directly. The era of US hegemony will be extended, but the possibility of US global empire will be reduced.[56]

Concerning the reaction of other states to US space hegemony, Dolman indicates, "if the United States were to weaponize space, it is not at all sure that any other state or group of states would find it rational to counter in kind. . . . As long as the United States does not employ its power arbitrarily, the situation would be accommodated initially and *grudgingly accepted over time*" (emphasis added).[57] He further argues that space hegemony could, in fact, usher in "a new space regime, one that encourages space commerce and development."[58] Dolman describes these on-orbit space weapons as having the "capacity to deny, ground-, sea-, and air-based antisatellite weapons from space" and offering an "omnipresent threat of precise, measured, and unstoppable retaliation."[59]

Assuming such space weapons are technologically feasible, what are other states doing while the United States flight-tests and fields these constellations of undefeatable space weapons? Are we to assume they are patiently awaiting the completion of an "unstoppable" constellation of space weapons? If not, how shall the United States defend against potential terrestrial armed responses—which would arguably be countenanced under either Article 51 of the UN charter or the doctrine of

preemption—when our combined arms budget has been sacrificed in pursuit of space hegemony? Employing Dolman's own power politics thesis, isn't he precipitating the very war he is attempting to prevent by displacing the extant balance of power and so thoroughly threatening the sovereignty of other states?

Drs. Raymond Duvall and Jonathan Havercroft have argued quite convincingly that space-based military technologies will impact world political order, and in particular, "its foundational ontology, sovereignty."[60] They argue "[US] control of an effective missile defense system would markedly re-inscribe its territorial 'hard shell' and its sovereignty in exclusively shielding it from the threat of (missile-based) attack by others. The sovereignty of one state is re-inscribed, while that of the other states, most notably 'great powers' that have depended thus far on their deterrent capabilities, is eroded."[61] According to Duvall and Havercroft, this would put the United States at "the centre of a globally extensive, late-modern empire," making it "a sovereign of the globe."[62] By extension, a state unable to defend itself under this new order would effectively lose the ability to independently conduct its internal and external affairs—particularly if those affairs are at odds with the wants of the extant hegemonic power. Dolman would seem to agree, indicating, "state power, expressed in terms of capacity for violence, is the ultima ratio of international relations . . . [however, a] state employing offensive deterrence through space weapons can punish a transgressor state, but is in a poor position to challenge that state's sovereignty."[63] These two ideas cannot be true simultaneously unless (1) one views coercive punishment levied from space as somehow distinct from coercive punishment levied from the domains of air, sea, or land and (2) one views the concept of sovereignty as only encompassing the exercise of exclusive jurisdiction over the *physical territory* of a state. Both views are incorrect.

To the former, coercive punishment of a "transgressor state" would necessarily involve a territorial incursion by a space-based missile, laser, or electromagnetic jammer of some variety. That the locus of the weapon delivery system is beyond the sovereign territory of the transgressor state is irrelevant. No one would argue, for instance, that a cruise missile launched from the deck of a ship on the high seas does not breach the sovereignty of a so-called transgressor state when the missile impacts within the territory of that state. The same is true for weapons originating from space.

To the latter, intervening in the affairs of a transgressor state through coercive punishment violates its sovereignty. The duty of nonintervention is a sine qua non of sovereignty and is not breached by foreign occupation or territorial incursion alone.[64] As discussed in detail below, space hegemony would proscribe activities countenanced by both treaty and customary international law, thereby curtailing the right of sovereign states to exercise political independence within the international system. It is telling that Kenneth Waltz, the same neorealist thinker who fathered the "ultima ratio" notion adopted by Dolman, also wrote, "short of a drive toward world hegemony, the private use of force does not threaten the system of international politics, only some of its members."[65] It follows that Dolman's optimism about the acceptance of US space hegemony—which is perhaps more appropriately dubbed "world hegemony," if the Duvall and Havercroft argument is accepted—is misplaced.

This optimism should also be blunted by the fact that, irrespective of intentions, a move toward US space hegemony would almost assuredly be viewed as imperialistic adventurism by the rest of the world. Arthur Schlesinger Jr. describes imperialism as "what happens when a strong state encounters a weak state, a soft frontier or a vacuum of power and uses its superior strength to dominate other peoples for its own purposes."[66] Outer space is just such a soft frontier—and a vacuum of power results, in part, from the permissive legal regime governing the domain. This brand of imperialism is classically categorized as *apologia*, the essence of which is the "claim of a civilizing mission."[67] With space hegemony, the purported mission is both to delay the inevitable war with China and to usher in a new era of commerce and development in outer space. The mission presupposes the superiority of the imperialist power to shepherd the space seized, else the *mission civilisatrice* ("civilizing mission," e.g., colonization) would not be necessary.[68] Shepherding the commerce and development of outer space must therefore be examined in terms of the perception of other states currently exploiting the commercial benefits of space and those developing states aspiring to do so in the future. To be sure, in the context of the security dilemma, Charles Glaser points out,

> A state's military buildup can change the adversary's beliefs about the state's motives, convincing the adversary that the state is inherently more dangerous than it had previously believed. More specifically, the state's buildup could increase the adversary's assessment of the extent to which it is motivated by the desire to expand for reasons other than security, which I will term greed. . . . A

> rational adversary will therefore have reasons to expect a pure security seeker to engage in a threatening arms buildup and consequently will not automatically conclude that such a buildup reflects greedy motives.[69]

To the extent space hegemony is secondarily rooted in the commercial exploitation of space—and the United States as the reigning hegemonic power effectively picks winners and losers among competing commercial interests within the domain—greedy motives will undoubtedly be imputed. The United States would not be viewed as a pure security seeker or a "benign space hegemon," but rather as a state proffering a straw man threat to exploit or monopolize the commercial potentialities of outer space. Under these circumstances, the notion that certain states would not actively employ all elements of power to rebalance vis-à-vis the United States appears unrealistic.

This analysis begs two questions. First, if one accepts the notion that US space hegemony is an imperialistic *mission civilisatrice* that threatens the sovereignty of other states, is it a strategy that can be pursued without sacrificing the liberal democratic values of the United States? To the extent those values encompass the notion that the United States is not the only country entitled to a declaration of independence[70]—even among those whose values and interests differ—then the answer is "no," barring some existential necessity that has not here been proved. Second, even if one does *not* accept the notion that US space hegemony is an imperialistic *mission civilisatrice* that threatens the sovereignty of other states, does the purported threat posed by the Chinese and the prediction of a "grudging acceptance" of US space hegemony, which may usher in a new era of commerce and development, appear provident or tilting toward wishful thinking? To paraphrase the venerable statesman George Kennan, the likely answer is that you know where you begin, but you never know where you will end.

Combined Arms Theory

Another peculiar notion advanced in "New Frontiers" is the apparent abandonment of combined arms theory. Again, the on-orbit space weapons underwriting US space hegemony "will come at the expense of conventional military capabilities on the land and sea and in the air. . . . And most importantly, it will come from personnel reduction—from ground troops currently occupying foreign territory."[71] Colin Gray points out

the folly of this strategy from a historical perspective, arguing, "the merit in combined arms, as contrasted with the placing of near exclusive faith in some, usually novel, allegedly 'dominant weapon,' is an ancient principle."[72] Indeed, it is the principle underlying the distinct missions and capabilities of the Army, Air Force, Navy, and Marines, as well as the logic behind the nuclear triad. Combined arms not only afford decision makers a scalable range of options to address problems requiring a military response, but also redundancy in the event a defender employs effective countermeasures against one or more of the aggressor's offensive capabilities.

In contrast, near exclusive reliance on space weapons would create a targetable Achilles' heel for states seeking to balance against US hegemony. Assuming space hegemony is achievable, the only means of countering it would entail the "negation" of on-orbit US space weapons.[73] The question is the lengths to which a threatened state would be willing to go to achieve this end. As Duvall and Havercroft point out, "historically, every advance in the weaponry of imperial powers has been met with an advance in counter hegemonic strategy."[74] The materiel manifestation of this strategy could be a variant of existing technology or some theoretical Technology *X*. Ironically, Dolman raises the issue of Technology *X* only in the context of advocating *for* US space hegemony (i.e., the United States must develop on-orbit weapons before China does so); he makes no mention of a state developing the terrestrially based technology to effectively *counter* US space hegemony. This is a significant omission given that a space hegemony strategy, pursued at the expense of combined arms, would represent a potential single point of failure for the national security of the United States.

International Space Law

Finally, space hegemony, whether pursued by the United States or any other nation, is proscribed by international law. While Dolman only alludes to a new legal regime for space,[75] he has elsewhere prescribed a US withdrawal from "the current space regime" along with the regime's abolition and replacement.[76] This prescription indicates a lack of understanding both of international law and the feasibility of effectuating a "new regime" within the current international system.

First, unilateral US withdrawal from the current space regime would have no impact on the legality of a space hegemony strategy, as the provisions of international law proscribing such a strategy are enduring—irrespective of a state's consent to be bound—or, in the lexicon, customary international law.[77] The corpus of positive international space law is composed of four multilateral treaties negotiated and concluded in the 1960s and 1970s under the aegis of the UN Committee on the Peaceful Uses of Outer Space (UNCOPUOS)—a committee the United States has staunchly supported since its founding in 1959.[78] The treaty most relevant to the present discussion is generally known as the 1967 Outer Space Treaty or OST.[79] This treaty, which reflects the core principles on the organization and use of outer space by and among its states' parties, was preceded in time by a 1963 General Assembly resolution which first articulated these principles. This was, of course, preceded by the launch of Sputnik in 1957.

The core principles of the OST began to be solidified by state practice—a precursor to customary international law—during Sputnik's first orbit. Indeed, while Sputnik was a cause for deep concern among the US national security establishment and the American public, "from the standpoint of international law, [it] was an unmitigated blessing."[80] Soon, the violation of sovereign airspace for purposes of intelligence gathering would become passé. Unlike sovereign airspace, the whole of outer space would be governed by the "freedom principle," wherein overflight for intelligence gathering or otherwise would be fully countenanced. The lack of objection by the United States on the first-observed pass of Sputnik—over the protests of some within the military establishment[81]—and by every subsequent pass of every foreign space object since, set the course of customary international space law in motion.

Some would argue the core principles codified in the OST became customary international law years *before* the OST was drafted.[82] Even adopting a conservative approach to the issue, the OST is among the most widely acceded treaties in the international system, with more than 100 state parties as of 2012, and supported by 55 years of state practice that is, almost without exception, consistent with its core principles. Today, these core principles are unquestionably customary international law (i.e., binding whether a state is party to the OST or not).[83] This is due in large part to the actions and advocacy of the United States—

which championed the idea of the OST in the 1960s and continues to be among its aggressive proponents.

The core principles of the OST and customary international law that space hegemony would offend include, inter alia, the "freedom principle" and the "non-appropriation principle," which are codified in OST Articles I and II, respectively. Article I indicates, in relevant part, "Outer space, including the moon and other celestial bodies, shall be free for exploration and use by all States without discrimination of any kind, on a basis of equality and in accordance with international law, and there shall be free access to all areas of celestial bodies."[84] In contrast, space hegemony connotes an impermissible measure of control over the space domain, including denying "any attempt by another nation to place military assets in space."[85] Such a denial of either access to or use of space for this purpose or others would constitute a violation of Article I of the OST and customary international law (which mirrors Article I). "Military assets" presumably include foreign intelligence, surveillance, and reconnaissance (ISR) assets, as well as space weapons. Given that space-based ISR has been critical to maintaining international peace and security between peer and near-peer powers for the past five decades,[86] denying these states access to space for this purpose would be unwise from a security policy standpoint, as well as violative of international law.

It is important to note that, with the exception of the placement of nuclear weapons or other WMD on-orbit or the placement of any weapon on the moon or other celestial body, weaponizing space is theoretically lawful.[87] The legality of the act of placing weapons in space must therefore be distinguished from the legality of space hegemony. The question is one of employment and turns on whether the legal rights of others are impinged. For example, a weaponization strategy that does not deny others access to or movement in space would more likely be found lawful than space hegemony, which does not.

Article II of the OST, which embodies the non-appropriation principle, indicates, "outer space, including the moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means."[88] Space hegemony entails "policing the heavens"—from both a national security as well as a commercial and resource exploitation standpoint.[89] Irrespective of the intentions of the United States or its benignity, space hegemony would violate the principle of non-appropriation—if not by claim of

sovereignty, then certainly by means of use or occupation. Outer space is simply not the United States' to police under international law.

Second, on the feasibility of effectuating a "new regime" within the current international system, a fundamental tenet of international law is consent. With few exceptions (e.g., customary international law absent persistent objection, *jus cogens*), to be bound under international law, a sovereign state must consent to be bound. The United States is powerful, but it cannot force consent. The idea that any state, even a close ally, would consent to a new legal regime whose philosophy rests, in Dolman's own words, upon the notion that "the United States is preferentially endowed to guide the whole of humanity into space, to police any misuse of that realm, and to ensure an equitable division of its spoils" is unrealistic.[90] Put simply, unless states consent to a new legal regime, the United States must operate in accordance with the enduring provisions of the current legal regime or operate outside the law. Since states are unlikely to consent to a new regime that is inequitable or inimical to their interests—as any regime countenancing US space hegemony would surely be—Dolman's prescription is neither realistic nor achievable.

Conclusion

Calls to exercise military control of outer space are as old as space exploration itself. Within weeks of the launch of Sputnik, Air Force chief of staff Gen Thomas White indicated, "whoever has the capability to control the air is in a position to exert control over the land and seas beneath. I feel that in the future whoever has the capability to control space will likewise possess the capability to exert control of the surface of the earth."[91] It is telling that in the security environment of fall 1957—with the expansionist Soviets possessing the hydrogen bomb and a new and unprecedented weapons delivery system—General White only called for the *capacity* to control space; he did not indicate it *should* be controlled.[92] Despite the benefit of a half-century's hindsight not afforded General White and a security environment any national security professional of the late 1950s or early 1960s would happily trade for their own, Dolman's approach to space security is less nuanced. The prospective and even retrospective explanatory limits of history and theory can either lead one to accept these limits—muddling through as best we can—or seek an analytical framework that purports to transcend these limits. Dolman has chosen the latter, but his overly deterministic theory is

illusory. The potential danger of this illusion is that "if men define situations as real, they are real in their consequence."[93] SSQ

Notes

1. Everett C. Dolman, "New Frontiers, Old Realities," *Strategic Studies Quarterly* 6, no. 1 (Spring 2012): 78, 80.

2. Everett C. Dolman, *Astropolitik: Classical Geopolitics in the Space Age* (New York: Frank Cass, 2002) 157, 94.

3. Ibid., 78. An earlier, unpublished version of "New Frontiers, Old Realities" appears online. See Everett C. Dolman, "The Case for Weapons in Space: A Geopolitical Assessment," *Social Science Research Network*, 2010, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1676919.

4. Charles Glaser, "Will China's Rise Lead to War?" *Foreign Affairs* 90, no. 2 (March/April 2011): 89; Joseph S. Nye Jr., "China's Rise Doesn't Mean War," *Foreign Policy,* January/February 2011, 66; and Andrew J. Nathan and Andrew Scobell, "How China Sees America, The Sum of Beijing's Fears," *Foreign Affairs* 91, no. 5 (September/October 2012).

5. John B. Sheldon and Colin S. Gray, "Theory Ascendant? Spacepower and the Challenge of Strategic Theory," in *Toward a Theory of Spacepower: Selected Essays*, eds. Charles D. Lutes et al. (Washington: National Defense University Press, 2011), 10.

6. Article V of the ABM Treaty had long presented a legal stumbling block to space weaponization by proscribing space-based ABM systems. "Treaty between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems, 26 May 1972," http://www.state.gov/www/global/arms/treaties/abm/abm2.html. The 2001 National Security Space Commission report indicated, "we know from history that every medium—air, land and sea—has seen conflict. Reality indicates that space will be no different. Given this virtual certainty, the U.S. must develop the means both to deter and to defend against hostile acts in and from space. This will require superior space capabilities." *Report of the Commission to Assess United States National Security Space Management and Organization*, 11 January 2001, x, http://www.dod.mil/pubs/space20010111.pdf.

7. Richard K. Ashley, "The Poverty of Neorealism," *International Organizations* 38, no. 2 (Spring 1984): 226.

8. For example, Bruce M. DeBlois et al., "Space Weapons: Crossing the U.S. Rubicon," *International Security* 29, no. 2 (Fall 2004): 50–84, esp. 55; Karl P. Mueller, "Totem and Taboo: Depolarizing the Space Weaponization Debate," *Astropolitics* 1, no. 1 (Summer 2003); and James Clay Moltz, *The Politics of Space Security: Strategic Restraint and the Pursuit of National Interests* (Stanford, CA: Stanford University Press, 2008) 263–64.

9. Whether this is viewed as a positive or negative depends, of course, on whether one is ideologically a citizen of Troy or a Greek.

10. Dr. Dolman's book, *Astropolitik*, is required reading at SAASS.

11. Ronald Reagan, "Star Wars" speech, 23 March 1983, http://www.youtube.com/watch?v=ApTnYwh5KvE.

12. "To Chinese analysts trying to make sense of the cacophony of views expressed in the US policy community, the loudest voices are the easiest to hear, and the signals are alarming." Nathan and Scobell, "How China Sees America," 37.

13. Dr. Joan Johnson-Freese, "The Imperative of Space Cooperation in an Environment of Distrust: Working with China," *High Frontier* 6, no. 2 (February 2010): 20.

14. Peter L. Hays and Dennis L. Danielson, "Improving Space Security through Enhanced International Cooperation," *High Frontier* 6, no. 2 (February 2010): 17.

15. Henry A. Kissinger, "The Future of U.S.–Chinese Relations," *Foreign Affairs* 91, no. 2 (March/April 2012): 50.

16. I am *not* suggesting curtailment of debate or limits to academic freedom in any way. I am simply suggesting that words matter, and we ought to choose them wisely when invoking a war that could potentially result in tens or hundreds of millions of casualties.

17. Greg Jaffe, "U.S. Model for a Future War Fans Tensions with China inside Pentagon," *Washington Post*, 1 August 2012,http://www.washingtonpost.com/world/national-security/us-model-for-a-future-war-fans-tensions-with-china-and-inside-pentagon/2012/08/01/gJQAC6F8PX_story.html.

18. Richard E. Neustadt and Ernest R. May, *Thinking In Time: The Uses of History for Decision Makers* (New York: Free Press, 1986): 66. While a pinpoint citation is offered here, this entire book is extremely helpful in analyzing the prognostications of so-called experts.

19. To this end, John LeCarré's admonition is illuminating: "When the world is destroyed, it will be destroyed not by its madmen but by the sanity of its experts and the superior ignorance of its bureaucrats. John le Carré, *The Russia House* (New York: Alfred A. Knopf, 1989), 207.

20. Dr. Dolman later indicates, "war, as inevitable as it might be, is not imminent." This, of course, is inconsistent with the notion that the war "may already have begun." Dolman, "New Frontiers," 82, 78.

21. Michael E. Howard, "On Fighting Nuclear War," *International Security* 5, no. 4 (Spring 1981): 9.

22. Dolman, "New Frontiers," 78.

23. Ibid., 78, 79.

24. Ibid., 78.

25. Ibid., 78, 82.

26. See Mark Mazower, *Governing the World: The History of an Idea* (New York: Penguin Press, 2012), esp. Part I, "The Era of Internationalism."

27. G. John Ikenberry, "The Rise of China and the Future of the West, Can the Liberal System Survive?" *Foreign Affairs* 87, no. 1 (January/February 2008), http://www.foreignaffairs.com/articles/63042/g-john-ikenberry/the -rise-of-china-and-the-future-of-the-west.

28. Ibid; and Mazower, *Governing the World*, xvii.

29. Peter N. James, *Soviet Conquest from Space* (New Rochelle, NY: Arlington House, 1974) 29–30, 119–23, 204.

30. Thucydides, *History of the Peloponnesian War*, trans. by Rex Warner (New York: Penguin Books, 1954), 157.

31. Michael Walzer, *Just and Unjust Wars* (New York: Basic Books, 1977) 64, 65–66; and Henry A. Kissinger, *Diplomacy* (New York: Simon & Schuster, 1994) 120–36.

32. "The governments of Germany, Italy and Japan, considering it as a condition precedent of any lasting peace that all nations of the world *be given each its own proper place*" (emphasis added). Three-Power Pact between Germany, Italy, and Japan, signed at Berlin, 27 September 1940, http://avalon.law.yale.edu/wwii/triparti.asp.

33. Kenneth Waltz, "Why Iran Should Get the Bomb," *Foreign Affairs* 91, no. 4 (July/August 2012): 5. Waltz is here distinguishing "full-scale war" from cross-border clashes between nuclear powers, including the unfortunately named "Kargil War" (1999) and the Sino-Soviet conflict of 1969.

34. Ironically, in response to his critics in the "anti-space weaponization lobby who have drawn parallels between space weapons and nuclear weapons," Dolman has counseled, "history

is not tyranny. Today's context is not the same as yesterday's, and too forced an analogy makes small-minded hobgoblins of us all." Everett C. Dolman, "Astropolitics and *Astropolitk*: Strategy and Space Deployment," in *Harnessing the Heavens: National Defense Through Space*, eds. Paul G. Gillespie and Grant T. Weller (Chicago: Imprint Publications, 2008) 131–32.

35. Dolman, "New Frontiers," 79.

36. Glaser, "Will China's Rise Lead to War?" 81.

37. Kissinger, "Future of U.S.–Chinese Relations," 46.

38. Nassaim Nichols Taleb and Mark Blyth, "The Black Swan of Cairo," *Foreign Affairs* 90, no. 3 (May/June 2011): 35–36.

39. Quoted in Colin S. Gray, *Maintaining Effective Deterrence* (Carlisle, PA: US Army War College, Strategic Studies Institute, August 2003), 26.

40. Graham Allison, "The Cuban Missile Crisis at 50," *Foreign Affairs* 91, no. 4 (July/August 2012): 16.

41. Everett Dolman, Peter Hays, and Karl P. Mueller, "Toward a U.S. Grand Strategy in Space," roundtable, George C. Marshall Institute, Washington, DC, 10 March 2006, 21, http://www.marshall.org/pdf/materials/408.pdf.

42. Graham Allison and Phillip Zelikow, *Essence of Decision: Explaining the Cuban Missile Crisis*, 2nd ed. (New York: Longman, 1999), 7.

43. Niccolò Machiavelli, *The Prince*, trans. by W. K. Marriott (New York: Alfred A. Knopf, 1908); and Fraser MacDonald, "Anti-*Astropolitik*: Outer Space and the Orbit of Geography," *Progress in Human Geography* 31 (October 2007): 592–615, esp. 606–9. This article owes much to MacDonald's "Anti-*Astropolitik*."

44. Gearóid Ó Tuathail, "Understanding Critical Geopolitics: Geopolitics and Risk Society," *Journal of Strategic Studies* 22, no. 2–3 (1999): 108.

45. Ibid., 121.

46. Ibid., 108.

47. Dolman, "New Frontiers," 82, 83.

48. Ibid., 92.

49. Allison and Zelikow, *Essence of Decision*, 47.

50. Dolman, "New Frontiers," 92.

51. Perhaps this was the first salvo in the space war that "may have already begun," according to Dolman. If so, then this is a very cold war indeed.

52. Everett C. Dolman and Henry F. Cooper Jr., "Increasing the Military Uses of Space," in *Toward a Theory of Spacepower*, 106.

53. Moltz, *Politics of Space Security*, 100, 110, 119.

54. Kissinger, "Future of U.S.–Chinese Relations," 48.

55. Dolman, "New Frontiers," 93.

56. Ibid., 89.

57. Ibid., 93.

58. Ibid., 94

59. Ibid., 88, 90.

60. Raymond Duvall and Jonathan Havercroft, "Taking Sovereignty Out of this World: Space Weapons and Empire of the Future," *Review of International Studies* 34, no. 4 (October 2008): 757. An unpublished version is available at http://www.ligi.ubc.ca/sites/liu/files/Publications/Havercroft _paper.pdf.

61. Ibid., 764.

62. Ibid., 768.

63. Dolman, "New Frontiers," 80, 91.

64. Ian Brownlie, *Principles of Public International Law*, 7th ed. (New York: Oxford University Press, 2008), 289.
65. Waltz, "Anarchic Order and Balances of Power," 109.
66. Arthur M. Schlesinger Jr., *The Cycles of American History* (Boston: Houghton Mifflin Co., 1986) 155.
67. Ibid., 119.
68. Ibid., 156.
69. Glaser, "Security Dilemma Revisited," 178–79.
70. Howard Zinn, "Machiavellian Realism and U.S. Foreign Policy: Means and Ends," in *Passionate Declarations, Essays on War and Justice*, ed. Zinn (New York: Harper Perennial, 2003), 15.
71. Dolman, "New Frontiers," 89.
72. Gray, *Maintaining Effective Deterrence*, 52.
73. *Negation* is a doctrinal term, meaning "active and offensive measures to deceive, disrupt, deny, degrade, or destroy an adversary's space capabilities. Negation includes actions against ground, data link, user, and/or space segment(s) of an adversary's space systems and services, or any other space system or service used by an adversary that is hostile to US national interests." Joint Publication 3-14, *Space Operations*, 6 January 2009, II-5.
74. Duvall and Havercroft, "Taking Sovereignty Out of this World," 773.
75. Dolman, "New Frontiers," 94.
76. Dolman, *Astropolitik*, 157, 177.
77. Francis Lyall and Paul B. Larsen, *Space Law: A Treatise* (Burlington, VT: Ashgate, 2009) 54, 59, 70.
78. Available online at http://www.oosa.unvienna.org/pdf/publications/STSPACE11E.pdf.
79. "Treaty on the Principles Governing the Activities of States in the Exploration and Use of Outer Space Including the Moon and Other Celestial Bodies (Outer Space Treaty)," London, Moscow, and Washington, 27 January 1967.
80. William E. Burrows, *This New Ocean* (New York: Random House, 1998) 191.
81. Paul B. Stares, *The Militarization of Space* (Ithaca, NY: Cornell University Press) 49.
82. Walter A. McDougall, *The Heavens and the Earth, A Political History of the Space Age* (New York: Basic Books, 1985), 348 (quoting Senator Albert Gore in 1963, "observation from space is consistent with international law, just as observation from the high seas").
83. Lyall and Larsen, *Space Law*, 54, 59, 70.
84. Outer Space Treaty, Art. I.
85. Dolman, "New Frontiers," 94.
86. For example, William Burrows, *Deep Black: Space Espionage and National Security* (New York: Random House, 1986), vii. In 1967, Lyndon Johnson said of space photography, "tonight we know how many missiles the enemy has and, it turned out, our guesses were way off. We were doing things we didn't need to do, building things we didn't need to build. We were harboring fears we didn't need to harbor."
87. Outer Space Treaty, Art. IV.
88. Ibid., Art. II.
89. Dolman, "New Frontiers," 94.
90. Dolman, *Astropolitik*, 181.
91. Stares, *Militarization of Space*, 48.
92. Mike Moore, "Space Cops: Coming to a Planet near You!" *Bulletin of the Atomic Scientists*, November/December 2003, 52.
93. Quoting Robert K. Merton in Leon Aron, "Everything You Think You Know about the Collapse of the Soviet Union is Wrong," *Foreign Policy*, July/August 2011, 68.

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