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# \*\*\*Uniqueness

## No Space Weaponization now

### No Evidence that U.S. has already Developed Destructive Anti-Satellite Weapons

"Air Force in No Rush for U.S. Antisatellite Weapons." Global Security Newswire. April 1, 2008.

It's not just the hard-line Russian commentators or the North Korean press that alleges that US military forces are already armed to the teeth for space warfare: the same explicit assumption often appears in the mainstream Western press as well. Sometimes the argument even goes, “Well, there’s no official acknowledgement of them—that proves they exist in secret” (as if the absence of evidence were transformed into evidence of presence).

But since the 1985 air-launch satellite intercept, a project cancelled by Congress, there is no evidence that a new satellite-killer technology has been developed. Laser tests seem focused on interfering with satellite observation equipment, as well as to determine how to develop US countermeasures against other countries using lasers to interfere with US observation satellites. Non-destructive radio spoofing seems to be the limit of the amount of force—short of setting off a nuclear weapon in space, which would be suicidal—the US is currently prepared to use against space objects.

U.S. Air Force waiting for Policy Decision before Deploying Anti-Satellite Weapons.

Despite the recent destruction of a failing U.S. satellite in orbit, a senior military commander said today that policy concerns preclude fielding a dedicated antisatellite capability (see GSN, Feb. 15).

The Defense Department on Feb. 20 used a modified Navy Standard 3 missile interceptor to eliminate the dysfunctional spy satellite, citing concerns that toxic fuel onboard could have posed a health threat if the space vehicle had been allowed to tumble back to Earth on its own.

In terms of developing a future air-, land- or sea-based antisatellite system that might deny adversaries the use of space, U.S. policy dictates that the military "'be prepared,' [but] it doesn't say 'go do,'" Air Force Space Command head Gen. Robert Kehler said at a breakfast session with the Defense Writers Group.

"I'm not ready to say" that the United States should be "operationalizing some kind of an antisatellite weapon," the general told reporters. Rather, Kehler said he plans to focus his Colorado Springs, Colo., command on improving the nation's ability to monitor activities in space.

### U.S. not Politically Ready to Deploy Force Projection Space Weapons

 Lambeth, Benjamin S. Mastering the Ultimate High Ground: Next Steps in the Military Uses of Space. Santa Monica, CA: RAND Corporation, 2003. Benjamin S. Lambeth is a Senior Research Associate at the RAND Corporation. In 1989 and 1990, he directed RAND's International Security and Defense Policy Program.

For the time being, the idea of placing offensive weapons in space for use against terrestrial targets remains contrary to declared national policy, and there is no indication that the nation is anywhere near the threshold of deciding to weaponize space. Any truly serious steps toward acquiring a space force application capability will involve a momentous political decision that the nation's leadership has not yet shown itself ready to make. As the Air Force's former deputy chief of staff for air and space operations, then Lieutenant General Robert Foglesong, noted, "if the policy decision is made to take our guns into space, that will be decided by our civilian leadership." Until that threshold is reached, any talk of space weaponization will remain not only politically moot but needlessly provocative, and military space activity will remain limited to enhancing terrestrial operations and controlling the ultimate high ground.

### Space is Militarized not weaponized

**Krepon, 03** – M.A. in International Studies from Johns Hopkins, Former Carnegie Endowment for International Peace and US Arms Control and Disarmament Agency Employee (Michael, 4/2/03, "Space Assurance or Space Dominance? THE CASE AGAINST WEAPONIZING SPACE", p. 97,) PDF

The militarization of space has proceeded steadily and inexorably since the launch of *Sputnik* in October 1957. Subsequently, many satellites have been launched to assist, enhance, or empower ground, sea, and air forces. These satellites provide targeting and weather information, as well as communication support for war fighters. **The use of satellites to assist military operations is, however, far different from the flight-testing and deployment of platforms specifically designed to fight a war in or from space, or military capabilities on the ground specifically designed to kill satellites in space**. Surely, these military activities would constitute space weaponization by any reasonable definition. Advocates of maintaining space as a sanctuary against war fighting view the distinction between militarization and weaponization as vital, even if the precise crossover point remains a contentious subject.

### Space has been militarized but not weaponized

**Krepon, 03** – M.A. in International Studies from Johns Hopkins, Former Carnegie Endowment for International Peace and US Arms Control and Disarmament Agency Employee (Michael, 4/2/03, "Space Assurance or Space Dominance? THE CASE AGAINST WEAPONIZING SPACE", p. 97,) PDF

At present, the crucial distinction between the militarization and weaponization of space remains in place. The militarization of space was certainly inevitable during the Cold War, because both superpowers needed satellites to observe each other’s strategic capabilities and to enhance the effectiveness of their terrestrial war-fighting capabilities.11 Both nations orbited satellites to glean targeting information, to learn of meteorological conditions in theaters of combat, and to communicate with widely dispersed forces. Navigation satellites, although not nearly as accurate as the global positioning system (GPS) of today, were crucial for improving the accuracy of ballistic missiles. And space systems were indispensable for obscure but necessary functions like geodesic surveying, which facilitated ballistic missile accuracy by measuring perturbations in the earth’s gravitational field. Satellites provided early warning of missile launches and detection of nuclear detonations. In other words, over the course of the Cold War, space became an essential adjunct for war-fighting on the ground, without becoming another theater of combat. **While the militarization of space proceeded apace, the weaponization of space was avoided.**

## No Weaponization – Obama Arms Control

### Uniqueness—Obama arms control--- International co-op

Broad and Chang 10, William J. Broad and Kenneth Chang, June 29 2010 (Writers for the New York Times), Obama Reverses Bush’s Space Policy, <http://www.nytimes.com/2010/06/29/science/space/29orbit.html?pagewanted=print>

The Obama administration on Monday unveiled a space policy that renounces the unilateral stance of the Bush administration and instead emphasizes international cooperation, including the possibility of an arms control treaty that would limit the development of space weapons. In recent years, both China and the United States have destroyed satellites in orbit, raising fears about the start of a costly arms race that might ultimately hurt the United States because it dominates the military use of space. China smashed a satellite in January 2007, and the United States did so in February 2008. [The new space policy](http://www.whitehouse.gov/sites/default/files/national_space_policy_6-28-10.pdf) explicitly says that Washington will “consider proposals and concepts for arms control measures if they are equitable, effectively verifiable and enhance the national security of the United States and its allies.” The Bush administration, in the space policy it released in August 2006, said it “rejects any limitations on the fundamental right of the United States to operate in and acquire data from space,” a phrase that was interpreted as giving a green light to the development and use of antisatellite weapons. The policy also stated that Washington would “oppose the development of new legal regimes or other restrictions that seek to prohibit or limit U.S. access or use of space,” a phrase that effectively ruled out arms control. In secret, the Bush administration engaged in research that critics said could produce a powerful ground-based laser, among other potential weapons meant to shatter enemy satellites in orbit. By contrast, the Obama policy underlines the need for international cooperation. “It is the shared interest of all nations to act responsibly in space to help prevent mishaps, misperceptions and mistrust,” the new policy says in its opening lines. “Space operations should be conducted in ways that emphasize openness and transparency.”

### Uniqueness--- US and China are talking about weaponization prevention now

### **Defense System 7/20**, Defense System Writers, 7/20/11, U.S., China move closer to space security talks, <http://defensesystems.com/articles/2011/07/20/agg-united-states-china-space-talks.aspx?admgarea=DS>

U.S. Deputy Assistant Secretary of Defense for Space Policy Ambassador Gregory Schulte said July 19 that the United States and China will meet soon to discuss the best way to make sure that both nations act in a **“responsible"** manner in the national security space environment, reports [John Reed at DOD Buzz](http://www.dodbuzz.com/2011/07/19/u-s-china-set-to-discuss-space-security/). China has developed space capabilities and weapons designed to eliminate an enemy’s space systems and has a spy satellite capability to monitor targets for six hours at a time — a development that puts China on par with U.S. space surveillance capabilities. The increase in recent years of the number of spacefaring nations has led to an increasingly crowded space environment, a development that has Defense Department officials concerned about potential damage to U.S. satellites from space debris and also the increasing militarization of space, the media outlet said.

### US working for space cooperation

Rose, 11**,** Frank Rose, 4/4/11 (Deputy Assistant Secretary of the Bureau of Arms Control), “Strengthening Stability In Space,” Regulatory Intelligence Data lexis

Why is SSA important to space security? A long-standing principle of U.S. national space policy is that all nations have the right to explore and use space for peaceful purposes, and for the benefit of all humanity, in accordance with international law. Strengthening stability in space fundamentally depends on having awareness and understanding as to who is using the space environment, for what purposes, and under what environmental conditions. The U.S. National Space Policy directs us to collaborate with other nations, the private sector, and intergovernmental organizations to improve our SSA - in other words, to improve our shared ability to rapidly detect, warn of, characterize, and attribute natural and man-made disturbances to space systems. Having this information as early as possible and as accurately as possible is critical for a number of reasons.

First, it is critical to NASA, our International Space Station partners, and all spacefaring nations, where human spaceflight safety is of the utmost importance. Second, it is critical for U.S. and allied security - indeed, everyone's security - to enable us to detect, identify, and attribute actions in space that are contrary to responsible and peaceful use. And third, given the growing dependence we all have on space-derived information, it is critical to our global economies. Cooperation to Prevent Collisions Having information enables us to achieve SSA. However, "awareness" alone is insufficient. We also need to know what to actually do with that vital information - how do we make it "actionable" information? The challenges of increasing congestion in space - over 60 nations with varying interests now operate in space; we are tracking over 22,000 objects, there are 1,100 active systems, and hundreds of thousands of smaller objects we can't see - and the growing complexities of operating there safely and responsibly, lead to the challenge of collision avoidance. One way that international cooperation enhances SSA is the information exchange between satellite owners and operators to prevent collisions. The United States provides notifications to other governments and commercial satellite operators of potentially hazardous conjunctions between orbiting objects. The State Department also plays a crucial role in this activity because international cooperation is necessary to ensure that we have robust situational awareness of the space environment - no one nation has the resources to be able to do this alone**. The State Department continues to be extremely supportive of U.S. Strategic Command's efforts to establish SSA sharing agreements with foreign satellite operators and to facilitate rapid notifications of potential space hazards**. The United States is constantly seeking to improve its ability to share information with other spacefaring nations as well as with our commercial sector partners. For example, at State we are currently reaching out to all spacefaring nations to ensure that the Joint Space Operations Center, or JSpOC, has current contact information for both government and private sector satellite operations centers. Those efforts include ongoing discussions with Russia on measures to enhance safety for robotic space missions as well as for human spaceflight. SSA Cooperation Across the United States Government, we are supporting numerous multilateral and bilateral engagements in SSA. For example, the United States is collaborating with our friends and allies in Europe as they consider developing their own SSA system. We are collaborating with the Department of Defense to engage in technical exchanges with experts from the European Space Agency, the European Union, and individual ESA and EU Member States to ensure our existing and planned SSA systems contribute to a more comprehensive situational awareness picture to ensure the safety, stability, and security of the space domain. In addition, the U.S. Department of Defense has signed bilateral SSA statements of principles with Canada, France, and Australia. Looking ahead, the United States also sees opportunities for cooperation on SSA with other nations around the globe. SSA benefits all responsible spacefaring nations. International "Code of Conduct for Outer Space Activities" Another challenge we all face is promoting responsible and peaceful behavior in space. Meeting this challenge depends not only on taking positive steps, both unilaterally and multilaterally, to enhance the sustainability of space activities, but also conducting those activities in an open and transparent manner. Upon their implementation, some TCBMs also have the potential of enhancing our knowledge of the space environment, thereby strengthening security and stability in space. For instance, the United States is **continuing to consult with the European Union on its initiative to develop a comprehensive set of multilateral TCBMs**, also known as the international "Code of Conduct for Outer Space Activities." We hope to make a decision in the near term as to whether the United States can sign on to this Code, including what, if any, modifications would be necessary. An example where a Code of Conduct could contribute to our shared SSA is its political commitment to provide notifications in a timely manner of malfunctions that might place space objects at risk, as well as any accidents or collisions that might have taken place. The United States is already following such practices - as we did when we promptly notified Russia through diplomatic channels when we detected the collision of a commercial Iridium satellite with an inoperable Russian military spacecraft in February 2009. This experience is contributing to our ongoing dialogue with Russia on developing additional concrete and pragmatic bilateral TCBMs that will enhance spaceflight safety. Non-legally binding measures such as the proposed Code could build on our existing practices as well as U.S. and allied SSA capabilities by mitigating the risk of mishaps, misperceptions, and mistrust.

### Uniqueness—No weaponization now

Jaramillo 10**,** Cesar Jararillo, April 9, 2010,( Program Associate with Project Ploughshares). “In defence of the PPWT treaty: toward a space weapons ban” [http://www.thefreelibrary.com/In+defence+of+the+PPWT+treaty:+toward+a+space+weapons+ban-a0215481625](http://www.thefreelibrary.com/In%2Bdefence%2Bof%2Bthe%2BPPWT%2Btreaty%3A%2Btoward%2Ba%2Bspace%2Bweapons%2Bban-a0215481625)

The draft Treaty on Prevention of the Placement of Weapons in Outer Space and of the Threat or Use of Force against Outer Space Objects (PPWT) (CD 2008), jointly introduced to the Conference on Disarmament (CD) by Russia and China in 2008**, constituted a welcome step toward the non-weaponization of space.** It was--and continues to be--the most promising proposal to fill the normative void in the current space security treaty regime. However, almost two years after its introduction, the international community has failed to embrace this unique opportunity to lay down the foundation for a robust, unambiguous, and universal space security treaty that unequivocally prohibits the weaponization of space. Background The existing legal regime that tackles the potential weaponization of outer space is outdated, inadequate, and insufficient. Moreover, the rapidity with which space-related technologies are being developed seems to be widening the gap between military applications that may affect space assets and the precarious normative architecture that should regulate them. The fact that space will inevitably become more complex and congested each year underscores the need for a comprehensive space security treaty that builds on what little international law exists in this realm and not only reflects current threats to space security, but also tackles the emerging legal questions that inevitably arise as space becomes a more convoluted domain. Ads by GoogleSchool Grants For Felons Find Hundeds of Online Colleges! AA, BA & Graduate Degree Programs. WashingtonPost.com Free Govt Cell Phone Free Phone & Minutes that Carry Over each Month, Others Don't! www.SafeLinkWireless.com The PPWT--while not perfect and subject to revisions--represents what is undoubtedly the most substantive effort thus far to embed the or-expressed desire to maintain a weapons free outer space in international treaty law. It is true that the 1967 Outer Space Treaty specifically bans signatory states from placing nuclear weapons and other weapons of mass destruction in orbit and calls for the peaceful exploration of outer space. However, it does not explicitly refer to the placement or use of other types of weapons in outer space or the use of earth-based weapons against space targets--activities which clearly need regulation, if not outright prohibition. It is often said that the perils inherent to the indiscriminate weaponization of space are perhaps only comparable to those posed by nuclear weapons, although much of this assessment rests on speculation, since outer space has not yet seen a scenario of direct military confrontation. Indeed, it is assumed that there have been no weapons placed in space to date as there have been neither claims nor denunciations of such behaviour by any state, and considerable efforts are being made in diverse governmental and nongovernmental circles to ensure that this delicate threshold is preserved. To be sure, a distinction must be made between militarization and weaponization: while the former has arguably already happened, given the widespread use of satellites for military applications such as reconnaissance and intelligence, it is the latter that is the primary focus of proponents of a space security treaty. Not surprisingly, a resolution on the Prevention of an Arms Race in Outer Space (PAROS) has been introduced at both the CD and the First Committee of the UN General Assembly and has garnered near-unanimous support year after year--with the notable exception of the United States and Israel. (1) In this context, the PPWT draft treaty introduced at the CD in February 2008 has been touted as a practical way to "nip the problem of PAROS in the bud" (UNIDIR 2008, p. 147). If there is a ban on space weapons, the rationale goes, there will be no arms race to prevent.

**US has adopted a cooperative approach and is consulting international partners prior to making new policy**

**Logsdon 11**—John M Logsdon, 2/2011 (Professor Emeritus of Political Science and International Affairs at GWU)

 “Change and Continuity in US Space Policy” Vol. 27, p. 22-23, Science Direct)

 The new National Space Policy directs US government agencies to look for increased opportunities for international cooperation in a wide variety of areas, ranging from space science to space surveillance and maritime domain awareness. This approach reflects the broader foreign policy strategy of the Obama administration. For example, Secretary of State Hillary Clinton said in a July 2010 speech: Our approach to foreign policy must reflect the world as it is, not as it used to be. It does not make sense to adapt a 19th-century concert of powers or a 20th-century balance-of-power strategy. We cannot go back to Cold War containment or to unilateralism.. We will lead by inducing greater cooperation among a greater number of actors and reducing competition, tilting the balance away from a multi-polar world and toward a multipartner world.4 This approach stands in rather stark contrast to the unilateralist path to leadership articulated in the 2006 Bush administration space policy. It also recognizes that in the space arena other nations and groups of nations have developed, and are continuing to develop, world-class space capabilities, and that unless they are engaged with the USA as they pursue their own objectives, other poles of space leadership will emerge. Included in areas for increased cooperation are several national security and dual use space activities, in particular space situational awareness. In pursuit of the policy’s objectives, representatives of the Department of State and Department of Defense have in recent months carried out a series of consultations in various venues around the world regarding ways of working together in such areas; this represents a significant departure from past US practice, and could represent a significant change in how the USA advances its own interests in the security space arena.

### Uniqueness—US lack of weaponization has deterred other countries from weaponization

Krepon, 03 – M.A. in International Studies from Johns Hopkins, Former Carnegie Endowment for International Peace and US Arms Control and Disarmament Agency Employee (Michael, 4/2/03, "Space Assurance or Space Dominance? THE CASE AGAINST WEAPONIZING SPACE", p. 3,) PDF

The distinction between the militarization and the weaponization of space has held for four perilous decades. It remains in the national security interest of the United States to reinforce this distinction in far different, but no less dangerous, times. This is because the United States utilizes space for military and commercial purposes far more than any other country and because weaker nations can readily master the techniques of space weaponry**. The United States has unparalleled leverage to shape the choices of other states with regard to space warfare**. If the United States leads the way in flight-testing and deploying space weaponry, other states will surely follow. Alternatively, U.S. restraint could reinforce prudence by others, given the ability of the United States to compete effectively in this realm.

## Space Weaponization Now

### US pursuing weaponization now- China ASATs threat force action

Wilkerson, Don L.  Space Power Theory:  Controlling the Medium Without Weapons in Space.  Carlisle Barracks, PA, Army War College, March 2008.  37 p. LIEUTENANT COLONEL DON L. WILKERSON United States Army

The recent Chinese launch of an anti-satellite (ASAT) kill vehicle to destroy one of its aging weather satellites in orbit, has again focused U.S. attention on space protection and the debate for more resources to the protect space-based assets since the U.S. has more satellites in orbit than any other nation. 17 Despite the publicity surrounding the Chinese ASAT weapon, the U.S. was probably the first nation to pursue and operate a working ASAT capability in 1963. Program 437, a Thor Missile System mounted with a Mark 49 nuclear warhead, was this country’s first operational ASAT system located on Johnston Island in the Pacific from June 1964 to April 1975. This program was later highlighted by the Johnson Administration in 1964, acknowledging that Program 437 was developed to intercept satellites carrying a weapon that threatened U.S. national security. 18 The Soviets also established a coorbital ASAT program which started in the 1960’s and reached operational status in 1971. The weapon system was last tested in space in 1982. Although Russia had announced a moratorium on the launching of ASAT weapons in 1983, it was believed that they still maintained operational readiness of coorbital ASAT weapons throughout the 1980s. 19 Incidents such as the Chinese ASAT launch might become the catalyst for the U.S. to change the “rules of the game” resulting in our withdrawal from the Space Treaty in order to pursue placing weapons in space. One recent example that illustrates this kind of policy change regarding arms control would be the Bush Administration’s withdrawal from the Anti-Ballistic Missile Treaty in 2001. 20

### Non-Unique- Space is already has weapons

Lambakis 02, Steven Lambakis 2002, (Steven, national security and international affairs analyst specializing in space power and policy studies, Managing Editor of Comparative Strategy, a leading international journal of global affairs and strategic studies, fellow at the National Institute for Public Policy.) “Putting Military Uses of Space in Context”, http://www.isn.ethz.ch/isn/Digital-Library/Publications/Detail/?ots591=0c54e3b3-1e9c-be1e-2c24-a6a8c7060233&lng=en&id=38949

Viewed in this light, the term “weaponization” may be used, in a general way, to characterize activities that countries have undertaken for nearly 60 years. In other words, **the so-called weaponization of space is happening under our very noses**. Space weaponization started in September 1944, when the first German V-2 missile came rocketing down from the edge of space and exploded on the residents and buildings of London. The quest for a long- distance strike advantage continued with the development of warheads to travel at even higher altitudes through space and across continents towards their targets. Add countermeasures to the ICBM reentry vehicle, balloon decoys and maneuvering capability, and we have an even more capable offensive weapon engineered to take advantage of the space environment to evade interceptors. The military transformation of space took on other forms. By improving intelligence and military operations, earth-circling platforms became attractive targets for military countermeasures. During the Cold War, Soviet Electronic Ocean Reconnaissance Satellites and Radar Ocean Reconnaissance Satellites tracked and could help target U.S. naval ships. The U.S. anti-satellite (ASAT) response, which never did materialize, was a natural reaction to this threat. Likewise, U.S. reconnaissance satellites, and commercial systems like Ikonos and SPOT, which provide militarily useful images to anyone who can pay, also will face threats from countries that now deploy and experiment with ASAT technologies. Some of these readily available technologies include radio-frequency jammers, blinding lasers, and missiles capable of exploding shrapnel in the vicinity of spacecraft. Different governments have developed and tested over the years anti-satellite technologies and considered deploying robust, dedicated ASAT systems. In the 1980s, the use of space to enhance weapons continued when the United States deployed Global Positioning System (GPS) satellites to aid military navigation and positioning. Early on, there was only a very accurate military signal for use by U.S. forces. The United States later added a less accurate civilian signal, and this became so popular and successful that Washington arranged for all parties to have the military signal. These signals guide and increase the accuracy of deadly weapons launched on Earth to their targets and are available today to all countries for military use. The United States does not have a monopoly in this area. The Russian GLONASS system performs a similar function, and the European Union may be giving the world a third alternative with the proposed Galileo system. As a final example of space weapon evolution, for the past two decades the United States has been developing and testing surfacelaunched hit-to-kill interceptors to knock down short-, medium-, and long-range ballistic missiles. These tests, these defensive combat engagements, take place well overhead, many of them, by necessity, in space. With today’s technologies, it is advantageous to have a layered defense that includes elements to strike a target in space, in the boost or midcourse of its flight. Washington already has conducted tests in space from the ground. To counter a long range ballistic missile that may be used against the U.S. homeland, the government has engineered and successfully tested a hit-to-kill sensor-propulsion package called the “exoatmospheric kill” vehicle, part of the Groundbased Midcourse Defense under what was called National Missile Defense under the Clinton Administration. Though never talked about as such in the United States or abroad, this is a “space weapon” that spends most of its time on the ground. This interceptor was designed to be launched into space, to be “based” there for a matter of minutes, and then to put itself onto a collision path with a hostile warhead. Now this does not comport with our traditional understanding of what it means to “base” something in space, but it may be argued that we are indeed engaged in a type of basing operation so as to set up a collision—an explosive clash of arms in space.

### Non-unique—Obama helping India with space weapons

Hoey and Johnson-Freese 10, Matthew Hoey and Joan Johnson-Freese, November 2010 (Advisor at The Global Network Against Weapons and Nuclear Power in Space, Director at The Military Space Transparency Project)(Works at the Wattson institute for International Studies) “India: Militarizing Space with U.S. Help”, Foreign Policy in Focus, <http://www.fpif.org/articles/india_militarizing_space_with_us_help>

U.S. President Barack Obama and Indian Prime Minister Manmohan Singh have a meeting scheduled in Delhi on November 8. Certain to be on the agenda is the removal of the last remaining export controls on U.S. **dual-use** technology and military hardware to India, including technology appropriate for development of space weapons. Since President Obama pledged in 2009 to seek a ban on space weapons, the United States should not be helping other countries develop these weapons, especially in dangerous regions that have nuclear weapons on hair-trigger alert. But with the final hurdles of export control removed, Washington could be doing just that for India, with so far little or no objection.

## Space Weapons Inevitable

### Space Weaponization is inevitable

Loyola 09 **Loyola**, Mario. "Budget defense: President Obama proposes to spend dangerously little on the military." *National Review* 4 May 20**09**: 27. *Student Edition*. Web. 12 July 2011.

Obama has promised never to allow the weaponization of space, reviving a relic of Democratic-party dogma that dates at least from the fight against Ronald Reagan's Strategic Defense Initiative. Whether His reasons are moral or religious is not known. certainly they are not strategic or practical. In the long run, The Democrats are doomed to lose this struggle, because the weaponization of space is inevitable, and indeed is already well under way. Intercontinental ballistic missiles use space for most of their flight path. The Chinese are developing a variety of laser-based and "direct ascent" weapons to knock enemy satellites out of orbit. The only question is whether the Democrats will allow us to start developing space-based missile interceptors in time to avert a historic disaster.

The United States will seek to militarily dominate space inevitably

[Johnson-Freese](http://www.google.com/search?hl=en&safe=off&tbo=1&tbm=bks&tbm=bks&q=inauthor:%22Joan+Johnson-Freese%22&sa=X&ei=_2w0Ttj3K7LgsQKm2aD9Cg&ved=0CCoQ9Ag), ‘7

[Dr. Joan Johnson-Freese has been a member of the faculty of the Naval War College since 2002. Previously, she was on the faculty at the Asia Pacific Center for Security Studies in Honolulu, HI; the Air War College in Montgomery, AL; and Director of the Center for Space Policy & Law at the University of Central Florida., *Space as a Strategic Asset,* http://books.google.com/books?id=zMANZmM98xYC&lpg=PP1&dq=space%20as%20a%20strategic%20asset&pg=PP1#v=onepage&q&f=false]

As the sole superpower, the United States seems destined to shape the global order, and this can be done in several ways. Military force is one way, and the United States has pursued this option without hesitation. Relying solely on the tactics of hard power, however, is certain to trigger challenges. Increased opportunities for asymmetric challenges are presented as the United States increasingly relies on technology. Supporting international arms control regimes to balance the hard power approach has been rejected under the primacist approach to politics; it is being neglected to the peril of U.S. security. The United States is traveling a road to space dominance in a car without a steering wheel. and with no consideration of the terrain beyond immediate sight. The most dangerous areas where this is occurring are in space control and force application, the subjects of the next chapter.

**Growing Use of Space will Inevitably Lead to Protect It**

**Koplow09** Koplow, David. "ASAT-isfaction: Customary International Law and the Regulation of Anti-Satellite Weapons." Professor of Law; Director, Center for Applied Legal Studies B.A., Harvard; Michigan Journal of International Law. Vol. 30 (2009)

As countries increasingly exploit and prosper from outer space for military and civilian purposes, it should come as no surprise that their rivals and potential enemies increasingly ponder mechanisms to deny and defeat those applications in time of conflict. Indeed, the more that countries invest in satellites, the more they become dependent upon them, and the greater the payoff for a hostile force that can disrupt their functions – and the greater the risk that an initial ASAT attack would trigger retaliation, cascading into general war. As the United States and others put more and more eggs into the basket of outer space, we all become nervously vulnerable to hostile efforts that would challenge the growing reliance.

**Space Resource Shortages will Drive Competition**

**Shaw09** Shaw, John E. "Guarding the High Ocean: Towards a New National-Security Space Strategy through an Analysis of US Maritime Strategy." space surveillance worker (1982) Air & Space Power Journal. XXIII, No. 1 (Spring 2009): 55-65.

We see a fourth trend in a developing set of resource shortages in key areas of the space medium, most notably (1) in operating/maneuver space within or near the geosynchronous belt and (2) in the availability of electromagnetic frequency, but destined to spread to other resources as well. As demand for space access increases, competition for these dwindling resources will likely intensify, presenting yet another "threat" that a comprehensive strategy must address. Thus, as now described by the confluence of these geopolitical trends, space (at least in terms of nearer Earth orbit) is no longer the boundless, desolate, and remote ocean of the twentieth century. Rather, it has become an increasingly crowded central sea, crisscrossed by shipping lanes filled with myriad traffic bound for far-off destinations—a medium that requires a fresh paradigm for making, planning, and executing security strategy.

**Space Weapons will Inevitably be Deployed for Defense**

**Oberg01** Oberg, James. Space Power Theory. an American space journalist and historian Maxwell AFB, AL: USAF Air University, 2001.

It is almost certain that sometime early in the 21st Century, the fielding of space-based weapons will occur under the auspices of defense, in much the same manner as the nuclear weapon buildup that occurred within the latter half of the 20th. And, like nuclear weapons, once fielded, there will be no reversing course. This too is an historical lesson of warfare. As the world now grapples with the proliferation of nuclear weapons that were once the province of superpowers, so too will it see the initial weaponization of space be followed by increasingly sophisticated armaments as proliferation occurs there as well. A sobering thought is the prospect that as launch costs go down per unit of mass, the opportunity for other actors to put weapons into orbit about the Earth will go up.

# \*\*\*Space Weapons Bad

## Link – Generic

**US track record in space makes any action seem threatening**

**Hitchens, 7** – Theresa Hitchens, May 23 2007, (Director of the Center for Defense Information) “

 House Oversight and Government Reform Committee on Weaponizing Space: Is Current U.S. Policy Protection our Security? <http://www.cdi.org/PDFs/HitchensTestimony.pdf>)

Further, other responses to counter perceived space threats are possible, such as increased efforts at computer intrusion, efforts to develop on-orbit anti-satellites or methods to attack launch facilities. Erosion of the norm against attacking satellites would mean that all satellites, commercial, civil and military, would become fair game. Thus, the United States now potentially faces a nightmare in space caused in no small part by its own behavior: a Wild West environment with every space-faring nation cocking a trigger, putting U.S. commercial, civil and military space assets more at risk than ever before. **Given the growing importance of space to every nation’s economic development and national security, it is simply not realistic to believe that the United States can impose its will upon other space actors or that the United States can establish unchallenged military dominance in space**. Instead, the perception that this is precisely what Washington has been trying to do has resulted in the isolation of the United States politically, engendering the widespread perception that the United States itself is the nation posing the biggest threat to global security in space. Indeed, **at this point, even every legitimate step the U.S. military takes to protect its own space assets is now being seen as threatening to other nations**. Further, U.S. allies are increasingly distancing themselves from Washington in the civil, commercial and military space arenas; Russia and China meanwhile are making in-roads in commercial and civil cooperation with Europe as well as developing nations. And other space-faring nations are seriously considering efforts to establish new rules for behavior in space without any input from the United States. In other words, the U.S. emphasis on the exercise of “**hard power” in space is threatening U.S. ability to use space as a “soft power” tool.**

##  Link – Dual Use

### The plan causes space competition and weaponization because of the inherent dual use capacity of space tech

Columbia Peoples 11, (The Securitization of Outer Space:Challenges for Arms Control<http://www.tandfonline.com/doi/pdf/10.1080/13523260.2011.556846>)

The context in which outer space is used by international actors is evolving rapidly and in potentially divergent directions. Most prominently, the increased use of space-based technologies to provide critical elements of national and international infrastructure (such as media, communications, and environmental monitoring) has been accompanied by growing dependence on space-based elements of military support such as reconnaissance, military surveillance, and targeting. At the same time, the variety of actors claiming an interest in access to, and use of, outer space is also proliferating rapidly to include states, regional organizations, and private enterprise.1 The combination of these developments raises the question of whether outer space is the site of a nascent security dilemma, wherein even ostensibly nonmilitary uses of outer space may generate dynamics of military competition due to the latent dual-use potential of many commercial space technologies.

Space technologies are dual use – lead to military deployment of space weapons

Brown, Trevor.  *Soft Power and Space Weaponization*.  **Air and Space Power Journal** 23:66-72  Spring 2009
Also available online at:  <http://www.airpower.au.af.mil/airchronicles/apj/apj09/spr09/brown.html> Brown is a new author interested in political, economic, and military strategy for the medium of space.

But the United States does not necessarily have to choose between civilian and military space programs since much of the technology developed for space is dual use. The space industry provides a tremendous opportunity for militaries that desire more affordable access and space assets that can significantly augment terrestrial forces. As Alfred Thayer Mahan pointed out, “Building up a great merchant shipping lays the broad base for the military shipping.”36 The US military can maximize its resources, not only financially but also politically, by packaging as much military space activity as possible into commercial space activity.

One example involves satellite communications. The arrangement the Pentagon has with Iridium Satellite LLC gives the military unlimited access to its network and allows users to place both secure and nonsecure calls or send and receive text messages almost anywhere in the world.37 Another example involves space imagery. Even though the government must maintain sophisticated imaging capabilities for special situations, it could easily meet the vast majority of its routine requirements at lower cost by obtaining commercially available imagery.38

The Air Force could also use space transportation, another emerging industry, to maximize its resources. Private ventures now under way are reducing the costs of space access considerably. It is possible that one enterprise could become an alternative to Russian Soyuz spacecraft for NASA’s missions to the International Space Station.39 Such enterprises could prove attractive, cost-effective options for delivering the Air Force’s less-sensitive payloads to Earth orbit. Space tourism, a growing industry, could enable the Air Force to procure affordable capabilities to routinely operate 60 to 90 miles above Earth.40 Advances that entrepreneurs are making in suborbital space flight could eventually evolve to a point where the Air Force would find it far easier, politically as well as financially, to acquire platforms capable of delivering munitions from space.

## Link – SMD

### Link- SMD is gateway to weaponization

Mitchell 2001 (Gordon R. Mitchell, Winter 2001, [Gordon R. Mitchell is Associate Professor of [Communication](http://www.comm.pitt.edu/) and Director of the [William Pitt Debating Union](http://www.comm.pitt.edu/debate/index.html) at the University of Pittsburgh, he has also authored many papers on the subject, “preventing nuclear, bio and chem weapons], Japan-U.S. Missile Defense Collaboration: Rhetorically Delicious, Deceptively Dangerous) DELLAMORE)

This full-throated call for a robust blend of offensive and defensive space weaponry reflects a strategic principle elucidated by Frank Barnaby: when it comes to arming the heavens, “anti-ballistic missiles and anti-satellite warfare technologies go hand-in-hand.”51 The interlocking nature of offense and defense in military space technology stems from the inherent “dual capability” of spaceborne weapon components. To the extent that ballistic missile interceptors based in space can knock out enemy missiles in mid-flight, such interceptors can also be used as orbiting “death stars,” capable of sending munitions hurtling through the earth’s atmosphere at dizzying velocities.52 As Marc Vidricaire, a member of the Canadian Delegation to the U.N. Conference on Disarmament, explains: “If you want to intercept something in space, you could use the same capability to target something on land.”53 Furthermore, spaceborne BMD components can be used for offensive attacks in outer space itself, where orbiting space assets belonging to adversaries could be targeted for destruction. According to defense analyst James E. Oberg, “…the benign, defensive nature of a ballistic missile killer is not the only facet of such a system—it also has inherent offensive capability against satellites.”54 **This dual capability of BMD** systems provides one rationale for why`space weapons advocates such as Senator Smith propose to make offensive attack weapons part of missile defense. In a world where deployment of purely offensive space weaponry might be difficult to justify as a stand-alone military initiative, Oberg speculates, “the means by which the placement of space-based weapons will likely occur is under a second U.S. space policy directive—that of ballistic missile defense.”55

## Link – SPS

### Link- SPS perceived as a space weapon

Bertell, 96 – Ph.D. (Rosalie Bertell, 1996, (Bertell is an internationally recognized expert in the field of radiation) "Background of the HAARP Project", http://www.theforbiddenknowledge.com/hardtruth/haarp\_mind\_weather\_control.htm,)

Early review of the Solar Powered Satellite Project began in around 1978, and I was on the review panel. Although this was proposed as an energy program, it had significant military implications. One of the most significant, first pointed out by Michael J. Ozeroff, was the possibility of developing a satellite-borne beam weapon for anti-ballistic missile (ABM) use. The satellites were to be in geosynchronous orbits, each providing an excellent vantage point from which an entire hemisphere can be surveyed continuously. It was speculated that a high-energy laser beam could function as a thermal weapon to disable or destroy enemy missiles. There was some discussion of electron weapon beams, through the use of a laser beam to preheat a path for the following electron beam. The SPS was also described as a psychological and anti- personnel weapon, which could be directed toward an enemy. If the main microwave beam was redirected away from its rectenna, toward enemy personnel, it could use an infrared radiation wave- length (invisible) as an anti-personnel weapon. It might also be possible to transmit high enough energy to ignite combustible materials. Laser beam power relays could be made from the SPS satellite to other satellites or platforms, for example aircraft, for military purposes. One application might be a laser powered turbofan engine which would receive the laser beam directly in its combustion chamber, producing the required high temperature gas for its cruising operation. This would allow unlimited on-station cruise time. As a psychological weapon, the SPS was capable of causing general panic The SPS would be able to transmit power to remote military operations anywhere needed on earth. The manned platform of the SPS would provide surveillance and early warning capability, and ELF linkage to submarines. It would also provide the capability of jamming enemy communications. The potential for jamming and creating communications is significant. The SPS was also capable of causing physical changes in the ionosphere

### SBSP is construed as a weapon

Rouge, Joseph D., comp. NSS.org. Rep. National Space Society, 10 Oct. 2007. Web. <http://www.nss.org/settlement/ssp/library/final-sbsp-interim-assessment-release-01.pdf>.Acting Director, National Security Space Office

For the DoD specifically, beamed energy from space in quantities greater than 5 MWe has the potential to be a disruptive game changer on the battlefield. SBSP and its enabling wireless power transmission technology could facilitate extremely flexible “energy on demand” for combat units and installations across an entire theater, while significantly reducing dependence on vulnerable over‐land fuel deliveries. SBSP could also enable entirely new force structures and capabilities such as ultra long‐endurance airborne or terrestrial surveillance or combat systems to include the individual soldier himself. More routinely, SBSP could provide the ability to deliver rapid and sustainable humanitarian energy to a disaster area or to a local population undergoing nation‐building activities. SBSP could also facilitate base “islanding” such that each installation has the ability to operate independent of vulnerable ground‐ based energy delivery infrastructures. In addition to helping American and allied defense establishments remain relevant over the entire 21 st Century through more secure supply lines, perhaps the greatest military benefit of SBSP is to lessen the chances of conflict due to energy scarcity by providing access to a strategically secure energy supply.

### SBSP would be construed as weaponization

Rouge, Joseph D., comp. NSS.org. Rep. National Space Society, 10 Oct. 2007. Web. <http://www.nss.org/settlement/ssp/library/final-sbsp-interim-assessment-release-01.pdf>.Acting Director, National Security Space Office

The SBSP Study Group found that when people are first introduced to this subject, the key expressed concerns are centered around safety, possible weaponization of the beam, and vulnerability of the satellite, all of which must be addressed with education.

### The launch Vehicle for SBSP would be militarization

Rouge, Joseph D., comp. *NSS.org*. Rep. National Space Society, 10 Oct. 2007. Web. <http://www.nss.org/settlement/ssp/library/final-sbsp-interim-assessment-release-01.pdf>.Acting Director, National Security Space Office

In addition to the currently insufficient and extremely expensive launch fleet, another issue is that most launches to Space today are on EELVs. Expendable vehicles will not support the business case for SBSP. Reusable Launch Vehicles will. RLVs with low operating costs and turnaround time are needed to make the Urgent Need scenario a reality. They would provide delivery for cargo, (such as satellites – space based solar power, communications, navigation, and/or earth observation etc); propellant to future depots and for crew and cargo to the ISS, future Bigelow and/or other space stations. RLVs also answer the need for space tourism vehicles and for the rapid deployment of military assets to distant locations. Development of RLVs has likely been hindered by the lack of a sufficiently large market (payloads) thus far. Together, RLV and SBSP development can make one another viable.

### SPS dual use tech increases potential for space mil

### **Pop 00**, Virgiliu Pop, October 2000, (Pop works for the Romanian Space Agency and is publicly active in promoting space efforts in Romania) “Security Implications of Non-Terrestrial Resource Exploitation” http://www.spacefuture.com/archive/security\_implications\_of\_non\_terrestrial\_resource\_exploitation.shtml

<The prospective of exploitation of solar energy in the Geostationary Orbit and of mineral resources on the Moon and asteroids raises the issue of legality of the exploitation technologies to be used from their military point of view. "The development of a mineral resource regime for the Moon" - considers Bilder - "is likely to have less immediate practical military (...) significance than has been the case with the general development of the Antarctic and Law of the Sea regimes"[1]. However, a certain number of technologies that can be used for the peaceful exploitation of non-terrestrial natural resources carry also the potential of being used for warfare. This is true both in the case of the Solar Power Satellites that would exploit solar energy in Earth orbit, and in that of peaceful nuclear explosions that may be used in exploiting minerals from the Moon, asteroids and other celestial bodies. These "dual-use technologies" raise security issues that need to be analysed in detail. In the same time, important problems arise from the possible use of non-terrestrial mineral resources for the manufacture of weapons. >

### SPS’s HPMs can inflict major damage

### **Pop 00**, Virgiliu Pop, October 2000, (Pop works for the Romanian Space Agency and is publicly active in promoting space efforts in Romania) “Security Implications of Non-Terrestrial Resource Exploitation” http://www.spacefuture.com/archive/security\_implications\_of\_non\_terrestrial\_resource\_exploitation.shtml

High power microwaves (HPM) are a new means of warfare. The use of microwaves as the means of transmission of energy between the SPS and the ground based collecting rectenna may qualify them as electromagnetic weapons. The most widely acknowledged effect of HPM is "disruption of electronic systems", able to "reset computers, cause complete loss of stored data and/or cause microprocessors to switch operating modes"[7]. **This would "produce substantial paralysis in any target system, thus providing a decisive advantage in the conduct of Electronic Combat, Offensive Counter Air and Strategic Air Attack"[**8]. In the same time**, a HPM attack directed at an aircraft "could corrupt the plane's control and navigation systems enough to cause a crash"**[9]. Although of a non-lethal nature[10], the effects of electromagnetic weapons are significant, ranging from "nuisance to catastrophic"[11]. This led experts to consider them as "Weapon[s] of Electrical Mass Destruction"[12]. Indeed, the reliance of today's society on electronic and computer systems makes it extremely fragile; a HPM attack would have far more catastrophic effects than the Millennium Bug[13].

### SPS’s “hidden” ABM capabilities are perceived as violation of ABM treaty

### **Pop 00**, Virgiliu Pop, October 2000, (Pop works for the Romanian Space Agency and is publicly active in promoting space efforts in Romania) “Security Implications of Non-Terrestrial Resource Exploitation” http://www.spacefuture.com/archive/security\_implications\_of\_non\_terrestrial\_resource\_exploitation.shtml

The SPS system, although not directly aimed at countering strategic ballistic missiles, might be accused of having an ABM "**hidden agenda**", given its real ABM capabilities. Indeed, "[i]t was speculated that a high-energy laser beam could function as a thermal weapon to disable or destroy enemy missiles"[22]. Foldes also considers that one of the most logical offensive uses of SPS can include the "microwave heating of other space objects"[23**]. OTA believes that "[a]lthough unlikely, use of the SPS for directed-energy weaponry, either directly, or as a source of energy to be transmitted to remote platforms, or for tracking, would be regulated by the ABM Treaty**. Use of the SPS for ABM purposes would hence be banned"[24]. **The unilateral deployment of a SPS system either by the USA or Russia would entail the risk of apparent violation of the ABM treaty**, and OTA considers that "[r]enewed negotiations may have to take SPS development into account, perhaps by specifying SPS designs that make it unusable as a weapons system"[25].

## Link – Space Mining

### Space Mining causes mil of space

Gagnon 06(Bruce Gagnon, December 17 2006 (Global Network Against Weapons And Nuclear Power in Space), “ NASA Plans Moon Base

To Control Path To Space”, <http://www.rense.com/general74/path.htm>)

Some scientists predict that one metric ton of helium-3 could be worth over $3 billion. Researchers at the Princeton University Plasma Physics Laboratory have estimated that some one million tons of helium-3 could be obtained from the top layer of the Moon**. If all this turns out to be true** and scientifically possible, imagine the gold rush to the Moon and the conflict that could follow in years to come. Who would police the Moon, especially when countries like the U.S. refuse to sign the Moon Treaty that restricts "ownership claims"? The U.S. Space Command's plan, Vision for 2020, says, "Historically, military forces have evolved to protect national interests and investments - both military and economic. During the rise of sea commerce, nations built navies to protect and enhance their commercial interests....Likewise, **space forces will emerge to protect military and commercial national interests and investment** in the space medium due to their increasing importance." I have always been convinced that, by creating offensive space weapons systems, one of the major jobs of the Space Command would be to control who can get on and off planet Earth, thus controlling the "shipping lanes" to the Moon and beyond. **There has long been a military connection to NASA's Moon missions.** In early 1994, NASA launched the Deep Space Program Science Experiment, the first of a series of Clementine technology demonstrations jointly sponsored with the Ballistic Missile Defense Organization (BMDO). The Pentagon announced that data acquired by the spacecraft indicated that there is ice in the bottom of a crater on the Moon, located on the Moon's south pole - the same venue NASA now envisions as the site for the 2024 permanent base. According to a Pentagon website, "The principal objective of the lunar observatory mission though was to space qualify lightweight sensors and component technologies for the next generation of Department of Defense spacecraft [Star Wars]. The mission used the Moon, a near-Earth asteroid, and the spacecraft's Interstage Adapter (ISA) as targets to demonstrate sensor performance. As a secondary mission, Clementine returns valuable data of interest to the international civilian scientific sector." In the end, the **NASA plan to establish permanent bases on the Moon will help the military "**control and dominate" access on and off our planet Earth and determine who will extract valuable resources from the Moon in the years ahead.

## Link – Asteriod Detection

Asteroid Defense perceived as proliferation

Klaes, 07 Larry Klaes, 3/21/2007 (From time to time you will see the name "Larry Klaes" pop up in various places on this web site.  Larry is a member of [The Planetary Society](http://www.planetary.org/) and is the Vice President of the [Boston Chapter](http://www.spaceviews.com/boston/) of the [National Space Society](http://www.nss.org/).  He is an ardent supporter of [The Search for Extraterrestrial Intelligence (SETI)](http://seti.planetary.org/) and is the Northeastern U.S. Regional Coordinator for [The SETI League](http://www.setileague.org/) as well as being the coordinator for [The Columbus Optical SETI Observatory](http://www.coseti.org/).  He is also the former editor of [SETIQuest](http://www.setiquest.com/) magazine as well as the co-founder and former editor of the [Electronic Journal of the Astronomical Society of the Atlantic (EJASA)](http://www.seds.org/pub/info/newsletters/ejasa/). He has written many articles for various publications; among them are: [Alien Spaceships, SETI, and Public Perceptions](http://www.setileague.org/editor/cult.htm); [The Soviets and Venus Part I](http://www.seds.org/pub/info/newsletters/ejasa/1993/jasa9302.txt) , [II](http://www.seds.org/pub/info/newsletters/ejasa/1993/jasa9303.txt) &[III](http://www.seds.org/pub/info/newsletters/ejasa/1993/jasa9304.txt); [Astronomy and the Family](http://www.seds.org/pub/info/newsletters/ejasa/1991/jasa9105.txt); [The Rocky Soviet Road to Mars](http://www.seds.org/pub/info/newsletters/ejasa/1989/jasa8910.txt); and [The One Dream Man: Robert H. Goddard, Rocket Pioneer](http://www.seds.org/pub/info/newsletters/ejasa/1989/jasa8908.txt).  He also has a web page covering the "Jan Brady" of the American space program, [Project Gemini](http://acunet.net/user/dbell/gemini/gemini.htm)).”SETI bioastro: Apollo 9 astronaut not happy with NASA Nuke an NEO option” <http://seti.sentry.net/archive/bioastro/2007/Mar/0159.html>)

Schweickart said NASA must have "misunderstood or mischaracterized" the gravity tractor concept. And he worried that the report may make things tougher for researchers working on kinder, gentler ways to head off killer asteroids. "It may be harder to continue with that research," he said. "The irony is That NASA ought to be doing that research. "But beyond that, there is also the issue that people are beginning to wrestle with this question on a much larger basis internationally," he said. "TheIdea that the only way you can protect Earth from these things is to compromise all your principles about nonproliferation would be shocking to anybody else. Almost anytime the United States is going to say anything about this, eyebrows are going to go up."

### The detection of asteroids change space mindset turning it into a warzone (RETAG)

Felicity Mellor 7, Felicity Mellor, 2007 (course leader for the MSc in Science Communication and I lecture on media theory and science journalism. I have a PhD in theoretical physics from Newcastle University and was a lecturer in astronomy at Sussex University before deciding to focus on critical analyses of science.) “Colliding Worlds : Asteroid Research and the Legitimization of War in Space” <http://sss.sagepub.com/content/37/4/499.full.pdf>

In contrast to traditional astronomical systems, which passively watched the skies, asteroid detection systems were to be surveillance systems that actively hunted the skies for objects of human import. The Spaceguard Survey was predicated on a will to action in a way in which the earlier Spacewatch Survey was not. Similarly, when it fired its impactor at Comet Tempel 1, NASA’s Deep Impact mission took a far more active intervention in space than did earlier generations of probes. This was not far from Edward Teller’s call for ‘experimentation’ with near-Earth objects to test defence technologies (Tedeschi & Teller, 1994; Teller, 1995), an idea dismissed at the time as extreme by some civilian scientists (Chapman, 1998). Likewise, one of the recommendations of the 2004 Planetary Defense Conference was that deflection techniques should be demonstrated on an actual asteroid (Ailor, 2004: 5).28 The technologization of space promoted in both the fictional works and the scientists’ technical proposals, also formed an integral part of the imagery and rhetoric that surrounded SDI, as its detractors highlighted when they re-named the project Star Wars. SDI was always premised on a vision of space as a technologized theatre of war. In the hands of a technoenthusiast such as Edward Teller, SDI was configured as a space-based technological extravaganza with few limits.29 In SDI, as in asteroid research and science fiction, space became a dynamic arena through which our technologies would move, in which our weapons would be placed, and across which our wars were to be waged.30

## Link – SETI

### SETI’s Technology was developed for military purposes- the mindset is military

Denning, Kathryn. "Being Technological." *Acta Astronautica* 68.3-4 (2011): 372-80. Assistant Professor, Dept. of Anthropology, York University

The case of Arecibo provides a useful exploration of contingency in radioastronomy's development and the entanglement of radioastronomy with military history.

Radioastronomy itself is arguably the progeny of ionospheric physics, which as a whole was constantly supported by commercial labs such as Bell Telephone Laboratories (Jansky's home base) and by the military, because of its applications to communications. Most postwar radioastronomers had backgrounds in ionosphere studies and wartime radar.59

The 1950s were, of course, a time of great tension between the Soviet bloc and the West and this drove the development of radar and radioastronomy facilities. High-power radar systems were used to monitor Soviet ICBM tests in the mid-1950s and 85-foot dishes were in use in the US Air Force's Ballistic Missile Early Warning radar system in 1958. Many sites detected Sputnik I's beeps in orbit in 1957, but the Mk1 (Lovell Telescope) at Jodrell Bank actually detected the third stage of the carrier rocket and Millstone in Massachusetts was the first to detect the satellite by active radar.60 These kinds of accomplishments assured funding for the technology's development and the systems could then also be used for studies of the ionosphere, moon and other planets.61

It was within this context that Arecibo was proposed by William E. Gordon and colleagues in 1958,62 primarily as a radar system for studying the Earth's ionosphere. Initially, Arecibo was funded by the US Advanced Research Projects Agency and administered by the US Air Force and managed by Cornell. It was not until 1971 that the National Science Foundation took over as the funder and the National Astronomy and Ionosphere Center was created to manage the facility.63 Of course, the NSF itself had been established in 1950 partly because WWII had emphasized that being a leader in the development of new technologies was essential to America's welfare: The NSF's official purpose was “to promote the progress of science; to advance the national health, prosperity and welfare; to secure the national defense; and for other purposes”.64

Arecibo was intended to study the ionosphere, particularly to gain information about the potential effects of atomic weapons in relation to long-distance communications.65 Arecibo was also designed to be capable of planetary radar and passive radioastronomy, but these were secondary to Gordon's main interest in communications and scatter propagation—the idea was to make it a multi-purpose facility, more attractive for funders.66 The dish's size was predicated on the assumption that the ionosphere studies would have to use incoherent backscatter; however, interestingly, it was discovered thereafter that the scatter is in fact coherent, which means that the dish could have been much smaller than its actual 300 m… even a then-standard 85-foot dish would have done.67

At about the same time, the US National Security Agency and Naval Research Laboratory attempted and then abandoned, a project to build a 600-foot dish at Sugar Grove, in West Virginia, for the purposes of eavesdropping, via moon reflections, on Soviet radar signals and radio communications.68 Had the huge, and hugely expensive, Sugar Grove project been proposed just a couple of years earlier and had it succeeded, Arecibo might well have never come to exist in its present form.

The point here is simply this: Arecibo proved to be an extraordinary instrument for pure research in radioastronomy, but it could easily have been otherwise. It was designed and built at least partly for military purposes, the exceptional receiving area and extremely powerful transmitter were actually overkill for its intended purpose, and other contemporary developments might easily have eliminated Arecibo.

But it worked out the way it did and these contingencies led to Arecibo being one of the preeminent telescopes for SETI observations, but also the transmitter for the first major Active SETI message of 1974, still the strongest ever sent.69

Did any of this have to be so? For example, did radar and radioastronomy have to be associated with the military machine, or cotemporal with the development of weapons of mass destruction? Perhaps on Earth, yes. But there is nothing inherent in the technology itself that made it so: that is, if there had not been extensive warfare during the twentieth century, radio technologies might have been developed for other remote sensing purposes. After all, radar has a plethora of uses in environmental observation and there are many good reasons to study the troposphere and ionosphere that have nothing to do with the activities of enemy nations.70

### SETI is militaristic- it assumes that using a technology designed for war is best for ETI

Denning, Kathryn. "Being Technological." *Acta Astronautica* 68.3-4 (2011): 372-80. Assistant Professor, Dept. of Anthropology, York University

It is commonplace in science that many technologies end up being used for purposes which were neither imagined nor imaginable when they were first designed and built. While this might be overstating the case for SETI, it is notable that radio SETI itself was initially an outgrowth of the instruments already available. For example, Arecibo was of course built for purposes other than SETI, although it has been extensively used by SETI, has been involved in much of the public awareness about SETI, through media and SETI@home and although SETI has been invoked as a reason to keep the facility open.[71](http://www.sciencedirect.com/science/article/pii/S0094576510000809%22%20%5Cl%20%22fn71) As another example, Green Bank's first telescope, the Howard Tatel 85-Foot Telescope/Tatel 1, was used in Project Ozma shortly after it was built, but it was built for other reasons.[72](http://www.sciencedirect.com/science/article/pii/S0094576510000809%22%20%5Cl%20%22fn72)

However, we might ask: within that historical context, could the Tatel 1 possibly have been designed, funded and built *for* SETI searching? It seems improbable. But it is also salient that many other telescopes just like it have never been used for SETI. The point here is that the telescope's existence made SETI possible, but it did not entail it. It was necessary to the birth of modern SETI, but not sufficient.

What else was needed? Of course, the Ozma receiver had to be built and the physics worked out by Frank Drake, like the contemporary speculations of Cocconi and Morrison, was also necessary.[73](http://www.sciencedirect.com/science/article/pii/S0094576510000809%22%20%5Cl%20%22fn73) But even that was not enough. The other key ingredient was the *idea* of alien beings dwelling among the stars, and that is a very old idea indeed, a cultural constant for millennia. In fact, it has even been suggested that the tendency to anthropomorphize our environment, including the skies, is a deeply ingrained quirk of the human psyche, rooted deep in our evolutionary history.[74](http://www.sciencedirect.com/science/article/pii/S0094576510000809%22%20%5Cl%20%22fn74) Without this tendency and this cultural history, would anyone ever have thought to use a radiotelescope to look for extraterrestrials?

## Impact – Arms Races

US weaponization causes space arms races – that puts the US at risk and is destabilizing

Wilkerson, Don L.  Space Power Theory:  Controlling the Medium Without Weapons in Space.  Carlisle Barracks, PA, Army War College, March 2008.  37 p. LIEUTENANT COLONEL DON L. WILKERSON United States Army

Conversely, the other side of the argument to not deploy weapons in space is probably more compelling. The proliferation of space-based weapons will allow potential adversaries to place U.S. space assets at risk without the long-term equivalent investment in technology and hardware, and potentially without placing similar space systems in orbit. If the U.S. withdraws from the Outer Space Treaty and begins pursuing weapons in space to justify the defense of vital national space systems, other countries will undoubtedly pursue these weapons as well. Once other space-faring nations deploy weapons in space, not only will on-orbit assets be in danger, but also terrestrial targets within the U.S., such as cities, conceivably may be held at risk from attack from space. The proliferation of space weapons could become tomorrow’s “nuclear arms control” issue that would be a costly venture for all involved. Countries would begin to12 channel resources to develop the technology and systems to place weapons in space in order to demonstrate their power, modernity and their desire to compete with the world’s most powerful countries. However, current U.S. ground-based space weapon systems and conventional warfighting systems already provide the necessary offensive capabilities and deterrence to support a space power theory without deploying weapons into space

### Space Weapons engulf world in arms race

Hitchens, 02 –Theresa Hitchens 4/18/02, (Vice President of the Center for Defense Information) , "Weapons in Space: Silver Bullet or Russian Roulette?", http://www.cdi.org/missile-defense/spaceweapons.cfm,)

Both Russia and China also are key proponents of negotiations at the UN Conference on Disarmament to expand the 1967 Outer Space Treaty to ban all types of weapons. The effort to start talks known as PAROS, for "prevention of an arms race in outer space," has been stalled due in large part to the objection of the United States. For example, in November 2000, the United States was one of three countries (the others were Israel and Micronesia) to refuse to vote for a UN resolution citing the need for steps to prevent the arming of space. It is inconceivable that either Russia or China would allow the United States to become the sole nation with space-based weapons. "Once a nation embarks down the road to gain a huge asymmetric advantage, the natural tendency of others is to close that gap. An arms race tends to develop an inertia of its own," writes Air Force Lt. Col. Bruce M. DeBlois, in a 1998 article in Airpower Journal.29 Chinese moves to put weapons in space would trigger regional rival India to consider the same, in turn, spurring Pakistan to strive for parity with India. Even U.S. allies in Europe might feel pressure to "keep up with the Joneses." It is quite easy to imagine the course of a new arms race in space that would be nearly as destabilizing as the atomic weapons race proved to be.

## Impact – Prolif

Space weapons would undermine intelligence gathering, which is key to prevent prolif

Graham, Thomas Jr.  *Space Weapons and The Risk of Accidental Nuclear War.*  Arms Control Today 35:12-16 December 2005. Thomas Graham, Jr. is a former special representative of the president for arms control, nonproliferation, and disarmament. In this and other senior capacities, he participated in every major arms control and nonproliferation negotiation in which the United States took part from 1970 to 1997.

These dangers would be particularly worrisome for those components that are placed in geosynchronous orbits (GEO). Space objects in GEO are sufficiently far from the Earth (about 36,000 kilometers) so that their speed roughly matches the rotational speed of the Earth and they remain "stationary" above one location. To be sure, any country that can place a satellite in these farther orbits-and there are several-could potentially threaten another country's satellites there. Yet, it would be easier to do so, and perhaps more importantly, the threat perception would be greater with weapons based in space than with existing ground-based technology. The 15 U.S. early warning satellites are almost entirely in GEO. The three functioning Russian early warning satellites utilize two different orbits. Two of the satellites use a highly elliptical orbit, which ranges from low-Earth orbit (LEO)-100 to 2,000 kilometers above the Earth where space objects travel at about 8 kilometers per second-out to GEO. The other satellite is permanently stationed in GEO.

Moreover, a space arms competition could hinder the flow of satellite imagery that can be used to track activities that might reveal programs to develop weapons of mass destruction in countries of concern. For example, activities detected through space-based collection systems can be used to trigger requests for inspections pursuant to the Chemical Weapons Convention (CWC) (implicitly) or the Comprehensive Nuclear Test Ban Treaty (explicitly), should that treaty be brought into force. It is important in this respect to recall that the suspicions that Israel and South Africa may have conducted an atmospheric nuclear test in 1979 were driven by readout from a U.S. VELA satellite.

Similarly, the United States has benefited from the revolution in national intelligence that began with and is based on photographic reconnaissance satellites and related systems, which has helped bring to an end the worst-case analysis and close calls with nuclear war that existed throughout the Cold War. If a truly peaceful and stable world order is ever achieved, the advent of this technology beginning in the late 1950s will be regarded by future generations as a major historical turning point.

## Impact – Preemptive Strike

### Space based weapons cause pre-emitive strike

Tannenwald 03 (Nina Tannenwald, 4/2003, [Nina Tannenwald joined the Watson Institute in 1997. Her articles have appeared in International Organization, International Security, International Studies Review, Yale Journal of International Law, Bulletin of the Atomic Scientists, Journal of Strategic Studies, and Ethics and International Affairs, among others] The Case for a Rule-Based Regime for Outer Space pg 35-36 <http://www.cissm.umd.edu/papers/files/tannenwald.pdf>)

However, space-based directed energy weapons, such as lasers, would move faster, and could strike targets on earth and in the atmosphere with enormous speed.212 Lasers would also pose a significant threat to the survivability of space systems. They might make possible a prompt “sky-sweeping” attack against military satellites without significant tactical warning. In such a case, redundancy of satellites would be of little value. This would pose a threat of great magnitude to a state dependent on satellites for essential military functions. More generally, strategic defense systems based in space will pose significant threats to other space-based systems, and to targets in the atmosphere and on earth as well. In terms of their geostrategic impact, space-based weapons do not simply enhance existing threats but introduce a new and greater danger because of the threat they pose to strategic stability. **The vulnerability of space-based weapons will likely create incentives for preemptive attack to protect them during a crisis, greatly increasing the likelihood of war**. Further, although supporters of space weapons claim that, consistent with the United States’ defensive orientation to the world, such weapons would be for defensive purposes, the reality is that, given their characteristics, many of them are inherently offensive weapons. It is widely recognized that space-based ballistic missile defense systems could carry out surprise attacks against terrestrial targets or satellites.

### SMD kills relations in space

Tannenwald 03 (Nina Tannenwald, 4/2003, [Nina Tannenwald joined the Watson Institute in 1997. Her articles have appeared in International Organization, International Security, International Studies Review, Yale Journal of International Law, Bulletin of the Atomic Scientists, Journal of Strategic Studies, and Ethics and International Affairs, among others] The Case for a Rule-Based Regime for Outer Space pg 35-36 <http://www.cissm.umd.edu/papers/files/tannenwald.pdf>)

Exacerbating the threat posed by space weapons is the Cold War-era deterrence logic that continues to dominate U.S. military planning. This logic emphasizes deterrence of threats through overwhelming force, carried out during the Cold War through the confrontational posturing of large, opposing forces on hair-trigger alert. The extension of this deterrence logic to space, as envisioned in current U.S. space plans, will turn space into a domain of overwhelming threat, against which most states have little protection.216 **The new “pre-emptive” logic** of the Bush administration’s first National Security Strategy, released in September 2002, **will make this situation even worse.**217 The launching into space of an armada of space “battle stations,” 1500 “Brilliant Pebbles” antimissile satellites, or “several thousand interceptors,” would certainly seem to violate the important norm prohibiting the “threat of force” in relations between states.218

## Impact – Accidents/CBW

### Space Weaponization causes accidental war—retaliation includes nuclear, biological, and chemical weapons

Mitchell, 01 – Associate Professor of Communication and Director of Debate at University of Pittsburgh (Gordon, July 2001, “Missile Defence: Trans-Atlantic Diplomacy at a Crossroads”, <http://www.isisuk.demon.co.uk/0811/isis/uk/bmd/no6_paper.html>,)

A buildup of space weapons might begin with noble intentions of 'peace through strength' deterrence, but this rationale glosses over the tendency that '… the presence of space weapons…will result in the increased likelihood of their use'.33 This drift toward usage is strengthened by a strategic fact elucidated by Frank Barnaby: when it comes to arming the heavens, 'anti-ballistic missiles and anti-satellite warfare technologies go hand-in-hand'.34 The interlocking nature of offense and defense in military space technology stems from the inherent 'dual capability' of spaceborne weapon components. As Marc Vidricaire, Delegation of Canada to the UN Conference on Disarmament, explains: 'If you want to intercept something in space, you could use the same capability to target something on land'. 35 To the extent that ballistic missile interceptors based in space can knock out enemy missiles in mid-flight, such interceptors can also be used as orbiting 'Death Stars', capable of sending munitions hurtling through the Earth's atmosphere. The dizzying speed of space warfare would introduce intense 'use or lose' pressure into strategic calculations, with the spectre of split-second attacks creating incentives to rig orbiting Death Stars with automated 'hair trigger' devices. In theory, this automation would enhance survivability of vulnerable space weapon platforms. However, by taking the decision to commit violence out of human hands and endowing computers with authority to make war, military planners could sow insidious seeds of accidental conflict. Yale sociologist Charles Perrow has analyzed 'complexly interactive, tightly coupled' industrial systems such as space weapons, which have many sophisticated components that all depend on each other's flawless performance. According to Perrow, this interlocking complexity makes it impossible to foresee all the different ways such systems could fail. As Perrow explains, '[t]he odd term "normal accident" is meant to signal that, given the system characteristics, multiple and unexpected interactions of failures are inevitable'.36 Deployment of space weapons with pre-delegated authority to fire death rays or unleash killer projectiles would likely make war itself inevitable, given the susceptibility of such systems to 'normal accidents'. It is chilling to contemplate the possible effects of a space war. According to retired Lt. Col. Robert M. Bowman, 'even a tiny projectile reentering from space strikes the earth with such high velocity that it can do enormous damage — even more than would be done by a nuclear weapon of the same size!'. 37 In the same Star Wars technology touted as a quintessential tool of peace, defence analyst David Langford sees one of the most destabilizing offensive weapons ever conceived: 'One imagines dead cities of microwave-grilled people'.38 Given this unique potential for destruction, it is not hard to imagine that any nation subjected to space weapon attack would retaliate with maximum force, including use of nuclear, biological, and/or chemical weapons. An accidental war sparked by a computer glitch in space could plunge the world into the most destructive military conflict ever seen.

### Weaponization hurts alliances and ensures crisis stability that escalates to nuclear usage

Deblois, 02 – Bruce Deblois 11/15/02 ( Senior Adjunct Fellow, Science and Technology at the Council on Foreign Relations), “Weapons in Space”, Lexis Nexis, )

A decision to posture weapons in space might also diminish the ability of the spaceweaponizing nation to assemble international coalitions. In the case of the United States, such international political clout has been crucially important in the military, political, and judicial, and economic conduct of the War on Terrorism. The simple, unilateral posturing of space weapons creates global instability in the form of encouraging adversaries to respond symmetrically and asymmetrically, heightening tensions, while at the same time, crippling alliances that would oppose those same adversaries. In this less-stable global environment, there is also the prospect of space weapons causing less stable regional environments. That leads into my second point: space weapons will also cause regional instabilities. Integrating space weapons into military operations will undoubtedly have serious consequences for the progression of conflict situations. In most war games that include space assets, commanders have repeatedly discovered that pre-emptively destroying or denying an opponent’s space-based assets, using space weapons to do so, is both appealing and often, inevitably, leads to rapid escalation in a full-scale war, even triggering nuclear responses.

### Weaponization causes a shift to bio-terrorism

Hitchens, 02 –Theresa Hitchens 4/18/02, (Vice President of the Center for Defense Information) , "Weapons in Space: Silver Bullet or Russian Roulette?", http://www.cdi.org/missile-defense/spaceweapons.cfm,)

Such a strategic-level space race could have negative consequences for U.S. security in the long run that would outweigh the obvious (and tremendous) short-term advantage of being the first with space-based weapons. There would be direct economic costs to sustaining orbital weapon systems and keeping ahead of opponents intent on matching U.S. space-weapon capabilities — raising the proverbial question of whether we would be starting a game we might not be able to win. (It should be remembered that the attacker will always have an advantage in space warfare, in that space assets are inherently static, moving in predictable orbits. Space weapons, just like satellites, have inherent vulnerabilities.) Again, the price tag of space weapons systems would not be trivial — with maintenance costs a key issue. For example, it now costs commercial firms between $300 million and $350 million to replace a single satellite that has a lifespan of about 15 years, according to Ed Cornet, vice president of Booz Allen and Hamilton consulting firm.30 Many experts also argue there would be costs, both economic and strategic, stemming from the need to counter other asymmetric challenges from those who could not afford to be participants in the race itself. Threatened nations or non-state actors might well **look to terrorism using chemical or biological agents as one alternative**.

### Space weapons would trigger a ‘hair-trigger’ response

Krepon, 03 – M.A. in International Studies from Johns Hopkins, Former Carnegie Endowment for International Peace and US Arms Control and Disarmament Agency Employee (Michael, 4/2/03, "Space Assurance or Space Dominance? THE CASE AGAINST WEAPONIZING SPACE", p. 134,) PDF

During the Cold War, the United States and the Soviet Union maintained nuclear forces on hair trigger alert, ready to be fired within minutes of an order to launch. One of the likely consequences of seeking a space dominance posture would be to elevate this hair trigger posture into space. Space weapons would beget space mines; ASATs would beget more ASATs. The side that shoots first in space would cross a critical threshold in the history of combat, but it would not alter the dynamics of asymmetric warfare. If the United States carries out preemptive strikes in space, it would still expect retaliation in unconventional ways. And if the weaker party carries out a surprise attack in space, it would still expect a devastating response. Nonetheless, both potential adversaries would perceive more value in shooting first than in asking questions later.

### **And they can’t get defense—weapons will be “stuck” in the hair trigger posture**

Krepon, 03 – M.A. in International Studies from Johns Hopkins, Former Carnegie Endowment for International Peace and US Arms Control and Disarmament Agency Employee (Michael, 4/2/03, "Space Assurance or Space Dominance? THE CASE AGAINST WEAPONIZING SPACE", p. 85,) PDF

In space, as with terrestrial missile defenses, it is far more challenging to mount a successful defense than to penetrate a soft target. Because of their threatening nature and their vulnerability, weapons designed for space warfare, whether on the ground or in orbit, would become extremely high-value targets. To prevent a precarious and dangerous mix of satellites interspersed with ASATs, the United States would seek to prevent space mines and other attacking devices either from being launched or from being parked in orbit. Alternatively, if the United States does not prevent the deployment of foreign ASATs in space, it must be prepared to wage war by shooting first and asking questions later. Military operations in space would thus be placed on continual hair-trigger alert because successful dominance in space would not be possible without the capacity for preemptive strikes or preventive measures. Having first crossed key thresholds relating to the flight-testing and deployment of space weaponry, would the United States arrogate to itself the right during peace time to carry out preemptive strikes to prevent others from following suit? And having rejected arms control arrangements prohibiting the flight-testing and deployment of space weaponry, would the United States seek to impose or dictate these constraints solely on others, and by force of arms?

## Impact – Russia China Alliance / Relations

### Weaponization causes China-Russia alliance

Tannewald, 04 – Fellow at the Watson Institute for International Studies (Nina, Summer 2004, “Law Versus Power on the High

Frontier: The Case for a Rule-Based Regime for Outer Space”, 29 Yale J. Int'l L. 363, Lexis Nexis

For several reasons, the first two scenarios are unlikely to lead to stable outcomes. As discussed earlier, U.S. efforts at space dominance will likely inspire other countries to pursue **countermeasures to offset U.S. capabilities**, thus risking a never-ending search for security in space that will leave all actors worse off. Some advocates of space weaponization argue that others will be deterred from responding to U.S. deployment of space weapons for fear of a U.S. counterattack, or out of a conviction that there is no point compering because the United States will always be ahead. n8l But proponents of this view have so far offered little explanation of how or why this would be the case. Instead, given the vast U.S. dependence on satellites, other counties merely have to pursue an "asymmetric warfare" strategy of building antisatellite weapons, and there are multiple and relatively easy ways to do this. n82 Because of this, dominance will be very hard to achieve, and will also have adverse consequences for the United States -including alienating allies, [\*380] **pushing Russia and China closer together**, and placing at risk other U.S. interests in space. n83

### Weaponization kills Chinese relations

O’Hanlon, 04 – Michael E. O’Hanlon 2004 (Senior Fellow in Foreign Policy Studies at the Brookings Institution “Neither Star Wars nor Sanctuary: Constraining the Military Uses of Outer Space”, Lexis Nexis,)

To proceed on the basis of worst-case assumptions and hasten development of ASAT capabilities would be to ignore the serious political and strategic consequences of any U.S. rush to weaponize the heavens. American satellites, so dominant today, could be put at risk by the countervailing actions of other countries more quickly than they would be otherwise. Even more important, relations with Russia and China, which have improved in recent years but remain fragile, could suffer. Even if the United States someday does put weapons in space or develop weapons against objects in space, timing matters in international politics. Witness how the events of September 11, 2001, and the focused personal diplomacy between Presidents George W. Bush and Vladimir Putin preserved good relations between the United States and Russia even after the United States' withdrawal from the ABM Treaty in June 2002, an event that could have seriously damaged bilateral relations if it had occurred only a little earlier. Today, weaponizing space could reinforce the image of a unilateralist United States too quick to reach for the gun and disinclined to heed the counsel of others. Given that almost all countries routinely support an annual UN resolution calling for a treaty outlawing the weaponization of space, and that most currently find the United States too ready to flex its military muscle, any near-term decision to weaponize space would be very bad timing.

## Missile Defense Fails

### Missile defense fails – the tech is too easily foiled by countermeasures, and there’s no credible threat

[Johnson-Freese](http://www.google.com/search?hl=en&safe=off&tbo=1&tbm=bks&tbm=bks&q=inauthor:%22Joan+Johnson-Freese%22&sa=X&ei=_2w0Ttj3K7LgsQKm2aD9Cg&ved=0CCoQ9Ag), ‘7

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 The traditional arguments against missile defense for defensive purposes have been first that the system will not work. Persistent problems with the current system verify the technical issues. With enough money spent, a bullet can likely be made to hit a bullet, but even then, a second traditional argument must be considered as well. Which country-and countries are still the only global actors with ICBM launch capabilities-is going to send a missile with a big return address on it to the United States? If China is the threat, then the countermeasures it could develop and employ are cheaper and technically simpler than the missile defense system it is trying to defeat, negating the deterrent value. A potential countermeasure against boost-phase intercept would be to shorten the boost phase (a so-called fast burn), thereby decreasing the chances of a successful intercept. Countermeasures for mid-course intercept include using decoys and "bomblets” -submunitions packed in cluster bombs-to overwhelm the system. Is the United States building a missile defense system to protect itself from North Korea? Rather than waiting to be reactive, with a questionable system, many analysts suggest a more proactive approach. Pentagon favorite Thomas P. M. Barnett puts North Korea at the top of the U.S. "to do” list. His approach does not require missile defense, but it does require cooperation from China. Beyond countries, terrorists seeking to send a WMD into the United States seem much most likely to take a cheaper, easier route, such as using cruise missiles (invulnerable to missile defense) or bringing the weapon into the United States through its inherently porous borders, due to geography and the open nature of U.S. society. Taken together, the two arguments suggest that missile defense may be an unworkable solution to a nonexistent problem. Additionally, if the higher threat lies with other probable courses of attack, prudent risk management dictates utilizing resources elsewhere. There have also long been concerns that missile defense is ultimately motivated to benefit the military-industrial complex. By this cynical logic, as long as missile defense does not work, and as long as there is an ideological commitment to making it work regardless of cost, money continues to flow to the program in substantial amounts. Robert Jervis pointed out in 1978 that "if arms are positively valued because of pressures from a military-industrial complex, it will be especially hard for status quo powers to cooperate:'64 Defense contractors are making billions developing a technology that so far has shown limited technical success at best. The traditional arguments against missile defense have not been negated by either technological advancements or a change in the global environment. If anything, the events of September 11 may have made the missile defense imperative even less defendable than in the past-but not for those who support the notion of missile defense being used for more than its originally stated, purely defensive purposes. Force projection may be the rationale behind the extraordinary commitment to missile defense. It has also been suggested that missile defense, in conjunction with a strategy of nuclear primacy, may explain Washington's missile defense strategy: "The sort of missile defenses that the United States might plausibly deploy would be valuable primarily in an offensive context, not a defensive one-as an adjunct to a U.S. first-strike capability, not as a standalone shield. In either case, if defense is no longer the rationale for missile defense, a full explanation of the changed rationale, and another public-opinion poll, might be interesting.

## A2 Space Weapons Key to Heg

### Space weapons kill military postures which kills heg

Deblois, 02 – Bruce Deblois 11/15/2002, (Senior Adjunct Fellow, Science and Technology at the Council on Foreign Relations) “Weapons in Space”, Lexis Nexis, )

Point three: space weapons weaken military posture. Much of the impetus behind space weaponization stems from perceived military utility – to include national missile defense applications like boost-phase intercept, time-critical targeting, and defense mechanisms for critical space systems. Ironically, the posturing of more military assets in space may in many ways weaken the military posture of those that seek further military domain –advantage in that domain. Space assets are already a center of gravity for military force enhancement. To deploy more systems in space in an attempt to protect that center of gravity only complicates the problem. In spite of added defenses, the preponderance of threats will still remain. Denial and deception, electronic warfare against the uplinks and downlinks, ground facility disruption, micro satellites, direct descent interceptors, or even nuclear detonations in space. In addition to limited utility to defeat these threats, the new space-based weapons systems would also be vulnerable to those same threats. There are more logical alternatives, many of which de-emphasize reliance on centralized space assets. In short, of the nations that could weaponize space, doing so would only extend an existent and vulnerable center of gravity, and they do so in the midst of many better and less costly alternatives. In fact, the price of space weaponization would have to come in the form of severe opportunity costs to other required military capabilities. It is a zero-sum game. Perhaps even more significant than extending the space center of gravity, making it more vulnerable, is the risk of exposing it. A move toward space weapons is likely to prompt competitors to build ASAT systems – systems that will also threaten robust communications and intelligence-gathering systems that, to date, have been protected by the open skies environment. Additionally, nations currently able to posture space weapons are those very nations that currently hold military advantages in many other realms. And this begs the question: why would powers that currently hold military advantage in air, land, and sea realms open a new realm in space that could level that playing field?

### Weaponization leads to destruction of heg

**Krepon, 03** – M.A. in International Studies from Johns Hopkins, Former Carnegie Endowment for International Peace and US Arms Control and Disarmament Agency Employee (Michael, 4/2/03, "Space Assurance or Space Dominance? THE CASE AGAINST WEAPONIZING SPACE", p. 97,) PDF

Given the extraordinary and growing differential in power that the United States enjoys in ground warfare, sea power, and air power, it is hard to propound compelling arguments for seeking to supplement these advantages by weaponizing space. The current U.S. lead in the military utilization of space has never been greater and is unchallenged. If the United States pushes to extend its pronounced military dominance into space, others will view this through the prism of the Bush administration's national security strategy, which places emphasis on preventive war and preemption. Foreign leaders will not passively accept U.S. initiatives to implement a doctrine of space dominance. They will have ample, inexpensive means to take blocking action, as it is considerably easier to negate U.S. dominance in space than on the ground, at sea, and in the air. The introduction of space weaponry and ASAT testing are therefore likely introduce grave complications for the terrestrial military advantages that the United States has worked so hard, and at such expense, to secure.

Space weapons provoke arms araces and competition – they don’t preserve US dominance

[Johnson-Freese](http://www.google.com/search?hl=en&safe=off&tbo=1&tbm=bks&tbm=bks&q=inauthor:%22Joan+Johnson-Freese%22&sa=X&ei=_2w0Ttj3K7LgsQKm2aD9Cg&ved=0CCoQ9Ag), ‘7

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The current U.S. approach to space assumes that any other country's efforts to use space for military modernization, or in some cases for economic development if dual-use technology is involved, is a threat to the United States. That assumption and relying first and foremost on a technological response, is untenable in a globalized world. Other countries are seeking space technology for military and civilian purposes, and U.S. efforts to deny them will likely only result in increased determination on their parts. As the sole superpower, the United States seems destined to shape the global order, and this can be done in several ways. Military force is one way, and the United States has pursued this option without hesitation. Relying solely on the tactics of hard power, however, is certain to trigger challenges. Increased opportunities for asymmetric challenges are presented as the United States increasingly relies on technology. Supporting international arms control regimes to balance the hard power approach has been rejected under the primacist approach to politics; it is being neglected to the peril of U.S. security. The United States is traveling a road to space dominance in a car without a steering wheel, and with no consideration of the terrain beyond immediate sight.

### Turn- Weaponization creates global instability and undercuts US heg

Hitchens, 02 –Theresa Hitchens 4/18/02, (Vice President of the Center for Defense Information) , "Weapons in Space: Silver Bullet or Russian Roulette?", http://www.cdi.org/missile-defense/spaceweapons.cfm,)

Karl Mueller, now at RAND, in an analysis for the School of Advanced Airpower Studies at Maxwell Air Force Base, wrote, "The United States would not be able to maintain unchallenged hegemony in the weaponization of space, and while a space-weapons race would threaten international stability, it would be even more dangerous to U.S. security and relative power projection capability, due to other states' significant ability and probably inclination to balance symmetrically and asymmetrically against ascendant U.S. power." Spurring other nations to acquire space-based weapons of their own, especially weapons aimed at terrestrial targets, would certainly undercut the ability of U.S. forces to operate freely on the ground on a worldwide basis — negating what today is a unique advantage of being a military superpower. U.S. commercial satellites would also become targets, as well as military assets (especially considering the fact that the U.S. military is heavily reliant on commercial providers, particularly in communications). Depending on how widespread such weapons became, it also could even put U.S. cities at a greater risk than they face today from ballistic missiles. The potential for strategic consequences of a space race has led many experts, including within the military, to tout a space arms control regime as an alternative. A ban on space weapons and ASATs could help preserve — at least for some time — the status quo of U.S. advantage (especially if coupled with U.S. moves to shore up passive satellite defenses). In a recent article in Georgetown Journal of International Affairs, Jeffrey Lewis, a graduate research fellow at the Center for International Security Studies at the University of Maryland, makes a good case for an arms control approach, arguing: "If defensive deployments in space cannot keep pace with offensive developments on the ground, then some measure of restraining offensive capabilities needs to be found to even the playing field."

### Space weapons kill satellites indirectly and effect US’s competiveness in the spectrum and key to military intel

Hitchens, 02 –Theresa Hitchens 4/18/02, (Vice President of the Center for Defense Information) , "Weapons in Space: Silver Bullet or Russian Roulette?", http://www.cdi.org/missile-defense/spaceweapons.cfm,)

The competitive and cost challenges the U.S. satellite industry faces could be increased if the United States moved to make space a battlefield. Up to now, the threat that commercial satellites could become direct wartime casualties has been negligible. **But an aggressive U.S. pursuit of ASATs would likely encourage others to do the same, thus potentially heightening the threat to U.S. satellites**. Space industry executives, whose companies often are working at the margins of profitability, are concerned about U.S. commercial satellites and their operations becoming targets, especially because current commercial satellites have little protection (electronic hardening, for example, has been considered too expensive). There would be costs to commercial providers for increasing protection, and it is highly unclear whether the U.S. government would cover all those costs. **Another area where Defense Department policy could threaten U.S. industry competitiveness is in access to the radio spectrum**. DoD has been resisting calls from the telecommunications industry to free from government-only access a portion of the spectrum that companies believe is essential to providing high-speed Internet access over cellular phones. That portion of the spectrum (1755-1850 megahertz) is now denied to U.S. commercial users because it is the spectrum band of choice for military (and other government) communications, as well as precision targeting. However, that band is being used by many other firms abroad for commercial wireless communications, raising the possibility that a continued U.S. policy of denial, although perhaps making short-term military sense, will inhibit the ability of U.S. firms to compete abroad. Stephen Price, head of the Pentagon's new office for spectrum management, recently said that the greater information demands of the war on terrorism and increased homeland security efforts are making DoD even more leery of freeing the disputed spectrum bands.

Space weapons undermine US security

Graham, Thomas Jr.  *Space Weapons and The Risk of Accidental Nuclear War.*  Arms Control Today 35:12-16 December 2005. Thomas Graham, Jr. is a former special representative of the president for arms control, nonproliferation, and disarmament. In this and other senior capacities, he participated in every major arms control and nonproliferation negotiation in which the United States took part from 1970 to 1997.

Obviously, nothing should be done in any way further to diminish the reliability of the space-based components of U.S. and Russian ballistic missile early warning systems. A decline in confidence in such early warning systems caused by the deployment of weapons in space would enhance the risk of an accidental nuclear weapons attack. Yet, as part of its plans for missile defense, the Pentagon is calling for the development of a test bed for space-based interceptors as well as examining a number of other exotic space weapons. In an interview published in Arms Control Today, Lt. Gen. Henry Obering, director of the Missile Defense Agency, touted what he said was "a very modest and moderate test-bed approach to launch some experiments." Obering said the Pentagon would only deploy a handful of interceptors: "We are talking about onesies, twosies in terms of experimentation."2

Despite Obering's claims, however, establishing a test bed for missile defense in space, as opposed to current preliminary research, would be a long step toward space weaponization. Once space-based missile defenses are tested, they are likely to be deployed, and in significant numbers, no matter if the tests are successful. To see the path that a space test bed is likely to follow, one need only look at the present ground-based program: the Pentagon claims there is little true difference between a test bed and an operational deployment. Moreover, in space the deployment could be more dramatic. Although the current ground-based configuration envisions a few dozen interceptors, continuous space coverage over a few countries of concern would likely require a very large number of interceptors because a particular interceptor will be above a particular target for only a few minutes a day. Today's missile defenses provide very little real protection as the United States currently faces no realistic threat of deliberate attack by nuclear-armed long-range missiles. But space weapons could actually be detrimental to U.S. national security. They would increase the perceived vulnerability of early warning systems to attack and cause Russia and perhaps other countries such as China to pursue potentially destabilizing countermeasures, such as advanced anti-satellite weapons.

## Space Weapons Kill Soft Power

Space weapons trade off with commercial space and exploration, which undermines soft power

Brown, Trevor.  *Soft Power and Space Weaponization*.  **Air and Space Power Journal** 23:66-72  Spring 2009
Also available online at:  <http://www.airpower.au.af.mil/airchronicles/apj/apj09/spr09/brown.html> Brown is a new author interested in political, economic, and military strategy for the medium of space.

The United States would do well to keep a low profile for its military space program and burnish its technological image by showcasing its commercial and scientific space programs. Doing so would enable it to accumulate rather than hemorrhage soft power. Such a rationale is not lost on the Chinese, who certainly have had their successes in recent years in building soft power and using it to extend their influence around the globe. According to National Aeronautics and Space Administration (NASA) administrator Michael Griffin, the Chinese have a carefully thought-out human-spaceflight program that will take them up to parity with the United States and Russia. They’re investing to make China a strategic world power second to none in order to reap the deals and advantages that flow to world leaders.30

Analysts believe that the United States’ determination to maintain dominance in military space has caused it to lose ground in commercial space and space exploration. They maintain that the United States is giving up its civilian space leadership—an action that will have huge strategic implications.31 Although the US public may be indifferent to space commerce or scientific activities, technological feats in space remain something of a marvel to the broader world. In 1969 the world was captivated by man’s first walk on the moon. The Apollo program paid huge dividends in soft power at a time when the United States found itself dueling with the Soviets to attract other nations into its ideological camp. Unless the United States has a strong presence on the moon at the time of China’s manned lunar landing, scheduled for 2017, much of the world will have the impression that China has approached the United States in terms of technological sophistication and comprehensive national power.32 If recent trends hold, this is likely to come at a time when the new and emerging ideological confrontation between Beijing and Washington will have intensified considerably.33

The most recent space race reflects the changing dynamics of global power. “Technonationalism” remains the impetus for many nations’ space programs, particularly in Asia: “In contrast to the Cold War space race between the United States and the former Soviet Union, the global competition today is being driven by national pride, newly earned wealth, a growing cadre of highly educated men and women, and the confidence that achievements in space will bring substantial soft power as well as military benefits. The planet-wide eagerness to join the space-faring club is palpable.”34 India and Japan are also aggressively developing their own space programs.35

Militarization of space is inefficient

## Space Weapons 🡪 Asymmetric Competition

### Space Counter space doctrine forces China and Russia to compete asymmetrically

Krepon 2004, Michael Krepon, November 2004, Co-founder/senior associate at the Stimson Center, He worked at Carnegie Endowment for International Peace, worked in the Carter Administration and in the House of Representatives under Congressman Norm Dicks, Expert at Stimson on Space Security, <http://www.stimson.org/images/uploads/research-pdfs/Avoiding_the_Weaopnization_of_Space.pdf>, Avoiding the Weaponization of Space DELLAMORE)

Even if space weapons are not used, their flight-testing or presence overhead, capable of impairing a country’s ability to see, hear, navigate, detect impending danger, and fight, would have profound implications for international relations. The medium of space is not country-specific. The placement of space weapons in low-Earth orbit will be of concern to any country over which the space weapon passes or could pass with orbital adjustments. Washington policy-makers do not talk often or publicly about space warfare, and China and Russia continue to seek improved ties to the United States. There is, however, considerable awareness in Moscow and Beijing about the Pentagon’s plans and deep skepticism that the Pentagon’s interest in space warfare is directed solely at states such as North Korea and Iran. Instead, the Air Force’s new counterspace doctrine is widely viewed in the broader context of the Bush Administration’s endorsement of pre-emptive strikes and preventive wars, open-ended national missile defense deployments, and the integration of improved broad-area surveillance and conventional deep-strike capabilities alongside US nuclear forces, which remain on high states of alert. If US counterspace programs proceed, Russia and China can be expected to forge closer ties, pursuing joint diplomatic initiatives to prevent the weaponization of space, alongside military research and development programs to counter US military options. Instead of engaging in a Cold War-like nuclear arms race with Washington, Moscow and Beijing will compete asymmetrically, using less elaborate and expensive techniques, such as by trailing expensive US space weapons and satellites with cheap space mines.9

## A2 Space Weapons Key to Deterrence

### Deterrence theory fails in space--space “defenses” leads to arms race

Tannenwald 03 (Nina Tannenwald, 4/2003, [Nina Tannenwald joined the Watson Institute in 1997. Her articles have appeared in International Organization, International Security, International Studies Review, Yale Journal of International Law, Bulletin of the Atomic Scientists, Journal of Strategic Studies, and Ethics and International Affairs, among others] The Case for a Rule-Based Regime for Outer Space pg 35-36 <http://www.cissm.umd.edu/papers/files/tannenwald.pdf>)

An effective operational regime for space will also need to reflect principles of reassurance rather than threat and deterrence. It will need to address the issue of the uneven distribution of security and protection among states, especially with respect to space assets. The United States possesses hugely asymmetrical capabilities to wage war and defend itself and its allies. But these tremendous capabilities, against which other states possess little defense, increase the vulnerability of others and create incentives for asymmetric warfare. Most significantly, vast changes in the nature of threats today make deterrence a much less relevant approach to security than in the past. In an era of globalization where weapons proliferation, terrorism, and unconventional warfare, not attack by another state, pose the major security threats, traditional concepts of **deterrence and confrontational force postures are increasingly dysfunctional and even counterproductive**.271 Deterrence policies (including missile defense, which, contrary to claims of its supporters, does not eliminate deterrence) exacerbate suspicion and hostility, create incentives for arms races, and undermine crisis stability. Instead, policies for space should emphasize principles of common security and reassurance rather than national security and deterrence. Most nations would like guarantees that space will not be used against them. The long-term stability of the space regime depends on its being organized as a regime of collective protection—of both states and assets—rather than as a regime of nationally organized threat and deterrence.

### Space Based Systems lead to “use or lose” mentality which causes pre-emptive strike

Hardesty 2005, Captain David C. Hardesty, U.S. Navy Spring 2005 [on the CONSOL Energy Board, member of the National Security Higher Education Advisory Board, and head of law at University of West Virginia] SPACE-BASED WEAPONS: Long-Term Strategic Implications and Alternatives)

Space-based weapons, like all space systems, are predictable and fragile, but they represent significant combat power if used before they are destroyed— leading to a strong incentive to use these weapons preemptively, to “use them or lose them.” The problem is further complicated by the difficulty in knowing what is occurring in space. As the Commission to Assess United States National Security Space Management and Organization pointed out: Hostile actions against space systems can reasonably be confused with natural phenomena. Space debris or solar activity can “explain” the loss of a space system and mask unfriendly actions or the potential thereof. Such ambiguity and uncertainty could be fatal to the successful management of a crisis or resolution of a conflict. They could lead to forbearance when action is needed or to hasty action when more or better information would have given rise to a broader and more effective set of responsive options.10 This lag in situational awareness can increase the effectiveness of attacks. That is, striking first is likely to mean inflicting disproportionate losses on the enemy; waiting increases the chances of suffering disproportionate losses oneself.

### Weaponization is not key to space power – conventional capabilities solve

Wilkerson, Don L.  Space Power Theory:  Controlling the Medium Without Weapons in Space.  Carlisle Barracks, PA, Army War College, March 2008.  37 p. LIEUTENANT COLONEL DON L. WILKERSON United States Army

In order to understand what constitutes a space power theory based on current capabilities and employment, you can first explore the original concept put forth by James Oberg in his book, Space Power Theory. Oberg does not present a codified, detailed theory for space power but a concept of what elements are important while5 developing an inclusive theory that will address all facets of users, capabilities, education and geography required to exploit the medium. Oberg identifies what he calls the “elements of space power” a nation must possess to achieve dominance in the space environment. He identifies facilities, technology, industry, hardware and other products, economy, populace, education, tradition and intellectual climate, geography, and exclusivity of capabilities and knowledge. These elements also include space vehicles, as well as launch and control sites of a complete space system. Oberg also acknowledges that this list is not all inclusive and weaknesses in one area can be trounced by the strengths of any one of the individual elements. 8 The two elements of Oberg’s space power that are applicable to the premise of this paper will be the technology and hardware necessary to establish power in the space medium. Oberg believes that the primary contributors to technological advances for space systems and weapons must come from government-funded ventures using government laboratories or laboratories within the defense industry to develop and produce the required hardware for space capabilities. 9 Therefore, expenditures for space capabilities will require long-term investments in which many countries are not willing to fund in the near-term. On-orbit space weapon systems are currently not practical or economically feasible until the technology can support more lethal offensive techniques that can be applied in-orbit or from space to earth. Additionally, the concept of on-orbit space weapons must not only address the maintenance of on-orbit weapon systems but also responsive and cost effective spacelift. Therefore, the U.S. military should look to other conventional weapons capabilities to reinforce and support a genuine space power theory.6 Oberg goes on to state that “situational awareness in space is key in the successful application of space power.” Space situational awareness along with access to space, are the foundations for the control of space that support other mission areas of space operations. He explains space situational awareness as the means of having knowledge of where all objects in space are located, where space objects are going, where they could potentially go and what they are doing while in orbit. 10 The most important facet of a space power theory according to Oberg is the control of space and a nation’s unencumbered access to space and on-orbit assets. He states that the “control of space is the linchpin upon which a nation’s space power depends.” 11 One can surmise that in order to have assured access to space-based services and data, space control must be at the nucleus of any space power theory if the U.S. expects to continue the exploitation of the space medium. Oberg’s assertion regarding space control and space power theory leads to the principle question that must be addressed: Must a nation deploy weapons into space to control the geographical environment, and subsequently, are these weapons essential for an effective space power theory? There is a belief that weapons in space are inevitable, therefore, the U.S. should take the necessary efforts to ensure that we will be the first to field these weapons. 12 It is difficult to support Oberg’s prognostication that weapons in space are inevitable for the U.S. in the 21st Century. The extensive cost of current space programs like Global Positioning System (GPS), Space-Based Infrared System (SIBIRS), the Rapid Attack Identification Detection Reporting System (RAIDRS) and Space Based Radar (SBR) along with numerous service military programs competing7 within a limited defense budget, it is highly unlikely that the U.S. government will make more funding available for space weapons when the currently perceived threat can be mitigated using existing cost effective capabilities

Space weapons not key to space power -ground-based control solves

Wilkerson, Don L.  Space Power Theory:  Controlling the Medium Without Weapons in Space.  Carlisle Barracks, PA, Army War College, March 2008.  37 p. LIEUTENANT COLONEL DON L. WILKERSON United States Army

Space power as a theory illustrates the importance of strategic space systems and demonstrates that space is the “ultimate high ground” in which policy makers and commanders will need to formulate actions to seize and control in support of strategic objectives. Theoretically, on-orbit offensive space capabilities would be used to find, fix, track, and destroy targets in space, air, on land and at sea. Again, if this capability existed, the employment of space weapons would be more of a combat multiplier in support of the other geographical mediums rather than providing unilateral control of all environments from space. Gray contends that space power “adds the greatest value for lethality in combat in the twentieth century.” 22 However, since most of the United States’ current offensive space power capabilities are ground-based and augmented with superior conventional as well as other non-kinetic weapons and forces, one could argue that we currently control the space medium without the cost, proliferation and hazards associated with placing weapon systems in orbit. Gray believes that the strategic interest in terms of space power theory “lies in the consequences of its application for deterrence and the conduct of war as a whole.” 2310 The concept of space control put forth by Gray compares the control of the space medium as similar to conducting blockades and ‘choke points’ like Mahan’s maritime strategy for sea power. Space has similar choke points such as specific launch sites attempting to launch offensive space weapons or satellites that are susceptible to attack or that can be held at risk. 24 Again, these choke points or space blockades can be affected using existing capabilities without the need for placing weapons in space. The naval theories of Sir Julian Corbett are probably more fitting when considering a space power theory based on the control of space. Corbett emphasized the “conditional nature” of sea control. He believed that the conditional nature could be positive and defined as one’s ability to travel the seas freely. Corbett also believed that the conditional nature could be negative or the ability to deny this freedom to the enemy. It could either be local or global, permanent or temporary. This theory is very similar and applicable to the strategy of space control. 25 No matter how integral and essential space operations will be during combat operations, it is doubtful that today’s wars and those in the immediate future will be decided in space. Therefore, Gray’s prospect of space control is less likely to be contested under that Mahanian concept of “battle fleets” clashing in space whether manned or unmanned.

### **Space Weapons not key to deterrence – countermeasures solve**

[Johnson-Freese](http://www.google.com/search?hl=en&safe=off&tbo=1&tbm=bks&tbm=bks&q=inauthor:%22Joan+Johnson-Freese%22&sa=X&ei=_2w0Ttj3K7LgsQKm2aD9Cg&ved=0CCoQ9Ag), ‘7

[Dr. Joan Johnson-Freese has been a member of the faculty of the Naval War College since 2002. Previously, she was on the faculty at the Asia Pacific Center for Security Studies in Honolulu, HI; the Air War College in Montgomery, AL; and Director of the Center for Space Policy & Law at the University of Central Florida., *Space as a Strategic Asset,* http://books.google.com/books?id=zMANZmM98xYC&lpg=PP1&dq=space%20as%20a%20strategic%20asset&pg=PP1#v=onepage&q&f=false]

As Christopher Van der Allen writes, Technology is just one part of the entire picture and though one side may have a superior weapon in one sector, counter measures by the other side, which maybe of an entirely nontechnical nature, may do much to negate any possible advantage. In this vein, American security planners might consider less costly countermeasures rather than match each technical challenge with one of greater complexity. Ideologically, the paradigm becomes techno-nationalism on steroids: building weapons systems to show that we can, hoping that they will be viewed as an indicator of power to subsequently deter all challengers. Globally, military strategies increasingly rely on technology for advantage.

The US can deter space attacks without resorting to space weapons

Morgan 10 Forrest E. Morgan Senior Political Scientist at the RAND Corporation Deterrence and First-Strike Stability in Space: A Preliminary Assessment May 28, 2010

The United States can raise the thresholds of deterrence failure in crises and at some levels of limited war by implementing a coordinated national space deterrence strategy designed to operate on both sides of a potential adversary’s cost-benefit decision calculus simultaneously. The foundation and central pillar of such a strategy would be a national space policy that explicitly condemns the use of force in space and declares that the United States will severely punish any attacks on its space systems and those of friendly states in ways, times, and places of its choosing. Cognizant of the fundamental U.S. interest in space stability, such a policy would embrace diplomatic engagement, treaty negotiations, and other confidence-building measures, both for whatever stabilizing effects can be attained from such activities and because demonstrating leadership in these venues helps to characterize the United States as a responsible world actor with the moral authority to use its power to protect the interests of all space faring nations. In these settings and others, all U.S. policies, statements, and actions should be carefully orchestrated to bolster already emerging international taboos on space warfare and enhance the credibility of U.S. threats to punish space aggressors in multiple dimensions—in the terrestrial and informational domains as well as in space, through diplomatic and economic means, in addition to the use of force. Such an approach would raise the potential costs in ways that future opponents would have to factor into their decision calculations in any crisis in which they are tempted to attack orbital assets.

## A2 Space Weapons Solve War

### U.S. Space Dominance will be Irrelevant to Preventing or Resolving Intra-state and Ethnic Conflicts

Elhefnawy, Nader. "Four Myths About Space Power." Parameters. (Spring 2003): 124-32. Elhefnawy has earned a B.A. in International Relations from Florida International University in 2000, and have written extensively on international affairs, national security and space issues

A common feature of scenarios built around the "omniscient, unobstructed lethality" of an "astrocop" system is that it will stop any tank, plane, or missile from crossing borders, effectively ending interstate war. Unfortunately, such a plan assumes a billiard-ball model of international relations in which states are unitary, self-contained actors, an idea which appears increasingly quaint. (The proponents of such a system, after all, often claim that interstate war is largely a thing of the past, which raises the problem that this enormous

investment is being justified through reference to a problem that is supposed to have already disappeared.) Most of the conventional conflicts where such weapons may be effective are civil wars which spill across borders, involving neighboring states. A better question than "How will the United States manage interstate wars?" may be "How will the United States manage intrastate wars?" and few have had much to say on that score. The reality is that as in the Cold War, internal and interstate conflicts are likely to feed off each other. American control of space will not in and of itself prevent antagonisms between states from finding their expression in proxy wars. At the same time, internal conflicts can complicate American relations with other great powers because these do have geopolitical significance, and because they often occur along ethnic lines. If Samuel Huntington's "clash of civilizations" thesis was an overstatement, it was nonetheless a factor in Russian hostility toward NATO action in the former Yugoslavia during the 1990s.

## A2 Space Weapons Solve Terrorism

### U.S. Space Dominance Likely to be Counterproductive at Dealing with Terrorism and Failed State Security Issues

Elhefnawy, Nader. "Four Myths About Space Power." Parameters. (Spring 2003): 124-32. Elhefnawy has earned a B.A. in International Relations from Florida International University in 2000, and have written extensively on international affairs, national security and space issues

The threats of Intifada and Armageddon also become the same threat when terrorists possess weapons of mass destruction. As 11 September 2001 reminded the world, large-scale terror is a very real danger, and in addition to the other problems they pose (from threats to investment to refugee flows) failed states are increasingly seen as sanctuaries for those who would commit such acts. The United States is incapable of single-handedly eliminating the problem of failed states. Indeed, managing that problem is not something that can be accomplished solely through military instruments, since the main effort has to be preventative. When the time comes for military action, the real test is less whether planes can smart-bomb bandits than whether ground troops can keep the peace. In fact it is possible that an extension of space power would diminish America's ability to deal with these other problems. One way would be through the fostering of a false sense of invulnerability: the perception will be that the United States can neglect very real problems because it has its fortress in the sky. The sense that wars can be won swiftly from the air will enhance this by reducing the tolerance for more protracted operations, especially when they incur casualties: the success of Desert Storm made Somalia's costs appear all the more unacceptable.

## A2 Space Weapons Key to Defend Satellites

### Space weapons not key, we can defend sat with stealth tech

[Johnson-Freese](http://www.google.com/search?hl=en&safe=off&tbo=1&tbm=bks&tbm=bks&q=inauthor:%22Joan+Johnson-Freese%22&sa=X&ei=_2w0Ttj3K7LgsQKm2aD9Cg&ved=0CCoQ9Ag), ‘7

[Dr. Joan Johnson-Freese has been a member of the faculty of the Naval War College since 2002. Previously, she was on the faculty at the Asia Pacific Center for Security Studies in Honolulu, HI; the Air War College in Montgomery, AL; and Director of the Center for Space Policy & Law at the University of Central Florida., *Space as a Strategic Asset,* http://books.google.com/books?id=zMANZmM98xYC&lpg=PP1&dq=space%20as%20a%20strategic%20asset&pg=PP1#v=onepage&q&f=false]

Denial and deception, just as they sound, refer to preventing an adversary from learning about satellites, using techniques that reduce electro-optical and electromagnetic satellite signatures with thermal blankets and energy-absorbing materials. Deception methods intentionally mislead adversaries about pace systems. Another way is referred to as stealth and cloaking. Energy reflected by spacecraft can be detected by radar, infrared, or acoustic sensors; minimizing energy reflection and camouflaging spacecraft can help spacecraft avoid detection. In the future, "adaptive skins" that change molecular characteristics and deflect or absorb incoming energy may become technically feasible. Using decoy satellites has also been suggested to confuse adversaries. These are all protections incorporated into a spacecraft design or involve part of the job responsibility, and it is no wonder both that elements in the Air Force and the DOD are pushing for space weapons and that industry is willing to oblige. The technology development programs that the United States can pursue to enhance force projection options are endless, as will be the tax dollars needed to bring them to fruition.

## A2 Chinese ASATs

### China Lacks Capabilities Necessary for a Viable Anti-Satellite Weapons Program

Deters, Angela, Jing-dong Yuan et al. China's Space Capabilities and the Strategic Logic of Anti-Satellite Weapons. . Monterey, CA: Center for Nonproliferation Studies, July 22, 2002. Dr. Jing-dong Yuan is Director of Research for East Asia Nonproliferation Program at the Center for Nonproliferation Studies, and an Associate Professor of International Policy Studies at the Monterey Institute of International Studies.

Despite numerous indications that China is interested in developing ASAT weapons and significant overall improvements in China's space program over the last two decades, China still lacks a number of capabilities that would be required for a viable ASAT program. These limitations include: Limited tracking capabilities. China continues to rely heavily on shared and leased space tracking facilities, which might not be available in the event of a conflict. Despite a domestic network, two foreign sites, and four tracking ships, the Chinese tracking system does not have a global reach. Limited launch capabilities. Although its launch capabilities have been improving, China still lacks the launch on-demand capability required for space warfare and for an effective ASAT system. Vulnerable infrastructure. China's immobile launch facilities, tracking facilities, space infrastructure, and possible ground-based laser sites would all be vulnerable to attack.

## A2 Enemy Space Weapons Threaten the US

No – attempting to deny other countries’ space capabilities only leads to further entrenchment and competition

[Johnson-Freese](http://www.google.com/search?hl=en&safe=off&tbo=1&tbm=bks&tbm=bks&q=inauthor:%22Joan+Johnson-Freese%22&sa=X&ei=_2w0Ttj3K7LgsQKm2aD9Cg&ved=0CCoQ9Ag), ‘7

[Dr. Joan Johnson-Freese has been a member of the faculty of the Naval War College since 2002. Previously, she was on the faculty at the Asia Pacific Center for Security Studies in Honolulu, HI; the Air War College in Montgomery, AL; and Director of the Center for Space Policy & Law at the University of Central Florida., *Space as a Strategic Asset,* http://books.google.com/books?id=zMANZmM98xYC&lpg=PP1&dq=space%20as%20a%20strategic%20asset&pg=PP1#v=onepage&q&f=false]

More capabilities in that area-that is, toward monitoring both earth and space, including looking for debris, hazardous objects, and potentially nefarious activity-is clearly warranted. While capabilities in the "state it" areas have increased, the ability to provide information to the front lines still needs improvement. The "stop it" area is the most problematic. both technologically and politically. The current U.S. approach to space assumes that any other country's efforts to use space for military modernization. or in some cases for economic development if dual-use technology is involved, is a threat to the United States. That assumption and relying first and foremost on a technological response is untenable in a globalized world. Other countries are seeking space technology for military and civilian purposes, and U.S. efforts to deny them will likely only result in increased determination on their parts.

### No country has used lethal or destructive force from, to, or within space

 Watts, Barry D. The Military Use of Space: A Diagnostic Assessment. . Washington, D.C.: Center for Strategic and Budgetary Assessments, February 2001. Watts is part of the Center for Strategic Budget Assesments. Prior to joining CSBA in 2002, Barry Watts headed the Office of Program Analysis and Evaluation at the Defense Department (2001-2002). Following retirement from the Air Force in 1986 until 2001, Mr. Watts directed the Northrop Grumman Analysis Center.

Nor has any other country clearly crossed this threshold. It is believed that in October and November of 1975, the Soviets used intense beams of radiation to interfere with three American satellites, although the US government later officially explained these incidents as having been caused by forest fires or volcanoes. More recently, disruption of satellite systems -- by Russia against satellite phone communications being used by Chechen rebels and by Iran against Western satellite broadcasts -- has been reported. Also, one could interpret American air attacks on Iraqi satellite ground stations early in the 1991 Persian Gulf War as space control insofar as the intent was to deny Iraq access to overhead systems. Nonetheless, lethal or destructive force application from, to, or within near-earth space basically lies in the future.

### Existence of vulnerabilities does not necessarily make an attack inevitable

 Mueller, Karl P. "Is the Weaponization of Space Inevitable?." . (March 27, 2002). Dr. Karl P. Mueller is a political scientist with the RAND Corporation, specializing in air and space strategy and other defense policy issues.

These are all reasonable arguments, but to conclude from them that space weaponization is inevitable, rather than merely possible or even likely, is unwarranted, for several reasons. There is no question that space systems are a key center of gravity (or perhaps several) for U.S. military capabilities. An enemy that attacked them might be able to impair U.S. military operations very seriously, and this ranks high among threats that concern U.S. strategists. It need not follow from this that the enemies of the United States will do so, or invest in the weapons required to do so, however. The U.S. armed forces possess many important vulnerabilities that adversaries have often, even consistently, opted not to attack in past conflicts. To cite but one widely-discussed example, during Operation Allied Force in 1999, Serbia apparently did not attempt to mount special forces attacks against key NATO airbases in Italy or to use manportable missiles to shoot down aircraft operating from them during take-off or landing, although such an action could have profoundly disrupted the Alliance's bombing campaign

## A2 US China War

### No US-China war: US and china are joined at the hip economically

Moore, Mike.  *A Debate about Weapons in Space:  Against:  A New Cold War?*  **SAIS Review** 26:175-188 Winter 2006. contributing editor of The Bulletin of the Atomic Scientists, a peace-and-security magazine founded by members of the Manhattan Project in 1945
Also available online at:  <http://proquest.umi.com/pqdweb?did=1048937241&sid=3&Fmt=3&clientId=417&RQT=309&VName=PQD>

Does China actively seek to initiate a cold war-style competition with the United States? Several factors would suggest it does not. Manufacturing consumer goods for export to the West drives China's boom and provides employment for tens of millions in a nation in which unemployment is still dangerously ?high. A cold war-style confrontation would sap China's economic vitality by diverting huge amounts of capital away from the making of consumer goods (mainly for export) into China's arms industries, thus threatening China's main business: the Wal-Marting of America.

That Red China and capitalist America are now joined at the hip in the economic sphere is a fact that few politicians care to acknowledge fully. The overriding fact is that China needs U.S. consumers, the biggest single market for its made-in-China products, and American consumers seem comfortable with that. "The China price," which denotes the lowest possible price for manufactured goods, is now part of the American lexicon. The downward competition among American manufacturers to meet the China price means that American consumers buy manufactured goods far more cheaply at discount stores than they could have bought comparable American-made goods.

A quid pro quo relationship has developed between Washington and Beijing. Washington generally accepts that China will continue to supply inexpensive products to U.S. consumers; in turn, China continues to help finance the growing U.S. national debt by buying hundreds of billions of dollars of low-interest Treasury bonds that private investors in the United States and elsewhere no longer covet.9

# \*\*\*Space Weapons Good

## Impact – Economy/Military

### Threat to US assets in space means economic collapse unless we develop space weapons

Dolman, Everett C.  A Debate about Weapons in Space:  For -- US Military Transformation and Weapons in Space.  SAIS Review 26:163-174 Winter 2006.

No state relies on space for its military and economic security more than the United States, a reliance that grows daily more precarious. The United States Air Force has been charged with protecting American and allied space assets in peace and in war, and, at the direction of civilian authority, denying access to space to adversaries in times of crisis and conflict. It is a stark reality of international politics that great power shapes the arena in which state interaction takes place, and yet the exercise of power should be neither capricious nor arbitrary. The United States should endeavor at once to establish military supremacy in space, as it has already done at sea and in the air, for the purpose of stabilizing peace and extending into the foreseeable future its ongoing period of liberal hegemony.

No nation relies on space more than the United States-none is even close-and its reliance grows daily. A widespread loss of space capabilities would prove disastrous for American military security and civilian welfare. America's economy would collapse, bringing the rest of the world down with it. Its military would be obliged to hunker down in a defensive crouch while it prepared to withdraw from dozens of then-untenable foreign deployments. To prevent such disasters from occurring, the United States military-in particular the United States Air Force-is charged with protecting space capabilities from harm and ensuring reliable space operations for the foreseeable future. As a martial organization, the Air Force naturally looks to military means to achieve these desired ends. And so it should.

US NEEDS SPACE WEAPONS TO PROTECT ASSETS

Moore ‘01 **Moore**, Mike. "Non-aggressive weapons?" *Bulletin of the Atomic Scientists* 57.2 (20**01**): 17. *Student Edition*. Web. 12 July 2011.

The latter part of that sentence provides the report's focus. To protect the U.S. economy as well as the economies of its friends and allies, the U.S. military must evolve into a ground, sea, air, and space force. It must be prepared to fight in all four mediums; it must be willing to weaponize space. "The commissioners appreciate the sensitivity that surrounds the notion of weapons in space for offensive or defensive purposes. They also believe, however, that to ignore the issue would be a disservice to the nation." The president should "have the option to deploy weapons in space to deter threats to, and if necessary, defend against attacks on U.S. interests."

Space attacks would destroy the US economy and military effectiveness

Moore ‘01 **[**Mike - ?. "Non-aggressive weapons?" A Pearl Harbor in space *Bulletin of the Atomic Scientists* 57.2 (20**01**): 17.]

The health of the U.S. economy as well as the effectiveness of its military forces, says the Space Commission report, are vitally linked to the continued functioning of a vast array of space-based "assets"--communication, weather, global positioning, spy, surveillance, and scientific satellites. Although the United States is without peer among "spacefaring" nations, the report notes, its commanding lead also makes the country vulnerable to "state and non-state actors hostile to the United States and its interests." The economy would be disastrously disrupted and the ability to fight high-tech wars terminally compromised if a significant number of these space assets were disabled or destroyed in a "Space Pearl Harbor." Commission members were unanimous in finding that the United States has "an urgent interest in promoting and protecting the peaceful use of space and in developing the technologies and operational capabilities that its objectives in space require."

## Key to Military Operations

Space weapons are Key to all Military operations

Dolman, Everett C.  A Debate about Weapons in Space:  For -- US Military Transformation and Weapons in Space.  SAIS Review 26:163-174 Winter 2006.

The tremendous growth in space reliance from Desert Storm to Iraqi Freedom is evident in the raw numbers. The use of operational satellite communications increased four-fold, despite being used to support a much smaller force (fewer than 200,000 personnel compared with more than 500,000). New operational concepts such as reach back (intelligence analysts in the United States sending information directly to frontline units) and reach forward (rear-deployed commanders able to direct battlefield operations in real time) reconfigured the tactical concept of war. The value of Predator and Global Hawk Unmanned Aerial Vehicles (UAVs), completely reliant on satellite communications and navigation for their operation, was confirmed. Satellite support also allowed Special Forces units to range across Iraq in extremely disruptive independent operations, practically unfettered in their silent movements.

But the paramount effect of space-enabled warfare was in the area of combat efficiency. Space assets allowed all-weather, day-night precision munitions to provide the bulk of America's striking power. Attacks from standoff platforms, including Vietnam-era B-52s, allowed maximum target devastation with extraordinarily low casualty rates and collateral damage. In Desert Storm, only 8 percent of munitions used were precision-guided, none of which were GPS-capable. By Iraqi Freedom, nearly 70 percent were precision-guided, more than half from GPS satellites.3 In Desert Storm, fewer than 5 percent of aircraft were GPS-equipped. By Iraqi Freedom, all were. During Desert Storm, GPS proved so valuable to the army that it procured and rushed into theater more than 4,500 commercial receivers to augment the meager 800 military-band ones it could deploy from stockpiles, an average of one per company (about 200 personnel). By Iraqi Freedom, each army squad (6-10 soldiers) had at least one military GPS receiver.

Given the demonstrated utility of and reliance upon military assets in space, there is no question the United States must guarantee space access if it is to be successful in future conflicts. Its military has stepped well over the threshold of a new way of war. It is simply not possible to go back to the violently spasmodic mode of combat typical of pre-space interventions. The United States is now highly discriminating in the projection of violence, and parsimonious in the intended breadth of its destruction. For the positive process of transformation to continue, however, space weapons must enter the combat inventory of the United States.

## Key to Deterrence/Heg

Developing US space capabilities are key to deterring adversaries and maintaining US dominance

Pena and Hudgins02 Charles V. Peña and Edward L. Hudgins “Should the United States “Weaponize” Space? Military and Commercial Implications’ Charles V. Peña is senior defense policy analyst and Edward L. Hudgins is former director of regulatory studies at the Cato Institute.

 The report of this second Rumsfeld commission (released in January 2001) has received less attention, but its conclusions are similarly foreboding: The United States is more dependent than any other nation on the use of space. Space systems can be vulnerable to a range of attacks. Nations hostile to the United States possess or can acquire the means to disrupt or destroy U.S. space systems. The United States is an attractive candidate for a “space Pearl Harbor” As a result, the Space Commission recommended “that U.S. national security space interests be recognized as a top national security priority” and that “the U.S. must develop the means both to deter and to defend against hostile acts in and from space.” Even though the Space Commission report has received less media attention than the first Rumsfeld Commission report, its conclusions and recommendations could have a greater and broader impact now that Rumsfeld is secretary of defense. Space is the new military “high ground,” as highlighted in a January 2001 war game—the first one that focused on space as the primary theater of operations. That war game, conducted at Schriever Air Force Base in Colorado, postulated a conflict taking place in 2017 between “Blue” and “Red” forces (resembling the United States and China, respectively). Both sides possessed space weapons as well as ground-based lasers. The Blue side had a national missile defense and the Red side had anti-satellite weapons. For the first time, a war game actually fought a war with weapons in space rather than just using space systems to support ground, sea, and air operations—seemingly taking its cues from the Space Commission report and the incoming Bush administration’s interest in the military uses of space

### Space weapons increase US deterrence

Hitchen, 02 –Theresa Hitchens 4/18/02, (Vice President of the Center for Defense Information) , "Weapons in Space: Silver Bullet or Russian Roulette?", http://www.cdi.org/missile-defense/spaceweapons.cfm,)

The United States already enjoys an overwhelming advantage in military use of space; space assets such as the Global Positioning System satellite network have proven invaluable in improving precision-targeting giving the U.S. military a decisive battlefield edge. There would be even a more formidable military advantage to possession of weapons in space — global power projection and the enormous difficulty in defending against space weapons aimed at terrestrial targets. "It is ... possible to project power through and from space in response to events anywhere in the world. **Having this capability would give the United States a much stronger deterrent** and, in a conflict, an extraordinary military advantage," notes the Space Commission report.

Space weapons are key to heg – won’t produce backlash

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This reasoning does not dispute the fact that U.S. deployment of weapons in outer space would represent the addition of a potent new military capacity, one that would assist in extending the current period of American hegemony well into the future. Clearly this would be threatening, and America must expect severe condemnation and increased competition in peripheral areas. But such an outcome is less threatening than any other state doing so.

Placement of weapons in space by the United States would be perceived correctly as an attempt at continuing American hegemony. Although there is obvious opposition to the current international balance of power, the majority of states seem to regard it as at least tolerable. A continuation of the status quo is thus minimally acceptable, even to states working toward its demise. As long as the United States does not employ its power arbitrarily, the situation would be bearable initially and grudgingly accepted over time.

### Allowing another nation to weaponize space first produces arms races and undermines heg

Dolman, Everett C.  A Debate about Weapons in Space:  For -- US Military Transformation and Weapons in Space.  SAIS Review 26:163-174 Winter 2006.

On the other hand, an attempt by any other state to dominate space would be part of an effort to break the land-sea-air dominance of the United States in preparation for a new international order, with the weaponizing state at the top. Such an action would challenge the status quo, rather than seek to perpetuate it. This would be disconcerting to nations that accept the current international order-including the venerable institutions of trade, finance and law that operate within it-and intolerable to the United States. As leader of the current system, the United States could do no less than engage in a perhaps ruinous space arms race, save graciously decide to step aside.

Weaponization is key to US power

Baldruff Regis, J. By Deploying Weapons in Space, is the United States Opening a Theater of Engagement that could Disadvantage the United States in the Long Term? Fort Leavenworth, KS: U.S. Army Command and General Staff College, 2001. 104p. A thesis presented to the Faculty of the U.S. Army Command and General Staff College in partial fulfillment of the requirements for the degree

The case is clear for the military advantages of deploying weapons in space. Despite opening the door for other nations to follow suit, space weapons can help make the United States access to and use of space secure. The United States holds the technological advantage now. By taking advantage of this situation, the United States could ensure the freedom of space for peaceful use of all nations, with no threat of denial by adversaries. United States’ space capabilities are fragile and defenseless. Weapons in space provide security to the huge military and commercial interests the United States has in space.

The United States’ policy demands control of space as enumerated in the National Space Policy and recent commission reports. U.S. National Space Policy is criticized because the sanctuary camp believes deploying weapons will endanger the United States’ space capabilities. Space is peaceful now; deploying weapons will turn it into a battlefield. By waiting for an adversary to deploy first, the United States is relinquishing superiority.

The airplane, tank, submarine, mass aerial bombing, nuclear weapons, and the ICBM were all greeted with skepticism, yet each altered the nature of warfare. The arguments against beam weapons tend to assume US and Soviet Strategic weapons will remain unchanged the next 30-50 years. (Peebles 1983, 184)86 Defense of space capabilities is too critical to write off as destabilizing or a capability that is too hard to achieve. Only deploying weapons in protective orbits could mitigate some destabilizing characteristics. Defending space assets will make the capabilities more robust and survivable. Defending only the most critical satellites may not be as destabilizing. A limited capability would not contribute to a first strike. Another way to mitigate concerns is to only deploy defenses when an adversary is shown to have offensive capabilities. Rapid deployment capability would be necessary to routinely access space for this approach to be successful. Deployment on need would prevent a race, keep space “weapons free,” and still deter some enemies. Developing limited defenses is probably not acceptable. Space weapons are an expensive investment to threaten a few key targets. The U.S. has the resources to make such an investment. Few other nations could make the required investment to maintain a limited capability. Keeping allies abreast and involved is important in making any weapons deployment work. Burden-sharing and collective security would ensure stable weapons’ deployment. A weapon for collective security’s sake makes the weapons more acceptable to the U.S. public as well as U.S. allies. There is a drawback to collective security as well. The allies would have veto power over U.S. defense. Defensive space weapons, despite added threat to friendly systems, are a high positive advantage to the military instrument of power (see table 2).

## Deterrence Works

Space deterrence works, even against irrational leaders

Katz-Hyman, Michael and Michael Krepon. Assurance or Space Dominance? The Case Against Weaponizing Space. . Washington, D.C.: Henry L. Stimson Center, April 2003. Michael Krepon is co-founder of Stimson, and director of the South Asia and Space Security programs.

Proponents of testing and deploying space warfare capabilities would argue that the above, much-abbreviated analysis is far too rational and analytical. They would argue that rational analysis does not apply to 'irrational' actors who are dismissive of the reasoned dictates of deterrence theory. Two rebuttals might be offered in response. The record of maverick leaders to

date suggests that they are, indeed, capable of surprising steps but, above all, they are keenly interested in maintaining power. To initiate space warfare against the United States is not a good way to maintain power. But if irrationality rules behavior, and if a maverick leader were intent on using a nuclear weapon in a losing cause, why would that leader target satellites instead of an invading army? Asymmetric warfare in space does not favor the weak against the strong. The strong have greater means to reduce their weaknesses in space and to exploit the weaknesses of others. Moreover, weaker states have a greater chance of causing harm to the United States on the ground than in space. Attacks by weaker states against U.S. satellites would complicate and perhaps extend somewhat the Pentagon?s military campaigns, but they would not change the outcome of warfare, given the dominating and growing power projection capabilities enjoyed by the United States.

## Heg Solves War

Hegemony solves war

Dolman, Everett C.  A Debate about Weapons in Space:  For -- US Military Transformation and Weapons in Space.  SAIS Review 26:163-174 Winter 2006.

There is reasonable historic support for the notion that the most peaceful and prosperous periods in modern history coincide with the appearance of a strong, liberal hegemon. America has been essentially unchallenged in its naval dominance over the last 60 years, and in global air supremacy for the last 15 or more. Today, there is more international commerce on the oceans and in the air than ever. Ships and aircraft of all nations worry more about running into bad weather than about being commandeered by a military vessel or set upon by pirates. Search and rescue is a far more common task than forced embargo, and the transfer of humanitarian aid is a regular mission. Lest one think this era of cooperation is predicated on intentions rather than military stability, recall that the policy of open skies advocated by every president since Eisenhower did not take effect until after the fall of the Soviet Union and the singular rise of American power to the fore of international politics. The legacy of American military domination of the sea and air has been positive, and the same should be expected for space.

To be sure, America will maintain the capacity to influence decisions and events beyond its borders, with military force if necessary. The operational deployment of space weapons would increase that capacity by providing for nearly instantaneous force projection worldwide. This force would be precise, unstoppable and deadly. At the same time, the United States would forgo some of its ability to intervene directly in other states because the necessary budget tradeoffs would diminish its capacity to do so. Space weapons offer no advantage if the opponent is not dispersed broadly around the globe. Against massed and regionally concentrated forces, conventional weaponry is far more efficient. As such, transformation of the American military assures that the intentions of current and future leaders will have but a minor role to play in international affairs. The need to limit collateral damage, the requirement for precision to allay the low volume of fire, and the tremendous cost of space weapons will guarantee they are used only for high-value, time-sensitive targets. An opposing state's calculation of survival no longer would depend on interpreting whether or not the United States desires to be a good neighbor. Without sovereignty at risk, fear of a spacedominant American military will subside. The United States will maintain its position of hegemony as well as its security, and the world will not be threatened by the specter of a future American empire.

## Key to the Economy

### Weapons are good economically

Baldruff Regis, J. By Deploying Weapons in Space, is the United States Opening a Theater of Engagement that could Disadvantage the United States in the Long Term? Fort Leavenworth, KS: U.S. Army Command and General Staff College, 2001. 104p. A thesis presented to the Faculty of the U.S. Army Command and General Staff College in partial fulfillment of the requirements for the degree

Economic activity, whether building weapons or cars, has a positive impact on the economic instrument of power. Sharing space weapons capabilities with U.S.’ allies gives the country better trade balances and keeps the defense industrial base healthy.87 However, weapons are not built for the sole purpose of economic benefit to the nation, and if solely based on economic benefit, the outcome would be neutral. Past examples show positive impacts to the economy and development of new technology that are beneficial to U.S. citizens. Overall, the economic impact of a space weapons program would be positive to the economic instrument (see table 2). This is the last piece and completes the results for the baseline case, Option 3. The remaining sections will explain valuations and variations associated with the other options and complete table 2.

## Key to Counter China

### US weaponization is key to countering China’s inevitable deployment of space assets

Adams ‘10 **Adams**, Jonathan. "China is on path to 'militarization of space'." *Christian Science Monitor* 28 Oct. 20**10**. *Student Edition*. Web. 13 July 2011.

"China is developing the ability to attack an adversary's space assets, accelerating the militarization of space," the Pentagon said in its latest annual report to Congress on China's military power. "PLA writings emphasize the necessity of 'destroying, damaging, and interfering with the enemy's reconnaissance ... and communications satellites.' "More broadly, some in the US see China's moon program as evidence that it has a long-range strategic view that's lacking in Washington. The US has a reconnaissance satellite in lunar orbit now, but President Obama appears to have put off the notion of a manned return to the moon.With China slowly but surely laying the groundwork for a long-term lunar presence, some fear the US may one day find itself lapped -"like the tale of the tortoise and the hare," says Dean Cheng, an expert on China's space program at the Heritage Foundation in Washington. "I have to wonder whether the United States, concerned with far more terrestrial issues, and with its budget constraints, is going to decide to make similarly

### Chinese ASAT tech threatens US satellites

Macdonald08Bruce W**.** MacDonaldSenior Director, Nonproliferation and Arms Control Program ... on Foreign Relations' study of China, **“China, Space Weapons, and U.S. Security” Sep 18,** **20**08

On January 11, 2007, China launched a missile into space, releasing a homing vehicle that destroyed an old Chinese weather satellite. The strategic reverberations of that collision have shaken up security thinking in the United States and around the world. This test demonstrated that, if it so chose, China could build a substantial number of these anti- satellite weapons (ASAT) and thus might soon be able to destroy substantial numbers of U.S. satellites in low earth orbit (LEO), upon which the U.S. military heavily depends. On February 21, 2008, the United States launched a modified missile-defense interceptor, destroying a U.S. satellite carrying one thousand pounds of toxic fuel about to make an uncontrolled atmospheric reentry. Thus, within fourteen months, China and the United States both demonstrated the capability to destroy LEO satellites, heralding the arrival of an era where space is a potentially far more contested domain than in the past, with few rules.

**China Poses a threat to the US space Assets**

**MacDonald08 Bruce W.** MacDonaldSenior Director, Nonproliferation and Arms Control Program ... on Foreign Relations' study of China, **“China, Space Weapons, and U.S. Security” Sep 18,** **20**08

Having crossed a space Rubicon with their ASAT demonstrations, neither nation can un-invent these capabilities. As the United States approaches major security policy reviews with the advent of a new administration in early 2009, both it and China face fundamental choices about the deployment and use of such capabilities, and the development of more advanced space weapons.2 The United States and China stand at a crossroads on weapons and space: whether to control this potential competition, and if so, how. While the United States is likely well ahead of China in offensive space capability, China currently is much less dependent on space assets than the U.S. military, and thus in the near term has less to lose from space conflict if it became inevitable. China’s far smaller space dependence, which hinders its 4 China, Space Weapons, and U.S. Security military potential, ironically appears to give it a potential relative nearterm offensive advantage: China has the ability to attack more U.S. space assets than vice versa, an asymmetry that complicates the issue of space deterrence, discussed later. This asymmetric Chinese advantage will likely diminish as China grows increasingly dependent on space over the next twenty years, and as the United States addresses this space vulnerability. Thus, the time will come when the United States will be able to inflict militarily meaningful damage on Chinese space-based assets, establishing a more symmetric deterrence potential in space. Before then, other asymmetric means are available to the United States to deter China, though at possibly greater escalatory risk. That is, the United States could threaten to attack not just Chinese space assets, but also ground-based assets, including ASAT commandand- control centers and other military capabilities. But such actions, which would involve attacking Chinese soil and likely causing substantial direct casualties, would politically weigh much heavier than the U.S. loss of space hardware, and thus might climb the escalatory ladder to a more damaging war both sides would probably want to avoid.

## Key to Counter Russia/China

### Space weapons are necessary to counter China and Russia

Brown, Trevor.  *Soft Power and Space Weaponization*.  **Air and Space Power Journal** 23:66-72  Spring 2009
Also available online at:  <http://www.airpower.au.af.mil/airchronicles/apj/apj09/spr09/brown.html> Brown is a new author interested in political, economic, and military strategy for the medium of space.

Without a doubt, we must guard at all costs the celestial lines of communications that link society and the military. Consider the consequences if satellites that we use every day for military operations, financial transactions, communications, weather forecasting, and air navigation failed without warning. Devastating strikes on critical nodes in space not only could place the lives of millions at serious risk, but also could result in incalculable economic losses to the nation.

Throughout the Cold War, the United States struggled to obtain a position of military superiority over the Soviet Union in order to protect American values and interests. A legacy of that struggle is the United States’ current space capability. Should the United States permit security for its values and interests to lapse by discontinuing attempts to retain the military superiority that it has achieved? Are we to believe that US security could somehow increase by forgoing military supremacy?

Some people speak as if they believe that a country can choose whether to pursue national security through arms or through arms control.10 But Russia’s interest in banning space weapons is motivated by a desire to stunt the growth of US military space

programs in order to buy time for covertly advancing its own space-weapons program and achieving technological parity.11 Russia bases its opposition to space weaponization not on a scrupulous set of principles but on strategic objectives. Two scholars contend that “to understand whether Russia could indeed change its position on the weaponization of space, we need to go beyond official statements and discussion among Russian military experts. The course of the military space program in Russia will be determined primarily by the availability of the resources required to support the program and by the ability of the industry and the military to manage development projects for the military use of space.”12

Despite China’s repeated calls for a ban on all space weapons, historical evidence suggests that little separates Chinese and Russian motivations for such bans. “Because a broad interpretation of space weapons would rule out almost all U.S. missile defense systems, Chinese officials who want to limit U.S. missile defense deployments would advocate a ban that used this interpretation.”13Interestingly, after the Clinton administration scrapped the Strategic Defense Initiative in 1993, China redoubled its efforts in military space and gained ground on the United States.14 By 1999 “China’s test of a spacecraft intended for manned flight demonstrated a low-thrust rocket propulsion system that could be used to make warheads maneuver to defeat a BMD [ballistic missile defense] system.”15

Perhaps there remains a belief in the US strategic community that “the deployment of U.S. space weapons is likely to make space assets—including commercial communications and broadcast satellites—even more vulnerable, since no other country is pursuing, let alone deploying, space attack weapons.”16 Such notions were shattered when China conducted its first successful ASAT test in January 2007, suggesting that it had spent many years developing ASAT capabilities. The United States—as well as the rest of the world, for that matter—should not allow itself to be duped. The record shows that although officials in the Chinese Communist Party rail against military space as a threat to peace and stability, the People’s Liberation Army busies itself with the acquisition of space weapons.

The notion that the United States can keep space from becoming a “shooting gallery” by agreeing to a comprehensive ban on space weapons is naïve.17 The hard truth is that as long as US economic and military power depends on massive, complex, and expensive sets of vulnerable space assets, the incentive for any potential foe to develop ways of attacking them remains too great to be overcome by any international agreement.18 If, however, such an agreement can constrain the United States from developing and deploying effective countermeasures, foes would have every reason to pressure Washington into limiting its own actions.19 As space technology spreads, the incentives for small and medium states to seek space-warfare capabilities increase, and the destruction of a major US satellite would represent both a substantive and symbolic victory over the United States.20 There is, therefore, no question of whether to proceed with space weapons—only a question of how to do so with the requisite political skill in order to retain soft power while expanding hard power.

## US Space Assets Vulnerable

**U.S. Vulnerability in Space Risks a "Space-Based Pearl Harbor"**

Lambeth03Lambeth, Benjamin S. Mastering the Ultimate High Ground: Next Steps in the Military Uses of Space. Santa Monica, CA: RAND Corporation, 2003.

Concern for the vulnerability of U.S. space-based assets was expressed with even greater urgency in the Space Commissions finding of a virtual certainty that a material threat to vital U.S. space equities will eventually arise. That finding led the commissioners to warn that the United States is an attractive candidate for a space Pearl Harbor and must accordingly begin hedging now against hostile acts in and from space by developing and deploying what they called superior space capabilities. That conclusion was later echoed by Army Lieutenant General Edward G. Anderson III, the deputy CINCSPACE, who argued that space is so critical now that if we dont do something about [our vulnerability] . . . were going to have a space Pearl Harbor and well deserve what we get. Stressing the need to ensure our continued access to space [and] deny space to others, if necessary, Anderson told the House Armed Services Committee that the nation runs the very real risk of a space Pearl Harbor if this is not attended to in a timely manner.

**Many other countries are pursuing space power capabilities**

O’Hanlon06 O'Hanlon, Michael E. "The State of Space: From Strategic Reconnaissance to Tactical Warfighting to Possible Weaponization." Testimony before the Subcommittee on Strategic Forces of the House Armed Services Committee. Ed. . Washington, D.C.: Brookings Institution, June 21, 2006.

The increasing militarization of space is not exclusively a superpower story, however. The United States certainly dominates military space spending—accounting for more than 90 percent of the total, by some measures. The country's military space budget totals exceed $15 billion a year. But other countries besides the United States and Russia have also increasingly sought military satellites, largely for reconnaissance and communications purposes so far, and will surely continue to pursue space capabilities of many types in the future. They may make use of civilian and commercial assets for military purposes as well. They are surely studying American capabilities to find, track, and quickly attack targets using space assets. Some are trying to emulate the United States; some are trying to find vulnerabilities in U.S. space systems so they can challenge them in any future wars. China may be the most notable example of a country that is doing both. Its progress to date is limited, as far as we can tell, and its progress in the coming years is likely to be modest as well—but these prognostications may prove wrong, and in any case will not be applicable forever.

 **Threat to U.S. Space Assets can no Longer be Viewed as Speculative**

Berkowitz07 Berkowitz, Marc J. "Protecting America's Freedom of Action in Space." High Frontier Journal. Vol. 3, No. 2 (March 2007): 13-18.

The preservation of this right will be the space policy issue for the US in the coming years. The medium of outer space is becoming a significantly more complicated operating environment. There is a clear trend toward challenges to the freedom of space. This trend is evidenced by the increasing prevalence of foreign efforts to interfere with satellite operations. For example, Iraq jammed US satellite positioning, navigation, and timing signals in 2002, Libya and Iran interfered with international communications satellite transmissions in 2005, and China apparently lased a US imaging reconnaissance satellite in 2006. After China’s successful test of a direct ascent anti-satellite (ASAT) weapon in January 2007, there should be no failure of imagination in foreseeing threats to US interests in space.

**U.S. Military Dominance in Outer Space Challenged by Rising Number of Space Actors**

**Grant07** Grant, Rebecca. "Vulnerability in Space." Air Force Magazine. June 1, 2008.

The Air Force says goodbye to 50 years of tranquil, undisturbed operations "up there." Our space capabilities will be contested," declared Gen. C. Robert Kehler, head of Air Force Space Command. "We have seen evidence [of the danger] from a number of places around the world." USAF's senior space officer may have been matter-of-fact in his delivery, but his message was as serious as a stroke. He had just summarized a mortal challenge to the US—the growing threats to America's traditional dominance of the military high ground. Once, such dangers were theoretical. No longer. Space isn't a lonely place anymore. It is a crowded commons that attracts the attention of many national and commercial space actors. The list includes, but is not limited to, Russia, China, India, and a unified Europe, not to mention a host of medium-size nations.

## A2 Space Weapons 🡪 Arms Races

Space weapons trade off with conventional arms races, which are worse

Dolman, Everett C.  A Debate about Weapons in Space:  For -- US Military Transformation and Weapons in Space.  SAIS Review 26:163-174 Winter 2006.

There is another, perhaps far more compelling reason that weaponizing space would in time be less threatening to the international system than the failure to do so. The weaponization of space would decrease the likelihood of an arms race by shifting spending away from conventional weapons systems. One of the more cacophonous refrains against weapons procurement of any kind is that the money needed to purchase them is better spent elsewhere. It is a simple cliché but a powerful one. Space weapons in particular will be very, very expensive. Are there not a thousand better ways to spend the money? But funding for weapons does not come directly from education, housing or transportation budgets. It comes from military budgets. Thus the question should be directed not at particular weapons, but at all weapons.

The immediate budget impact of significant funding increases for space weapons would be to decrease funding for combat aircraft, the surface battle fleet, and ground forces. This may well set the proponents of space weaponization at odds with both proponents and opponents of increased defense spending. Space advocates must sell their ideas to fellow pro-weapons groups by making the case that the advantages they provide outweigh the capabilities forgone. This is a mighty task. The tens or even hundreds of billions of dollars needed to develop, test and deploy a minimal space weapons system with the capacity to engage a few targets around the world could displace a half-dozen or more aircraft carrier battle groups, entire aircraft procurement programs such as the F-22, and several heavy armored divisions. This is a tough sell for supporters of a strong military.

It is an even more difficult dilemma for those who oppose weapons in general, and space weapons in particular. Ramifications for the most critical current function of the Army, Navy, and Marines-pacification, occupation, and control of foreign territory-are profound. With the downsizing of traditional weapons to accommodate heightened space expenditures, the U.S. ability to do all three would wane significantly. At a time when many are calling for increased capability to pacify and police foreign lands, in light of the no-end-in-sight occupations of Iraq and Afghanistan, space weapons proponents must advocate reduction of these capabilities in favor of a system that will have no direct potential to do so.

Hence, the argument that the unilateral deployment of space weapons will precipitate a disastrous arms race is further eroded. To be sure, space weapons are offensive by their very nature. They deter violence by the omnipresent threat of precise, measured, and unstoppable retaliation. But they offer no advantage in the mission of territorial occupation. As such, they are far less threatening to the international environment than any combination of conventional weapons employed in their stead. What would be more threatening to a state in opposition to American hegemony: a dozen lasers in space with pinpoint accuracy, or (for about the same price) 15 infantry divisions massed on the border? A state employing offensive deterrence through space weapons can punish a transgressor state, but it is in a poor position to challenge that state's sovereignty. A transgressor state is less likely to succumb to the security dilemma if it perceives that its national survival is not at risk. Moreover, the tremendous expense of space weapons would inhibit their indiscriminate use. Over time, the world of sovereign states would recognize that the United States could not and would not use space weapons to threaten another country's internal self-determination. The United States still would challenge any attempts to intervene militarily in the politics of others, and it would have severely restricted its own capacity to do the latter. Judicious and non-arbitrary use of a weaponized space eventually could be seen as a net positive, an effective global police force that punishes criminal acts but does not threaten to engage in aggressive behavior.

### Space weapons would prevent arms races

Dolman, Everett C.  A Debate about Weapons in Space:  For -- US Military Transformation and Weapons in Space.  SAIS Review 26:163-174 Winter 2006.

Seizing the initiative and securing low-Earth orbit now, while the United States is unchallenged in space, would do much to stabilize the international system and prevent an arms race in space. The enhanced ability to deny any attempt by another nation to place military assets in space and to readily engage and destroy terrestrial anti-satellite capacity would make the possibility of large-scale space war or military space races less likely, not more. Why would a state expend the effort to compete in space with a superpower that has the extraordinary advantage of holding securely the highest ground at the top of the gravity well? So long as the controlling state demonstrates a capacity and a will to use force to defend its position, in effect expending a small amount of violence as needed to prevent a greater conflagration in the future, the likelihood of a future war in space is remote.

Moreover, if the United States were willing to deploy and use a military space force that maintained effective control of space, and did so in a way that was perceived as tough, non-arbitrary, and efficient, such an action would serve to discourage competing states from fielding opposing systems. Should the United States use its advantage to police the heavens and allow unhindered peaceful use of space by any and all nations for economic and scientific development, over time its control of low-Earth orbit could be viewed as a global asset and a public good. In much the same way the British maintained control of the high seas, enforcing international norms of innocent passage and property rights, the United States could prepare outer space for a long-overdue burst of economic expansion.

Even if weaponization produces arms races, US dominance stabilizes space and preserves peace

Baldruff Regis, J. By Deploying Weapons in Space, is the United States Opening a Theater of Engagement that could Disadvantage the United States in the Long Term? Fort Leavenworth, KS: U.S. Army Command and General Staff College, 2001. 104p. A thesis presented to the Faculty of the U.S. Army Command and General Staff College in partial fulfillment of the requirements for the degree

If the U.S. does make the decision to develop and deploy weapons in space, there will likely result a space-based arms race and arming space is nearly irreversible. Space weapons would give the U.S. a potential first-strike weapon that would threaten every space-faring nation’s assets. On the positive side, space weapons give the U.S. population a greater sense of security. The population would have confidence that space assets are being defended. A credible threat will make other nations think twice about attacking U.S. assets for fear of losing their own capabilities. The United States could become the guarantor of peace in space with a defensive weapons capability. This would work if they can establish benign dominance. Benign dominance would be a positive impact to the U.S.’s information instrument.

Not only would the defensive weapons maintain peace in space, the deterrent value of space weapons may assist in avoiding conflict on earth. Attacking adversary’s space assets may send a message that will quickly end the conflict. Conflict resolution by space combat is more positive than atmospheric combat because a conflict in space avoids bloodshed, troop deployment, basing rights, sovereignty issues, overflight permission, and civilian collateral damage.

### Even if arms races produced a space war, the US would win and disarm the challenger

Posen, Barry R. "Command of the Commons: The Military Foundation of U.S. Hegemony." International Security. Vol. 28, No. 1 (Summer 2003): 5-46. Barry R. Posen is Ford International Professor of Political Science at MIT, Director of the MIT Security Studies Program

The United States has had a number of anti-satellite research and development programs under way for many years, and some are said to have produced experimental devices that have military utility. The planned U.S. ballistic missile defense system will also have some anti-satellite capability. U.S. conventional military capabilities for precision attack, even without the support of its full panoply of space assets, are not trivial. It is quite likely that an opponent�s own satellites, and its ground stations and bases for attacking U.S. satellites, would quickly come under sustained attack. The most plausible outcome of a war over space is that the United States would, after a period of difficulty, rebuild its space assets. The fight would not only leave the adversary devoid of space capability, but would also cause the United States to insist on the permanent antisatellite disarmament of the challenger, which it would try to enforce. Finally, the United States would probably assert some special interest in policing space.

## A2 Space Weapons 🡪 Asymmetric Warfare

Forcing a shift to asymmetric warfare benefits the US overall

Dolman, Everett C.  A Debate about Weapons in Space:  For -- US Military Transformation and Weapons in Space.  SAIS Review 26:163-174 Winter 2006.

This logic is the causal foundation of asymmetric warfare, of course. The problem with such a view is that it suggests power is inefficient if it induces others to find new ways to engage the state. Critics often use such logic to argue against missile defenses, for example. If the defense is effective, the argument goes, the likely enemy simply will engage in another manner and in an area in which the state is still vulnerable. To which I reply, good. The threat of missile attack is now over. If the state is protected from missile attack, which was once a serious threat, this is a laudable result. Now what are the other threats?

In this case, the point of domination of space by military means would be to deter other states from going there with martial aims, a point elaborated below. It also would be a crucial part of the structural transformation of American military forces that ultimately would increase the capacity of the United States to influence events abroad while at the same time limiting its capacity to directly intervene in foreign affairs. To make these points clear, I offer a rebuttal to the classic arguments against the weaponization of space.

## A2 Not Technically Feasible

### Space weapons are possible

Dolman, Everett C.  A Debate about Weapons in Space:  For -- US Military Transformation and Weapons in Space.  SAIS Review 26:163-174 Winter 2006.

Arguments in the first category spill the most ink in opposition, but are relatively easy to dispatch, especially the more radical variants. History is littered with prophesies of technical and scientific inadequacy, such as Lord Kelvin's famous retort, "Heavier-than-air flying machines are impossible." Kelvin, a leading physicist and then president of the Royal Society, made this boast in 1895, and no less an inventor than Thomas Edison agreed. The possibility of spaceflight prompted even more gloomy pessimism. A New York Times editorial in 1921 (an opinion it has since retracted), excoriated Robert Goddard for his silly notions of rocket-propelled space exploration. "Goddard does not know the relation between action and reaction and the need to have something better than a vacuum against which to react. He seems to lack the basic knowledge ladled out daily in high schools." Compounding its error in judgment, in 1936, the Times stated flatly, "A rocket will never be able to leave the Earth's atmosphere."7

We have learned much, it would seem, or else bluntly negative scientific opinion on space weapons has been weeded out over time. Less encompassing arguments are now the rule. As the debate moved completely away from the complete impossibility of weapons and wars in space to more subtle and scientifically sustainable arguments that a particular space weapon is not feasible, mountains of mathematical formulae have been piled high in an effort, one by one, simply to bury the concept. But these limitations on specific systems are less due to theoretical analysis than to assumptions about future funding and available technology.8 The real objection, too often hidden from view, is that a particular weapons system or capability cannot be developed and deployed within the planned budget, or within narrowly specified means. When one relaxes those assumptions, opposition on technical grounds generally falls away.

The devil may very well be in the details. But when critics oppose an entire class of weapons based upon analyses that show particular weapons will not work, their arguments fail to consider the inevitable arrival of fresh concepts or new technologies that change all notions of current capabilities. Have we thought out the details enough we can say categorically that no technology will allow for a viable space weapons capability? If so, then the argument is pat; no counter is possible. But if there are technologies or conditions chat could allow for the successful weaponization of space, then ought we not argue the policy details first, lest we be swept away by a course of action that merely chases the technology wherever it may go?

## Treaties Fail

### Treaties won’t solve- they leave space too vulnerable

Baldruff Regis, J. By Deploying Weapons in Space, is the United States Opening a Theater of Engagement that could Disadvantage the United States in the Long Term? Fort Leavenworth, KS: U.S. Army Command and General Staff College, 2001. 104p. A thesis presented to the Faculty of the U.S. Army Command and General Staff College in partial fulfillment of the requirements for the degree

A treaty limiting deployment of weapons in space is not constructive and closes off too many military options. The limiting treaty would not just ban space weapons like ASATs, but also weapons that offer security, such as limited ballistic missile or spacecraft defense. Besides making defense impossible, the treaty would create problems. Verifying compliance would be extremely difficult. Most ICBMs can be used in an ASAT role and would not be banned in a space weapons treaty. A treaty is risky because it is difficult to determine if a country is developing a space weapon or planning to utilize a residual capability. Anything launched into space is a potential ASAT, inspected or not. A treaty has positive implications as well. A treaty would require less survivability measures for spacecraft, maintain current strategic stability, save costs to all potential adversaries in a space race, and strengthen nuclear arms control measures. Although the treaty has potential positive implications, they are overshadowed by the military options given up.

## Weapons Inev/Development Good

### Space weaponization is too far along and attempting to control it is irrational

Gray 85, Colin S. Grey, November-December 1985, (Grey is president of the National Institute for Public Policy. He has been director of National Security Policy Studies, Hudson Institute, assistant director, International Institute for Strategic Studies (London); and a member of the General Advisory Committee on Arms Control to the Arms Control and Disarmament Agency. Dr. Gray's articles have appeared in numerous journals, including the Review. ) “Space Arms Control: A skeptical View” http://www.airpower.au.af.mil/airchronicles/aureview/1985/nov-dec/gray.html#contributor

I would argue instead that it makes no sense to consider space arms control in isolation, abstracted from its proper contexts of the arms competition as a whole and of the political structure of superpower rivalry. Critics of arms control malpractice during the past decade and a half, the SALT-START-INF era, have long noted, similarly, the strategic absurdity of discussing both offense apart from defense, and "strategic" apart from "theater" or "intermediate-range" forces. The United States cannot have a space arms control policy or a space strategy, any more than it can have a maritime, a land, or an air strategy that is distinctive from national security policy as a whole.1 Large-scale war, should it occur, will embrace all arms and all geographical environments. "Combined arms" thinking should pervade U.S. policymaking for arms control as well as U.S. military operational planning. Space is a special, or unique, environment in that states do not own it, no one lives there, and its physical properties are certainly unique. However, **space is not special in the sense that states are, or will be, behaving there in ways fundamentally different from their settled habits of mixed cooperation and conflict in the three other geographical dimensions of political engagement**. The militarization of space, which is now far advanced and shows no indication of diminishing, creates a major incentive for the development and deployment of ASAT (antisatellite) and active DSAT (defense satellite) capabilities. The development and deployment of large terrestrially based arsenals of long-range missiles that must leave the atmosphere for much of their flight create, inexorably, powerful incentives to develop and deploy effective countervailing weapon technologies that would have to be either space-based or, at the least, assisted by support platforms in space. In addition, again inexorably, the potential deployment of an architecture of ballistic missile defense that had key elements space-based must generate, indeed mandate, very robust DSAT capability. DSAT is not necessarily synonymous with ASAT, but the technical overlap could be considerable.

### Space militarization is inevitable – the only question is effectiveness

Walker, 08(Peter Walker June 3rd 2008, The Guardian UK. “China and the arms race in space” http://www.guardian.co.uk/news/blog/2008/jun/03/thearmsraceinspace)

Outside scrutiny of China has, understandably, been muted in the weeks following the Sichuan earthquake. But a new battle of strength between Asia's emerging superpower and the US is fast emerging - in the skies. In comments reported this week, Chinese military bigwigs have warned that an arms race in space is "unstoppable". China served notice of its capabilities in January when it used a ballistic missile to shoot down one of its own defunct satellites. The US is widely assumed to have parallel technology. A new book issued by the state-run China Arms Control and Disarmament Association, dissected by Reuters, warns that this was only the start. The buildup of weaponry in orbit "is already unstoppable", Wu Tianfu, of the 2nd Artillery Corps command college, which controls China's nuclear weaponry, says in the book. Strategic confrontation in outer space is difficult to avoid. The development of outer space forces shows signs that a space arms race to seize the commanding heights is emerging. Beijing remains officially set on drawing up secure multinational regulations to avoid a space arms race, but is clearly hedging its bets - something Washington is only too aware of. Last month, Brigadier General Jeffrey Horne, from the US Strategic Command, told a congessional advisory group that China was "aggressively" developing its ability to shoot down satellites, technology he predicted could be used in a future showdown over Taiwan. The US in turn must "proactively protect our space capabilities", he insisted. So that's that, it seems. The next time you think you see a shooting star in the heavens, it might be worth a second look.

# \*\*\*Misc

## A2 SPS Link

### A2 SBSP are weapons-- SBSP could not be weapon

Rouge, Joseph D., comp. *NSS.org*. Rep. National Space Society, 10 Oct. 2007. Web. <http://www.nss.org/settlement/ssp/library/final-sbsp-interim-assessment-release-01.pdf>.Acting Director, National Security Space Office

Because the microwave beams are constant and conversion efficiencies high, they can be beamed at densities substantially lower than that of sunlight and still deliver more energy per area of land usage than terrestrial solar energy. The peak density of the beam is likely to be significantly less than noon sunlight, and at the edge of the rectenna equivalent to the leakage allowed and accepted by hundreds of millions in their microwave ovens. This low energy density and choice of wavelength also means that biological effects are likely extremely small, comparable to the heating one might feel if sitting some distance from a campfire.

The physics of electromagnetic energy beaming is uncompromising, and economies of scale make the beam very unsuitable as a “secret” weapon.  Concerns can be resolved through an inspection regime and better space situational awareness capabilities. The distance from the geostationary belt is so vast that beams diverge beyond the coherence and power concentration useful for a weapon. The beam can also be designed in such a manner that it requires a pilot signal even to concentrate to its very weak level. Without the pilot signal the microwave beam would certainly diffuse and can be designed with additional failsafe cut‐off mechanisms. The likelihood of the beam wandering over a city is extremely low, and even if occurring would be extremely anti‐climactic.

## A2 SMD Link

### No link-SMD doesn’t result in the deployment of offensive space weaponry

Gruselle, 07 (Research Fellow at the Fondation pour la Recherche Stratégique, served in the policy department of the French Ministry of Defence for more than 10 years. Bruno, “The final frontier: missile defence in space?” UN Institute for Disarmament Research, http://www.unidir.org/pdf/articles/pdf-art2600.pdf)

Space-based assets could clearly play a role in both responses. Space-based sensors could give the necessary alert and tracking data to the interception network that land-based sensors would not be able to obtain. More important, space-based interceptors could be the most appropriate means to target long-range missiles fired from deep within a country’s territory or to rapidly destroy the launch capabilities of a rogue state set on defeating limited land-based interception system inventories. The latter clearly lies at the core of the debate on the nonweaponization of space as it means the deployment of a space-to- Earth strike capability. However, it is doubtful that weapon platforms will be deployed in space in the near future. Orbiting weapons capable of striking land-based systems are neither economically nor technically interesting for the moment, and other means to conduct anti-launcher operations already exist, such as piloted or unmanned airborne systems. Indeed, the proponents of missile defence are not asking for space-to-Earth strike systems. Rather, they are advocating the development of space-based interception capabilities,23 which would have only a very marginal—and probably no—offensive potential against Earth targets.