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\*\*Space Mil Not Inev\*\*

General Space Weap Not Inev

****Weaponization of space is not inevitable- no one wants to spark an arms race.****

**Moltz 7**

**Ja**mes Clay Moltz, Associated Director and Research Professor at the Center for Nonproliferation Studies, Department of National Security Affairs, Naval Postgraduate School November 2007 ‘Space Policy’ Volume 23, Issue 4, November 2007, Pages 199-205 <http://ry2ue4ek7d.search.serialssolutions.com/?ctx\_ver=Z39.88-2004&ctx\_enc=info%3Aofi%

2Fenc%3AUTF-8&rfr\_id=info:sid/summon.serialssolutions.com&rft\_val\_fmt=info:ofi/fmt:kev:mtx:journal&rft.genre=article&rft.atitle=Protecting+

safe+access+to+space%3A+Lessons+from+the+first+50+years+of+space+security&rft.jtitle=SPACE+POLICY&rft.au=Moltz%2C+James+Clay&rft.date=2007-11-01&rft.pub=ELSEVIER+SCI+LTD&rft.issn=0265-9646&rft.volume=23&rft.issue=4&rft.spage=199&rft.epage=205&rft\_id=info:doi/10.1016%2Fj.spacepol.200

7.09.002&rft.externalDBID=n%2Fa&rft.externalDocID=000251806600002>//DoeS

While the analysis provided above cannot conclude definitely that states will not test and deploy significant arsenals of weapons in low-Earth orbit over the next 50 years, it does demonstrate that there is a strong possibility that such a path could continue to be rejected by states and new non-state actors in space, since it is manifestly in the interests of all parties in space to do so. Indeed, predictions of space's inevitable weaponization—given the knowledge we now have of the fragility of the space environment to possible ruination by man-made effects—need to be predicated by some notion of a sustained “breakdown” in logic or responsibility. Instead, it should be in the interests of all users of space, and particularly of the USA, to seek to *prevent* such an outcome.

Space weaponization is not inevitable- Russia & China don’t have the intent or resources.

Hitchens 1

Theresa Hitchens is senior adviser at the Center for Defense Information. September 2001 [Arms Control Today](http://proquest.umi.com/pqdweb?RQT=318&pmid=16139&TS=1311818407&clientId=4347&VInst=PROD&VName=PQD&VType=PQD). Washington: [Sep 2001](http://proquest.umi.com/pqdweb?RQT=572&VType=PQD&VName=PQD&VInst=PROD&pmid=16139&pcid=1469540&SrchMode=3). Vol. 31, Iss. 7;  pg. 16, 6 pgs <http://proquest.umi.com/pqdweb?did=81954529&sid=1&Fmt=4&clientId=4347&RQT=309&VName=PQD>//DoeS

Although current Pentagon planning is driven by the perception of an urgent, emerging threat, there is some reason to question whether such a threat assessment is justified and whether the magnitude of the threat requires a near-term change to today's space policy. Leaving aside the question of the ballistic missile threat-as that is a major debate in its own right and Pentagon missile defense plans contain a number of non-space-based options for addressing it-it is unclear what threat to U.S. space assets exists today or will exist in the near and medium term. The members of the Space Commission and other proponents of weaponizing space often cite as an indicator of the threat trend the fact that there are more and more countries, now 50-plus, with space capabilities. Available technologies, from imaging to telecommunications to tracking and signals intelligence, are progressing rapidly; and many are available on the commercial marketplace. The Space Commission report also includes extensive analysis of the possible vulnerabilities of U.S. space assets, especially commercial satellites and communications grids: "The reality is that there are many extant capabilities to deny, disrupt or physically destroy space systems and the ground facilities that use and control them." However, vulnerabilities do not necessarily result in threats, and the actual case for a near-term threat is weak. There is little hard evidence that any other country or hostile non-state actor possesses the technology, or the intention, to seriously threaten U.S. military or commercial operations in space using space-based weapons. In fact, there are extremely few details to be found (at least in the public domain) regarding countries and programs of concern or time frames for hostile developments. Several countries have the capability to launch a nuclear weapon into space and disrupt satellite activity on a grand scale, but this is not a new threat (and it is prohibited by the Limited Test Ban Treaty). Nor is there reason to believe that any government would risk doing so knowing that the U.S. response might well be a nuclear attack on its own nation. Recently, there have been a handful of Chinese press reports about China's military researching microsatellites (weighing less than 100 kilograms) or nanosatellites (weighing less than 10 kilograms) to attack U.S. satellites in space in a future war, but evidence of actual progress is scant. Russia also has long explored anti-satellite technology, but there is little reason to believe that Moscow has changed its policy against deploying such weapons, especially given the current cash-starved state of the Russian space program. Proponents of weaponizing space vaguely cite the threat as emerging in the 2020 time frame or beyond, and even the Space Commission report puts the possible development of hostile anti-satellite systems at decades away. There is also the question of intent. It is not obvious that any nation has any intention, or even incentive, to launch a war in space. Instead, most countries, including China and Russia, have been urging a global ban on weapons in space. In fact, a U.S. move to put offensive weapons in space could have the perverse effect of creating a threat because other countries would feel compelled to follow suit.2

General Space Weap Not Inev

Weaponization of space is not inevitable- Cold War and 19th century Naval Power proves.

McKenna 5

Ted McKenna, Senior Editor at Journal of Electronic Defense, Washington, DC. . Journal of Electronic Defense. Gainesville: Jul 2005. Vol. 28, Iss. 7; pg. 20, 3 pgs ‘Is Space Weaponization Inevitable?’ <http://proquest.umi.com/pqdlink?did=868177771&Fmt=7&clientId=4347&RQT=309&VName=PQD>//DoeS

Yevgeny Zvedre, senior counselor on science and technology at the Embassy of the Russian Federation, said there are a number of reasons to prevent weapons in space. For one thing, having weapons in space introduces new suspicions into international politics. "Who can guarantee that countries that feel threatened by the US would not develop asymmetric means to counter them, triggering an arms race?" said Zvedre, who argued that weapons in space are not necessarily inevitable; many people during the Cold War believed that nuclear exchange was inevitable, yet it didn't happen. Everett Dolman of the US Air War College's School of Advanced Air and Space Studies said that naturally those countries that lack the kind of capabilities the US enjoys in space would want to curb the development of any additional advantage the US could gain. Given that the loss of space capabilities would be disastrous to US forces, the US Air Force would, of course, want to have weapons in space. The US military can't be faulted for wanting space weaponization. The question is simply whether policymakers should allow it. In any case, Dolman said, the consequences of weaponizing space wouldn't be as dire as some claim. The sooner the US developed them, the less likely other countries would believe they could match US capabilities in space and attempt to do so. "The longer I wait, the longer I hedge, the more opportunity I give the other countries to develop capabilities," he said. Moreover, a focus on developing space capabilities indicates, according to Dolman, that unlike the type of military based on land forces, which are able to occupy other countries, the US is a liberal society, just as a naval power like Britain in the 19th century was a relatively liberal nation. While still retaining the capability to defend itself and to strike at other countries through aircraft and other means of precision, "a space-based US would no longer be a threat to other countries' sovereignty," Dolman said. Robert Dickman, executive director of the American Institute of Aeronautics and Astronautics and the former deputy for military space at the US Air Force (USAF), said that spacebased activities are not really anything new. The Soviet Union, for example, 20 years ago tested a system designed to disable satellites, though it decided not to continue development. Intercepting communications for the purposes of deception or causing harm to the opponent's ability to command is as old as warfare itself, meanwhile, so the announcement last August that the USAF had turned on a Counter Communications System (see "USAF SATCOM lammers Go Live," JED, December 2004, p. 16) should come as no shock, Dickman said. US Air Force Lt. Col. Shawn Barnes, chief of the space-policy division of the Joint Staff's plans and policy directorate, said that over the years, there have certainly been US scientific and civil space missions like the Apollo launches, yet the military has always driven US activities in space, dating back to the Elsenhower era. Lt. Col. Barnes said US policy is not, per se, to achieve superiority in space over any other nation. Mostly, spending by the US on space has been about "force enhancement" through improved reconnaissance, navigation, communications, and so on. But the increasing infrastructure put into space will need to be protected, Lt. Col. Barnes said.

Other countries will only weaponize space if they perceive the US as doing it first.

Steele 1

CLAIRE E. STEELE, MAJ, USA Reviewed by Consulting Faculty Major Kenneth D. Plowman, Ph.D. and Graduate Degree Programs Philip J. Brookes, Ph.D. 2001 ‘THE WEAPONIZATION OF SPACE A STRATEGIC ESTIMATE’ Master of Military Art and Science Theses <http://cgsc.contentdm.oclc.org/cdm/singleitem/collection/p4013coll2/id/459>//DoeS

The long-term effects economically are “poor.” Developing and launching something into space is incredibly expensive. The DoD space budget peaked during 1988-1989.91 As seen in the 1990s, when the presidential administration did not put priority on the space program, it did not receive funds. In the past, space-based weapons programs have been started and never completed. Other nations will put money into their space weapons programs only if the US is doing the same. Like the defensive weapons only course of action, the economic priority varies with the presidential administration, so it may or may not be sustained. The phasing of the instruments of power during this course of action should be: diplomatic, economic, military. The information instrument is applied supporting the other three and will also have to be quite extensive to be effective. Developing offensive and defensive space-based weapons will be controversial and expensive. Diplomacy must still be the number one priority if the US is to avoid conflict with other nations. Russian Defense Minister Marshall Igor Sergeev predicts conflicts with other nations if the US violates the 1972 Anti-Ballistic Missile Treaty.92 The US should attempt to maintain friends and try not to develop new enemies. Economic must be the next because of the large costs involved in space operations. If the military is chosen, it must become a priority and receive all the benefits of the other instruments of power.

General Space Weap Not Inev

No other country has made any moves to weaponize space- US action would be the first and spark an arms race.

Pena 2

Charles V Pena, a senior defense policy analyst, Cato Institute, Washington, D. C. Jul 2002. USA Today Vol. 131, Iss. 2686; pg. 14, 5 pgs <http://proquest.umi.com/pqdlink?did=149310201&Fmt=7&clientId=4347&RQT=309&VName=PQD>//DoeS

CONTROL OF SPACE is at the crux of the debate about the future of American military policy. The question is not about militarizing space. Clearly, the U.S. has been using and will continue to use space for military purposes. However. whereas space assets are currently used to support terrestrial (ground. sea, and air) military operations, what Sen. Robert C. Smith (R.-N.H.), the Space Commission (which was chaired by current Secretary of Defense Donald Rumsfeld). and others have proposed is that the U.S. move toward "weaponizing" space. There are those who feel the U.S. is currently at risk and should act now to seize the military high ground in space. Smith believes that "control of space is more than a new mission area-it is our moral legacy, our next Manifest Destiny, our chance to create security for centuries to come:' The Space Commission argues that "space is not simply a place from which information is acquired and transmitted or through which objects pass," and "the U.S. must have the capabilities to defend its space assets against hostile acts and to negate the hostile use of space against U.S. interests." Critics of such a policy shift are concerned that weaponizing space could trigger a dangerous arms race. They are quick to point out that no country currently has weapons in space and that an American move to deploy them (either offensive or defensive) would only provide unneeded impetus for other nations to follow suit. Jonathan Pike of Globalsecurity.org contends that weaponizing space "runs fundamentally against the main theme of our space policy for the last half-century-to demonstrate America's power in space in a nonthreatening way." Air Force Lt. Col. Peter Hays and Karl Mueller (both faculty members at the School of Advanced Airpower Studies) argue that "it is no longer clear that the relationship between space and national security is, or should be, shaped primarily by international military competition."

Russia has other priorities besides weaponizing space and China would only weponize in response to US weaponization.

Pike 2

John Pike national security analyst and director and founder of GlobalSecurity.org. on the Steering Committee of the Brookings Institution U.S. Nuclear Weapons Cost Study Project. 2002 ‘Stockholm International Peace Research Institute’ Essay 3. The paradox of space weapons <http://www.sipri.org/yearbook/2003/E3>//DoeS

Only three states have been actively involved in research to create and deploy space-based weapon systems: China, Russia and the USA. Russia was once in a position to compete with the USA in space but domestic concerns and budgetary collapses have caused it to retrench and maintain only its most necessary programmes. Russia no longer has the resources to deploy space-based weapon systems. China is thought to be active in research on anti-satellite (ASAT) and other satellite technologies but the true state of its research programme is unclear. Chinese satellite and space programmes are a nearly indiscernible mix of civilian and military components and research takes place at joint military and commercial facilities. As China comes to rely on its own civil and military satellite systems, it will be faced with the same vulnerabilities now faced by the USA. It seems certain that developing this technology is of great interest to China and the government has apparently committed considerable resources to satellite and space programmes.5 China has been researching and developing ASAT technologies for several years but its degree of commitment to the production and launch of ASAT and satellite weapons is uncertain. Reports in January 2000 suggested that ground testing of a nanometer parasitic ASAT system (designed to attach itself undetected to a host satellite, lie dormant and disable its host upon activation) was being undertaken.6 While Chinese leaders have called for the demilitarization of outer space, it is still possible that China might target US space assets as a possible reaction to US military strength. China is responding to the growing US reliance on space as well as the US goal to develop ‘active defensive’ and offensive space systems. The resources of the Russian space programme shrank during the 1990s. Russia had 180 satellites in operation a decade ago.7 The 90 Russian satellites currently in orbit (of which about half have strictly military missions) are ageing, with about 80 per cent already operating beyond their intended life expectancy. Russian military commanders frequently complain about the lack of Russian satellite systems for communications and reconnaissance. Until the launch of what was believed to be an Arkon-type digital imagery satellite in July 2002, Russian photo-reconnaissance is believed to have relied completely on obsolete photo canister technology that must be retrieved and developed prior to use.8 These systems were useful for developing strategic systems intelligence during the cold war but do not provide useful near-real-time intelligence data.9 The Soviet Union carried out significant research and development of ASAT systems, although no Soviet systems are believed to have been placed in orbit.10

General Space Weap Not Inev

China and the US will not develop space weaponization- neither country wants a breakout that could spell extinction if war happened over Taiwan.

MacDonald 8

Bruce W. MacDonald, an independent consultant in technology and national security policy management, was assistant director for national security at the White House Office of Science and Technology Policy as well as senior director for science and technology on the National Security Council staff & a professional staff member on the House Armed Services Committee and was defense and foreign policy adviser. Worked for the State Department as a nuclear weapons and technology specialist in the Bureau of Politi- cal-Military Affairs, where he led the Interagency START Policy Working Group. Member of the Council on Foreign Rela- tions. Mr. MacDonald holds a BSE from Princeton in aerospace engineer- ing and two master’s degrees, also from Princeton—one in aerospace engineering, specializing in rocket propulsion, and a second in public and international affairs from the Woodrow Wilson School. September 2008 ‘China, Space Weapons, and U.S. Security’ Brookings Institute. <http://www.cfr.org/china/china-space-weapons-us-security/p16707>//DoeS

War between China and the United States seems unlikely, given their increasing economic interdependence and ongoing efforts in both countries to improve relations. Looming in the background, however, is the possibility of war over Taiwan, a plausible if unlikely scenario that could bring the United States and China into conflict. China might then be tempted to attack U.S. military satellites as a ca- sualty-free way to signal resolve, dissuade Washington from further involvement in a Taiwan conflict, and significantly compromise U.S. military capabilities if such dissuasion failed. Such Chinese actions could well escalate any conflict between the United States and China. As a result, both countries have interests in avoiding the actual use of counterspace weapons and shaping a more stable and secure space environment for themselves and other spacefaring nations, which could easily be caught in the undertow of a more militarily competitive space domain.

Space weaponization is not inevitable- governments don’t want to increase space debris.

MacDonald 8

Bruce W. MacDonald, an independent consultant in technology and national security policy management, was assistant director for national security at the White House Office of Science and Technology Policy as well as senior director for science and technology on the National Security Council staff & a professional staff member on the House Armed Services Committee and was defense and foreign policy adviser. Worked for the State Department as a nuclear weapons and technology specialist in the Bureau of Politi- cal-Military Affairs, where he led the Interagency START Policy Working Group. Member of the Council on Foreign Rela- tions. Mr. MacDonald holds a BSE from Princeton in aerospace engineer- ing and two master’s degrees, also from Princeton—one in aerospace engineering, specializing in rocket propulsion, and a second in public and international affairs from the Woodrow Wilson School. September 2008 ‘China, Space Weapons, and U.S. Security’ Brookings Institute. <http://www.cfr.org/china/china-space-weapons-us-security/p16707>//DoeS

Space debris can collide with and destroy satellites and is an impor- tant element in thinking about space weapons. Like radioactive fallout from nuclear war, debris from space war can linger for many years. While the word “debris” sounds harmless based on common usage, most orbital debris moves at a speed of more than seventeen thousand miles per hour. Thus, relatively small debris pieces are highly destruc- tive to a satellite in a collision. One only has to imagine what life would be like if thousands of bullets from World War II were still whizzing around to get some feel for the danger that debris growth poses for the future of space. At present, twelve thousand detectable debris pieces that are ten centimeters or larger orbit the earth, as well as millions of smaller pieces. The National Aeronautics and Space Administration (NASA) estimates China’s 2007 ASAT test alone increased orbital debris by 10 percent, and its fallout will take more than one hundred years to reenter the atmosphere. Despite important international efforts to reduce it, the total quantity of space debris grew by 20 percent in 2007. All nations have a compelling common interest in avoiding the massive increase in space debris that substantial ASAT conflict would create. Many nations, including China, Russia, and the United States, have agreed to nonbinding guidelines to minimize space debris, including by deliberate destruction. Perhaps technology will allow re- moval of space debris in the future, but nothing is now on the horizon, and space clean-up would likely be very costly in any event. The implications of these new counterspace developments for peacetime and crisis stability, as well as the conduct of warfare, are profound.

AT: China Will Weaponize

China tried tightening international restrictions on space weaponization but the US prevented a ban from implementation.

Estabrooks 3

Sarah Estabrooks, Project Manager of Space Security research at the Belfer Center, hub of the Harvard Kennedy School's research, teaching, and training in international security affairs, environmental and resource issues, and science and technology policy. Jul-Sep 2003 <http://proquest.umi.com/pqdlink?did=505684851&Fmt=7&clientId=4347&RQT=309&VName=PQD>//DoeS

Early on, the UN General Assembly recognized the threat from uncontrolled military expansion into space and in 1962 adopted the "Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space." This resolution became the basis of negotiations for a multilateral mechanism regulating the use of space, the Outer Space Treaty (OST), which entered into force in October 1967. It established the principle that outer space is a global commons, not open to national appropriation, and codified the phrase, "peaceful use of outer space," thus banning the placement of weapons of mass destruction in orbit and the establishment of military bases in space. The Limited Test Ban Treaty of 1963 banned nuclear weapons testing in outer space, and subsequent treaties and declarations have sought to regulate exploration and military activity in space.(3) In 1981 a UN General Assembly resolution, Prevention of an Arms Race in Outer Space (PAROS), tasked the Conference on Disarmament (CD) with negotiating a treaty to ban all space weapons. The CD made some progress on a draft treaty until disagreement between China and the US in 1995 prevented consensus on the creation of the Ad Hoc committee to continue negotiations. China insisted that it would only support final negotiations on a Fissile Material Control Treaty (FMCT) if PAROS was considered at the same time. The US has consistently opposed PAROS, arguing that there is no space race. China's insistence on linking the items, and US opposition to PAROS, blocked approval of a work program and the CD has remained effectively paralyzed since 1995. Despite the stalemate in the CD, the UN General Assembly continues to support the PAROS mandate. At the 2002 session the vote was 156 in favor of PAROS, zero against, with Israel and the US abstaining.(4) For 20 consecutive years the General Assembly has supported efforts to ban weapons from space.

China would only weaponize to deter the US- proves the link.

MacDonald 8

Bruce W. MacDonald, an independent consultant in technology and national security policy management, was assistant director for national security at the White House Office of Science and Technology Policy as well as senior director for science and technology on the National Security Council staff & a professional staff member on the House Armed Services Committee and was defense and foreign policy adviser. Worked for the State Department as a nuclear weapons and technology specialist in the Bureau of Politi- cal-Military Affairs, where he led the Interagency START Policy Working Group. Member of the Council on Foreign Rela- tions. Mr. MacDonald holds a BSE from Princeton in aerospace engineer- ing and two master’s degrees, also from Princeton—one in aerospace engineering, specializing in rocket propulsion, and a second in public and international affairs from the Woodrow Wilson School. September 2008 ‘China, Space Weapons, and U.S. Security’ Brookings Institute. <http://www.cfr.org/china/china-space-weapons-us-security/p16707>//DoeS

Some in the PLA directly connect Chinese doctrine on strategic nuclear forces with that on space weapons, urging the same “minimum deterrence” doctrine.4 Chinese leader Mao Zedong was explicitly quoted on China’s 1975 nuclear policy: “We will not attack unless we are attacked. If we are attacked, we will certainly counterat- tack.” Important for China, as for the United States, would be the credibil- ity and effectiveness of its counterspace forces, which could be either ground or space based. Deploying weapons in space could appear risky to China due to the difficulty in assuring their survivability. The primary weakness of all space-based arms is their vulnerability, making them high-priority targets for opponents and thus a major source of crisis instability by which an attacker would stand to reap significant advantage. In contrast, ground-based space weapons have fewer such drawbacks, being more easily maintained and defended, and thus more difficult to attack. Chinese writings suggest a preference for such wea- pons over space-based ones. In a number of formal and military writings, China has unofficially in- dicated that the United States should not underestimate China in space or its ability to respond to U.S. military space initiatives that China perceives as a threat. Chinese specialists have stated that, in addition to protecting their satellites against U.S. offensive capabilities, China will develop a deterrent space force if there is no change in U.S. space poli- cy, which they see as shunning any restrictions and reflecting U.S. at- traction to space dominance. They have suggested that China would be prepared to deploy sufficient offensive counterspace capability to build confidence in its ability to deter U.S. use of weapons against Chinese space assets. This would not require China to match U.S. space-force deployments, but to have enough to deter. In general, as the CFR-sponsored Independent Task Force report on U.S.-China relations noted in 2007, “China does not need to surpass, or even catch up with, the United States in order to complicate U.S. defense plan- ning or influence U.S. decision-making in the event of a crisis in the Taiwan Strait or elsewhere.”5 This could reflect Chinese thinking on space weapons, as well. 9 China has openly announced its intention to build “informationized armed forces and being capable of winning informationized wars by the mid-twenty-first century;”6 offensive counterspace capabilities would be an important component in this capability. Coordinating and executing any such attack would be difficult and fraught with danger for China. Some are concerned that an action-reaction cycle involving space weapons could result in an “arms race in space,” even without actual conflict, making both the United States and China worse off than if neither went down this path.

AT: China Will Weaponize

Economics and history mean China isn’t interested in space weapons – only continued US militarization efforts cause them to seek weaponization

Mike **Moore**, author, journalist, speaker, and research fellow at the Independent Institute, former editor of The Bulletin of the Atomic Scientists, **1/12**/2009, “An Agenda for Obama: End America's Counterproductive Pursuit of Space Dominance,” http://www.cceia.org/resources/ethics\_online/0029.html

Over the past ten years, Russia and China in particular have expressed deep suspicion of America's drive toward space dominance, and they have repeatedly warned in diplomatic circles that they would not stand idly by as the United States builds a space-dominance capability. Will America's pursuit of space dominance trigger a space-related arms race? The conventional hard-line answer is that one is already underway, although evidence for this is weak. It centers on China's ASAT test in January 2007. Since the fall of the Soviet Union, China has been regularly identified in military circles and in certain influential think tanks as the Next Great Threat. To hardliners, the ASAT test proves that the Chinese talk peace while preparing for possible armed conflict. And yet, the Chinese test was of a relatively primitive "kinetic-kill" device, similar to one the United States tested in 1985 and then abandoned. China's test was more likely a shot across the bow. The United States had been dismissing Chinese efforts to get PAROS negotiations underway for years; the Chinese test may have been a warning: Get on with treaty talks or we will challenge you in space.  In fact, the assertion that China seeks to challenge the United States in national-security space—or in any military field—doesn't pass the smell test. China learned a lesson from the collapse of the Soviet Union: In a direct arms competition with the United States, the United States wins.  Moreover, manufacturing consumer goods for export to the West drives China's economy and provides employment for tens of millions in a nation in which systemic unemployment is at dangerously high levels. A Cold War-style confrontation would sap China's economic vitality by diverting huge amounts of capital from manufacturing to China's arms industries, thus threatening China's main business, the Wal-Marting of America.   A quid pro quo relationship exists between Washington and Beijing. Washington is generally comfortable with the idea 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 U.S. Treasury notes and bonds.  Nonetheless, old habits of thought persist. China is forever suspicious of the United States; American "hegemonism" remains a powerful concern. Similarly, the United States remains chronically wary of possible Chinese adventurism in East Asia, particularly in regard to Taiwan.  If the United States continues to push forward its de facto space dominance policy, China will almost surely continue to challenge it by developing space-related weapons. If that happens, India and Japan will likely follow suit. And if Pakistan does not disintegrate as functioning state, it will likely follow. Israel will be in the mix too. And so it goes—an all-out ASAT race triggered by the United States.

China will not militarize – strongly opposed

Chen 11 [Chen Peijie, Head of the Chinese delegation at the 50th Session of the Legal Subcommittee of COPUOS, March 28, 2011 “General Statement”, http://www.chinesemission-vienna.at/eng/xw/t814138.htm]

China has all along advocated the idea of harmony in outer space, abided by the basic principles of the 5 space treaties and dedicated itself to peace, development, cooperation and rule of law in outer space. China hopes that the international community will further optimize the space law regime and provide a legal basis for the orderly conduct of space activities. China **is firmly opposed to space militarization and space arms race**. There are gaps within existing space law instruments in this regard that give rise to the increasing escalation of the risks of space militarization and space arms race. Such a situation poses a grave threat to peaceful human space activities and serves no country's interests. Humanity has been tortured by wars throughout its history and we should not let such a menace extend to outer space. China always believes that the best option for maintaining long lasting peace and security in outer space still is to conclude a treaty to prevent space militarization and to tighten the monitoring of implementation of existing treaties.

AT: China Will Weaponize

China will not militarize – white paper and joint treaty

Mo 11 [Mo Honge, writer for Centre for Research on Globalisation, an independent research and media organization, March 31, 2011“China Opposes Arms Race in Outer Space: White Paper”, http://www.gov.cn/english/2011-03/31/content\_1835476.htm]

The Chinese government advocates the peaceful use of outer space, and opposes any weaponization of outer space and any arms race in outer space, says a white paper on the country's national defense. "China believes that the best way for the international community to prevent any weaponization of or arms race in outer space is to negotiate and conclude a relevant international legally-binding instrument," says the white paper, issued by the Information Office of the State Council Thursday. According to the document, in February 2008, China and Russia jointly submitted to the Conference on Disarmament (CD) a draft Treaty on the Prevention of the Placement of Weapons in Outer Space and the Threat or Use of Force against Outer Space Objects (PPWT). In August 2009, China and Russia jointly submitted their working paper responding to the questions and comments raised by the CD members on the draft treaty. China is looking forward to starting negotiations on the draft treaty at the earliest possible date, in order to conclude a new outer space treaty, says the white paper.

**Chinese ASAT tests are not a signal of a threat – they are reactions to US militarization and intended to spark negotiations**

**Mackey, 2009 - Air Force Institute of Technology [**Accessed on 6-21-11 Fall Birmingham- Southern College;; Deputy group commander at Eglin AFB, Florida -Air and Space Power Journal “US and Chinese Anti-satellite Activities” proquest]

China's ability to strike a relatively small satellite with a kinetic-kill vehicle at a significant altitude clearly demonstrates technological prowess. What could motivate such a dramatic action? Kenneth S. Blazejewski proposes several possible interpretations of Chinese space-weapons activity. First, it signals a strong concern regarding the United States' continuing development of a ballistic missile defense shield and that country's possible weaponization of space. He points to the leveraging effect that such a system could impose on Chinese missiles in the event of an attack on Taiwan. Blazejewski further states that such an obvious ASAT test, in Chinese eyes, could lead to a negotiation to deweaponize space. Alternatively, as James Oberg stipulates, destruction of the Feng Yun might encourage the US Congress to sign a treaty banning the use of ASAT weapons, which would clearly follow Chinese strategy of employing an asymmetric approach to negate a US advantage.18 Second, according to Blazejewski, China may perceive that the United States seeks to deny it the use of space and is therefore pursuing ASAT capabilities to meet that challenge. Third, he suggests that China simply seeks to establish parity with US and Russian ASAT capabilities.19

AT: China Evil

Nope, that’s just uninformed blogs

Jeff Foust, editor and publisher of The Space Review, The Space Review, 3/3/08, China and the US: space race or miscommunication?, http://www.thespacereview.com/article/1075/1, dk

Those in the US who are concerned about Chinese military space capabilities routinely cite a bevy of evidence, much of which appears in official Defense Department documents, in support of their claims. This evidence suggests that China is actively developing a wide range of ASAT weapons, from the kinetic kill vehicle tested last year to exotic approaches, like “parasitic microsatellites” that could stealthily attack larger spacecraft. Many of those claims, though, are dubious. “A lot of the information that our analysts and intelligence officers are consuming—that’s driving their perceptions of Chinese intent regarding their civil and their military space programs—is based on very shoddy sources,” said Gregory Kulacki, senior analyst and China program manager for the Global Security Program of the Union of Concerned Scientists. Kulacki, speaking about US-Chinese relations in space at the New America Foundation in Washington last month, said that many of the reports about Chinese military space projects came from questionable sources and were either inaccurate or misinterpreted by US analysts. A case in point is the claim of Chinese development of parasitic microsatellites, which appeared in the 2003 and 2004 editions of Defense Department reports to Congress about the Chinese military. “In chasing that source down, it turns out it’s from an individual’s web site—a blogger—who made the whole thing up,” Kulacki said. (The same Chinese blogger, he added, had published claims of a fanciful array of other advanced weapons on his site.) In another case, the National Air and Space Intelligence Center mistranslated a publication by a junior instructor at a Chinese artillery college and concluded that China was planning to deploy ASAT systems. To better understand the types of sources out there, Kulacki and colleagues reviewed 1,500 articles published in China that referenced ASAT technology in some manner between 1971 and 2007, and grouped them into four categories. Nearly half—49 percent—were classified as “reviews” that provided only general information, while an additional 16 percent were “polemics”, or political diatribes with little technical information. Such articles are considered “trash articles” in China, Kulacki said: “They’re things people have to publish because they’ve got to publish something. They’re very low value and not read in China.” Of the rest, 29 percent of the articles represented some kind of original analysis of ASAT technology, while only 6 percent delved into technical issues. Moreover, those technical articles don’t get the same level of attention by American analysts as the reviews and polemics. “If you look at the citations in US reports on this, we’re undervaluing the journals that actually might contain information that could tell us something meaningful about Chinese ASAT capabilities,” he said. While American views of Chinese space efforts may be based on questionable sources, Chinese views of American space efforts are more complex. “In a general sense, the Chinese public and Chinese professionals have a very positive view of the US space program,” Kulacki said. He noted that a public expo about spaceflight in China shortly before the Shenzhou 6 mission was primarily about American space efforts, including a wall in the back that featured portraits of the astronauts who died on the space shuttle Columbia in 2003. There are, though, more hostile views of US space programs in China, particularly of American military space projects. Those articles tend to be written not by space professionals but by political officers in the Chinese military, who write polemics that claim that the US wants to fight space wars. Because they’re not written by professionals, Kulacki said, they tend not to be sophisticated: in one example shown by Kulacki, a Chinese article was illustrated by a model of an American ASAT weapon—made of Lego bricks. This results in something of an echo chamber effect between the “polemical communities” in the US and China. “They feed off of each other for sure,” Kulacki said. “There is this whole tiny dialogue between these two hawkish communities in these two countries that dominates the entire discussion on this in the public domain.” There are also Chinese suspicions of American motives elsewhere in space. Kulacki noted that, shortly before the Shenzhou 5 launch, NASA provided orbital debris tracking data to the Chinese so they could avoid any potential collisions. A Chinese official involved with the mission told Kulacki that the data came late in their planning process, raising suspicions. “The relationship is so bad that he was convinced that NASA did that on purpose to mess them up,” he said. “There’s a lot of mistrust and bad feelings.”

AT: China Evil

**More certainty of Chinese motives is key- assuming Chinese space weaponization is inevitable creates a self fulfilling prophecy.**

MacDonald 8

Bruce W. MacDonald, an independent consultant in technology and national security policy management, was assistant director for national security at the White House Office of Science and Technology Policy as well as senior director for science and technology on the National Security Council staff & a professional staff member on the House Armed Services Committee and was defense and foreign policy adviser. Worked for the State Department as a nuclear weapons and technology specialist in the Bureau of Politi- cal-Military Affairs, where he led the Interagency START Policy Working Group. Member of the Council on Foreign Rela- tions. Mr. MacDonald holds a BSE from Princeton in aerospace engineer- ing and two master’s degrees, also from Princeton—one in aerospace engineering, specializing in rocket propulsion, and a second in public and international affairs from the Woodrow Wilson School. September 2008 ‘China, Space Weapons, and U.S. Security’ Brookings Institute. <http://www.cfr.org/china/china-space-weapons-us-security/p16707>//DoeS

But there is at least some suggestion that China may be moving toward a doctrine of deterrence in offensive counterspace capability, at least in the near to mid term, partially patterned on its strategic wea- pons doctrine and policy. This doctrine would include: – an officially preferred ban on all space weapons; – a secondary doctrine of deterrence, based on finite capability rather than total competition with the United States; – no requirement for quantitative parity with the United States; and – a preference for ground-based space weapons over space-based weapons. It is unclear whether the PLA subscribes to this embryonic doctrine. China is possibly seeking a full space war-fighting capability and not just a finite deterrence posture. However, PLA writings make clear what Chinese diplomacy does not: the PLA envisions conflict in space and is preparing for it. Accordingly, the United States needs to assess how robust a program of space offense China plans. Caution suggests the United States must prepare itself for the possibility that China could soon have an arsenal of ASAT weapons, though it is not a fore- gone conclusion. This uncertainty compels the United States to hedge its risks, but carefully, and not in such a way as to create a self-fulfilling prophecy. Far more U.S. attention and understanding of this issue is needed.

AT: Space “Mil” Inev

Space has already been “militarized,” meaning ground troops are dependent on space tech, but it is a space weaponization race we need to fear.

Estabrooks 3

Sarah Estabrooks, Project Manager of Space Security research at the Belfer Center, hub of the Harvard Kennedy School's research, teaching, and training in international security affairs, environmental and resource issues, and science and technology policy. Jul-Sep 2003 <http://proquest.umi.com/pqdlink?did=505684851&Fmt=7&clientId=4347&RQT=309&VName=PQD>//DoeS

Space has been "militarized" since the earliest communications and surveillance satellites were launched into orbit, but there is no indication it has been "weaponized." Today, militaries worldwide rely heavily on satellites for command and control, communications, reconnaissance and monitoring, early warning, treaty verification, and navigation of vehicles and weapons with the Global Positioning System (GPS). Research and development is frequently funded by military money. States accept that "peaceful purposes' include military use -- even that which is not particularly peaceful -- and space is considered a sanctuary only in that no weapons are deployed there. Space "weaponization" refers to the placement in orbit of devices that have a destructive capacity. Therefore, while satellites may be used for aggressive measures, such as GPS navigation for fighter jets or precision guided missile delivery, satellites themselves have no destructive capacity and their support of military operations is not considered weaponization. A space weapon would use either directed energy (in the form of a laser, radio frequency or other exotic technology) or directed mass (kinetic force of impact or a conventional explosive) to destroy its target. That target could be space-based (as in a ballistic missile at mid-phase) or ground-, sea-, or air-based. The Canadian government assumes that a weapon is space-based if it "orbits the earth at least once, or has or will acquire a stable station at some point beyond earth orbit."(2) Any legal mechanism to prohibit weapons in space must consider the possible development of unanticipated technologies.

Space militarization doesn’t trigger the link- only space weaponization, that counters other countries military abilities does.

MacDonald 8

Bruce W. MacDonald, an independent consultant in technology and national security policy management, was assistant director for national security at the White House Office of Science and Technology Policy as well as senior director for science and technology on the National Security Council staff & a professional staff member on the House Armed Services Committee and was defense and foreign policy adviser. Worked for the State Department as a nuclear weapons and technology specialist in the Bureau of Politi- cal-Military Affairs, where he led the Interagency START Policy Working Group. Member of the Council on Foreign Rela- tions. Mr. MacDonald holds a BSE from Princeton in aerospace engineer- ing and two master’s degrees, also from Princeton—one in aerospace engineering, specializing in rocket propulsion, and a second in public and international affairs from the Woodrow Wilson School. September 2008 ‘China, Space Weapons, and U.S. Security’ Brookings Institute. <http://www.cfr.org/china/china-space-weapons-us-security/p16707>//DoeS

Many nations benefit from space assets used for military purposes, including communications, reconnaissance, and positioning. However, space militarization does not necessarily mean space weaponiza- tion; the important distinction between the two lies in the unfettered use of space. While space militarization has indispensably augmented U.S. conventional military forces, such capabilities do not deny others the use of similar capabilities. Space weaponization, on the other hand, can seek to prevent an adversary from using space for military purposes. According to the U.S. Air Force, space weaponization, or “offensive counterspace capabilities,” would involve space-based or earth- based weapons that could destroy, disable, or disrupt space-based systems such as satellites. Earth-based weapons capable of attacking satellites’ ground stations and communications links must also be consi- dered as part of any evolving space-weaponization architecture.

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\*\*Links\*\*

Missile Defense

Missile Defense would trigger a space arms race- China and India are already planning programs in response in the event we do the plan.

Pugliese 4

David Pugliese, Staff Writer, the Ottawa Citizen newspaper, has been writing about military affairs and the Canadian Armed Forces since 1982. worked as a correspondent for the weekly U.S. publication Defense News. Pugliese’s reports from Bosnia and Croatia in 1995 earned him a National Newspaper Award nomination for international reporting. Jul 17, 2004. Edmonton Journal. <http://proquest.umi.com/pqdlink?did=669077611&Fmt=7&clientId=4347&RQT=309&VName=PQD>//DoeS

A panel of space experts has warned the Department of Foreign Affairs the U.S. missile defence shield carries the potential to spark a new arms race similar to those seen during the Cold War. China and India were identified as preparing programs to deal with the U.S missile defence agency's plan to eventually put a weapon into orbit, according to the report. It was prepared for Foreign Affairs six months ago and recently obtained by the Ottawa Citizen. The Canadian government is said to be on the verge of throwing its support behind the Pentagon's missile shield and some military officers have started speaking out in support of that. Earlier this week, Canadian Lt.-Gen. Rick Findley, deputy commander of the North American Aerospace Defence Command, suggested in a report that Canada should join the missile shield. But the February report produced for Foreign Affairs noted some nations are concerned about whether they will continue to have access to space as well as be free from the threat of space-based weapons in the future. "U.S. Missile Defence Agency plans to develop and deploy a space- based interceptor test bed early in the next decade were frequently cited in relationship to these concerns as was what appeared to be a growing tendency among U.S. officials to regard the weaponization of space as inevitable, and for some, desirable," the report stated. "The reaction to these apparent trends by Chinese and Indian officials underscored the risk that other space security actors were beginning to assume that space would inevitably become weaponized and were beginning long-term planning on this assumption." That highlighted the potential for what the experts called a "negative action-reaction cycle similar to those which animated arms competitions during the Cold War."

MD sparks an arms race- Leaked Pentagon documents reveal the ‘rogue state’ threat is a cover up for a plan to use MD to further space dominance sparking an arms race. Canada proves perception.

Gwyn 4

Richard Gwyn is an international affairs columnist for The Toronto Star. Dec 6-Dec 12, 2004, The Hill Times. , Iss. 766; pg. 1 ‘PM should say No to BMD: Missile system first step to militarization of space’ <http://proquest.umi.com/pqdlink?did=762191211&Fmt=7&clientId=4347&RQT=309&VName=PQD>//DoeS

Also, it's not our affair that the system itself is almost totally unnecessary and that it probably won't work. It will supposedly protect the U.S. against nuclear missiles launched by "rogue" states. Even if any such states could actually do this, it's unimaginable that a dictator would consign himself and his country to oblivion, as would happen in the instant retaliation. The likelihood of a defensive missile actually knocking down an incoming missile - a bullet hitting a bullet - can be argued endlessly, but most of the system's tests have failed. Still, the mere fact that it might work just might deter an attacker, if one ever existed. For the projected $80- billion U.S. price tag, this seems like a trivial payoff, except as a subsidy to the military-industrial complex. The system is far from trivial, though, but for reasons that have nothing to do with rogue missiles - except, perhaps, as public relations cover. "It's about space, stupid," declares George Friedman, the highly-regarded American strategic analyst. As reinforcing evidence, a Pentagon document recently leaked to the press talks about the need to ensure "space superiority ..... to ensure freedom of action in space for the U.S. and its allies and, when directed, deny an adversary freedom of action in space." A study by our own Defence Department declares that a "significant risk (of the anti-missile system) is its reinforcement of trends toward the weaponization of space." The anti-missile system is unquestionably the first step towards the militarization of space. Canada opposes this because of the risk of triggering off a new arms race.

Missile Defense

Missile defense would be perceived as space weaponization and would spark an arms race.

Pena 2

Charles V Pena, a senior defense policy analyst, Cato Institute, Washington, D. C. Jul 2002. USA Today Vol. 131, Iss. 2686; pg. 14, 5 pgs <http://proquest.umi.com/pqdlink?did=149310201&Fmt=7&clientId=4347&RQT=309&VName=PQD>//DoeS

The concern is that, much as missile defense advocates have used sea-based missile defense as an attempt to open the door to a larger, more-expensive global missile defense, space defense policy will be used as a way to justify and achieve a global-as opposed to national-missile defense. Indeed, if space policy is implemented as outlined in the Space Commission report, a global missile defense may be inevitable. Yet, building a global BMD system could prove to be counterproductive. Such a system would be able to shoot down not only ballistic missiles, but ASATs as well as orbiting satellites and spacecraft. Nations that feel the U.S. is trying to hold their satellites at risk or prevent them from launching satellites will have incentives (that would be nonexistent in the absence of such a threat) to develop ASATs, regardless of the technological hurdles, and will be more likely to expend the necessary resources to acquire such a capability. Those ASATs could put the entire constellation of American military and civilian satellites at risk. With the greatest dependence of any nation on space assets (both civilian and military), the U.S. could ultimately see its security reduced if hostile nations are spurred to develop and deploy ASATs (which they currently do not have) in response to U.S. deployment of a spacebased BMD.

Satellite Hardening

Protection of satellites is weaponization of space and will spark a new arms race- Russia proves.

Kislyakov 8

Andrei Kislyakov is a political commentator for the Russian News and Information Agency Novosti February 13, 2008 ‘Space militarization’ The Monitor (McAllen, Texas) Distributed by McClatchy-Tribune News Service [lexis]//DoeS

MOSCOW \_ Earlier this month, U.S. Defense Secretary Robert Gates announced a new priority for his department \_ protection of America's satellites. As if to underline the importance of the task, he demanded in early February that Congress allocate $10.7 billion for the purpose in 2009. Russia has voiced similar concerns. Air Force Commander Col.-Gen. Alexander Zelin told a conference at the Academy of Military Sciences in mid-January that the biggest threats to Russia in the 21st century come from air and space. This concern about space raises several questions. First, why do satellites require protection? Second, does defense of space equate to the militarization of space? Third, how can sophisticated and expensive space hardware be protected from unwanted interference? Today satellites do require protection. To understand why, we have to understand how warfare has changed. Recent conflicts have shown that the ideas that dominated military thinking in the 20th century have become desperately obsolete. In the wars of today, and the future, the objective is to deal surgical strikes against an enemy's sensitive facilities, rather than seize its territory. Massive use of ground troops and armor is already a thing of the past. The role of strategic aviation is similarly decreasing. In strategic arms, the emphasis is shifting from the classic nuclear triad to high precision weapons of different basing modes. This kind of precision warfare has only been made possible by orbital support vehicles \_ satellite-based reconnaissance, warning, forecasting and targeting systems. Much has been done in recent years for the development of "smart" weapons \_ guided bombs and missiles that are highly accurate over hundreds of miles. Military analysts say that by 2010 the leading military powers will have 30,000-50,000 such weapons between them, and by 2020 some 70,000-90,000. It is hard to imagine how many satellites will be required to support such a vast arsenal, but without them, the cruise missiles capable of hitting a mosquito at a hundred miles will be absolutely useless. Thus, hundreds of seemingly harmless "passive" space systems, which themselves are not designed to attack anything, are a crucial component of high precision weapons, the main armaments of the 21st century. But this very strength makes space systems the Achilles heel of the modern army. Disabling its satellites would effectively cripple the U.S. military \_ and they are almost completely undefended. Hence Robert Gates' demand for funds. As other nations follow America's lead, and rush to protect their satellites from attack, we will see the development of a new arms race.

Satellite hardening is perceived as hypocritical, inspiring retaliatory attacks.

MacDonald 8

Bruce W. MacDonald, an independent consultant in technology and national security policy management, was assistant director for national security at the White House Office of Science and Technology Policy as well as senior director for science and technology on the National Security Council staff & a professional staff member on the House Armed Services Committee and was defense and foreign policy adviser. Worked for the State Department as a nuclear weapons and technology specialist in the Bureau of Politi- cal-Military Affairs, where he led the Interagency START Policy Working Group. Member of the Council on Foreign Rela- tions. Mr. MacDonald holds a BSE from Princeton in aerospace engineer- ing and two master’s degrees, also from Princeton—one in aerospace engineering, specializing in rocket propulsion, and a second in public and international affairs from the Woodrow Wilson School. September 2008 ‘China, Space Weapons, and U.S. Security’ Brookings Institute. <http://www.cfr.org/china/china-space-weapons-us-security/p16707>//DoeS

Identifying one’s own space capabilities as a vital national interest, while reserving the right to attack others in space (which **would likely provoke retaliatory attacks against our “vital” space assets**), appears internally inconsistent, even contradictory. For one, the technology for degrading and disrupting space systems from the ground is fairly inex- pensive (relative to the cost of most satellites) and not too difficult to acquire, compared to the technology required to protect satellites from attack. There is the further complication of satellites used for both civi- lian and military purposes—communications and some timing- positioning satellites. These systems cannot be protected in a way that makes economic sense. The trade-off is more balanced in cost and technological difficulty for attacking satellites from other satellites. Attacking others’ satellites would invite retaliation, putting at risk a “vital national interest” where the United States has much more to lose than the attacker.

Space Weaponization

Weaponizing space will spark and arms race- countries that can’t afford to participate will develop ASATs.

Pike 2

John Pike national security analyst and director and founder of GlobalSecurity.org. on the Steering Committee of the Brookings Institution U.S. Nuclear Weapons Cost Study Project. 2002 ‘Stockholm International Peace Research Institute’ Essay 3. The paradox of space weapons <http://www.sipri.org/yearbook/2003/E3>//DoeS

The Report of the US Commission to Assess United States National Security Space Management and Organization13 stated that the USA’s interests are to promote the peaceful use of space and use space to support US domestic, economic, diplomatic and national security objectives.14 The attempt to keep weapons out of space while exploiting it for military purposes suggests, among other things, a need to develop and deploy the means to deter and defend against hostile acts directed at US space assets and against uses of space that are hostile to US interests. However, offensive or retaliatory systems would, by their very nature, be seen as threatening by (at least some) other states. Space-based weapons are power projection tools that enable force to be applied anywhere in the world. With such weapons, enemies anywhere face the prospect of living under a hostile sky. However, while few states will develop the technology and resources to deploy weapons in space, ground-based ASAT systems would be within the financial and technological reach of many states. If the USA were to place weapons in space, that would clearly drive some states to develop methods to defend against and attack US satellites. If other nations develop equivalent systems, in essence starting a space arms race, it is likely to be out of fear that the USA will control access to space.

Weaponizing space will spark and arms race- countries that can’t afford to participate will develop ASATs.

Pike 2

John Pike national security analyst and director and founder of GlobalSecurity.org. on the Steering Committee of the Brookings Institution U.S. Nuclear Weapons Cost Study Project. 2002 ‘Stockholm International Peace Research Institute’ Essay 3. The paradox of space weapons <http://www.sipri.org/yearbook/2003/E3>//DoeS

The development of space weapons by other countries becomes inevitable once the USA deploys space weapons that could be used to attack terrestrial targets pre-emptively. Effectively, the utility of a treaty would become nil because the goal of other states would shift to denial. Space would have an active rather than a support role in military power projection.

If the US weaponizes space, Russia will retaliate.

Gutterman 5

Steve Gutterman, Staff Writer at The Associated Press Jun 3, 2005. “Russia vows retaliation for space weapons” <http://proquest.umi.com/pqdweb?did=848954191&sid=4&Fmt=3&clientId=4347&RQT=309&VName=PQD>//DoeS

MOSCOW -- Taking aim at the United States, Russia's defense minister Thursday threatened retaliatory steps if any country puts weapons in space and said Moscow won't negotiate controls over tactical nuclear arms with nations that deploy them abroad, Russian media reported. While he mentioned no country by name, Defense Minister Sergei Ivanov's comments reflected persistent wariness over U.S. intentions, despite arms control deals and increased cooperation between the Cold War foes since the 1991 collapse of the Soviet Union. "Russia's position on this question has not changed for decades: We are categorically against the militarization of space," the Interfax news agency quoted Ivanov as saying during a visit to the Baikonur space facility in Kazakhstan. "If some state begins to realize such plans, then we doubtless will take adequate retaliatory measures," ITAR-Tass quoted Ivanov as saying. The comments came as the Bush administration reviews the U.S. space policy doctrine. White House spokesman Scott McClellan said last month the policy review was not considering the militarization of space. But he said U.S. satellites must be protected against new threats that he said have emerged since Washington's space doctrine was last reviewed in 1996. Moscow's concerns about space-based weapons go back to the Soviet- era space race and President Reagan's 1980s plans for a "Star Wars" missile defense system. In 2002, after the United States withdrew from the 1972 Anti- Ballistic Missile Treaty, China and Russia submitted a proposal for a new ban on weapons in outer space. But the United States has said it sees no need for any new space arms control agreements.

SPS

SBSP will be used for space WMD’s and lasers – perceived as missile defense

Pop 2K [Virgiliu, LL.Lic, LL. PhD Student, Law School, University of Glasgow “Security Implications of Non-Terrestrial Resource Exploitation” Paper presented at the 43rd Colloquium on the Law of Outer Space.  51st International Astronautical Congress, Rio de Janeiro, 6 October 2000, Proceedings of the 43rd Colloquium on the Law of Outer Space, pp. 335-345, http://www.spacefuture.com/archive/security\_implications\_of\_non\_terrestrial\_resource\_exploitation.shtml]

Abstract This paper analyses the legality of Solar Power Satellites ( SPS) and Peaceful Nuclear Explosions (PNE), as means for exploiting extraterrestrial natural resources, from the prospective of peaceful uses of outer space. The use of extraterrestrial natural resources for military purposes is also scrutinised. Envisioned as a means for the exploitation of solar energy in outer space, SPS may have military capabilities, varying from their use as electromagnetic weapons to their employment as anti ballistic missile systems and as means of hostile environmental modification. Their dimensions and location may raise on the other hand issues regarding their defence. In order to avoid both their use as means of warfare and their destruction, appropriate safeguards must be in place. Without these, it is unlikely that SPS systems will ever be operating. The exploitation of mineral resources on the moon, asteroids and other celestial bodies may see the need of employing PNE. These have fundamental legal implications in the light of the 1963 Moscow Treaty and of the CTBT Treaty. Finally, the exploitation of extraterrestrial mineral resources may raise a legal debate regarding their use for military purposes. This raises again the never-ending debate of the meaning of "peaceful", i.e. non-military or non-aggressive. 1. Introduction 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. 2. Military Uses of Solar Power Satellites Although Solar Power Satellites were envisioned as an energy program, their use raises significant military implications[2]. Concerns have been expressed regarding the lawfulness of solar power satellites ( SPS) under the Outer Space Treaty in the context of their possible use as weapons of mass destruction and under existing arms control treaties in the context of their use as prohibited means of warfare. At the same time, given the significant importance and value of a SPS system, its use raises also the issue of vulnerability[3], hence self defence[4]. 2.1. Mass Destruction Capabilities Article IV of the Outer Space Treaty outlaws placement "in orbit around the Earth" of "any (...) kinds of weapons of mass destruction (...)." Weapons of mass destruction were defined in 1948 by the UN Commission for Conventional Armaments as "those which include atomic explosive weapons, radioactive material weapons, lethal chemical and biological weapons, and any weapons developed in the future which have characteristics comparable in destructive effect to those of the atomic bomb or other weapons mentioned above" [UN document S/C.3/32/Rev.1, August 1948]. Given the "evolution" of the means of warfare since 1948, the UN General Assembly passed Resolution 51/37 of 7 January 1997 [A/RES/51/37] in which it expresses its determination "to prevent the emergence of new types of weapons of mass destruction that have characteristics comparable in destructive effect to those of weapons of mass destruction identified in the definition of weapons of mass destruction adopted by the United Nations in 1948" and it "[r]eaffirms that effective measures should be taken to prevent the emergence of new types of weapons of mass destruction". As seen from above, there is no exclusive definition of weapons of mass destruction; in 1996, the US Secretary of State Warren Christopher classified the landmines as "weapons of mass destruction in slow motion"[5]. Given the lack of a precise definition, the Office of Technology Assessment of the United States Congress considers that it is unclear "[w]hether an SPS's microwave or laser capabilities would class it as a weapon of "mass destruction" and hence make it illegal under the 1967 treaty", but "it is very likely that such charges would be made in the event of SPS deployment"[6]. In order to analyse their (dis)qualification as weapons of mass destruction, one must examine the possible destructive effects of the SPS technology. 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]. Another "mass destruction-like" effect may be presented by the SPS that would use lasers instead of microwaves as means of transmission of energy and that may also have the capacity to [continues- no text removed]

SPS

[continues- no text removed] cause catastrophic fires on enemy territory. Gerrard and Barber note that " there is some debate as to whether nuclear-powered lasers are [weapons of mass destruction]"[14]. The same may be true in the case of use of orbiting solar mirrors: it may "become technically feasible to concentrate solar energy in certain areas of the earth and thereby cause fires, scorch the earth, or cause floods"[15]. Precedents of the use of solar rays as a weapon exist as far back as the 3rd Century BC, when Archimedes is said to have put fire to the Roman fleet invading Syracuse by using solar rays concentrated by mirrors. These arguments may qualify the SPS as illegal under article IV of the Outer Space Treaty; at the same time, several counter-arguments can be formulated. First of all, SPS are not the only means that could be used for electromagnetic warfare - on the contrary, most of the literature is devoted to conventional electromagnetic bombs. Besides this, "unlike traditional weapons of mass destruction, there are no controllable components[16] in an HPM weapon."[17] and this would make treaties that would limit their proliferation "virtually impossible to enforce given the common availability of suitable materials and tools."[18]. Regarding their use as means of causing lethal diseases, it is unlikely that SPSs would become instruments of mass destruction; the small power density of the microwave beam (about 1/4 the power density of sunlight) means that, "as a weapon, the SSP is less effective than a squirt gun"[19]. Foldes agrees, considering that the "[c]apability of SPS to cause radiation damage on the ground is small"[20]. Moss believes that a SPS "would not violate the dictates of Article 4 as the SPS is not a weapon. The alignment of the microwave beam would always be under positive control from the receiving station and could be quickly shut off should it stray from the precise path of the rectennas. Furthermore, and most importantly, contact with the microwave energy is not lethal. It has no thermal "zapping" qualities like a laser, nor is it ionising like X-ray radiation"[21]. The question remains, however, whether the SPS could serve as a "Trojan horse" by hiding a mass destruction weapon, be it nuclear, radiological, or chemical, under the peaceful exploitation mask. In order to avoid this situation, a number of safeguards that we will analyse later must be in place. 2.2. ABM Capabilities The bilateral USA-USSR 1972 Anti Ballistic Missile Treaty prohibits in Art. V the development, testing and deployment of ABM systems or components, including space-based ones. Art. II of the ABM Treaty defines the ABM system as a "system to counter strategic ballistic missiles or their elements in flight trajectory". 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]. 2.3. Environmental Modification Capabilities The 1976 Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques forbids State Parties to - "engage in military or any other hostile use of environmental modification techniques having widespread, long-lasting or severe effects as the means of destruction, damage or injury to any other State Party" (Art. I.1). The term "environmental modification techniques" is defined as "any technique for changing - through the deliberate manipulation of natural processes - the dynamics, composition or structure of the earth (...) or of outer space" (Art. II). OTA believes that the principles of the ENMOD Convention "obviously allow for criticism of some SPS designs as having weather modification potential, requiring restrictions or redesign to reduce such effects"[26]. Still, their weather modification "potential" - if we employ OTA's vocabulary - would be more of the concern of the Additional Protocol I to the Geneva Conventions of 12 August 1949 Relating to the Protection of Victims of International Armed Conflicts, 8 June 1977, whose Art. 35.3. prohibits the employment not only of methods or means of warfare "which are intended (...) to cause widespread, long-term and severe damage to the natural environment", but also of those which "may be expected" (my emphasis) to cause such effects. Indeed, according to Bertell, the SPS would be "capable of causing physical changes in the ionosphere"[27]. The "Thunderstorm" SPS (TSPS) imagined by Bernard Eastlund would be used precisely for peaceful weather modification in order to prevent the formation of tornadoes[28]. The development of the TSPS would not violate Art. III.1 of the ENMOD Convention - "The provisions of this Convention shall not hinder the use of environmental modification techniques for peaceful purposes (...)"; nevertheless, fears for its military misuses may arise. "Fear may be justified" - considers Eastlund - "however, such fear should not stop responsible scientists for pursuing areas of research that could significantly save lives and property"[29]. Eastlund formulates guidelines "to handle this issue" - , inter alia "[s]ystem design is to include provisions that prevent military or harmful applications"; "[o]versight committees with international representation will review all plans and experiments" and "[s]pace platforms for severe weather modification should be manned by internationally chosen personnel"[30]. 2.4. Other Military Capabilities In the same time, the SPS may have military uses that are not illegal under present regulations. Thus, they may be used as an observation platform[31]; their location in geosynchronous orbits provides "an excellent vantage point from which an entire hemisphere can be surveyed continuously" and would provide early warning capability[32]. As the OTA considers, "[m]ilitary satellites for communications and remote sensing are currently used by several countries, and presumably use of the SPS platform for such purposes would not constitute a change in accepted practice"[33]. The SPS potential of jamming of enemy radio communications is considered to be "significant"[34] and one of "the most logical offensive uses of SPS"[35]. Orbital solar mirrors could be used to intimidate the enemy and to illuminate the battlefields during an attack. Given their dimensions, SPS can serve as a "space launching pad"[36] and repair facilities[37]. The SPS "would be able to transmit power to remote military operations anywhere needed on earth"[38]. However, Paragraph 1 of Art. 35 of the Additional Protocol I to the Geneva Conventions of 12 August 1949 Relating to the Protection of Victims of International Armed Conflicts, 8 June 1977, classifies the right of the parties to any armed conflict to choose the methods or means of warfare as "not unlimited", and the military capabilities of SPS may lead states to enter into agreements that would prohibit their use. Once again, the designers must find solutions that would minimise their military use and the policy makers must find appropriate safeguards. 2.5. Self Defence of SPS At the opposite end of the security concerns related to the use of SPS lies their safety; while a "non-owner state" is concerned with the military potential of a SPS, an "owner state" would see a SPS as "a target for any space-capable nation with intentions hostile to the interests of that state"[39]. The use of a geosynchronous orbit makes the SPS "a "sitting duck" for anti-satellite weapons", given "the absolute predictability of these orbits"[40]. Its vulnerability is of high importance, "especially since it could be supplying a large portion of a nation's electricity"[41]. Security issues are raised also by the ground-based rectenna that "would be as vulnerable to terrorist or quasi-military action as other large industrial complexes or power plants"[42].

SPS

SBSP is perceived as a weapon- Obama’s statement ensures.

Weeden 9

By Brian Weeden Technical Advisor for [Secure World Foundation](http://swfound.org/about-us/who-we-are), has over a decade of professional experience in the national and international space security arena. Conducts research on global space situational awareness, space traffic management, protection of space assets, and prevention of conflict in space. His research and analysis have been featured in numerous news articles including the New York Times and the Economist, academic journals, presentations to the United

Nations, and testimony before the U.S. Congress. 17 April 2009 ‘Alternatives to a space weapons treaty’ <http://www.thebulletin.org/web-edition/op-eds/alternatives-to-space-weapons-treaty>//DoeS

More recently, an argument was put forth that space-based solar power satellites would be a space weapon, because the method of transmitting energy to the ground (whether laser or microwave) could be used to interfere with satellites or objects on the ground, even if it wasn't powerful enough to destroy them. Immediately after President Barack Obama's inauguration, the following [statement](http://www.whitehouse.gov/agenda/defense/%22%20%5Ct%20%22_blank) appeared on the White House website: "The Obama-Biden administration will restore American leadership on space issues, seeking a worldwide ban on weapons that interfere with military and commercial satellites.

Key to effective lasers

Ramos 2000 (Kim Ramos is an Air Force Major. SOLAR POWER CONSTELLATIONS IMPLICATIONS FOR THE UNITED STATES AIR FORCE April 2000 <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA394928&Location=U2&doc=GetTRDoc.pdf> PB

United States Space Command developed four operational concepts to guide their vision. One of those operational concepts is global engagement. The *USSPACECOM Long Range Plan* defines global engagement as an “integrated focused surveillance and missile defense with a potential ability to apply force from space.”27 This application of force from space involves holding at risk earth targets with force from space.28 *New World Vistas* identifies several force application technologies. One of the technological issues associated with developing these space force application technologies is that they all require large amounts of power generation. A solar power satellite can supply the required power. Two technologies in particular would benefit from integration with a solar power satellite, directed energy weapons, such as lasers, and jamming devices. 19 The space-based lasers currently under study accomplish ground moving target indication, and air moving target indication, which would be part of missile defense.29 The main difficulty with the laser is designing a power plant, which can produce the required energy in space without the enormous solar arrays required. By using a solar power satellite to beam power to the laser, this eliminates the problem. Another project, which would benefit from integration with a solar power satellite, is a device, which would beam RF power to a particular geographic location to blind or disable any unprotected ground communications, radar, optical, and infrared sensors.30As with the laser and other directed energy applications, the limiting factor right now is generating enough power in space to energize the RF beam.

And it would be perceived as a weapon – dual use

Fan et al 6/2 (William, Senior Planning Manager at PCCW, Harold Martin, James Wu, Brian Mok, Space Based Solar Power

Industry and Technology Assessment, <http://www.pickar.caltech.edu/e103/Final%20Exams/Space%20Based%20Solar%20Power.pdf>)

Due to the high energy transmitter that it will utilize, space based solar power could potentially be in violation of international space treaties. In 1967, the Outer Space Treaty was signed by the United States and other world powers. One of the key issues addressed by this treaty is space based weapons. The Outer Space Treaty bans the placement of nuclear weapons and other weapons of mass destruction in space or on any celestial body. This could become a serious issue for space based solar power because of the potential for the transmitter to become a dual use weapon. Additionally, the newly proposed Space Preservation Treaty could severely hinder the implementation of space based solar power, as it would ban the any kind of weapon from being placed in space. In addition to political issues, there may be social disapproval of having a potential weapons system in space

SPS

SBSP key to space control

Kim Ramos, US Air Force Major,2K (April 2000, “Solar Power Constellations: Implications for the United States Air Force,” <http://handle.dtic.mil/100.2/ADA394928>)

Solar power technology also enables many space applications. Again, rapid reconstitution of space assets occurs with solar power satellites. With power already available, satellites for various tasks are smaller and easier to launch. They are also cheaper. Currently, the maneuver capability of satellites is constrained. Electrical propulsion combined with electricity beamed form a solar power satellite allows satellites to maneuver at will without degrading their on-orbit life span. Many different concepts for force application are currently under study. Two of them, space-based lasers and an electronics jamming system, are limited by the amount of power current technologies can produce. Add the electricity produced by a solar power satellite into the equation and these concepts become technologically feasible.

AT: Plan is Deterrence

Space weapons are easily shot down anonymously, rendering deterrence useless.

Pike 2

John Pike national security analyst and director and founder of GlobalSecurity.org. on the Steering Committee of the Brookings Institution U.S. Nuclear Weapons Cost Study Project. 2002 ‘Stockholm International Peace Research Institute’ Essay 3. The paradox of space weapons <http://www.sipri.org/yearbook/2003/E3>//DoeS

Satellites are easily tracked and maintain steady and predictable trajectories. Missile systems can be targeted against space assets just as they can target ground facilities. Conventional and nuclear weapons could be directed at satellites, which, because of their stable orbits, make easy targets. These types of attack are difficult to defend against but are overt, easily recognizable and likely to be considered grounds for war. The USA would probably not distinguish between a ballistic missile launched against its satellites and one launched against US facilities or territory. Deterring a space ‘Pearl Harbor’ through the threat of retaliation will become more difficult in the future. Retaliation supposes that the attacker can be identified. However, determining the root cause of a satellite failure may be difficult, if not impossible, if ASAT capabilities become an element of information or electronic warfare (an approach probably more attractive to most states as commercial development can be exploited to develop military capabilities). Computers can be used to hack into and ‘smurf’, or overload, satellite signals, jammers can block signals, and ground stations can be rendered ‘inoperable’. If it becomes impossible to identify the attacker—or even to determine that an attack has taken place—deterrence cannot operate.15

The plan does not deter- rogue states in space cannot be deterred and deterrence on the ground already does all deterrence can.

Pike 2

John Pike national security analyst and director and founder of GlobalSecurity.org. on the Steering Committee of the Brookings Institution U.S. Nuclear Weapons Cost Study Project. 2002 ‘Stockholm International Peace Research Institute’ Essay 3. The paradox of space weapons <http://www.sipri.org/yearbook/2003/E3>//DoeS

Classic deterrence clearly does not apply to space. Unlike nuclear weapons, there is one clear hegemonic power, one state apparently trying to develop offensive ASAT weapons, and dozens of countries with the terrestrial capability to attack satellites. In this environment, cold-war-style deterrence will not suffice. The ability to destroy space systems is not limited to two states, but rather a wide spectrum of states—some of which are considered rogue states, or ‘states of concern’. By definition these nations will not be deterred by weapon systems and represent asymmetrical threats that cannot be addressed by normal doctrine. The USA already possesses a deterrent against certain kinds of space attack—one that would be more credible if procedures and training were in place to reduce or eliminate dependence on satellites if access is denied.

AT: Plan is Deterrence

Weak Space Situational Awareness means attacks can’t be tracked and deterrence is impossible.

MacDonald 8

Bruce W. MacDonald, an independent consultant in technology and national security policy management, was assistant director for national security at the White House Office of Science and Technology Policy as well as senior director for science and technology on the National Security Council staff & a professional staff member on the House Armed Services Committee and was defense and foreign policy adviser. Worked for the State Department as a nuclear weapons and technology specialist in the Bureau of Politi- cal-Military Affairs, where he led the Interagency START Policy Working Group. Member of the Council on Foreign Rela- tions. Mr. MacDonald holds a BSE from Princeton in aerospace engineer- ing and two master’s degrees, also from Princeton—one in aerospace engineering, specializing in rocket propulsion, and a second in public and international affairs from the Woodrow Wilson School. September 2008 ‘China, Space Weapons, and U.S. Security’ Brookings Institute. <http://www.cfr.org/china/china-space-weapons-us-security/p16707>//DoeS

IMPROVED SPACE SITUATIONAL AWARENESS SSA is the ability to track and understand what objects are in orbit and what their capabilities are. By providing real-time or near real-time location and status information on spacecraft, SSA enables better management and operation of these assets and provides warnings of potential hazards—natural or manmade, intentional or unintention- al—to allow preventive or mitigating steps to be taken. In addition, accurate SSA is needed to know for certain if a satellite’s operations have been intentionally affected by an adversary. The United States currently maintains a public information data network that provides important orbital and related information on over twelve thousand detectable orbiting objects, data that it makes freely available on the Internet. Yet many experts agree that the United States “needs signifi- cant improvements in space situational awareness, such as the devel- opment of the ability to attribute in real time all activity in circumterre- strial space … including birth to death tracking and assessment of all threats capable of affecting [U.S.] space systems,” similar to the role civilian authorities play in air travel.16 Whether one wants to pursue a purely defensive space policy or a mixture of offense and defense, im- proved SSA is imperative. Air Force Space Command has called for much better capabilities to identify what is already in space, under- stand orbiting objects’ mission, and, ultimately, determine intent. The U.S. Army has placed improved SSA near the top of its list of needs. Improved SSA has broad support among both supporters and oppo- nents of offensive counterspace. The United States would be well served by going beyond SSA and enhancing space intelligence that better understands the purpose and motivation behind the space objects being identified and tracked.17 Otherwise, understandable worst-case planning could lead to just the kind of escalation in a crisis that all parties seek to avoid. In addition, satellites themselves need to be alert to their surroundings and sense when they are threatened or under attack. Furthermore, the United States must be able to attribute an attack to a particular country, **a pre- requisite to any effective retaliation or deterrence strategy**.

AT: Plan is Deterrence

Deterrence in space doesn’t work

MacDonald 8

Bruce W. MacDonald, an independent consultant in technology and national security policy management, was assistant director for national security at the White House Office of Science and Technology Policy as well as senior director for science and technology on the National Security Council staff & a professional staff member on the House Armed Services Committee and was defense and foreign policy adviser. Worked for the State Department as a nuclear weapons and technology specialist in the Bureau of Politi- cal-Military Affairs, where he led the Interagency START Policy Working Group. Member of the Council on Foreign Rela- tions. Mr. MacDonald holds a BSE from Princeton in aerospace engineer- ing and two master’s degrees, also from Princeton—one in aerospace engineering, specializing in rocket propulsion, and a second in public and international affairs from the Woodrow Wilson School. September 2008 ‘China, Space Weapons, and U.S. Security’ Brookings Institute. <http://www.cfr.org/china/china-space-weapons-us-security/p16707>//DoeS

Identifying one’s own space capabilities as a vital national interest, while reserving the right to attack others in space (which would likely provoke retaliatory attacks against our “vital” space assets), appears internally inconsistent, even contradictory. For one, the technology for degrading and disrupting space systems from the ground is fairly inex- pensive (relative to the cost of most satellites) and not too difficult to acquire, compared to the technology required to protect satellites from attack. There is the further complication of satellites used for both civi- lian and military purposes—communications and some timing- positioning satellites. These systems cannot be protected in a way that makes economic sense. The trade-off is more balanced in cost and technological difficulty for attacking satellites from other satellites. Attacking others’ satellites would invite retaliation, putting at risk a “vital national interest” where the United States has much more to lose than the attacker. In the nuclear arena, keeping the option open to retaliate with nuclear weapons if U.S. vital interests are attacked is firmly anchored in a doctrine of deterrence, not war fighting. The absence of discussion on deterrence in U.S. space policy beyond a brief mention is disturbing and requires clarification. Threatening to attack the space assets of competitors who also possess offensive counterspace capabil- ity could only be in the security interests of the United States if: – the United States can successfully defend its space assets; or – the right to attack others is implied in terms of deterrence rather than war fighting; or – the effects of attacks on satellites are fully reversible; or – attacks are limited and localized (i.e., tactical in nature, not strategic). Even the latter two cases would involve significant risk of escala- tion. The administration has stated that “the current preferred ap- proach to protect U.S. terrestrial forces from space threats is through the use of temporary and reversible effects,” though this has not been confirmed as official policy.14 China’s ASAT test, however, led to a major U.S. reaction, and a potential action-reaction cycle appears like- ly. If China deployed direct ascent ASATs (ground-launched missiles that fly directly at their space targets, such as the ones China tested in 2007), these would become high-priority targets for the United States in a crisis or actual conflict due to the threat they would pose. General James E. Cartwright told Congress that the United States is prepared to strike land-based Chinese ASAT launchers if China shoots down U.S. satellites. Such a statement may help dissuade China from attack- ing U.S. satellites in a crisis, but, if actually carried out, it would inflict many casualties and risk serious escalation. This highlights the dispari- ty between deterrence and war-fighting strategies. At a minimum, such statements would give China an incentive to make their ASAT systems mobile. The administration has not adequately addressed the political and military risks associated with an unconstrained offensive counterspace competition. There is an inherent potential for instability when a rela- tively modest investment of military resources can produce a dispro- portionate effect on an adversary’s military capabilities, as with space assets. In the context of an escalating crisis, such potential instability could be magnified to critical proportions. While the United States currently enjoys substantial space superiority, should China—or oth- ers—assert comparable rights and buttress these assertions with coun- terspace weapons programs, the potential for future space- and earth- bound instability would be substantial and worrisome. In the near to mid term, threatening to attack Chinese satellites, which China de- pends on far less than the United States does its military satellites, ap- pears counterproductive and could easily provide a Chinese rationale for a response in kind that could seriously damage U.S. military capa- bility. In response to the security message of the Chinese ASAT test, press reports indicate that the Bush administration has been developing countering strategies in the Departments of Defense and State and drafting a funding plan to procure technologies. The president is re- ported to have issued a classified memo calling for agencies to improve 15 U.S. space situational awareness (SSA), avoid future foreign ASAT launches, and address defensive and offensive measures.

AT: Tech Hurdles

A country’s motion to weaponize space will expand resources and only risk allowing them to develop weapons and ASATs.

Pena 2

Charles V Pena, a senior defense policy analyst, Cato Institute, Washington, D. C. Jul 2002. USA Today Vol. 131, Iss. 2686; pg. 14, 5 pgs <http://proquest.umi.com/pqdlink?did=149310201&Fmt=7&clientId=4347&RQT=309&VName=PQD>//DoeS

Nations that feel the U.S. is trying to hold their satellites at risk or prevent them from launching satellites will have incentives (that would be nonexistent in the absence of such a threat) to develop ASATs, regardless of the technological hurdles, and will be more likely to expend the necessary resources to acquire such a capability. Those ASATs could put the entire constellation of American military and civilian satellites at risk. With the greatest dependence of any nation on space assets (both civilian and military), the U.S. could ultimately see its security reduced if hostile nations are spurred to develop and deploy ASATs (which they currently do not have) in response to U.S. deployment of a spacebased BMD.

AT: Good Intentions

China perceives and responds to our capabilities more than our intentions

**Ferguson and MacDonald 2008**, [Charles D. Ferguson](http://www.cfr.org/bios/10786/charles_d_ferguson.html), Philip D. Reed Senior Fellow for Science and Technology, Bruce W. MacDonald, 2/21/2008, “Taking Friendly Fire to New Heights,” http://www.cfr.org/publication/15548/taking\_friendly\_fire\_to\_new\_heights.html?breadcrumb=%2Fissue%2F63%2Fweaponization\_of\_space

Capabilities count as much as intentions. The U.S. could deploy this new anti-satellite capability on 18 ships. And not just American warships. After protracted effort, the U.S. persuaded Japan to acquire Aegis destroyers to defend against North Korean missiles. Japan will now discover that with little more than software changes, its planned four Aegis-equipped ships could become satellite killers. This will be highly unpopular in Japan, given the nation’s historically strong stand against space weapons. The potential threat to Chinese satellites will surely aggravate always fragile Chinese-Japanese relations as well. Washington should not be surprised when Beijing exploits this launch to justify its own burgeoning anti-satellite program. The U.S. action will give China, Russia and others an excuse to develop and test comparable capabilities, claiming that they too need to keep their populations safe from falling satellites. China may well feel freed from the pledge it made last year not to test its anti-satellite weapons again.  How would Americans feel if the situation were reversed, and China blew up a crippled satellite even though the risk of casualties from satellite reentry was small? To ask the question is to answer it: The United States would look beyond the given rationale, focus on the demonstrated capability and respond.

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\*\*Impacts\*\*

Hege

Space weapons would crush hege after a very short while as soon as other countries develop weapons.

Pike 2

John Pike national security analyst and director and founder of GlobalSecurity.org. on the Steering Committee of the Brookings Institution U.S. Nuclear Weapons Cost Study Project. 2002 ‘Stockholm International Peace Research Institute’ Essay 3. The paradox of space weapons <http://www.sipri.org/yearbook/2003/E3>//DoeS

Very few countries possess the technology to perpetrate a space ‘Pearl Harbor’. Assuming that other states develop capabilities that are viable and sustainable (itself not a safe assumption), space weapons are not susceptible to a model of deterrence based on reciprocal action by equivalent forces. The weaponization of space might, in the short term, increase the power projection capability of the USA. It would also be greatly destabilizing and could even lead to the sort of ‘Pearl Harbor’ that the USA is seeking to avoid. Countries would seek to develop countermeasures (in the classic sense) to US offensive systems, much in the same way as US systems were developed to counter specific perceived threats to space assets—thereby creating a space arms race similar to the nuclear arms race.

A space arms race would turn and outweigh hege- it puts our GPS at risk, which are key to ground forces, and crushes the economy.

Pike 2

John Pike national security analyst and director and founder of GlobalSecurity.org. on the Steering Committee of the Brookings Institution U.S. Nuclear Weapons Cost Study Project. 2002 ‘Stockholm International Peace Research Institute’ Essay 3. The paradox of space weapons <http://www.sipri.org/yearbook/2003/E3>//DoeS

On balance, the importance of space systems for US and global economic performance, the dependence on satellites for communications and the use of satellites for intelligence gathering far outweigh any potential benefits of placing power-projection systems in space. While in the future the loss of communications and intelligence systems would be devastating, the absence of power projection from space would not significantly inhibit US policy.

Space race turns hege- it puts our earth based military at risk. They’re dependent on space for navigation, intelligence and communication. The time frame is quicker than they assume.

Pike 2

John Pike national security analyst and director and founder of GlobalSecurity.org. on the Steering Committee of the Brookings Institution U.S. Nuclear Weapons Cost Study Project. 2002 ‘Stockholm International Peace Research Institute’ ‘Chapter 11. The military uses of outer space’ <http://www.sipri.org/yearbook/2002/11/11>//DoeS

Space-based systems are becoming an increasingly important component of military power, above all for the United States. The USA is currently investing billions of dollars annually in the development and deployment of a wide range of new precision-guided weapons which are revolutionizing the conduct of warfare. These weapons rely heavily on an integrated ‘system of systems’ that combines intelligence, communications, navigation and other military space systems. At present no country can rival or contest US space dominance or the advantages that this provides to its terrestrial military operations. At the end of 2001, the USA had nearly 110 operational military-related satellites, accounting for well over two-thirds of all military satellites orbiting the earth; Russia had about 40 and the rest of the world about 20. While it is difficult to overstate the singular advantages of US military space systems relative to those of the rest of the world, it would be a mistake to underestimate the rapidity with which other states are beginning to use space-based systems to enhance their security. Although commercial satellite imagery provides capabilities that are almost trivial compared to those of advanced US systems, these capabilities are revolutionary compared to what was available only a decade ago.

Hege

****A space arms race would put military and scientific support systems at risk, crushing leadership.****

**Moltz 7**

**Ja**mes Clay Moltz, Associated Director and Research Professor at the Center for Nonproliferation Studies, Department of National Security Affairs, Naval Postgraduate School November 2007 ‘Space Policy’ Volume 23, Issue 4, November 2007, Pages 199-205 <http://ry2ue4ek7d.search.serialssolutions.com/?ctx\_ver=Z39.88-2004&ctx\_enc=info%3Aofi%

2Fenc%3AUTF-8&rfr\_id=info:sid/summon.serialssolutions.com&rft\_val\_fmt=info:ofi/fmt:kev:mtx:journal&rft.genre=article&rft.atitle=Protecting+

safe+access+to+space%3A+Lessons+from+the+first+50+years+of+space+security&rft.jtitle=SPACE+POLICY&rft.au=Moltz%2C+James+Clay&rft.date=2007-11-01&rft.pub=ELSEVIER+SCI+LTD&rft.issn=0265-9646&rft.volume=23&rft.issue=4&rft.spage=199&rft.epage=205&rft\_id=info:doi/10.1016%2Fj.spacepol.200

7.09.002&rft.externalDBID=n%2Fa&rft.externalDocID=000251806600002>//DoeS

Given the presence of four shared factors in encouraging military space restraint across the three cases of greatest tension in space security from the 1957–2007 period, we can conclude with some confidence that these are general trends in space behavior, at least for the first 50 years of space activity. Arguably, military space restraint has worked most to the advantage of the USA, since it has been able to use this norm to develop the most advanced scientific, commercial, and military support programs in the world. Indeed, as strategist Barry Posen argues: [The United States] benefits from the fact that those states capable of space activities have eschewed putting weapons in space. The United States has made the same decision, on the assumption that if it did, so would others. Ultimately the United States has more to lose than to gain from such a competition [16]. Looking ahead, the continued presence among all leading actors in space of strong incentives to keep space weapons-free supports the case for the continued maintenance of core cooperative agreements (such as the 1967 Outer Space Treaty) and the prospects for the strengthening of the current foundations of space security, either via rules of the road or more formal arrangements (such as a debris treaty, rather than a voluntary convention).

General War/Econ

Space weaponization causes nuclear war & economic collapse.

Myers 8

Steven Lee Myers, Staff Writer. Mar 9, 2008 New York Times. (Late Edition (East Coast)). New York, N.Y. pg. WK.3 <http://proquest.umi.com/pqdlink?did=1442567931&Fmt=7&clientId=4347&RQT=309&VName=PQD>//DoeS

IT doesn't take much imagination to realize how badly war in space could unfold. An enemy -- say, China in a confrontation over Taiwan, or Iran staring down America over the Iranian nuclear program -- could knock out the American satellite system in a barrage of antisatellite weapons, instantly paralyzing American troops, planes and ships around the world. Space itself could be polluted for decades to come, rendered unusable. The global economic system would probably collapse, along with air travel and communications. Your cellphone wouldn't work. Nor would your A.T.M. and that dashboard navigational gizmo you got for Christmas. And preventing an accidental nuclear exchange could become much more difficult. ''The fallout, if you will, could be tremendous,'' said Daryl G. Kimball, executive director of the Arms Control Association in Washington. The consequences of war in space are in fact so cataclysmic that arms control advocates like Mr. Kimball would like simply to prohibit the use of weapons beyond the earth's atmosphere. But it may already be too late for that. In the weeks since an American rocket slammed into an out-of-control satellite over the Pacific Ocean, officials and experts have made it clear that the United States, for better or worse, is already committed to having the capacity to wage war in space. And that, it seems likely, will prompt others to keep pace. What makes people want to ban war in space is exactly what keeps the Pentagon's war planners busy preparing for it: The United States has become so dependent on space that it has become the country's Achilles' heel. ''Our adversaries understand our dependence upon space-based capabilities,'' Gen. Kevin P. Chilton, commander of the United States Strategic Command, wrote in Congressional testimony on Feb. 27, ''and we must be ready to detect, track, characterize, attribute, predict and respond to any threat to our space infrastructure.'' Whatever Pentagon assurances there have been to the contrary, the destruction of a satellite more than 130 miles above the Pacific Ocean a week earlier, on Feb. 20, was an extraordinary display of what General Chilton had in mind -- a capacity that the Pentagon under President Bush has tenaciously sought to protect and enlarge. Is war in space inevitable? The idea or such a war has been around since Sputnik, but for most of the cold war it remained safely within the realm of science fiction and the carefully proscribed American-Soviet arms race. That is changing. A dozen countries now can reach space with satellites -- and, therefore, with weapons. China strutted its stuff in January 2007 by shooting down one of its own weather satellites 530 miles above the planet. ''The first era of the space age was one of experimentation and discovery,'' a Congressional commission reported just before President Bush took office in 2001. ''We are now on the threshold of a new era of the space age, devoted to mastering operations in space.'' One of the authors of that report was Mr. Bush's first defense secretary, Donald H. Rumsfeld, and the policy it recommended became a tenet of American policy: The United States should develop ''new military capabilities for operation to, from, in and through space.'' Technology, too, has become an enemy of peace in space. Ronald Reagan's Strategic Defense Initiative was considered so fantastical by its critics 25 years ago that it was known as ''Star Wars.'' But the programs Mr. Reagan began were the ancestors of the weaponry that brought down the American satellite. The Chinese strike, and now the Pentagon's, have given ammunition to both sides of the debate over war in orbit. Arms control advocates say the bull's-eyes underscore the need to expand the Outer Space Treaty of 1967, which the United States and 90 other countries have ratified. It bans the use of nuclear and other weapons of mass destruction in orbit or on the Moon. Space, in this view, should remain a place for exploration and research, not humanity's destructive side. The grim potential of the latter was hinted at by the vast field of debris that China's test left, posing a threat to any passing satellite or space ship. (The Pentagon said its own shot, at a lower altitude, would not have the same effect -- the debris would fall to earth and burn up.) The risk posed by space junk was the main reason the United States and Soviet Union abandoned antisatellite tests in the 1980's. Michael Krepon, who has written on the militarization of space, said the Chinese test broke an unofficial moratorium that had lasted since then. And he expressed disappointment that the Pentagon's strike had damaged support for a ban -- which the Chinese say they want, in spite of their 2007 test. ''The truth of the matter is it doesn't take too many satellite hits to create a big mess in low earth orbit,'' he said.

General War/Econ

Space weapons cause first striking and nuclear war

Krepon 04 (Michael Krepon, president emeritus of the Henry L. Stimson Center, 2004. Arms Control Association, “Weapons in the Heavens: A Radical and Reckless Option,” http://www.armscontrol.org/act/2004\_11/Krepon#krepon)

To prevent adversaries from shooting back, the United States would need to know exactly where all threatening space objects are located, to neutralize them without producing debris that can damage U.S. or allied space objects, and to target and defeat all ground-based military activities that could join the fight in space. In other words, successful space warfare mandates pre-emptive strikes and a preventive war in space as well as on the ground. War plans and execution often go awry here on Earth. It takes enormous hubris to believe that space warfare would be any different. If ASAT and space-based, ground-attack weapons are flight-tested and deployed, space warriors will have succeeded in the dubious achievement of replicating the hair-trigger nuclear postures that plagued humankind during the Cold War. Armageddon nuclear postures continue to this day, with thousands of U.S. and Russian nuclear weapons ready to be launched in minutes to incinerate opposing forces, command and control nodes, and other targets, some of which happen to be located within large metropolitan areas. If the heavens were weaponized, these nuclear postures would be reinforced and elevated into space. U.S. space warriors now have a doctrine and plans for counterspace operations, but they do not have a credible plan to stop inadvertent or uncontrolled escalation once the shooting starts. Like U.S. war-fighting scenarios, there is a huge chasm between plans and consequences, in which requirements for escalation dominance make uncontrolled escalation far more likely. A pre-emptive strike in space on a nation that possesses nuclear weapons would invite the gravest possible consequences. Attacks on satellites that provide early warning and other critical military support functions would most likely be viewed either as a surrogate or as a prelude to attacks on nuclear forces.

Space Weapons lead to an enemy first-strike

DeBlois 03 (Bruce DeBlois, Director of Systems Integration at BAE SYSTEMS, 10/29/03, “US Space Posture and the Role of Space Weapons to Outer Space and International Security: Options for the Future Conference Elliot School of International Affairs” http://www.gwu.edu/~spi/assets/docs/DeBlois.pdf)

And we found the posturing of weapons in space will extend and expose our space-based military force enhancement Center of Gravity. My years in the space intelligence community have only reinforced this notion of vulnerability: space weapons equate to more static / vulnerable targets, posing a larger threat from space, and no doubt voiding existent diplomatic protection of National Technical Means. From a weakened and more vulnerable position, we would simultaneously posture space forces that invite pre-emption and escalation as evidenced in one wargame after another. And this in regionally and globally more diplomatically unstable environments created by the posturing of space weapons in the first place. Furthermore, adversaries will be encouraged to focus effort on lesser expensive asymmetric approaches against a Space Superpower. Simply put, we would posture ourselves as a target in a volatile context that we create, and weaken ourselves at the same

Econ Competitiveness

A space arms race would crush the global economy- decreased confidence in the aerospace industry and the global nature of the market.

Hitchens 1

Theresa Hitchens is senior adviser at the Center for Defense Information. September 2001 [Arms Control Today](http://proquest.umi.com/pqdweb?RQT=318&pmid=16139&TS=1311818407&clientId=4347&VInst=PROD&VName=PQD&VType=PQD). Washington: [Sep 2001](http://proquest.umi.com/pqdweb?RQT=572&VType=PQD&VName=PQD&VInst=PROD&pmid=16139&pcid=1469540&SrchMode=3). Vol. 31, Iss. 7;  pg. 16, 6 pgs <http://proquest.umi.com/pqdweb?did=81954529&sid=1&Fmt=4&clientId=4347&RQT=309&VName=PQD>//DoeS

Besides the potential for undercutting, rather than strengthening, current U.S. military dominance, there also is reason to be concerned about the possibility that moves toward weaponizing space could damage the competitiveness of the U.S. space industry, which currently dominates the international marketplace and therefore bolsters U.S. economic and military power. Whereas military officials often refer to space as a domain for action, like air or sea, space also is a market sector, and unlike many other sectors, it is growing at a phenomenal pace. The commercial space and telecommunications sector is also arguably the most globalized of today's economic sectors. Not only is the customer base international, commercial space market activities are characterized by multinational alliances among companies and consortia, including joint government programs. Whereas space used to be available only to the most developed nations, there are more than 1,100 companies in 53 countries now exploiting space.5 According to data from the Washington-based Satellite Industry Association, worldwide revenue for the satellite industry was $61.4 billion in 1999 and $81.1 billion in 2000. In 1999, the U.S. portion of satellite industry revenue equaled $31.9 billion, and, importantly, exports accounted for half or more of U.S. industry revenues. Financial projections make clear that the market-from space launch to satellite manufacturing to the telecommunications packages to satellite services-is exploding around the world. Although U.S. firms remain firmly in the lead, the booming market has also meant a boom in competition that has been made sharper by actions the U.S. government has taken in the name of national security. Satellite manufacturers are concerned about the effects of U.S. regulatory requirements and export controls on their bottom line. For example, in 1998 licensing of satellite exports was switched from the Commerce Department to the State Department and are now handled in a similar manner to export controls because of national security concerns, particularly about technology leakage to China. The Satellite Industry Association released statistics in February showing that U.S. market share for geostationary communications satellites dropped from its 10-year average of about 75 percent to 45 percent during 2000, and it blamed the regulatory switch to State and the subsequent slowing of the export licensing process for the problem. U.S. industry officials also worry when they hear the Pentagon talk about the need to deny "enemies" access to space assets. The U.S. Army is perhaps the most highly vocal of the services about the increasing availability of space-based assets (such as high-speed communications, navigation capabilities, and, perhaps most importantly, commercial imagery) that could empower an enemy and make U.S. ground operations abroad much more difficult. Army officials repeatedly claim that the famous "left hook" maneuver in Operation Desert Storm could not have succeeded if Saddam Hussein had possessed the imagery available on the commercial market today. The fear is that the advantages that the Army now has on the ground due to its access to space-based assets would be undercut by allowing adversaries similar access to space during hostilities. "The idea of being able to control what people are seeing is going to be an issue for the Army," Lieutenant General Joseph M. Cosumano Jr., commander of U.S. Army Space and Missile Defense Command, told reporters in Huntsville July 18. When asked how the Army could do that, considering that imagery is being provided by commercial companies, Cosumano said that "there is going to be a lot of discussion of policy" as "some of these assets belong to U.S. companies and they don't feel too good about the idea that we might shoot them out of the sky." Even the mere whisper that the U.S. government might shut off foreign customers or shoot down commercial satellites providing services abroad causes U.S. industrialists to shiver because it feeds the notion brewing in many other countries that they must create independent space industries to avoid relying on U.S. companies and capabilities. Some international customers and countries already are questioning the reliability of U.S. suppliers (and government-supplied products). After the change in export-licensing authority, the half-German firm Daimler-Chrysler Aerospace announced it would no longer purchase U.S.-- made satellite components. In addition, the European Union nations are pursuing their own version of the U.S. Global Positioning System navigation satellite network in part due to fears that future access might be denied or downgraded by the U.S. military. The challenges the U.S. satellite industry is already facing because of national security concerns would be magnified dramatically if the United States moved to make space a legitimate 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 raising the threat to U.S. satellites. Space industry executives do not relish the prospect that other countries would be given the incentive to target U.S. commercial satellites and their operations, which right now have few protective capabilities (electronic hardening, for example, has been considered too expensive, considering the lack of an in-space threat). The health of the U.S. commercial space and telecommunications industry is not an unimportant question to national security writ large. The information technology revolution enabled by space-based communications, and the Internet, are critical to the U.S. economy. This requires hard decisions to be made between traditional national security needs and those of industry. For example, the wireless communications industry already is in a spat with the Defense Department about access to a portion of the radio spectrum that industry argues is essential to allow 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. At the same time, the disputed spectrum band is being used by many other countries for commercial wireless communications, raising the possibility that a continued U.S. policy of denial, although perhaps making near-term military sense, will inhibit the ability of U.S. firms to compete abroad. Despite the likelihood that such disagreements will multiply as the information revolution continues to pick up speed, the health of the U.S. commercial space and telecommunications industry is also important to the Pentagon itself. The Department of Defense now uses commercial satellite systems to cover about 60 percent of its satellite communications needs, and that dependence is growing.6 This trend toward increased military use of commercial assets is unlikely to be reversed anytime soon, in part due to the high costs of building and operating military-dedicated satellites. Thus, there are and will remain significant benefits to the military of an open space and telecommunications market in which U.S. companies are major players. That fact must be weighed into any consideration of whether the weaponization of space-whether through the deployment of weapons in space or through policy of aggressive targeting of satellites - makes good policy.

Space Debris

A space arms race would mean a proliferation of space debris, knocking out satellites key to hege and the economy.

MacDonald 8

Bruce W. MacDonald, an independent consultant in technology and national security policy management, was assistant director for national security at the White House Office of Science and Technology Policy as well as senior director for science and technology on the National Security Council staff & a professional staff member on the House Armed Services Committee and was defense and foreign policy adviser. Worked for the State Department as a nuclear weapons and technology specialist in the Bureau of Politi- cal-Military Affairs, where he led the Interagency START Policy Working Group. Member of the Council on Foreign Rela- tions. Mr. MacDonald holds a BSE from Princeton in aerospace engineer- ing and two master’s degrees, also from Princeton—one in aerospace engineering, specializing in rocket propulsion, and a second in public and international affairs from the Woodrow Wilson School. September 2008 ‘China, Space Weapons, and U.S. Security’ Brookings Institute. <http://www.cfr.org/china/china-space-weapons-us-security/p16707>//DoeS

Space debris can collide with and destroy satellites and is an important element in thinking about space weapons. Like radioactive fallout from nuclear war, debris from space war can linger for many years. While the word “debris” sounds harmless based on common usage, most orbital debris moves at a speed of more than seventeen thousand miles per hour. Thus, relatively small debris pieces are highly destruc- tive to a satellite in a collision. One only has to imagine what life would be like if thousands of bullets from World War II were still whizzing around to get some feel for the danger that debris growth poses for the future of space. At present, twelve thousand detectable debris pieces that are ten centimeters or larger orbit the earth, as well as millions of smaller pieces. The National Aeronautics and Space Administration (NASA) estimates China’s 2007 ASAT test alone increased orbital debris by 10 percent, and its fallout will take more than one hundred years to reenter the atmosphere. Despite important international efforts to reduce it, the total quantity of space debris grew by 20 percent in 2007. All nations have a compelling common interest in avoiding the massive increase in space debris that substantial ASAT conflict would create. Many nations, including China, Russia, and the United States, have agreed to nonbinding guidelines to minimize space debris, including by deliberate destruction. Perhaps technology will allow re- moval of space debris in the future, but nothing is now on the horizon, and space clean-up would likely be very costly in any event. The implications of these new counterspace developments for peacetime and crisis stability, as well as the conduct of warfare, are profound. The sudden major loss of satellite function would quickly throw U.S. military capabilities back twenty years or more and sub- stantially damage the U.S. and world economies. While backup sys- tems could partially compensate for this loss, U.S. military forces would be significantly weakened. In addition to shoring up its de- fenses, the United States also needs to better understand China’s evolving and ambiguous space doctrine

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\*\*Uniqueness CPs\*\*

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Text: The United States Federal Government should sign the space weaponization ban proposed by Russia and China.

CP solves space war better than dominance can.

Englehart 8

Alex B Englehart, contributor to the Pacific Rim Law & Policy Journal at the University of Washington School of Law Jan 2008 “Common Ground In The Sky: Extending The 1967 Outer Space Treaty To Reconcile US and Chinese Security Interests” Pacific Rim Law & Policy Journal ProQuest Asian Business and Reference pg. 133 <http://proquest.umi.com/pqdlink?did=1429810431&Fmt=7&clientId=4347&RQT=309&VName=PQD>//DoeS

Some conservatives in the United States have argued strongly for the further development of space weapons.146 They claim that "a powerful and influential United States is good for world peace, stability, and enforcing the rule of law internationally,"147 and that therefore American space weapons development will actually serve to increase global stability, rather than decrease it.148 This argument seems to assume that the United States is so much more powerful man all other nations that it does not really need to worry about how they will react to a space weapons deployment—if China and Russia resent American military action in space, they will need to keep their opinions to themselves due to fear of overwhelming American military superiority. However, as has been discussed above,149 the deployment of space weapons will not provide this sought-after military superiority— ASATs will still pose a serious threat to the much more complicated and expensive space weapons being considered for deployment. Moreover, China, Russia, and others are unlikely to submit so easily to American power, no matter how advanced the available weaponry.150 International law is the better solution. As has been demonstrated by numerous successful arms control treaties in the past—the original Outer Space Treaty, the SALT treaty, and the ABM Treaty for three decades— international law, while not perfect by any means, can often be successful in averting destabilizing arms races. The United States must of course remain somewhat cautious—it should not entirely dismantle its research and development of future space weapons—but at the same time it should not cynically refuse all negotiation simply because of the potential for its strategic adversaries to act in bad faith.

General Solvency

US support of a ban to end space weaponization would stop a global arms race.

McKenna 5

Ted McKenna, Senior Editor at Journal of Electronic Defense, Washington, DC. . Journal of Electronic Defense. Gainesville: Jul 2005. Vol. 28, Iss. 7; pg. 20, 3 pgs ‘Is Space Weaponization Inevitable?’ <http://proquest.umi.com/pqdlink?did=868177771&Fmt=7&clientId=4347&RQT=309&VName=PQD>//DoeS

Maybe not many people love the idea of weaponizing space, but it could be inevitable nevertheless - unless countries make a joint effort to stop it. Such was the central point of much of the discussion at a recent conference on "Emerging Issues in Security Space: International Perspectives." For many of the participants at the conference, hosted by George Washington University's Elliott School of International Affairs in Washington, DC, on May 12, the future of space weaponization depends on the US, which is by far the biggest spender on space capabilities today - $50 billion annually, compared with $550 million a year by Europe, for example. Thus, the US stands to suffer the most from a loss of space assets, considering how much its military has grown to rely on them for communications, navigation, and other aspects of command and control. According to the US Air Force's Counterspace Operations doctrine of August 2004, US plans to develop capabilities to defend against ground-and space-based threats to its satellites - those it owns and operates itself, as well as the commercial satellites from which it leases communications, surveillance, and other capabilities (see "Lost in Space,"JED, January 2005, p. 40). If the US follows through on these plans, will it lead to a new kind of arms race, with other countries prompted to put weapons in space, too? Is the US being practical or paranoid in preparing for what it believes is a threat to capabilities on which it so heavily relies? At present, there are no legal instruments in the world that ban weapons in space, although China, Russia, and a number of other countries support a ban, noted Simon Collard-Wexler of Canada's Ministry of Foreign Affairs. Whether motives for supporting the ban are altruistic or self-serving depends on whom one talks to, however. The US Pentagon, for example, believes that China, despite its claimed desire for a ban, is eager to develop weapons to counter US space capabilities. Yevgeny Zvedre, senior counselor on science and technology at the Embassy of the Russian Federation, said there are a number of reasons to prevent weapons in space. For one thing, having weapons in space introduces new suspicions into international politics. "Who can guarantee that countries that feel threatened by the US would not develop asymmetric means to counter them, triggering an arms race?" said Zvedre, who argued that weapons in space are not necessarily inevitable; many people during the Cold War believed that nuclear exchange was inevitable, yet it didn't happen. Everett Dolman of the US Air War College's School of Advanced Air and Space Studies said that naturally those countries that lack the kind of capabilities the US enjoys in space would want to curb the development of any additional advantage the US could gain. Given that the loss of space capabilities would be disastrous to US forces, the US Air Force would, of course, want to have weapons in space. The US military can't be faulted for wanting space weaponization. The question is simply whether policymakers should allow it. In any case, Dolman said, the consequences of weaponizing space wouldn't be as dire as some claim. The sooner the US developed them, the less likely other countries would believe they could match US capabilities in space and attempt to do so. "The longer I wait, the longer I hedge, the more opportunity I give the other countries to develop capabilities," he said. Moreover, a focus on developing space capabilities indicates, according to Dolman, that unlike the type of military based on land forces, which are able to occupy other countries, the US is a liberal society, just as a naval power like Britain in the 19th century was a relatively liberal nation. While still retaining the capability to defend itself and to strike at other countries through aircraft and other means of precision, "a space-based US would no longer be a threat to other countries' sovereignty," Dolman said. Robert Dickman, executive director of the American Institute of Aeronautics and Astronautics and the former deputy for military space at the US Air Force (USAF), said that spacebased activities are not really anything new. The Soviet Union, for example, 20 years ago tested a system designed to disable satellites, though it decided not to continue development. Intercepting communications for the purposes of deception or causing harm to the opponent's ability to command is as old as warfare itself, meanwhile, so the announcement last August that the USAF had turned on a Counter Communications System (see "USAF SATCOM lammers Go Live," JED, December 2004, p. 16) should come as no shock, Dickman said. US Air Force Lt. Col. Shawn Barnes, chief of the space-policy division of the Joint Staff's plans and policy directorate, said that over the years, there have certainly been US scientific and civil space missions like the Apollo launches, yet the military has always driven US activities in space, dating back to the Elsenhower era. Lt. Col. Barnes said US policy is not, per se, to achieve superiority in space over any other nation. Mostly, spending by the US on space has been about "force enhancement" through improved reconnaissance, navigation, communications, and so on. But the increasing infrastructure put into space will need to be protected, Lt. Col. Barnes said. For Europe, the topic of space and security is relatively new, and official policy is still being formulated by the European Commission, said Gerhard Brauer, head of the European Space Agency's security office. Mainly, Europeans are focused on the commercial applications of space and, among other things, see development of the Galileo satellite system as a step toward independence from the US, which has occasionally shut down its Global Positioning System to European users - no small inconvenience (for more on Galileo, see "EU's Rival to GPS Enters Next Stage,"JED, February 2005, p. 24). As to the question raised a number of times during the conference of whether space weapons are inevitable, Gerd Fohrenbach, a member of the German Bundeswehr Transformation Center's law and politics division, said Europe does not have much influence over the matter, that basically it is up to the US. "I don't think our influence is strong enough," Fohrenbach said. "But I think we would prefer to see fewer weapons in space than more." Far more shaky than European and US cooperation over space are Chinese and US space relations, loan lohnson-Freese, chair of the US Naval War College's Department of National security Decision Making, described the relationship of the US and China in space as being like two scorpions in a bottle that dance around each other without touching. "Any contact could be lethal," she said. Compared with US activities in space, less is known about China's space program, given the opaqueness of the Chinese government. Certainly, China sees space capabilities as key to build a knowledge-based society that is competitive with the US and European countries, and it wants to modernize its military forces. This means achieving the same kind of "force enhancement" as the US. China knows about the USAF counterspace doctrine and feels it would be remiss not to prepare for US space weaponization, lohnson-Freese said. But does it aim to build microsatellites that could attack other countries' satellites, hindering or destroying their capabilities? Johnson-Freese said simply that China's focus in space is on improving it's own capabilities. The main problem in the USChina relationship is a lack of dialogue, which leads to misunderstanding about the other's intentions, said Johnson-Freese. For instance, the Pentagon, in a report on Chinese activities in space in 2003, characterized five out of six launches as being threatening, and only one was actually a military launch. The point is, just about everything China does in space appears to be threatening in the eyes of the US military. "China knows it can't reach parity with the US in space, and they know they don't have to," Johnson-Freese said. "China simply wants to protect its own space interests." Primarily, China's aims in space relate to Taiwan - as so much of its foreign policy in generally typically does (see "Flashpoint Taiwan Straits," JED, November 2004, p. 51). David Shambaugh, director of the Elliottt School of International Affairs' China Policy Program, said the US wants to engage China on the question of space security, but in doing so, it also aims to intimidate by showing just what the US is capable of. It certainly does not want to aid China's development of space capabilities - hence the US drive to prevent Europe from lifting its arms ban, despite European pledges to create a more strict and enforceable "code of conduct" toward arms sales (see "Euro Parliament Favors China Arms Ban, "JED, June 2005, p. 33). Greg Kulacki of the Union of Concerned Scientists said that US perception of Chinese capabilities and intentions - which appear, to some degree, to drive the US plans for space weapons - are somewhat warped as the result of a lack of effective dialogue between the two countries. For example, Western press agencies recently reported that officials at a conference in China announced plans to launch some 100 satellites by 2010; in fact, the number mentioned at the conference was 11. In addition, an item in a Pentagon report about China's military capabilities said that the Chinese government sought to develop anti-satellite threats such as microsatellites, which could collide with larger satellites. But the source for this was a report in a Hong Kong newspaper, which had gotten its information from a not-very-credible military enthusiast's website. This kind of second-hand, distorted information on China is typical, Kulacki said. But while information on China's intentions and activities could be distorted, the threat - from whatever nation or organization - could still be real. That appears to be what weighs in the minds of US military planners, conference attendees said. The US sees the issue as being a matter of better safe than sorry.

Solves Russia

Russia is looking to the US to sign a treaty to end space weaponization.

Interfax-AVN 9

Interfax-AVN April 23, 2009 ‘RUSSIAN EXPERT WANTS ARMS CUTS TO BE TIED WITH BAN ON MILITARIZATION OF SPACE’ BBC Monitoring International Reports [lexis]//DoeS

Moscow, 21 April: A ban on the deployment of weapons in space must be Russia's main condition as regards the conclusion of a new strategic arms reduction treaty, a prominent Russian expert, former head of the main headquarters of the Strategic Missile Troops Col-Gen Viktor Yesin has said. "The essential condition for the conclusion of a new treaty must be that no offensive systems will be deployed in space. The deployment by the USA of such weapons during a reduction in the nuclear potential may lead to Russia losing its nuclear deterrent capacity," Yesin told Interfax's Military News Agency today. [passage omitted] "A new treaty should be comprehensive and should not only apply to the existing nuclear potential but also limit the possibility of expanding this potential," Yesin said. The conditions put forward by the Russian president for the conclusion of a strategic arms reduction treaty with the USA clarify Russia's position in the run-up to the talks on a new treaty which should begin on 26 April, the expert said. The conditions include restrictions on the existing response potential, that is to say a reduction of delivery vehicles and limitation of nuclear warheads in storage. "Estimates show that the Americans' response potential may amount to more than 2,000 warheads," Yesin said. The new treaty should also take into account strategic weapons with conventional equipment envisaging the deployment on intercontinental ballistic missiles and missiles of submarines of warheads with conventional explosives. Such missiles represent a serious threat. "Moscow has made it clear that a further reduction of nuclear weapons to below the level established by the Strategic Offensive Reductions Treaty (1,700-2,000 units) can only take place if the basic principle is observed - that of equal security of the negotiating sides," Yesin said. If the USA accepts Russia's conditions, a new treaty can be concluded before the end of 2009, he said.

Russia has been pushing for a weaponization ban, the US is the only thing in the way.

Gutterman 5

Steve Gutterman, Staff Writer at The Associated Press Jun 3, 2005. “Russia vows retaliation for space weapons” <http://proquest.umi.com/pqdweb?did=848954191&sid=4&Fmt=3&clientId=4347&RQT=309&VName=PQD>//DoeS

MOSCOW -- Taking aim at the United States, Russia's defense minister Thursday threatened retaliatory steps if any country puts weapons in space and said Moscow won't negotiate controls over tactical nuclear arms with nations that deploy them abroad, Russian media reported. While he mentioned no country by name, Defense Minister Sergei Ivanov's comments reflected persistent wariness over U.S. intentions, despite arms control deals and increased cooperation between the Cold War foes since the 1991 collapse of the Soviet Union. "Russia's position on this question has not changed for decades: We are categorically against the militarization of space," the Interfax news agency quoted Ivanov as saying during a visit to the Baikonur space facility in Kazakhstan. "If some state begins to realize such plans, then we doubtless will take adequate retaliatory measures," ITAR-Tass quoted Ivanov as saying. The comments came as the Bush administration reviews the U.S. space policy doctrine. White House spokesman Scott McClellan said last month the policy review was not considering the militarization of space. But he said U.S. satellites must be protected against new threats that he said have emerged since Washington's space doctrine was last reviewed in 1996. Moscow's concerns about space-based weapons go back to the Soviet- era space race and President Reagan's 1980s plans for a "Star Wars" missile defense system. In 2002, after the United States withdrew from the 1972 Anti- Ballistic Missile Treaty, China and Russia submitted a proposal for a new ban on weapons in outer space. But the United States has said it sees no need for any new space arms control agreements.

Solves China

US agreement of a ban would persuade the Chinese to end weaponization as well.

Myers 8

Steven Lee Myers, Staff Writer. Mar 9, 2008 New York Times. (Late Edition (East Coast)). New York, N.Y. pg. WK.3 <http://proquest.umi.com/pqdlink?did=1442567931&Fmt=7&clientId=4347&RQT=309&VName=PQD>//DoeS

''The first era of the space age was one of experimentation and discovery,'' a Congressional commission reported just before President Bush took office in 2001. ''We are now on the threshold of a new era of the space age, devoted to mastering operations in space.'' One of the authors of that report was Mr. Bush's first defense secretary, Donald H. Rumsfeld, and the policy it recommended became a tenet of American policy: The United States should develop ''new military capabilities for operation to, from, in and through space.'' Technology, too, has become an enemy of peace in space. Ronald Reagan's Strategic Defense Initiative was considered so fantastical by its critics 25 years ago that it was known as ''Star Wars.'' But the programs Mr. Reagan began were the ancestors of the weaponry that brought down the American satellite. The Chinese strike, and now the Pentagon's, have given ammunition to both sides of the debate over war in orbit. Arms control advocates say the bull's-eyes underscore the need to expand the Outer Space Treaty of 1967, which the United States and 90 other countries have ratified. It bans the use of nuclear and other weapons of mass destruction in orbit or on the Moon. Space, in this view, should remain a place for exploration and research, not humanity's destructive side. The grim potential of the latter was hinted at by the vast field of debris that China's test left, posing a threat to any passing satellite or space ship. (The Pentagon said its own shot, at a lower altitude, would not have the same effect -- the debris would fall to earth and burn up.) The risk posed by space junk was the main reason the United States and Soviet Union abandoned antisatellite tests in the 1980's. Michael Krepon, who has written on the militarization of space, said the Chinese test broke an unofficial moratorium that had lasted since then. And he expressed disappointment that the Pentagon's strike had damaged support for a ban -- which the Chinese say they want, in spite of their 2007 test. ''The truth of the matter is it doesn't take too many satellite hits to create a big mess in low earth orbit,'' he said. The White House, on the other hand, opposes a treaty proscribing space weaponry; Mr. Bush's press secretary, Dana M. Perino, says it would be unenforceable, noting that even a benign object put in orbit could become a weapon if it rammed another satellite. A new American president could reverse that attitude, but he or she would have to go up against the generals and admirals, contractors, lawmakers and others who strongly support the goal of keeping American superiority in space. The reason they cite is that the United States depends more than any other country on space for its national security. It's only a slight exaggeration to say that an M1-A1 tank couldn't drive around the block in Iraq without them.

Solves India

India loves the CP.

The Hindustan Times 1/19

The Hindustan Times, the flagship publication of HT Media Ltd. In 2008 the newspaper reported its circulation as being over 1.14 million according to the Audit Bureau of Circulations (India), ranking it as the third largest daily English newspaper in India. Jan 19, 2011. ‘Plug holes in UN 'Outer Space Treaty', says former Air Chief’ <http://proquest.umi.com/pqdweb?did=2242139901&sid=2&Fmt=3&clientId=4347&RQT=309&VName=PQD>//DoeS

"India would like to appeal to international community to see that the holes (in Outer Space Treaty) must be plugged," Krishnaswamy said, while delivering the keynote address at an international conference on 'Space, Science and Security: The Role of Regional Expert Discussion'. "We also need a strong policing force in the UN. If somebody crosses the line, we need to bring down quickly," he told the three-day conference organised by Observer Research Foundation, Secure World Foundation, Stockholm International Peace Research Institute (SIPRI) and the Jawaharlal Nehru University. Krishnaswamy said: "the authors of the treaty have left some gaps in the treaty. And probably with a sense of purpose. After all, law is very clever." "Is there anyway to fill them (gaps)," he asked, adding the treaty implicitly allows certain things for military activity, including transit of nuclear weapons like ICBM and IRBM. Speaking on the occasion, he said, according to the treaty, non-WMD, non-nuclear weapons can be used from space on targets on space or in space itself." The treaty also allows testing of all weapons in space and floating military bases. And also, there is no ban on anti-satellite, anti-missile weapons as the treaty says outer space is free for all nation states," Krishnaswamy said. "We all should get together and work for peaceful use of space," he told the conference attended by delegates from the US, Australia, Switzerland, Israel and other countries. "If something bad (from space) happens, it will be devastating. Indeed, the earth will burn off," he added. Asserting that India is living in a very difficult environment, Krishnaswamy said the country needed a good space programme which is imaginative, special and that takes care of all our defence needs. "I don't trust anybody. We have learnt our lessons and so, we need to defend ourselves," he said. Former Foreign Secretary M. Rasgotra, who is presently President of ORF Centre for International Relations, said security of space lies in non-militarisation of space.

AT: Lies (General)

China and Russia’s pushes to ban space weapons are sincere- the logistics of their 2002 proposal prove.

Englehart 8

Alex B Englehart, contributor to the Pacific Rim Law & Policy Journal at the University of Washington School of Law Jan 2008 “Common Ground In The Sky: Extending The 1967 Outer Space Treaty To Reconcile US and Chinese Security Interests” Pacific Rim Law & Policy Journal ProQuest Asian Business and Reference pg. 133 <http://proquest.umi.com/pqdlink?did=1429810431&Fmt=7&clientId=4347&RQT=309&VName=PQD>//DoeS

China and Russia have been pushing very hard in recent years for negotiations on the space weapons issue, and they have given the United States no reason to doubt their sincerity. The 2002 working paper jointly submitted by the two countries to the Conference on Disarmament called "not to place in orbit around the Earth any objects carrying any kinds of weapons, not to install such weapons on celestial bodies, or not to station such weapons in outer space in any other manner" and "not to resort to the threat or use of force against outer space objects."151 This language was too broad and sweeping, because instead of proposing to ban only the specific types of offensive weapons currently being planned for deployment in the next few decades—kinetic kill vehicles and lasers—it simply proposes to ban "all types of weapons." China and Russia almost certainly understood that such a comprehensive ban on all space weapons would be unacceptable to the United States, which has already invested heavily in various types of military support satellites152 that could arguably fall within such a broad prohibition. China and Russia mainly want to avoid the major impending threats posed by kinetic kill vehicles and space-based lasers—they are not nearly as concerned about U.S. military support satellites.153 It is therefore very likely that this general language was intended only to be a starting point for negotiations, and not by any means the "final offer" from the two countries. A ban on "all types of weapons" is a complete non-starter to the United States because it has already invested significantly in various military support satellites that could technically fall within that language, and it would be unwilling to turn back the clock in favor of its potential adversaries. But banning only kinetic kill vehicles and space-based laser weapons (and ASATs) through the amendment to Article IV of the Outer Space Treaty proposed above would be a very different matter. If the language in the amended treaty is made sufficiently clear so that only these weapons, and not any other types of satellites, are banned, the United States is much more likely to at least come to the table and discuss amending the Treaty.

Enforcement would be easy and cooperation would be sincere- no one wants space weaponization

Englehart 8

Alex B Englehart, contributor to the Pacific Rim Law & Policy Journal at the University of Washington School of Law Jan 2008 “Common Ground In The Sky: Extending The 1967 Outer Space Treaty To Reconcile US and Chinese Security Interests” Pacific Rim Law & Policy Journal ProQuest Asian Business and Reference pg. 133 <http://proquest.umi.com/pqdlink?did=1429810431&Fmt=7&clientId=4347&RQT=309&VName=PQD>//DoeS

A ban on actual space weapons—kinetic kill vehicles and lasers—would be easy to implement since these weapons have yet to be deployed at all. A ban on the use of ASATs would be a bit more difficult because these weapons are already operational. However, both sides realize that ASATs are extremely destabilizing from a strategic point of view. Additionally, since ASATs threaten all satellites—not just actual space weapons—they have the potential to disrupt all sorts of vital infrastructure. Banning them would be to everyone's benefit, and would be no more difficult to implement than the reductions in ICBM inventory required under SALT. If the international community can muster the will to amend Article IV of the Outer Space Treaty, the implementation of that amendment will be reasonably painless. V. CONCLUSION The space weapons currently under development are extremely complex and extremely expensive devices. They are inherently vulnerable to asymmetrical attacks by much cheaper and less complex ASATs, and the strategic interplay between them, ASATs, and ICBMs will greatly increase geopolitical instability between the United States and China. Space weapons are also sure to inflame Russia and others and drive them into the welcoming arms of China.

AT: Lies (General)

Once the ban is part of the treaty, it will be self enforcing.

ISLP 10

International Space Law Panel: Dr. Henry Hertzfeld is a Research Professor of Space Policy and Internationa] Affairs at the Elliot School of International Affairs at George Washington University in Washington, D.C. Dr. Frans von der Dunk is a Professor of Space Law at the University of Nebraska's College of Law. Dr. Robert Harding is the Director of International Studies and an Assistant Professor of Political Science at Spring Hill College in Mobile, Alabama. Dr. Joanne Gabrynowicz is a Research Professor of Law at the University of Mississippi's School of Law and the Director of the National Remote Sensing and Space Law Center. Summer 2010 ‘The Whitehead Journal of Diplomacy and International Relations’. South Orange: Vol. 11, Iss. 2; pg. 7, 20 pgs <http://proquest.umi.com/pqdlink?did=2349695251&Fmt=7&clientId=4347&RQT=309&VName=PQD>//DoeS

Space-faring nations have to take the lead as they have both the most to gain and the most to lose from aggressive activity in space. The natural place to discuss the issues is the UN. From a legal perspective, new initiatives in the law of space begin in the legal sub-committee of the UN Committee on Peaceful Uses of Outer Space (COPUOS). However, the UN's Security Council is responsible for dealing with issues of responses to attacks and issues of self-defense. Another UN related venue is the Committee on Disarmament. Neither organization has true enforcement capabilities. Therefore, if arms in space are to be effectively prohibited, it is up to the nations with the capability of using weapons in space to agree through bi-lateral and multilateral agreements and/or treaties. Today the number of those nations is relatively small, so such agreements are feasible. If for no other reason, destruction of space assets in space creates debris which makes operations in space less reliable and much more risky for all space-faring nations. It is in the best interests, militarily and economically for any nation with space assets to maximize their use, not their destruction and the ensuing destruction of the space environment.

AT: China Lies

China doesn’t want to weaponize space- they tested ASATs because the US and Russia did, but they have no incentive to continue. CP solves.

Ching 7

Frank Ching is a Hong Kong-based staff writer for the South China Morning Post Jan 24, 2007. ‘Credibility lost in space?’ <http://proquest.umi.com/pqdlink?did=1200669081&Fmt=7&clientId=4347&RQT=309&VName=PQD>//DoeS

On July 27, 1998, China issued a white paper on defence in which it declared: "Outer space should be used exclusively for peaceful purposes to benefit mankind." It added: "China opposes the development of anti-satellite weapons." In fact, this had been Beijing's position since the beginning of the 1980s, when it co- sponsored resolutions in the UN on keeping outer space free of weapons. As recently as last October, when it issued a white paper on its space activities, China asserted that its goals in space are to "explore outer space", "enhance understanding" and "to utilise outer space for peaceful purposes". So it comes as something of a shock to hear it has been developing anti-satellite weapons and, in fact, has fired a ballistic missile into space to shoot down one of its own weather satellites in a test of anti-satellite weaponry. Of course, China is not the first country to test anti-satellite weapons. The United States and the former Soviet Union did this in the 1980s but by conducting this test China has broken a moratorium on aggressive military action in space that had lasted since 1985. Moreover, by doing so it raises questions of its own credibility and whether the world should really believe that its rise will be peaceful. The latest development lends added significance to an incident reported by US officials last August when a US satellite was "illuminated" by a mainland laser to blind it from taking pictures. In the wake of the latest incident, on January 11, the US called the test "inconsistent with the spirit of co-operation that both countries aspire to in the civil space area". Washington and some of its followers have demanded an explanation by China of its action. So far, Beijing has not bothered to explain its actions, although yesterday it did confirm that it carried out the test. It is certainly understandable if China felt a need to catch up with America and Russia, especially since the US has repeatedly refused to negotiate a treaty to ban the militarisation of space. The last time the issue of talks to prevent an arms race in space was brought to a vote, in December 2005, 160 countries voted for the idea, only to be thwarted by the US. And last year President George W. Bush signed a space policy which asserted that the US would "oppose the development of new legal regimes or other restrictions that seek to prohibit or limit US access to or use of space". That is the voice of a unilateralist intent on getting its own way, regardless of other countries' interests. The US hopes that space-based weapons will help the development of a national missile defence programme. If this were successful, it would effectively nullify China's relatively small nuclear arsenal and deprive it of a second-strike capability. Moreover, Beijing's growing number of missiles across from Taiwan could also be nullified if the US were able to use space-based weapons to erect a shield over the island. One question now concerns Washington's reaction to Beijing's demonstrated ability to shoot down satellites. It could well trigger the arms race in space that Beijing has opposed for decades. But perhaps even more important is how China will now be viewed by the rest of the world. Rhetoric over the years has depicted Beijing as being different from other powers - one that espouses moral values rather than power politics. By conducting an anti-satellite weapons test, China may have lost the moral high ground that it has worked so hard to cultivate. This is a high price to pay for whatever military advantage it may have gained. Many countries may now see China as no different from other big powers and conclude that it is, in fact, more devious by trying to hide its true aims behind high-sounding principles. As of now, neither China nor the US looks too good. The only solution is an international treaty that treats all powers equally.

US Action Solves

Sole US action can solve.

Englehart 8

Alex B Englehart, contributor to the Pacific Rim Law & Policy Journal at the University of Washington School of Law Jan 2008 “Common Ground In The Sky: Extending The 1967 Outer Space Treaty To Reconcile US and Chinese Security Interests” Pacific Rim Law & Policy Journal ProQuest Asian Business and Reference pg. 133 <http://proquest.umi.com/pqdlink?did=1429810431&Fmt=7&clientId=4347&RQT=309&VName=PQD>//DoeS

The long-term consequences for the United States of a lack of law in this area could be quite serious—China, at least, is likely to reach economic parity with the United States later in the century, and by that time it will have its own offensive space weapons capability. The solution to this problem is to update Article IV of the 1967 Outer Space Treaty to cover these new offensive space weapons. As long as it is made perfectly clear in the treaty language that the changes affect only these new weapons—kinetic kill vehicles, lasers, and ASATs—and not any other sorts of military satellites being used by the United States, the United States would have good reason to come to the table and negotiate such an amendment. China and Russia have been pushing for such negotiations for a long time, but their insistence thus far on broad, sweeping treaty language— and, in fact, an entirely new treaty, as opposed to a simple amendment to the Outer Space Treaty—has kept the United States from even beginning negotiations. A compromise is in order.

China and Russia would agree to the ban- the US alone is preventing the success of the ban.

Pike 2

John Pike national security analyst and director and founder of GlobalSecurity.org. on the Steering Committee of the Brookings Institution U.S. Nuclear Weapons Cost Study Project. 2002 ‘Stockholm International Peace Research Institute’ ‘Chapter 11. The military uses of outer space’ <http://www.sipri.org/yearbook/2002/11/11>//DoeS

The ‘weaponization’ of outer space has reappeared on the arms control agenda. There is growing international concern that the USA’s quest for ‘full-spectrum dominance’—a key dimension of which is the USA’s ability to dominate space and to deny its use to other countries—will give rise to a destabilizing arms race in space. This concern has become more urgent in the light of the Bush Administration’s plans for an expansive ballistic missile defence system architecture featuring space-based components. China and Russia have taken the lead in calling for the negotiation of a new multilateral treaty prohibiting the deployment of weapons in space and restricting its use for peaceful purposes. For its part, the USA has shown little interest in agreements that would constrain its military activities in space.

US Action Solves

Independent US action to reaffirm the OST would spillover and solve the space arms race.

Ball 7

Phillip Ball, PhD in physics from the University of Bristol. Author of several scientific books for the lay reader, including *H2O: A Biography of Water* (shortlisted for a National Book Critics Circle Award); and *Critical Mass* (winner of the 2005 Aventis Prize). October 4, 2007 “Time to rethink the Outer Space Treaty” <http://ry2ue4ek7d.search.serialssolutions.com/?ctx\_ver=Z39.88-2004&ctx\_enc=info%3Aofi%2Fenc%3AUTF-8&rfr\_id=info:sid/summon.serialssolutions.com&rft\_val\_fmt=info:ofi/fmt:kev:mtx:journal&rft.genre=article&rft.atitle=Time+to+rethink+the+Outer+Space+Treaty&rft.jtitle=Nature+News&rft.au=Ball%2C+Philip&rft.date=2007-10-04&rft.issn=1744-7933&rft\_id=info:doi/10.1038%2Fnews.2007.142&rft.externalDBID=n%2Fa&rft.externalDocID=news.2007.142>//DoeS

That’s why it seems surprising that another anniversary this year has gone relatively unheralded. In 1967, some 90 nations signed the Outer Space Treaty (OST), in theory binding themselves to an agreement on the peaceful uses of space that prohibited the deployment there of weapons of mass destruction. Formally, the treaty remains in force; in practice, it is looking increasingly vulnerable as a protection against the militarization of space. The commitments of the OST need urgently to be updated and reinvigorated, but right now there seems rather little prospect of that happening. Among negotiators and diplomats there is a sense of gloom, a feeling that the era of large-scale international cooperation and legislation on security issues (and perhaps more widely) may be waning. Bad to worse Even for ground-based weapons, no nuclear states have disarmed since the Nuclear Non-Proliferation Treaty was created 39 years ago, despite the binding commitment of signatory states “to pursue negotiations in good faith on effective measures relating to nuclear disarmament”. And the world’s strongest nuclear power, the United States, still refuses to ratify the 11-year-old Comprehensive Test Ban Treaty (CTBT), even as some commentators say the world is entering a new phase of nuclear proliferation. China and Israel have also failed to ratify the CTBT, while other nuclear powers (India, Pakistan) have not even signed it. Indeed, there is not just stagnation but back-stepping. The United States seems set on developing a new generation of nukes (see Nukes: next generation not fit for certification) and deploying a ballistic missile defence system. North Korea, which withdrew from the Nuclear Non-Proliferation Treaty in 2003, now claims to have nuclear weapons. Given how poorly we have done so close to home, what are the prospects for outer space? “For the past four decades,” says Sergei Ordzhonikidze, director-general of the United Nations Office at Geneva, “the 1967 Outer Space Treaty has been the cornerstone of international space law. The treaty was a great historic achievement, and it still is. The strategic — and at the same time, noble and peaceful — idea behind it was to prevent the extension of an arms race into outer space.” Some might argue that those goals were attained and that there has been no arms race in space. But a conference convened in Geneva last April by the United Nations Institute for Disarmament Research1 suggested that the situation is increasingly precarious, and indeed that military uses of space are well underway and likely to expand. Hot times Paradoxically, the thawing of the cold war is one reason why the OST is losing its restraining power. During a confrontation of two nuclear superpowers, it is rather easy to see (and game theory confirms) that cooperation on arms limitation is in the national interest. Today, suggests Sergey Batsanov, director of the Geneva Office of the International Pugwash group for peaceful uses of science, we are in a transitional phase of geopolitics in which there is a “crisis in traditional international institutions, and the erosion, or perhaps evolution, of norms of international law (such as the inviolability of borders and non-interference in another state’s internal affairs)”. It’s not hard to see what he is alluding to there. James Armor, director of the US National Security Space Office, says that following satellite reconnaissance in Operation Desert Storm in Iraq in 1991, military space capabilities have now become “seamlessly integrated into the overall US military structure”. It would be unwise and unfair to imply that the United States is a lone rogue agent. China has exhibited a clear display of military capability in space (see Satellite kill creates space hazard). Yet China, like Russia, has been supportive of international regulation of space activities, and it’s not clear how much of this muscle-flexing is meant to create a bargaining tool. Modern renovation The real point is that the OST is an agreement forged in a different political climate from that of today. Its military commitments amount to a prohibition of nuclear weapons and other weapons of mass destruction in space, and the use of the Moon and other celestial bodies “exclusively for peaceful purposes”. That’s a long way from prohibiting all space weapons. As Kiran Nair of the Indian Air Force argued, “the OST made certain allowances for military uses of outer space that were exploited then, and are exploited now and will continue to be so until a balanced agreement on the military utilization of outer space is arrived at.” And as Batsanov says, now there are more players in the arena, and a wider variety of potential threats. Both Russia and China have called for a new treaty, and earlier this year President Putin announced the draft of such a document. There was no explicit framework built in to the OST for consultations, reviews and other interactions that would sustain the treaty and ensure its continued relevance. But we don’t necessarily need to ditch the OST and start anew. Indeed, the treaty has already been the launch pad for various other agreements, for example on liability for damage caused by space objects and on the rescue of astronauts. It makes sense to build on what we have. Unwilling party The key to success, however, is to find a way of engaging all the major players. In that respect, the United States still seems the most recalcitrant: its latest National Space Policy, announced in October 2006, states that the OST is sufficient and that the United States “will oppose the development of new legal regimes or other restrictions that seek to prohibit or limit US access to or use of space”. In other words, only nuclear space weaponry is to be considered explicitly out of bounds. US representative Armor made it clear at the Geneva meeting that “attempts to create regimes… that do not specifically include and build upon military capabilities are likely to be stillborn, sterile and ultimately frustrating efforts”. Whatever framework he envisages, it’s not going to look much like the European Union. But it needn’t be a matter of persuading nations to be nicer. There are strong arguments for why pure self-interest in terms of national security (not to mention national expenditure) would be served by the renunciation of all plans to militarize space — just as was the case in 1967. The recent Chinese anti-satellite test, for example, shows that no one stays ahead in this race for long; and the United States knows well that arms races are debilitating and expensive. The danger with the current Sputnik ‘celebrations’ is that they might cast the events in 1957 as pure history, against a picture of today’s world where space activities give us Google Earth and the International Space Station. The fact is that Sputnik and its attendant space technologies reveal a firm link between the last world war, with its rocket factories manned by slaves and its culmination in the instant destruction of two cities, and the world we now inhabit. Unless the Outer Space Treaty can be given fresh life and relevance, we have no grounds for imagining that the military space race is over.

AT: Links to Ptx

CP doesn’t link to politics- we haven’t weaponized space and it would be perceived internally as a small amendment to the OST.

Englehart 8

Alex B Englehart, contributor to the Pacific Rim Law & Policy Journal at the University of Washington School of Law Jan 2008 “Common Ground In The Sky: Extending The 1967 Outer Space Treaty To Reconcile US and Chinese Security Interests” Pacific Rim Law & Policy Journal ProQuest Asian Business and Reference pg. 133 <http://proquest.umi.com/pqdlink?did=1429810431&Fmt=7&clientId=4347&RQT=309&VName=PQD>//DoeS

Also, a simple amendment to Article IV of the Outer Space Treaty— which has been in effect since 1967 and has never been the subject of significant controversy in the interim—might be easier to swallow than an entirely new treaty. On a visceral level, the idea of adopting a new treaty based on the China-Russia joint paper might be unpalatable to the United States in a way that amending the current treaty would not be. The Outer Space Treaty must simply be updated to keep pace with changing technology—an eminently reasonable proposition. The actual implementation of this proposed amendment to Article IV of the Outer Space Treaty would be relatively straightforward.

AT: Perm

Signing it, and immediately violating it would definitely crush US diplomatic relations.

Steele 1

CLAIRE E. STEELE, MAJ, USA Reviewed by Consulting Faculty Major Kenneth D. Plowman, Ph.D. and Graduate Degree Programs Philip J. Brookes, Ph.D. 2001 ‘THE WEAPONIZATION OF SPACE A STRATEGIC ESTIMATE’ Master of Military Art and Science Theses <http://cgsc.contentdm.oclc.org/cdm/singleitem/collection/p4013coll2/id/459>//DoeS

The long-term effects of diplomacy in the offensive and defensive weapon course of action are rated “poor” because of the competitive nature of nations. If the US deploys offensive and defensive space-based weapons, other nations will reply in kind. Historically, the competitive nature of nations was evidenced by Mutually Assured Destruction (MAD). “MAD holds that United States security and the avoidance of nuclear war is entirely dependent on the maintenance of a balance of terror in which both the US and the Soviet Union can absorb a nuclear first strike and still be able to wreak such terrible vengeance that neither side will ever use nuclear weapons.”87 The deployment of space-based weapons could recreate the MAD situation. It will be difficult for diplomats to portray the US in a favorable light while the US deploys weapons in space. As long as the US possesses overwhelming force, there will always be a contingent that views the US as a potential enemy. One program under consideration is the space-based laser, which would be used primarily for ballistic missile defense. However, the Anti-Ballistic Missile Treaty of 1972 currently prohibits deployment of this kind of weapon.88 **If the US knowingly violates a signed treaty, diplomatic relations may suffer.**

If the US violates space law, it will decrease diplomacy and spark conflict.

Steele 1

CLAIRE E. STEELE, MAJ, USA Reviewed by Consulting Faculty Major Kenneth D. Plowman, Ph.D. and Graduate Degree Programs Philip J. Brookes, Ph.D. 2001 ‘THE WEAPONIZATION OF SPACE A STRATEGIC ESTIMATE’ Master of Military Art and Science Theses <http://cgsc.contentdm.oclc.org/cdm/singleitem/collection/p4013coll2/id/459>//DoeS

The US population does not perceive a large threat and therefore will not support a large military, as evidenced by the massive military drawdown after the Persian Gulf War. The long-term effects economically are “poor.” Developing and launching something into space is incredibly expensive. The DoD space budget peaked during 1988-1989.91 As seen in the 1990s, when the presidential administration did not put priority on the space program, it did not receive funds. In the past, space-based weapons programs have been started and never completed. Other nations will put money into their space weapons programs only if the US is doing the same. Like the defensive weapons only course of action, the economic priority varies with the presidential administration, so it may or may not be sustained. The phasing of the instruments of power during this course of action should be: diplomatic, economic, military. The information instrument is applied supporting the other three and will also have to be quite extensive to be effective. Developing offensive and defensive space-based weapons will be controversial and expensive. Diplomacy must still be the number one priority if the US is to avoid conflict with other nations. Russian Defense Minister Marshall Igor Sergeev predicts conflicts with other nations if the US violates the 1972 Anti-Ballistic Missile Treaty.92 The US should attempt to maintain friends and try not to develop new enemies. Economic must be the next because of the large costs involved in space operations. If the military is chosen, it must become a priority and receive all the benefits of the other instruments of power.

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\*\*Space Mil Inev\*\*

Space Weap Inev (General)

The space arms race has already begun with the Chinese ASAT test.

MacDonald 8

Bruce W. MacDonald, an independent consultant in technology and national security policy management, was assistant director for national security at the White House Office of Science and Technology Policy as well as senior director for science and technology on the National Security Council staff & a professional staff member on the House Armed Services Committee and was defense and foreign policy adviser. Worked for the State Department as a nuclear weapons and technology specialist in the Bureau of Politi- cal-Military Affairs, where he led the Interagency START Policy Working Group. Member of the Council on Foreign Rela- tions. Mr. MacDonald holds a BSE from Princeton in aerospace engineer- ing and two master’s degrees, also from Princeton—one in aerospace engineering, specializing in rocket propulsion, and a second in public and international affairs from the Woodrow Wilson School. September 2008 ‘China, Space Weapons, and U.S. Security’ Brookings Institute. <http://www.cfr.org/china/china-space-weapons-us-security/p16707>//DoeS

China’s ASAT test, however, led to a major U.S. reaction, and a potential action-reaction cycle appears like- ly. If China deployed direct ascent ASATs (ground-launched missiles that fly directly at their space targets, such as the ones China tested in 2007), these would become high-priority targets for the United States in a crisis or actual conflict due to the threat they would pose. General James E. Cartwright told Congress that the United States is prepared to strike land-based Chinese ASAT launchers if China shoots down U.S. satellites. Such a statement may help dissuade China from attack- ing U.S. satellites in a crisis, but, if actually carried out, it would inflict many casualties and risk serious escalation. This highlights the dispari- ty between deterrence and war-fighting strategies. At a minimum, such statements would give China an incentive to make their ASAT systems mobile. The administration has not adequately addressed the political and military risks associated with an unconstrained offensive counterspace competition. There is an inherent potential for instability when a rela- tively modest investment of military resources can produce a dispro- portionate effect on an adversary’s military capabilities, as with space assets. In the context of an escalating crisis, such potential instability could be magnified to critical proportions. While the United States currently enjoys substantial space superiority, should China—or oth- ers—assert comparable rights and buttress these assertions with coun- terspace weapons programs, the potential for future space- and earth- bound instability would be substantial and worrisome. In the near to mid term, threatening to attack Chinese satellites, which China de- pends on far less than the United States does its military satellites, ap- pears counterproductive and could easily provide a Chinese rationale for a response in kind that could seriously damage U.S. military capa- bility. In response to the security message of the Chinese ASAT test, press reports indicate that the Bush administration has been developing countering strategies in the Departments of Defense and State and drafting a funding plan to procure technologies. The president is re- ported to have issued a classified memo calling for agencies to improve 15 U.S. space situational awareness (SSA), avoid future foreign ASAT launches, and address defensive and offensive measures.15

Chinese Space Weap Inev

2007 Chinese ASAT test proves that China will weaponize.

MacDonald 8

Bruce W. MacDonald, an independent consultant in technology and national security policy management, was assistant director for national security at the White House Office of Science and Technology Policy as well as senior director for science and technology on the National Security Council staff & a professional staff member on the House Armed Services Committee and was defense and foreign policy adviser. Worked for the State Department as a nuclear weapons and technology specialist in the Bureau of Politi- cal-Military Affairs, where he led the Interagency START Policy Working Group. Member of the Council on Foreign Rela- tions. Mr. MacDonald holds a BSE from Princeton in aerospace engineer- ing and two master’s degrees, also from Princeton—one in aerospace engineering, specializing in rocket propulsion, and a second in public and international affairs from the Woodrow Wilson School. September 2008 ‘China, Space Weapons, and U.S. Security’ Brookings Institute. <http://www.cfr.org/china/china-space-weapons-us-security/p16707>//DoeS

With China’s demonstration of an ASAT weapon, the United States is concerned that China might soon deploy a substantial ASAT arsenal, consisting of either a fleet of the ASATs it tested in 2007, co- orbital small satellites (“space mines”), or, later, a more advanced ASAT capability based on technologies such as lasers, microwaves, or cyberweapons. Such a Chinese deployment could substantially reduce the effectiveness of U.S. fighting forces. While more traditional coun- terspace capabilities like jammers have a long and well-recognized role in electronic warfare, their effects are localized and temporary and thus can be tailored. Offensive counterspace capabilities could permanently damage or destroy costly satellites and leave substantial harmful debris in space if they physically destroy the satellites.

Chinese Space Weap Inev

China space weaponization is inevitable- they want to counter US nuclear primacy.

MacDonald 8

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China has been developing a significant military and civilian space ca- pability since 1955. This effort was led by Tsien Hsue-shen, a brilliant U.S.-trained rocket scientist who cofounded the U.S. Jet Propulsion Laboratory at Caltech, but whom the United States deported to China during the excesses of the McCarthy era. While Dr. Tsien helped Chi- na develop ballistic missiles to improve its nuclear deterrent, Beijing has mainly concentrated on economic development in the past three decades: Of Deng Xiaoping’s “Four Modernizations,” national defense received the least priority. Recently, though still focused on economic growth, China has been building its military strength, including mul- tiple offensive counterspace options, with the U.S. Department of De- fense noting China’s “multidimensional program to generate the ca- pability to deny others access to outer space.”3 Well aware of its mili- tary inferiority to the United States, China is likely doing what coun- tries in comparable security situations do: developing military capabili- ties targeted against the vulnerabilities of its stronger potential adver- sary. The United States’ relative space advantage will probably shrink as China strengthens its space capabilities over the next ten to twenty years. The voluminous People’s Liberation Army (PLA) literature on space conflict underscores that PLA officers are explicitly interested in space weapons. But Chinese military writings are no more likely to accurately reflect Beijing’s policy than midlevel U.S. military writings would Washington’s official policy. However, arguments that this PLA literature is merely academic lost some credibility in the aftermath of China’s 2007 ASAT test. It is unclear whether China’s offensive counterspace capabilities are intended for deterrence or as usable weapons of war, though deter- rence is repeatedly discussed. As a possible precedent, China’s strategic nuclear policy has been one of minimum deterrence and declared “no first use.” The small Chinese nuclear force is not meant to wage war, but is capable of destroying a few cities, a capability that allows China to resist potential foreign coercion. However, space and nuclear deterrence are not the same. Because the effects are not as devastating as the detonation of a nuclear weapon, crossing the space weapons “threshold” is easier, especially if the effects are temporary. Some PLA writings suggest China is considering a “no first use” space weapons policy, though the lower level of destruction in space conflict makes it more likely China would preempt in space if it were advantageous to do so. Some PLA authors see space conflict as a natural evolution of mili- tary technology, and space weapons as desirable for China, though others appear to adopt a more deterrence-oriented framework for these weapons.

AT: China Weap just for Deterrence

Chinese “no first use” policy applies only to nukes with bigger impacts- space weapons are smaller and cheaper.

MacDonald 8

Bruce W. MacDonald, an independent consultant in technology and national security policy management, was assistant director for national security at the White House Office of Science and Technology Policy as well as senior director for science and technology on the National Security Council staff & a professional staff member on the House Armed Services Committee and was defense and foreign policy adviser. Worked for the State Department as a nuclear weapons and technology specialist in the Bureau of Politi- cal-Military Affairs, where he led the Interagency START Policy Working Group. Member of the Council on Foreign Rela- tions. Mr. MacDonald holds a BSE from Princeton in aerospace engineer- ing and two master’s degrees, also from Princeton—one in aerospace engineering, specializing in rocket propulsion, and a second in public and international affairs from the Woodrow Wilson School. September 2008 ‘China, Space Weapons, and U.S. Security’ Brookings Institute. <http://www.cfr.org/china/china-space-weapons-us-security/p16707>//DoeS

It is unclear whether China’s offensive counterspace capabilities are intended for deterrence or as usable weapons of war, though deter- rence is repeatedly discussed. As a possible precedent, China’s strategic nuclear policy has been one of minimum deterrence and declared “no first use.” The small Chinese nuclear force is not meant to wage war, but is capable of destroying a few cities, a capability that allows China to resist potential foreign coercion. However, space and nuclear deterrence are not the same. Because the effects are not as devastating as the detonation of a nuclear weapon, crossing the space weapons “threshold” is easier, especially if the effects are temporary. Some PLA writings suggest China is considering a “no first use” space weapons policy, though the lower level of destruction in space conflict makes it more likely China would preempt in space if it were advantageous to do so. Some PLA authors see space conflict as a natural evolution of mili- tary technology, and space weapons as desirable for China, though others appear to adopt a more deterrence-oriented framework for these weapons.

US Space Weap Inev

The United States tested an ASAT in 2008 that should have triggered the link.

MacDonald 8

Bruce W. MacDonald, an independent consultant in technology and national security policy management, was assistant director for national security at the White House Office of Science and Technology Policy as well as senior director for science and technology on the National Security Council staff & a professional staff member on the House Armed Services Committee and was defense and foreign policy adviser. Worked for the State Department as a nuclear weapons and technology specialist in the Bureau of Politi- cal-Military Affairs, where he led the Interagency START Policy Working Group. Member of the Council on Foreign Rela- tions. Mr. MacDonald holds a BSE from Princeton in aerospace engineer- ing and two master’s degrees, also from Princeton—one in aerospace engineering, specializing in rocket propulsion, and a second in public and international affairs from the Woodrow Wilson School. September 2008 ‘China, Space Weapons, and U.S. Security’ Brookings Institute. <http://www.cfr.org/china/china-space-weapons-us-security/p16707>//DoeS

The United States says virtually nothing about any offensive space programs it may develop. While the February 2008 U.S. satellite inter- ception demonstrated ASAT capability, it seems likely that any U.S. offensive counterspace weapon would not be designed to create space debris and would depend on properties such as electronic jamming or lasers, with an emphasis on temporary, reversible effects. Notably, the Air Force’s top two priorities for space control are improved SSA and protection, neither of which is offensive in nature.

Defer Aff- Always a Risk

US should weaponize space regardless of whether or not an “arms race” is under way- there’s always a risk. Empirically proven.

MacDonald 8

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Possible U.S. Military Options for Addressing the Chinese Challenge CURRENT U. S. SPACE POLICY The Joint Chiefs of Staff issued an important document on space doc- trine in 2002, which states that “[T]he United States must be able to … deny the use of space assets by its adversaries” and addressed “nega- tion of enemy adversary space systems.”10 This doctrine has created some uneasiness among other space powers. Some of this policy ap- proach was carried over into the new National Space Policy that Presi- dent Bush signed in 2006,11 which directs the Secretary of Defense to “develop capabilities, plans, and options to ensure [U.S.] freedom of action in space and, if so directed, deny such freedom of action to ad- versaries.”12 President Bush stated that “freedom of action in space is as important to the United States as air power and sea power.” **The Bush administration states that no new agreements are needed be- cause there is no space arms race. However, this begs the question of space stability, which the recent Chinese and U.S. ASAT demonstra- tions suggest may well deteriorate in the next decade without con- certed action. The U.S. objective should be space stability that ad- vances U.S. security interests, whether or not a formal “arms race” is under way**. One often overlooked passage in this new U.S. space policy is an important statement: the United States considers space capabilities— including the ground and space segments and supporting links—“vital to its national interests.” The Bush administration described this pas- sage in congressional testimony as going “beyond previous policies by 13 identifying space capabilities as a top national priority.” One Bush offi- cial called this “the most important lesson learned” during the devel- opment of the revised space policy.13

Defer Aff- Always a Risk

Chinese space weaponization is inevitable- any uncertainty on this question means it’s rather safe than sorry.

MacDonald 8

Bruce W. MacDonald, an independent consultant in technology and national security policy management, was assistant director for national security at the White House Office of Science and Technology Policy as well as senior director for science and technology on the National Security Council staff & a professional staff member on the House Armed Services Committee and was defense and foreign policy adviser. Worked for the State Department as a nuclear weapons and technology specialist in the Bureau of Politi- cal-Military Affairs, where he led the Interagency START Policy Working Group. Member of the Council on Foreign Rela- tions. Mr. MacDonald holds a BSE from Princeton in aerospace engineer- ing and two master’s degrees, also from Princeton—one in aerospace engineering, specializing in rocket propulsion, and a second in public and international affairs from the Woodrow Wilson School. September 2008 ‘China, Space Weapons, and U.S. Security’ Brookings Institute. <http://www.cfr.org/china/china-space-weapons-us-security/p16707>//DoeS

Chinese specialists have stated that, in addition to protecting their satellites against U.S. offensive capabilities, China will develop a deterrent space force if there is no change in U.S. space poli- cy, which they see as shunning any restrictions and reflecting U.S. at- traction to space dominance. They have suggested that China would be prepared to deploy sufficient offensive counterspace capability to build confidence in its ability to deter U.S. use of weapons against Chinese space assets. This would not require China to match U.S. space-force deployments, but to have enough to deter. In general, as the CFR-sponsored Independent Task Force report on U.S.-China relations noted in 2007, “China does not need to surpass, or even catch up with, the United States in order to complicate U.S. defense plan- ning or influence U.S. decision-making in the event of a crisis in the Taiwan Strait or elsewhere.”5 This could reflect Chinese thinking on space weapons, as well. 9 China has openly announced its intention to build “informationized armed forces and being capable of winning informationized wars by the mid-twenty-first century;”6 offensive counterspace capabilities would be an important component in this capability. Coordinating and executing any such attack would be difficult and fraught with danger for China. Some are concerned that an action-reaction cycle involving space weapons could result in an “arms race in space,” even without actual conflict, making both the United States and China worse off than if neither went down this path. China’s military space doctrine and intentions are far from clear and urgently require further analysis and understanding, leaving the United States with no choice but to hedge prudently against this uncer- tainty. But there is at least some suggestion that China may be moving toward a doctrine of deterrence in offensive counterspace capability, at least in the near to mid term, partially patterned on its strategic wea- pons doctrine and policy. This doctrine would include: – an officially preferred ban on all space weapons; – a secondary doctrine of deterrence, based on finite capability rather than total competition with the United States; – no requirement for quantitative parity with the United States; and – a preference for ground-based space weapons over space-based weapons. It is unclear whether the PLA subscribes to this embryonic doctrine. China is possibly seeking a full space war-fighting capability and not just a finite deterrence posture. However, PLA writings make clear what Chinese diplomacy does not: the PLA envisions conflict in space and is preparing for it. Accordingly, the United States needs to assess how robust a program of space offense China plans. Caution suggests the United States must prepare itself for the possibility that China could soon have an arsenal of ASAT weapons, though it is not a fore- gone conclusion. This uncertainty compels the United States to hedge its risks, but carefully, and not in such a way as to create a self-fulfilling prophecy.

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\*\*AT: Links\*\*

Defense Doesn’t Cause War

Protection of space assets allows peaceful domination of space.

Baldauff 1

Baldauff, Regis J. MAJ, USAF M.S., Golden Gate University, San Francisco, California, 2001-06-01 ‘By deploying weapons in space, is the U. S. opening a theater of engagement that could disadvantage the U. S. in the long term?’ <http://cgsc.contentdm.oclc.org/cdm/singleitem/collection/p4013coll2/id/407>//DoeS

93 According to Walter McDougal in the Heavens and the Earth, the Outer Space Treaty was modeled after the successful Antarctic Treaty (McDougal 1997, 181). The Antarctic Treaty has kept the continent weapons-free and for the peaceful scientific uses of all nations of the world. When the Antarctic Treaty was written, seven nations laid claims to different parts of the territory. The U.S. is the only nation that has the capability to “range” the Antarctic continent. It also occupies the strategic center of gravity of the Antarctic continent, the South Pole. By occupying the South Pole, the US has a presence in the territorial claim of every nation. This presence is maintained through a strategic resource no other nation has: the Lockheed LC-130 ski-equipped cargo aircraft. Similar to the strategic situation in Antarctica, the U.S. has the capability within the next ten years to dominate space as no nation can. Mastery can be accomplished in a peaceful way, by developing strategic transportation assets that will permit the United States to “range” the space AOR. In this manner, a potent arsenal of space weapons can await rapid deployment on the ground, as long as the strategic transportation assets will allow rapid constitution of space-based deterrent forces. This same strategic transportation asset would ensure economic dominance of space as well, giving US. corporations unfettered access to the final frontier. Routine access to space, like flying an airplane today, would allow domination without weaponization. In the future, that access will allow the United States to dominate the final frontier and keep it a place safe for the use of all mankind.

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\*\*AT: Impacts\*\*

****AT: Space War****

****Space war can never happen- orbital physics.****

**Moltz 7**

**Ja**mes Clay Moltz, Associated Director and Research Professor at the Center for Nonproliferation Studies, Department of National Security Affairs, Naval Postgraduate School November 2007 ‘Space Policy’ Volume 23, Issue 4, November 2007, Pages 199-205 <http://ry2ue4ek7d.search.serialssolutions.com/?ctx\_ver=Z39.88-2004&ctx\_enc=info%3Aofi%

2Fenc%3AUTF-8&rfr\_id=info:sid/summon.serialssolutions.com&rft\_val\_fmt=info:ofi/fmt:kev:mtx:journal&rft.genre=article&rft.atitle=Protecting+

safe+access+to+space%3A+Lessons+from+the+first+50+years+of+space+security&rft.jtitle=SPACE+POLICY&rft.au=Moltz%2C+James+Clay&rft.date=2007-11-01&rft.pub=ELSEVIER+SCI+LTD&rft.issn=0265-9646&rft.volume=23&rft.issue=4&rft.spage=199&rft.epage=205&rft\_id=info:doi/10.1016%2Fj.spacepol.200

7.09.002&rft.externalDBID=n%2Fa&rft.externalDocID=000251806600002>//DoeS

Unlike other environments of international activity, space competition is affected in unique ways by orbital physics. Compared to the collective “good” of safe access to orbital space, we can consider space radiation and debris as collective “bads.”9 This does not keep states from periodically attempting to overcome these limitations, as seen in China's 2007 test. But it does create significant operational obstacles to continuing such harmful behavior, as well as stimulating widespread international pressure to prevent it. These constraints are increasing over time, not decreasing, as space becomes more crowded. Thus, critics of space arms control miss the point when they discount the possibility of unique military restraint in space as a “fallacy.”10 Instead, it is a far worse “fallacy” to believe that states can overcome the laws of orbital physics. Put simply, orbital warfare on any scale cannot occur without ruining critical regions of space (such as low-Earth orbit) for other purposes. As few as a dozen explosions—capable of releasing some 420,000 fragments of dangerous space debris—could effectively shut down this region for decades. Thus, to expect that countries will act against their own interests by using space in this way is counterintuitive. To date, we have seen a powerful logic of “environmental security” at work in space. When countries have crossed the line in terms of damage to space, they have retreated (or been pushed) backwards by the risk of a loss of access.

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\*\*AT: Uniqueness CPs\*\*

****Treaty Can’t Solve****

The CP fails to prevent space weaponization- empirically proven, other countries won’t sign it, China would weaponize anyway.

Tellis 8

Ashley J. Tellis, PhD at the U of Chicago, a senior associate at the Carnegie Endowment for International Peace, specializing in international security, defense, and Asian strategic issues. While on assignment to the U.S. Department of State as senior adviser to the Undersecretary of State for Political Affairs, he was intimately involved in negotiating the civil nuclear agreement with India. Feb 22, 2008. Wall Street Journal. (Eastern edition). New York, N.Y. pg. A.15 <http://proquest.umi.com/pqdweb?did=1433145421&sid=1&Fmt=3&clientId=4347&RQT=309&VName=PQD>//DoeS

The Chinese foreign ministry had earlier admonished Washington "to fulfill its international obligations in earnest and ensure that the security of outer space . . . will not be undermined." Barely two days before Washington announced its intention to intercept the satellite, Russia's Foreign Minister Sergei Lavrov and China's U.N. representative in Geneva, Li Baodong, introduced a joint draft treaty aimed at banning weapons in space at the Conference on Disarmament. Mr. Lavrov argued that the treaty was necessary because "weapons deployment in space by one state will inevitably result in . . . a new spiral in the arms race both in space and on the earth." The introduction of weapons in space would be deleterious to global security. But the treaty unfurled by Messrs. Lavrov and Li would neither effectively prohibit their deployment, nor conclusively annul the threat of force against space objects. It would only produce the illusion of security, while doing nothing to eliminate the counterspace capabilities currently present in many countries, especially China. The Bush administration is right to reject this treaty, and any successor administration should do so as well. The hard, if unpalatable, truth is that a peaceful space regime cannot be achieved by any feasible arms-control arrangement. The long track record of diplomatic failures, going back to the 1978-79 U.S.-Soviet ASAT negotiations, amply corroborates this judgment. The biggest deficiency in the Russian-Chinese draft treaty is that it focuses on the wrong threat: weapons in space. There aren't any today, nor are there likely to be any in the immediate future. The threat to space assets is rather from weapons on earth -- the land- and sea-based kinetic, directed-energy and electromagnetic attack systems. The treaty entirely ignores these. So is the solution to expand the treaty to "cover ground- or sea- based weapons," as the New York Times suggests? Easier said than done. Attacks on space-based systems can be undertaken by a variety of weapons having multiple uses, including satellite launch vehicles, ballistic missiles, surface-to-air missiles, nuclear warheads, high- and low-power lasers, and electronic warfare systems. None of these weapons need have any distinguishing external characteristics if they were to be used for counterspace missions. In other words, counterspace weapons are impossible to identify by national technical means, or even by intrusive inspections. A treaty- based solution to mitigating space threats will be useless because compliance cannot be verified. How about the abolition of entire classes of weaponry because of their counterspace potential? While such an outcome would certainly be conducive to both space security and general disarmament, it is unlikely to be contemplated -- even by those states most committed to outlawing weapons in space. Anticipating this possibility, many arms-control advocates promote another fallback option -- namely, an agreement banning only the use of counterspace weaponry. This solution would not be worth the paper it was written on. Any compact that prohibits the use of weapons against space assets, but does not eliminate their development, production or deployment, would only become a legitimate invitation to breakout. Even worse, the very first treaty violation itself could prove debilitating and costly for the state that suffered from it. This is why no country, especially the U.S., which relies so heavily on space, ought to be beguiled by such false promises. Given the problems associated with arms-control solutions to space security, the Bush administration's rejection of the Russian-Chinese initiative is eminently sensible. More curious is why the Russians and Chinese would introduce such a draft treaty. Three hypotheses come immediately to mind. First, they genuinely fear an imminent American deployment of space weapons -- perhaps in connection with missile defense -- and want a treaty to impede that deployment. If this is the case, Moscow and Beijing should relax. Not only does current U.S. space policy not authorize such a deployment, but the physics and economics of space weaponry are sufficiently unattractive presently to justify any headlong U.S. rush in that direction. Second, a space security treaty allows Russia and China to engage in some eye-catching histrionics. It enables them to dominate international public diplomacy and paint the U.S. as the irresponsible driver of a new arms race. Such a strategy has its attractions. The former Soviet Union engaged in such tactics extensively during the Cold War, and Russia has occasionally lapsed into similar temptations while opposing U.S. plans for missile defense in Europe. China seeks to deflect international attention away from the consequences of its own 2007 ASAT test, and its continued opposition to other disarmament initiatives. If that is what's going on, it is all the more imperative for the U.S. not to indulge them.Third, the Russian-Chinese draft treaty remains a splendid way for Beijing to draw international attention away from its own growing counterspace program -- even as it enables Russia to assuage its own discomfort with China's space-denial capabilities. This calculus is perfectly understandable. But both states might have helped the cause of space security more effectively if they were to focus on transparency and confidence-building measures, rather than the chimera of weapons in space. By proposing to ban what is, at best, a distant danger, the current draft treaty only ends up promoting a solution that is irrelevant to the real problem.

****US Action Alone Can’t Solve****

****US action alone can’t solve a space weapons ban- other countries would have to sign.****

**Moltz 7**

**Ja**mes Clay Moltz, Associated Director and Research Professor at the Center for Nonproliferation Studies, Department of National Security Affairs, Naval Postgraduate School November 2007 ‘Space Policy’ Volume 23, Issue 4, November 2007, Pages 199-205 <http://ry2ue4ek7d.search.serialssolutions.com/?ctx\_ver=Z39.88-2004&ctx\_enc=info%3Aofi%

2Fenc%3AUTF-8&rfr\_id=info:sid/summon.serialssolutions.com&rft\_val\_fmt=info:ofi/fmt:kev:mtx:journal&rft.genre=article&rft.atitle=Protecting+

safe+access+to+space%3A+Lessons+from+the+first+50+years+of+space+security&rft.jtitle=SPACE+POLICY&rft.au=Moltz%2C+James+Clay&rft.date=2007-11-01&rft.pub=ELSEVIER+SCI+LTD&rft.issn=0265-9646&rft.volume=23&rft.issue=4&rft.spage=199&rft.epage=205&rft\_id=info:doi/10.1016%2Fj.spacepol.200

7.09.002&rft.externalDBID=n%2Fa&rft.externalDocID=000251806600002>//DoeS

Instead, it should be in the interests of all users of space, and particularly of the USA, to seek to *prevent* such an outcome. A first step toward supporting future norms of military restraint would be the adoption of declaratory policies by the leading spacefaring countries that such behavior in space will not be undertaken and, in turn, will not be tolerated by other users, with clear punishments to be applied through individual and collective means. At the same time, strengthening the collective legal, political, economic, and military means to carry out these threats—similar to similar efforts in the US-led Proliferation Security Initiative in the WMD field—requires greater near-term attention. In the end, however, this must be a collective effort. Evidence of cooperation in deeds—not just in words—will be needed not only in Washington, but also in capitals that have in the past called most vociferously for greater, formalized military restraint in space—particularly Beijing and Moscow, but also New Delhi, Paris and others. The alternative is that states will gradually “defect” toward aggressive forms of attempted individual space security. Thus, if space security is going to be preserved for the next 50 years, it is time for all space actors to not only talk the talk, but also to walk the walk toward new and more institutionalized forms of space security.

US Treaty Cred Low Now

US Treaty Credibility low now, especially after Bush.

The Gazette 3

Mar 28, 2003. Journal - Gazette. Ft. Wayne, Ind.:pg. 8.A <http://proquest.umi.com/pqdweb?did=319343341&sid=2&Fmt=3&clientId=4347&RQT=309&VName=PQD>//DoeS

U.S. insistence that Iraq strictly follow the Geneva Conventions' protections governing prisoners of war illustrates the dangers of the Bush administration's cavalier dismissal of global treaties that apply to the United States. Certainly, Iraq must follow the letter of the Geneva Conventions in its imprisonment of U.S. and British prisoners of war. Iraq and individual members of its government and military should and will be held accountable if prisoners are mistreated. President Bush and Defense Secretary Donald Rumsfeld are right to press the issue of prisoners' safety and treatment. But to much of the international community, Bush and his top officials lack the credibility to make such demands when they themselves refuse to follow similar accords. Consider that U.S. intelligence officials widely leaked suggestions that the United States was not above arranging for the torture of suspected al-Qaida leaders. For those who take issue with the moral and ethical arguments against the world's most developed nation engaging in such barbaric and inhumane acts, the taking of U.S. prisoners of war should serve as a powerful, practical reason why the United States should not torture its captives, let alone brag about it. Consider that the United States continues to hold more than 600 prisoners, most captured more than a year ago in the post-9-11 attacks on Afghanistan, in Guantanamo Bay, Cuba, and refuses to grant them POW status. Instead, the United States is using semantic games and referring to them as detainees or military combatants. Some of the 18 prisoners released earlier this week from Gitmo said they were well-fed but sometimes shackled, hit and humiliated. The Bush administration's curt dismissal of other international treaties governing global warming and nuclear arms has also undercut U.S. credibility.

Bush already crushed US international law credibility

NYT 2

The New York Times 5/8/2002 pg. A.30 <http://proquest.umi.com/pqdlink?did=118296499&Fmt=7&clientId=4347&RQT=309&VName=PQD>//DoeS

The Bush administration's repudiation of the International Criminal Court is a grave disappointment with lasting, harmful implications. The decision continues a dangerous pattern of United States unilateralism and exceptionalism. As President Bush knocks down treaty after treaty, he erodes the principles of rule of law and multilateral cooperation that are critical in the post-Sept. 11 global security environment. The world is growing impatient with America's go-it-alone president. Not only is he damaging American credibility and national honor (the Clinton administration signed the treaty), but his unilateral approach to foreign policy will in the long run be damaging to our national security.

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\*\*Random Satellite Hardening Neg\*\*

Satellite Hardening CP 1NC

Text: The United States Federal Government should harden on the ground technologies relating to satellite systems as per our Hitchens evidence.

On the ground defenses against jamming solve.

Hitchens 1

Theresa Hitchens is senior adviser at the Center for Defense Information. September 2001 [Arms Control Today](http://proquest.umi.com/pqdweb?RQT=318&pmid=16139&TS=1311818407&clientId=4347&VInst=PROD&VName=PQD&VType=PQD). Washington: [Sep 2001](http://proquest.umi.com/pqdweb?RQT=572&VType=PQD&VName=PQD&VInst=PROD&pmid=16139&pcid=1469540&SrchMode=3). Vol. 31, Iss. 7;  pg. 16, 6 pgs <http://proquest.umi.com/pqdweb?did=81954529&sid=1&Fmt=4&clientId=4347&RQT=309&VName=PQD>//DoeS

Furthermore, space warfare proponents are making a significant leap in logic when they argue that space-based weapons are, or will soon be, required to protect the ability of the United States to operate freely in space. Currently, the simplest ways to attack satellites and satellite-based systems involve ground-based operations against ground facilities, such as disruption of computerized downlinks. It is true that the incidences of computer hacking against U.S. military, financial, and industrial networks continues to rise and that several countries including China are known to be exploring information warfare capabilities. Many countries already have developed military electronic jamming systems. Hacking and jamming are the least expensive options for anyone interested in disrupting space-based networks, precisely because they do not require putting anything into orbit. Although there is reason for concern about the potential for information warfare including attacks on space-based assets, there is little reason to believe that the answer is to put weapons in space. Rather, what is needed most urgently in the near term is to find ways to prevent computer network intrusion; to ensure redundant capabilities both at the system and subsystem level, including the ability to rapidly replace satellites on orbit; and to harden electronic components on particularly important satellites.

No Solvency

The plan can’t solve, the real threat is on ground facilities. There is no threat to satellites- US nuclear capabilities & no ASAT threat.

Pena 2

Charles V Pena, a senior defense policy analyst, Cato Institute, Washington, D. C. Jul 2002. USA Today Vol. 131, Iss. 2686; pg. 14, 5 pgs <http://proquest.umi.com/pqdlink?did=149310201&Fmt=7&clientId=4347&RQT=309&VName=PQD>//DoeS

The more immediate threat is not against satellites in space, but to the land-based facilities (launch and ground-control) associated with space systems. Indeed, the Space Commission and others recognize that it will be significantly easier for a hostile adversary to threaten ground elements. Those elements could be susceptible to a variety of actions, including direct military assault (e.g., with aircraft missiles), terrorist attacks, sabotage, and jamming. Since this is a more-likely and lessexpensive way to disable satellite capability, the primary focus should not be on protecting satellites in space, but on increasing security and defenses for satellite ground stations and mitigating jamming by the use of encryption, antijamming equipment, and "frequency hopping," which avoids interference from jamming on a particular frequency by switching to a new one after transmitting or receiving a packet of data. When this method is employed, the signal can be effectively jammed only if the jammer knows the frequencies being used, the time during which they are being utilized, and the sequence of use-not easy information to come by. The signal is more resistant to jamming the faster the hops between frequencies and the shorter the information packets. The potential vulnerability of satellites themselves must be assessed in light of the fact that there is no current operational antisatellite (ASAT) threat. Thus, although U.S. satellites-both military and commercial-- might be vulnerable to ASATs, the threat posed by them is postulated, rather than real. Moreover, the postulated threat-rudimentary ballistic missile capability, such as a Scud missile, mated to a low-yield nuclear weapon which would be detonated in low-Earth orbit and destroy satellite electronics with electromagnetic pulse from a nuclear blast-does not mean that potentially hostile countries have operational ASATs. It means, instead, that they might have a nuclear weapons capability or the ability to launch a payload into a low-Earth orbit. It does not mean that they have mated those two capabilities to develop and deploy an ASAT weapon. Furthermore, this postulated ASAT threat is nuclear. If such a nuclear detonation were to occur, even though not directed at a terrestrial target, the nuclear threshold would have been crossed. Even a so-called "irrational" adversary would have to think twice before using a nuclear weapon. The U.S. certainly would view such an attack differently than if a conventional weapon had been utilized and would respond accordingly. During the Cold War, a distinct demarcation between conventional and nuclear weapons existed. Even if lower-yield battlefield or tactical nuclear weapons had been used (eg., in a scenario involving a Warsaw Pact invasion of a NATO country), escalation to a larger-scale retaliation using the U.S.'s strategic nuclear arsenal was a very real possibility. Although a "doctrine" may not be in place to respond to a low-yield nuclear ASAT scenario, the U.S. would probably go beyond utilizing conventional weapons to retaliate. Potential adversaries know this. For example, Washington made clear to Iraq that use of chemical or biological weapons would trigger an appropriate American response, including the possibility of nuclear retaliation.

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\*\*Space Weaponization Spending/Politics Links\*\*

Space Weapons Link Ptx

Maintaining & developing space weapons would be perceived internally to be very expensive.

Hitchens 1

Theresa Hitchens is senior adviser at the Center for Defense Information. September 2001 [Arms Control Today](http://proquest.umi.com/pqdweb?RQT=318&pmid=16139&TS=1311818407&clientId=4347&VInst=PROD&VName=PQD&VType=PQD). Washington: [Sep 2001](http://proquest.umi.com/pqdweb?RQT=572&VType=PQD&VName=PQD&VInst=PROD&pmid=16139&pcid=1469540&SrchMode=3). Vol. 31, Iss. 7;  pg. 16, 6 pgs <http://proquest.umi.com/pqdweb?did=81954529&sid=1&Fmt=4&clientId=4347&RQT=309&VName=PQD>//DoeS

Besides the threat of a new arms race and the potential for undercutting U.S. industry, there are a number of other serious issues surrounding the question of whether the United States should deploy weapons in space. For example, **there is the question of whether the U.S. government is willing or able to take on the long-term budgetary investment required to sustain military operations in and from space.** It is therefore crucial that before any change to today's policy of restraint takes place-whether by the incremental introduction of capabilities under the guise of missile defense or simple research or by a rewrite to the National Space Policy-the U.S. government must undertake a sweeping and deep review of the possible consequences and alternatives. In the absence of a broader review of the complex issues involved, a major shift would be a mistake. The short-term military advantages of being the first to put weapons in space, however dramatic, must be weighed against the long-term military, political, and economic costs.