# \*\*\*NEGATIVE\*\*\*

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# COC solves BMD

**Code of conduct solves space bmd affs**

**Fakiolas 9.** (Efstathios T., Department of Political Sciende and International Relations at the University of Peloponnese and Strategy and Southeast European Affairs analyst for ATEbank and Tassos E., special advisor on Russian and East European Affairs. “Space Control and Hegemony.”) The Korean Journal of Defense Analysis, Volume 21, No. 2, June 2009, pg. 137-153.

From this perspective, it could be argued that militarized space is not inevitable.89 The major disadvantage of a space-based missile defense system is that in undermining the logic of mutual nuclear deterrence, it secures the sovereignty of the one great power that controls space while eroding that of the other great powers.90 Compared to other alternatives space weapons as tools of missile defense are still considered more costly and less effective.91 Therefore, the only way out of this grim prospect is to maintain space as humanity’s common property. Space control should be, first, stripped of its military dimension and, second, pursued by all the great space powers collectively by rekindling the Civil International Space Station initiative. China should be invited to take part in the latter as well and, should a multi-national mission to the moon be arranged in the years to come, it might be involved.92 An additional way to avert an arms race in space is for the space-faring players to write and commit themselves to a space-way code of responsible conduct.93 To draw to a close, unless the international community sees space as a global public good or utility, space weaponization and the inauguration of an era defined by a space-based nuclear missile defense balance of terror will be inescapable.

# Solvency – Boost Phase

**Boost-Phase missile defense is infeasible**

**Dr. Spinardi 9.** (Graham, Senior Research Fellow for the Insitute for the Study of Science Technology and Innovation. PhD in sociology of technology. “Technological Controversy and US Ballistic Missile Defence: Star Warriers versus the Huntsville Mafia.”) http://www.stis.ed.ac.uk/\_\_data/assets/pdf\_file/0009/30600/SpinardiBMDTechControversyWP.pdf

The practicality of space-based systems, on the other hand, hinges on the cost of putting them into orbit, but cost estimates depend on the weight of the interceptors and number required, and this calculation in turn is based on assumptions about the duration of enemy missiles’ boost phase and the speed of the interceptors. This calculus is further complicated by the potential countermeasures that could be used by enemies seeking to overcome a boost phase defence. Thus, the claim that boost phase interception eliminates the problem of midcourse discrimination can be countered by the argument that opponents could deploy missiles with such short boost phases as to make interception practically impossible. Even with a boost phase lasting four minutes (typical for liquid-fueled ICBMs compared to three minutes for solid-fueled ones), the time left for interception is very short once detection, tracking and decision-making are taken into account.129 In addition, the APS study noted other countermeasures that could defeat boost-phase defences -- whether terrestrially or space based – ‘such as maneuvering and deployment of thrusted decoys during upper stage boost, and even multiple upper stages (all of which were employed in one form or another as early as 40 years ago.)’130

# Solvency – Technology

**Space BMD is not technologically possible for 10 years and there is international opposition**

**Fakiolas 9.** (Efstathios T., Department of Political Sciende and International Relations at the University of Peloponnese and Strategy and Southeast European Affairs analyst for ATEbank and Tassos E., special advisor on Russian and East European Affairs. “Space Control and Hegemony.”) The Korean Journal of Defense Analysis, Volume 21, No. 2, June 2009, pg. 137-153.

On the other hand, some scholars question the projected necessity and effectiveness of a missile defense system. Not only is it doubtful whether the United States is able to secure ‘‘adequate resources to provide effective defense for its territory within the next 10 years.’’ Also, with the exception of Israel, its allies and friends have refused to enlist their support to the cause.43 Alongside it goes the Russian policymakers’ conviction that a national missile defense system ‘‘is technically impossible,’’ while their French counterparts distrust that ‘‘missile defense could ever be truly effective.’’44 The only thing that Paris expects of the Americans is to engage with their European allies ‘‘in a debate about the role of missile defense and the future of strategic stability. . . debate, not. . . briefings.’’45 \

# Solvency - Launch Systems not Advanced

**Launch systems are not advanced enough to provide a successful deployment of Space Based Laser BMD**

Possel 98 – William H. Possel, Lt Colonel, USAF (July 1998, William H. Possel, “Lasers and Missile Defense New concepts for Space-Based and Ground-Based Laser Weapons,” Air University Maxwell Air Force Base, Occasional Paper No. 5 Center for Strategy and Technology Air War College CS)

Another significant challenge facing the program is the launch vehicle for the full-scale platforms. The next generation launch booster, the follow-on to the Titan IV, will have the same capacity to place a payload of 22,000 kilograms into low earth orbit.85 If the dimensions of the laser platform cannot be reduced, this limit on payload size will require that each laser platform is launched on two rockets and assembled in space, or for the development and fielding of a new class of launch vehicles. However, a new launch vehicle developed specifically for the space-based laser is not a likely option in view of how long the DOD has been trying to replace the Titan IV.86 Assembling a large system such as a space-based laser in space has never been tested. Further studies are required to consider alternatives to reduce the weight or demonstrate the feasibility of assembling the system in space. For this reason, the assessment for the launch received a lower rating than the other subsystems. Furthermore, the maturity ratings for integration were based on a laser demonstrator launch in 2005 with final results by 2008.

# Bioterrorism Defense

**Bioterrorism fails attack fails – experts agree**

**Schneidmiller 9 - Global Security Newswire**

 (Chris, “Experts Debate Threat of Nuclear, Biological Terrorism,” http://www.globalsecuritynewswire.org/gsn/nw\_20090113\_7105.php, 1-13-09)

WASHINGTON -- There is an "almost vanishingly small" likelihood that terrorists would ever be able to acquire and detonate a nuclear weapon, one expert said here yesterday (see GSN, Dec. 2, 2008). (Jan. 13) - Emergency personnel practice their WMD-response procedures at a 2004 Pentagon exercise (Mark Wilson/Getty Images). In even the most likely scenario of nuclear terrorism, there are 20 barriers between extremists and a successful nuclear strike on a major city, said John Mueller, a political science professor at Ohio State University. The process itself is seemingly straightforward but exceedingly difficult -- buy or steal highly enriched uranium, manufacture a weapon, take the bomb to the target site and blow it up. Meanwhile, variables strewn across the path to an attack would increase the complexity of the effort, Mueller argued. Terrorists would have to bribe officials in a state nuclear program to acquire the material, while avoiding a sting by authorities or a scam by the sellers. The material itself could also turn out to be bad. "Once the purloined material is purloined, [police are] going to be chasing after you. They are also going to put on a high reward, extremely high reward, on getting the weapon back or getting the fissile material back," Mueller said during a panel discussion at a two-day Cato Institute conference on counterterrorism issues facing the incoming Obama administration. Smuggling the material out of a country would mean relying on criminals who "are very good at extortion" and might have to be killed to avoid a double-cross, Mueller said. The terrorists would then have to find scientists and engineers willing to give up their normal lives to manufacture a bomb, which would require an expensive and sophisticated machine shop. Finally, further technological expertise would be needed to sneak the weapon across national borders to its destination point and conduct a successful detonation, Mueller said. Every obstacle is "difficult but not impossible" to overcome, Mueller said, putting the chance of success at no less than one in three for each. The likelihood of successfully passing through each obstacle, in sequence, would be roughly one in 3 1/2 billion, he said, but for argument's sake dropped it to 3 1/2 million. "It's a total gamble. This is a very expensive and difficult thing to do," said Mueller, who addresses the issue at greater length in an upcoming book, Atomic Obsession. "So unlike buying a ticket to the lottery ... you're basically putting everything, including your life, at stake for a gamble that's maybe one in 3 1/2 million or 3 1/2 billion." Other scenarios are even less probable, Mueller said. A nuclear-armed state is "exceedingly unlikely" to hand a weapon to a terrorist group, he argued: "States just simply won't give it to somebody they can't control." Terrorists are also not likely to be able to steal a whole weapon, Mueller asserted, dismissing the idea of "loose nukes." Even Pakistan, which today is perhaps the nation of greatest concern regarding nuclear security, keeps its bombs in two segments that are stored at different locations, he said (see GSN, Jan. 12). Fear of an "extremely improbable event" such as nuclear terrorism produces support for a wide range of homeland security activities, Mueller said. He argued that there has been a major and costly overreaction to the terrorism threat -- noting that the Sept. 11 attacks helped to precipitate the invasion of Iraq, which has led to far more deaths than the original event. Panel moderator Benjamin Friedman, a research fellow at the Cato Institute, said academic and governmental discussions of acts of nuclear or biological terrorism have tended to focus on "worst-case assumptions about terrorists' ability to use these weapons to kill us." There is need for consideration for what is probable rather than simply what is possible, he said. Friedman took issue with the finding late last year of an experts' report that an act of WMD terrorism would "more likely than not" occur in the next half decade unless the international community takes greater action. "I would say that the report, if you read it, actually offers no analysis to justify that claim, which seems to have been made to change policy by generating alarm in headlines." One panel speaker offered a partial rebuttal to Mueller's presentation. Jim Walsh, principal research scientist for the Security Studies Program at the Massachusetts Institute of Technology, said he agreed that nations would almost certainly not give a nuclear weapon to a nonstate group, that most terrorist organizations have no interest in seeking out the bomb, and that it would be difficult to build a weapon or use one that has been stolen. However, he disputed Mueller's assertion that nations can be trusted to secure their atomic weapons and materials. "I don't think the historical record shows that at all," Walsh said. Black-market networks such as the organization once operated by former top Pakistani nuclear scientist Abdul Qadeer Khan remain a problem and should not be assumed to be easily defeated by international intelligence services, Walsh said (see GSN, Jan. 13). It is also reasonable to worry about extremists gaining access to nuclear blueprints or poorly secured stocks of highly enriched uranium, he said. "I worry about al-Qaeda 4.0, kids in Europe who go to good schools 20 years from now. Or types of terrorists we don't even imagine," Walsh said. Greater consideration must be given to exactly how much risk is tolerable and what actions must be taken to reduce the threat, he added. "For all the alarmism, we haven't done that much about the problem," Walsh said. "We've done a lot in the name of nuclear terrorism, the attack on Iraq, these other things, but we have moved ever so modestly to lock down nuclear materials." Biological Terrorism Another two analysts offered a similar debate on the potential for terrorists to carry out an attack using infectious disease material. Milton Leitenberg, a senior research scholar at the Center for International and Security Studies at the University of Maryland, played down the threat in comparison to other health risks. Bioterrorism has killed five U.S. citizens in the 21st century -- the victims of the 2001 anthrax attacks, he said. Meanwhile, at least 400,000 deaths are linked each year to obesity in this country. The United States has authorized $57 billion in spending since the anthrax mailings for biological prevention and defense activities, Leitenberg said. Much of the money would have been better used to prepare for pandemic flu, he argued. "Mistaken threat assessments make mistaken policy and make mistaken allocation of financial resources," Leitenberg said. The number of states with offensive biological weapons programs appears to have stabilized at six beginning in the mid-1970s, despite subsequent intelligence estimates that once indicated an increasing number of efforts, Leitenberg said. Caveats in present analyses of those states make it near-impossible to determine the extent to which their activities remain offensive in nature, he added. There has been minimal proliferation of biological expertise or technology to nations of concern in recent decades, Leitenberg said. He identified roughly 12 Russian scientists who ended up in Iran and shipments of technology and pathogen strains to Iraq from France, Germany, the former Soviet Union and the United States between 1980 and 1990. No evidence exists of state assistance to nonstate groups in this sector. Two prominent extremist organizations, al-Qaeda and Aum Shinrikyo in Japan, failed to produce pathogenic disease strains that could be used in an attack, according to Leitenberg. Terrorists would have to acquire the correct disease strain, handle it safely, correctly reproduce and store the material and then disperse it properly, Leitenberg said. He dismissed their ability to do so. "What we've found so far is that those people have been totally abysmally ignorant of how to read the technical, professional literature," Leitenberg said. "What's on the jihadi Web sites comes from American poisoners' handbooks sold here at gun shows. Which can't make anything and what it would make is just garbage." Randall Larsen, national security adviser to the University of Pittsburgh's Center for Biosecurity, expressed less confidence in terrorists' incompetence. Scientific and technological advances could enable the production of a dangerous biological agent using technology purchased through the Internet, he said. "This is what you can do that took superpower technology in the '60s that graduate students can do in laboratories and universities ... around the world today," according to Larsen. He also took issue with Leitenberg's assertion regarding the biological capabilities of Aum Shinrikyo, the cult best known for the 1995 sarin nerve agent attack on the Tokyo subway system (see GSN, Nov. 11, 2008). Recent interviews with personnel from the cult's biological program indicated they succeeded in producing a pathogenic disease strain, but that the material was "screwed up" during mass production, Larsen said. "It is a very, very difficult challenge for the intelligence community to find out if a terrorist organization is developing a biological weapon in a room smaller than this," he said.

**Bioterrorism over exaggerated – Studies flawed and an attack would be limited**

**Ruppe 5 – Writer for Global Security Newswire**

(Global Security Newswire, Biological Terrorism Dangers Overstated, Expert Says, www.nti.org, December 7)

WASHINGTON — U.S. biodefense advocates have been “crying wolf” on the potential for catastrophic bioterrorism, playing up worst-case scenarios and driving billions of dollars into developing questionable defenses against questionable threats, a U.S. military analyst said yesterday (see GSN, March 9). Prominent exercises and arguments since the Sept. 11 attacks suggesting terrorists could effectively use biological weapons to create catastrophic destruction are backed by few facts and little hard, reliable data, said Anthony Cordesman, who holds the Arleigh A. Burke Chair in Strategy at the Center for Strategic and International Studies and is a national security analyst for ABC News. “I’m not convinced that we have been willing to admit the level of uncertainty, the level of difficulty, and the lack of credible data, particularly on an unclassified level,” he said, speaking at the Woodrow Wilson Center for Scholars here. While Cordesman acknowledged he has no technical background in biological defense, he does have several decades of government national security experience. That includes shutting down U.S. military biological warfare programs at the Defense Advanced Research Projects Agency (DARPA) in the early 1970s after the United States signed on to the Biological Weapons Convention. Before the offensive programs were terminated, he said, little research was done that decisively showed how to effectively weaponize biological agents — which Cordesman described as producing “stable particulates that are disseminated in the air of a very precise size.” “Frankly, we simply did not know how to analyze the impact of weaponization in biological weapons when we terminated our programs,” he said. Cordesman also has served as a national security assistant to Senator John McCain (R-Ariz.) on the Senate Armed Services Committee, as intelligence assessment director in the Office of the Secretary of Defense, and as civilian assistant to the deputy defense secretary. He said commercial experts have questioned the reliability of data developed by U.S. biological weapons designers on the effectiveness of disseminating such deadly agents. Cordesman said any future biological terrorism would most likely be on a limited scale, and that the United States should focus more on preparing to respond to such an incident and discouraging panic than on “planning for the end of the world.” “I think it is much more likely it will be a low-level, very crude attack with physiological, political and economic impacts at least initially,” he said. Atlantic StormCordesman criticized exercises predicating massive casualties from terrorist attacks such as the much-publicized “Atlantic Storm” conducted by several nongovernmental U.S. organizations in January. “Where are these lethality data coming from? Have you ever read the footnotes on them?” Cordesman said. “It’s a study done years and years ago that was actually using data derived by somebody else and repeating it again and again.” The Atlantic Storm scenario had terrorists enlisting expert help to build aerosolized smallpox weapons used in one day to ultimately infect more than 600,000 people in multiple countries, killing 25 percent of victims. While Cordesman did not participate, he was an “observer” to Atlantic Storm’s predecessor, “Dark Winter,” which in the summer of 2001 was conducted by many of the same people. Experts criticized that exercise for assuming an initial smallpox transmission rate of 10 people for every person infected and a 33-percent fatality rate, killing as many as 1 million people. “I have almost stopped going to biological war games. I don’t find them credible. I don’t find them parametric. I don’t find people are briefing on the uncertainties involved or creating realistic models for decision makers,” he said. “Time and again, they’re either valid by focusing on one narrow issue or are simply designed to scare the hell out of everybody and show how important the issue is. The time is over frankly where you should run these models,” he said. A senior organizer defended the exercises in an e-mail to Global Security Newswire. “Cordesman buttonholed me during Dark Winter to tell me how great the exercise was; apparently he changed his mind,” said Tara O’Toole, chief executive officer of the Center for Biosecurity of the University of Pittsburgh Medical Center. “The whole point of both Dark Winter and Atlantic Storm was to increase awareness of bioterrorist threats,” she said. “As a genre, smallpox was supposed to be illustrative of the array of potential bioweapons attacks and the types of problems and decisions leaders would confront. In this regard, both exercises met with some success.” A program from Cordesman’s own network, ABC News’s “Nightline,” over two nights covered favorably the play-by-play of Atlantic Storm, which included former Secretary of State Madeleine Albright, a French former health minister, a Canadian former foreign minister, and a former prime minister of Norway who was also director general of the World Health Organization. Cordesman did not spare the program his critique. “I think it was very deterministic. I think it was designed to show how serious the problem could be and that’s what I might expect from a media analysis,” he said. “Did I think it was valid? Could you tell within the limits of uncertainty whether this met a credible case? No.” Some of Cordesman’s major points echoed a Congressional Research Service report released in May 2004, which concluded that biological terrorism against the United States would be expected to produce mass terror but limited casualties. “The potential public threat posed by [chemical and biological] terrorism is not accurately assessed through the development of worst-case scenario exercises such as Dark Winter” and others that point to U.S. vulnerabilities but not likely threats, it says. On SpendingCordesman said there is poor decision-making on how biological defense money should be spent and poor accounting of the money is used. “We are spending a hell of a lot of money, on what is in many ways, almost anybody’s guess,” he said. “What are we spending it for? When will there be deliverables? What will the deliverables be? How well will they deal with terrorism? Find me the report, find me the analysis [that gives the answers],” he said. The federal government across agencies spends as much as $7 billion a year on biological defense, he said. On vaccine development and stockpiling programs, which reportedly account for a significant portion of the expenditures, he said, “If you look each of them you can’t figure out the cost and effectiveness.” “I suspect if nothing else, I could put some of that money into the public health program and stop spending a significant portion of it pretty quickly,” he said. Commission Report CriticizedCordesman also criticized a prominent commission’s report on U.S. intelligence capabilities regarding weapons of mass destruction, released in March, for disclosing insufficient information to help the public understand any al-Qaeda biological weapons capabilities. The commission, also known as the Robb-Silberman panel, concluded al-Qaeda had assembled capabilities for producing an unspecified deadly agent, supposedly anthrax. Cordesman challenged the report’s recommendation to invest more heavily in spies to penetrate the al-Qaeda network. “I’m not sure we can necessarily count on penetrating into these groups.” Even were U.S. intelligence able to infiltrate such groups, he said, a lack of understanding about effectively weaponizing biological weapons would hamper efforts to understand the capabilities of other states or groups. While the United States conducted some weapons dissemination tests in the past, the research was not extensive or particularly successful, he said. “The few tests which were actually effective, and they were chemical not biological, had as much of a mistake rate as a success,” he said.

**Bioterrorism fails – Germ limitations and environmental factors**

**MIT 2**

(Ocotber 30, pg. <http://web.mit.edu/newsoffice/2002/anthrax-1030.html>)

Despite public fear about the potential use of biological weapons containing germs for diseases like anthrax or smallpox, such weapons never have been considered major arms by military strategists, Senior Fellow Jeanne Guillemin told a colloquium at MIT's Dibner Institute for the History of Science and Technology on Oct. 22. "I'm not sure biological weapons are on par with nuclear weapons," said Guillemin, a professor of sociology at Boston College. "There was a debate after the war [World War II] about whether biological weapons are weapons of mass destruction. I think we should continue this debate." At the session, titled "Anthrax, Smallpox, and the Invention of the 'Large Area Concept' in the History of Biological Weapons," Guillemin explained that the large area concept developed during the Cold War involved targeting cities and industries, with the major impact on civilian populations. "Biological weapons are more dangerous to civilians than to soldiers," she said, noting that soldiers are vaccinated, trained and carry face masks and other protective gear. Biological weapons - which could contain germs that cause diseases such as anthrax, smallpox, brucellosis or tularemia - are not effective tactical military weapons. They do not immediately harm enemy soldiers on the battlefield, or destroy artillery, tanks or munitions supplies. And each germ has its drawbacks. Smallpox, for example, is highly contagious, so it could harm friendly soldiers. Anthrax is not contagious, but if it gets in the soil for long periods of time, it can kill cattle and other animals. In addition, the efficacy of biological weapons hinges on several factors, including how many germs survive the explosion of the small bomb in which they are contained, whether the wind is blowing in the correct direction and strongly enough to carry the germs over a target, what constitutes a lethal dose, and how many people will get infected or die. Depending on the germ, as few as 1 to 4 percent of the exposed population may get infected, and estimates of mortality rates vary. "If the wind is blowing one way you have a weapon. If not, you don't," said Guillemin. Biological weapons date back to the Middle Ages when plague-ridden bodies were catapulted into castles. In more recent history, during World War II the United Kingdom took a lead role in inventing the first major biological weapons program, putting anthrax and other pathogens into bombs and sprays. The incentive for this program, later shown to be unfounded, was the fear that the Germans were embarked on this same path. "The British coined the large area concept," Guillemin said. "Even before that, U.S. scientists realized that their biological weapons program would be shut down unless they could try to match the scale of nuclear weapons." Until the U.S. offensive program ended in 1969, she said, hundreds of laboratory and field tests were conducted to perfect germ agents for large-scale attacks on cities. In the 1970s, in secret defiance of the 1972 Biological Weapons Convention, the U.S.S.R. created a program on the same - if not greater - scale, Guillemin said. Guillemin was a member of a team of scientists who visited the former Soviet Union in 1992 to interview the families of persons who had died in the 1979 anthrax epidemic in the city of Sverdlovsk. At first, the Soviets blamed the deaths on infected meat, but on the basis of her epidemiological work, an aerosol emission from a nearby secret military facility proved to be the source of the outbreak, the largest of anthrax inhalation in recorded history. An estimated 68 of 5,000 persons exposed died from the 2-3 grams of anthrax affecting the area. This research, published in Science in 1994, provided the first evidence that humans could come down with anthrax as long as six weeks after inhaling the dangerous spores. Consequently, in last year's anthrax postal attacks, persons who had been exposed took antibiotics for as long as three months. Guillemin's book, "Anthrax: The Investigation of a Deadly Outbreak," published by the University of California Press in 1999, chronicles how the mystery of the Sverdlovsk epidemic was solved.

 Bioterrorism fails – over exaggerated, obtaining pathogen, money for research programs

**Cole 4**

(Leonard A., pg. <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=1087188>)

When letters containing anthrax spores were mailed within the United States in the fall of 2001, concerns about bioterrrorism mushroomed. Funding for bioterrorism-related research by the NIH climbed from $340 million in 2002 to nearly $1.7 billion in each of the next two years. Anxiety was fueled in part by intelligence reports that Al Qaeda, the group behind the September 11 attack, had also sought biological weapons capabilities. The deliberate dissemination of anthrax bacteria capped a decade of unsettling incidents concerning biological weapons. In 1992, Russian President Boris Yeltsin acknowledged that the former Soviet Union had developed tons of anthrax, plague, and other forbidden warfare agents. A few years later, pressed by United Nations weapons inspectors, Iraqi officials admitted to an illegal biological arsenal far more extensive than previously acknowledged. In each case, Western analysts were surprised by the magnitude of the subterfuge. The discoveries about the state programs came amid troubling findings about nonstate actors as well, most notably the Aum Shinrikyo group. This Japanese cult released the chemical sarin in the Tokyo subway in 1995 and on other occasions unleashed anthrax spores. The sarin caused death and injury, but the anthrax turned out to be from a nonlethal strain that harmed no one. Still, the threat of germ weapons gained increasing attention. Media reports and warnings by public officials suggested that the United States was unprepared for a bioattack. In assessing these and other issues in The problem of biological weapons, Milton Leitenberg mounts a multi-front critique on US policy. He maintains that government officials and the media have exaggerated the threat of bioweapons, especially by nonstate actors. These exaggerations, he believes, probably had the unintended effect of stimulating interest in biological weapons by Al Qaeda and other terrorist groups. He also disparages the large expansion of biodefense research and development for two reasons. First, the amount of money now going toward this research is disproportionately large compared with that being spent in other public health areas. Second, the expanded research programs are likely to increase what Leitenberg terms “the wrong kind of interest” in biological weapons and, in consequence, promote their proliferation. Whether or not the threat of bioweapons and bioterrorism has been exaggerated is largely a matter of perception. True, until now, pathogenic organisms have rarely been used as weapons of war. Japan’s release of plague bacteria over China in the 1930s and 1940s was a singular exception. Incidents of bioterrorism are also rare. In fact, the only recorded deaths from bioterrorism in the US resulted from the anthrax attacks in 2001. Biological weapons have been used infrequently due to difficulty in obtaining and processing the pathogens, uncertainty that they will affect an intended target, and, in some cases, moral inhibitions. For Leitenberg, the infrequency of use arises largely from the technical challenges in producing an effective bioweapon. If not for this, he contends, efforts to mount bioattacks by the Aum Shinrikyo cult and other nonstate actors would have been successful. There is some merit to this presumption. But the technical complexity argument was surely weakened when in 1984 members of the Rajneesh cult released salmonella bacteria in Oregon restaurants. More than 750 people became ill, though none died. The seed bacteria were obtained from a commercial supplier, grown and processed under the supervision of a nurse, and dispensed when cult members poured a liquid mixture containing salmonella on food in salad bars. With similar simplicity, a more virulent strain of bacteria might be unleashed with devastating effects. For much of the nation, the anthrax attacks in 2001 was a frightening event. Perhaps a half-dozen letters were mailed, each containing about a gram of spores. Anthrax spores evidently had leaked from the envelopes and left a trail of contamination. Anthrax-infected government buildings, postal facilities, and news offices were shut down, and people everywhere were afraid to open mail. Twenty-two people became ill; five of them died. Leitenberg claims that the public believed, inappropriately, that bioterrorism had become the most urgent public health problem because of “massive and frequently misleading media attention” about the anthrax attacks. But this view was based on a survey taken on November 8, 2001, one week after a New York woman died of inhalation anthrax despite no known contact with the bacterium. The New York Times said her death suggested a “widening threat,” and The Washington Post said it might “signal a new front” in the anthrax attacks. Such expressions in the media were proper because no one knew how she became infected or when the outbreak would end. The end did not come until November 21, with the death of a Connecticut woman. During the outbreak, 30,000 people at risk of exposure received prophylactic antibiotics, which doubtless saved many from infection. If the anthrax strain had been drug resistant, and if hundreds of anthrax letters had been mailed, the toll could have been far greater. In this respect, the anthrax attacks demonstrated a frightening potential. On this matter and others, Leitenberg’s book, while uneven, offers provocative assessments about an important subject.

**Bioterrorism fails**

**Lowe 97 – sr. analyst @ the institute for defense analysis**

 (Karl, pg. <http://www.washingtoninstitute.org/templateC05.php?CID=1126>)

Biological terrorism is very much a threat that we need to worry about. However, terrorists will face a number of formidable obstacles to conducting a successful biological attack. These include acquiring the agent, cultivating it and preparing it for dissemination, developing a means of dissemination, selecting and reconnoitering the target, and estimating the proper dosage required to achieve the desired effect. Accordingly, the terrorist must possess the technical skills required to obtain and cultivate the agent, understand how the agent will behave in the lab and in the field, and comprehend the mechanical dimensions of the dissemination process. There are few individuals that possess all these attributes and are motivated to conduct a terrorist act. For this reason, states--which have a larger human and material resource pool to draw on--are much more likely to be successful in this endeavor than a lone perpetrator or a small terrorist group. It is a common misperception that carrying out a biological terror attack is easy. In fact, any number of missteps during the preparatory phase (should the agent be agitated while it ferments? should it be grown under aerobic or anaerobic conditions? should the strain be purified for best results?) could cause an attack to fail. There is also a potential for missteps during dissemination, due to ignorance of the proper dosage required to obtain a desired effect, the capabilities of a building's ventilation system--or wind speed and direction if an outdoor attack is planned--and misconceptions concerning a given agent's entry path to the body. There are several myths regarding biological agents that need to be debunked: 1) Biological agents placed in water reservoirs can kill thousands of people. This would not be so easy to do. Most agents do not perform well in water. For example, cholera--which lives in water--is killed by sunlight, and even if it were to survive exposure to the sun, it might cling to the water pipes or be killed during the chlorination process. If the cholera survived to be ingested by a human, it might be killed by the natural acidity of the stomach. It is also important to note that the public water systems were developed to protect against just such hazards. Accordingly, water is tested regularly. 2) Anyone can produce a biological agent. This is not true. A terrorist must have detailed knowledge about the agent and the conditions in which it lives. 3) Biological agents are contagious and their release would cause an epidemic. In fact, most agents produce diseases that are not contagious. Plague is one example of an agent that is contagious, but because it is usually spread by animal-borne fleas, it is not a likely candidate for use by terrorists. Despite these difficulties, we must be prepared for such an eventuality in the future. SETH CARUS Though the United States government has been concerned about the possibility of chemical and biological terrorism since the 1950s, it still has only a limited capacity to deal with the threat. The Aum Shinrikyo attack on the Tokyo subway in 1995, however, served as a wake-up call. Many U.S. officials feared that if a similar attack had occurred here, the response would have been as ineffective as the Japanese response was. As a result, Congress has spearheaded efforts to address the threat of chemical or biological terrorism. In the United States, local and state governments are responsible for providing emergency services in response to acts of terror, while the FBI and federal government are responsible for the law enforcement aspects of terrorism. Thus, in 1996, Congress passed the Defense Against Weapons of Mass Destruction Act to help local, state, and federal agencies better respond to acts of chemical and biological terror. As part of this legislation, the Department of Health and Human Services was allocated $6.5 million to establish the metropolitan medical strike team and U.S. Customs was given $9 million to invest in equipment for detecting chemical and biological agents at border crossings. Most of the technical and medical expertise for dealing with chemical and biological weapons resides in the Department of Defense. Two operational units were recently created to deal with the threat: the Army has a Technical Escort Unit of 150 people trained to deal with chemical munitions, while the Marine Corps created a Chemical/Biological Incident Response Force of 350 people trained to rescue and decontaminate victims of chemical or biological attacks. There are a number of additional efforts under way to enhance U.S. capabilities in this area. The United States is better equipped to deal with a chemical attack than a biological attack. Every emergency services organization, from the local to the federal level, has a hazardous materials unit. These units provide a pool of first responders able to deal (with some additional training) with chemical terrorism. Furthermore, there are a number of arsenals throughout the country where chemical weapons are stockpiled, and as a result, local emergency services units in these areas are trained to deal with lethal chemical agents. In addition, the Army has Reserve and National Guard units around the country with expertise in chemical weapons. By contrast, on the biological side there is virtually no local capability. The pool of trained personnel and the existing knowledge base concerning this subject is very limited. However, the money provided in recent legislation will address gaps in technology and in as short as one year from now forces should be equipped and trained to handle the threat of biological terrorism.

# Laser Takeouts

Fuel limitations hurt effectiveness of space based laser defense systems

Possel 98 – William H. Possel, Lt Colonel, USAF (July 1998, William H. Possel, “Lasers and Missile Defense New concepts for Space-Based and Ground-Based Laser Weapons,” Air University Maxwell Air Force Base, Occasional Paper No. 5 Center for Strategy and Technology Air War College CS)

The space-based laser concept has to overcome several significant technological and operational challenges, many of which will be addressed with an on-orbit demonstration system. The operational concerns are related to its on-orbit logistics. Since the laser is chemically fueled, the space-based laser is only capable of a limited number of shots before its fuel is depleted. The current concept calls for 200 seconds of total firing time. With this much fuel, the space-based laser is capable of at least 75 shots against typical theater ballistic missiles. When the 11 fuel is expended, the space-based laser must be either refueled in space or replaced.82 Another potential hurdle is getting these platforms into space.

**Equipment compilation creates a unique challenge to the development of the laser systems**

Possel 98 – William H. Possel, Lt Colonel, USAF (July 1998, William H. Possel, “Lasers and Missile Defense New concepts for Space-Based and Ground-Based Laser Weapons,” Air University Maxwell Air Force Base, Occasional Paper No. 5 Center for Strategy and Technology Air War College CS)

Technology Assessment. While individual pieces of technology have been developed, to date no such system has been integrated and demonstrated. The Alpha program demonstrated a hydrogen fluoride high-energy laser, which could be scaled up to the power levels required for an operational laser. In the case of optical components, the Large Optics Demonstration Experiment and Large Advance Mirror Program verified critical design concepts for large optics and beam control, but at only half the size of the operational laser. Several other programs described earlier proved the ability to accurately acquire, track, and point large structures. One significant remaining question is whether all of these systems can be effectively integrated into a space platform. An on-orbit demonstration of an integrated system addresses those issues. The Space-Based Laser Readiness Demonstrator (SBLRD) is a proposed half-scale version of the operational laser platform. This demonstrator offers the potential to reduce the risks associated with fielding such a complex entity by integrating the various subsystems into a space-qualified package.83 The system will consist of a high-energy hydrogen fluoride laser operating at one-third the output power of the operational laser. The acquisition, tracking, and pointing subsystem and the laser beam will not operate concurrently since this may violate the ABM treaty. At an estimated weight of 16,600 kilograms, which is slightly more than half the operational weight, the laser demonstrator will be launched on the Titan IV booster or the new Evolved Expendable Launch Vehicle. On-orbit tests will consist of deploying large target balloons to test the accuracy of the laser tracking and pointing subsystem. In addition, rockets with sensors will be launched as test vehicles. The test program, if we optimistically assume a launch date of 2005, will span three years. 84

# BMD First Strike T/

**BMD destabilizes first strike stability and incentivizes attacks**

Morgan 10 – Forrest E. Morgan, Ph.D. in policy studies, University of Maryland; M.A.A.S. in airpower arts and sciences, Maxwell Air Force; M.A. in computer systems management, Webster University; B.S. in business management, University of Maryland, Senior Policy Analyst at RAND (2010, Forrest E. Morgan, “Deterrence and First-Strike Stability in Space A Preliminary Assessment,” RAND Project Air Force, [www.rand.org/pubs/monographs/2010/RAND\_MG916.pdf](http://www.rand.org/pubs/monographs/2010/RAND_MG916.pdf))

Given the importance of space systems to U.S. national security, some academics and security analysts have argued that the United States should “seize the high ground” and place counterspace weapons in orbit to impose space dominance in the event of a conflict with another spacefaring nation. While such arguments resonate with those accul- turated in the U.S. military tradition, it is hard to conceive how plac- ing counterspace weapons in orbit would do anything to defend U.S. atellites from enemy ground-based weapons or, for that matter, other weapons in space. Rather, given the inherent vulnerability of satel- lites, placing weapons in orbit would increase first-strike instability in space by threatening potential adversaries with weapons that cannot, themselves, be defended. Taking this step may also encourage other spacefaring nations to follow suit, ultimately resulting in a danger- ously unstable strategic environment that would generate severe “use- or-lose” pressures in the event of a military confrontation, whether the crisis originated in space or the terrestrial domain. Terrestrial-based counterspace weapons also endanger first-strike stability, particularly if states that invest in them exhibit brandishing behaviors, publiciz- ing intentions to use them at the onset of conflict. But pressures to use terrestrial-based weapons first would not be as great, because they would not be as vulnerable to enemy action as space-based weapons. Ballistic missile defense (BMD) systems that also have ASAT capabilities would likely affect first-strike dynamics in space in ways that mirror counterspace weapons. Systems with orbital components that could attack other satellites would, in a crisis with another space- faring nation that also had ASAT capabilities, exert pressure on that state to strike first, in an effort to save its own satellites from first-strike losses.16 Similarly, terrestrial-based BMD weapons capable of intercept- ing satellites, might also be threatening to a spacefaring opponent in a crisis, but first-strike pressures would not be as great as they would be if either of the adversaries had weapons in orbit. In all of the foregoing cases, brandishing behaviors would make first-strike instability more severe, given space systems’ inherent vul- nerabilities, as might explicit deterrent threats if they are not carefully tailored to support a coherent national strategy to enhance first-strike stability in space.

# Arms Race T/

**Space BMD less effective and causes international backlash and arms race**

Friedman 11 – (June 15, 2011. Jonah Friedman, “Deterrence and Space-Based BMD,” Center for Strategic and International Studies, <http://csis.org/blog/deterrence-and-space-based-bmd>)

Assuming, however, that all of this is completely wrong, and that the United States is in dire need of BMD to protect against an attack by Iran or North Korea, the proposal put forward by May would create as many problems as it would solve. He recommends utilizing “’brilliant pebbles,’ space-based interceptors the size of watermelons that would be fired into the orbital path of a long-range missile causing a collision that would destroy the missile.” The deployment of a BMD system in space could be very problematic for several reasons. First, there is [evidence](http://www.csbaonline.org/wp-content/uploads/2011/02/2007.10.31-Spaced-Based-Weapons.pdf) to suggest that space-based BMD systems would be both more costly and less effective than ground-based systems. Secondly, it could contribute to concerns by other states that the U.S. is seeking to militarize space more generally, and therefore fuel an arms race. Finally, space-based BMD systems could be more effective at intercepting missiles during their boost phases. This would serve to raise [concerns](https://csis.org/blog/why-numbers-matter) in places like Moscow and Beijing about the threat such a system might eventually pose to their nuclear arsenals, especially as Russia’s stockpile dwindles and U.S. BMD capabilities expand. May claims that, rather than militarizing space in this way, an orbiting BMD system would de-militarize it by “[preventing] missiles from passing through space on their way to their intended victims. “ Yet, this is a problematic way of looking at the issue. For one, defensive systems also count as “militarizing” an area – the construction of fortifications in a de-militarized zone, for instance. Furthermore, while BMD systems might be inherently defensive tactically, they have the potential to be used as part of a strategic offensive by shielding against any retaliation made in response to an initial first strike. It is therefore arguable that the deployment of such systems would indeed constitute a militarization of space – an outcome which is in U.S. interests to avoid.

# AT: Rogue States

**BMD cannot deter rogue states**

Frederick , 8 - Lt Col Lorinda A. Frederick, USAF, SCHOOL OF ADVANCED AIR AND SPACE STUDIES AIR UNIVERSITY MAXWELL AIR FORCE BASE, ALABAMA ( June 2008, Lt. Col Lorinda A Frederick, “DETERRENCE AND SPACE-BASED MISSILE DEFENSE,” [www.airpower.au.af.mil/airchronicles/apj/apj09/.../**frederick**.html](http://www.airpower.au.af.mil/airchronicles/apj/apj09/.../frederick.html))

First, rogue state decision-makers are harder to identify and locate, let alone deter, than their state counterparts. Without the ability to attribute the use of WMD to a rogue state, or even their state sponsor, it may be difficult for the United States to deter the rogue state from attacking. Leaders of rogue elements and proliferators threaten US, regional, and global security interests because they defy international laws or norms of international behavior and use asymmetric means to attack law-abiding nations. Second, states operate more in the open, which allows the United States to gauge their perceptions based on their actions or inaction. “The objective of deterrence is to convince potential adversaries that courses of action that threaten US national interests will result in outcomes that are decisively worse than they could achieve through alternative courses of action.”14 Third, the United States cannot threaten to inflict high costs on rogue elements that have few high value assets, minimal territorial claims, and small populations in comparison to their state counterparts.15 “Deterrence by cost imposition involves convincing adversary decision-makers that the costs incurred in response to or as a result of their attack will be both severe and highly likely to occur. Cost imposition includes the full array of offensive operations including kinetic and non-kinetic options.”16 “The key challenge to improving the effectiveness of deterrence by cost imposition is to overcome adversary perceptions that they could successfully deter US attack, or that the US will be self-deterred. Improved offensive and defensive damage limitation capabilities for the US homeland, allies, non-combatants, and forward-deployed forces are essential to addressing this challenge.”17

**Empirics prove that current BMD checks irrational actors**

Friedman 11 – (June 15, 2011. Jonah Friedman, “Deterrence and Space-Based BMD,” Center for Strategic and International Studies, <http://csis.org/blog/deterrence-and-space-based-bmd>)

Earlier this week, Foundation for the Defense of Democracies president Clifford D. May wrote an [article](http://www.milforddailynews.com/opinion/x1498054363/May-MAD-not-a-21st-Century-answer) in which he claims that deterrence and Mutually Assured Destruction (MAD) no longer apply in a world of nuclear-armed rogue states such as North Korea and (potentially) Iran. He also advocates for the development of space-based ballistic missile defenses (BMD), arguing that this should not be seen as militarizing space as much as “de-militarizing” it by blocking missile attacks. May makes the oft-heard argument that, while deterrence worked with the Soviet Union during the Cold War, it is not effective against Iranian leader for whom “the return of the Mahdi, the savior, can be brought about only by an apocalypse.” The implication is that a regime which seeks to bring about Armageddon cannot be deterred by the prospect of U.S. retaliation. Yet, Iran is not a unique case. Francis Gavin makes an interesting comparison with China in the 1960s. He notes in his 2004 International Security article “Blasts from the Past: Proliferation Lessons from the 1960s,” that: “China [by 1964] had already fought the United States in Korea; attacked India; and threatened Indochina, Indonesia, and Taiwan. It supported violent revolutionary groups around the world whose goals clashed with U.S. interests. Mao’s internal policies had led to the deaths of millions of Chinese citizens, and he had already declared that nuclear war with the United States was not to be feared. In Mao’s words, ‘If the worse came to worst and half of mankind died, the other half would remain while imperialism would be razed to the ground and the whole world would become socialist.’ To the United States, such actions and statements made [China] appear not only irrational but perhaps undeterrable.” Indeed, even the Soviet Union (against whom May implies deterrence did work) was ostensibly a radical regime which espoused an ideology which advocated the overthrow of Western governments, and held that a war between the communist and capitalist worlds was inevitable. The point here is that, although Iran’s ideology, rhetoric, and even actions may be provocative, it would not be the first such state to be deterred by the prospect of nuclear retaliation. As Kenneth Waltz wrote in The Spread of Nuclear Weapons, “Nuclear reality transcends political rhetoric.”

# AT: Space Attack

Space BMD will not deter Space Attacks

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Threats of punishment for attacks on space systems face unique chal- lenges in terms of potency and credibility. The punishment-based approach that most readily comes to mind for deterring attacks on U.S. satellites entails threats of retribution against the opponent’s satellites—the old “if you shoot ours, we’ll shoot yours” model. Such a threat sounds reasonable and balanced; however, given the dispropor- tionate degree to which U.S. forces depend on space support as com- pared to potential adversaries, it would probably lack sufficient potency to deter a serious opponent. Future enemies of the United States will probably be fighting in their own neighborhoods and employing operational concepts that rely less on space-based ISR and communication assets than do U.S. forces, so enemy leaders might even welcome a game of satellite tit-for-tat, as the benefits of denying space support to U.S. forces would likely outweigh the costs of losing their own assets in return.7

Space BMD cannot prevent attacks – calculus is in favor of the Aggressor

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Unfortunately, aggressive leaders tend to be risk-acceptant opti- mists. Experience suggests that deterring aggression in the terrestrial environment without nuclear threats generally requires persuading the adversary that the prohibited action would entail a substantial risk of defeat or, at least, a high risk of bogging down in a costly war of attri- tion.8 Attempts to deter aggression in space by threats of conventional punishment in the terrestrial environment would lead the would-be aggressor to similar considerations, but the outcome of the decision would be skewed by an expectation that attacks, if successful, would likely reduce the United States’ ability to impose retributive costs. Moreover, if locked in a confrontation with the United States, were the aggressor to conclude that war was inevitable, it would also realize that it would eventually have to pay a higher cost if it did not attack U.S. space systems. Damage limitation, therefore, becomes an important part of the adversary’s calculation, potentially tipping the scales toward a deci- sion to launch a preemptive first strike in space.9

Space BMD suffers from a lack of credible response to space attacks

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Moreover, while threats of conventional punishment would need to be powerful to deter attacks on U.S. space systems, efforts to make them so could ultimately undermine their credibility. For a nation known to value its self-image and international reputation to issue threats that are credible, the threats must appear justified—that is, they need to be reasonably proportionate to the seriousness of the misbehavior—otherwise, the opponent might doubt the threatener’s resolve to carry them out. For instance, if a reputable nation issued a threat to inflict carnage on enemy civilians in retribution for some minor aggression, it might not be believed: To carry out such punish- ment would result in serious moral and political costs for the threatener. Credibility may be further weakened when there is no clear, logical relationship between the misbehavior and the threatened punishment. A threat to bomb an adversary’s port for occupying a disputed territory that is landlocked might lack sufficient linkage to be taken seriously.

**ASATS provide no means of deterring hostile space attacks**

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Putting these considerations in the context of space, in a con- frontation before the onset of war, threats to bomb targets in an adver- sary’s capital or other major cities in response to a destructive attack on a U.S. satellite might be doubted, given the dubious linkage, esca- lation risks, and probable casualties and collateral damage that such a response would entail. Carrying out such a threat would require apply- ing force in a highly escalatory manner that, depending on the broader geopolitical circumstances,10 might be condemned in domestic and world opinion, despite the fact that the adversary would have techni- cally crossed the threshold of hostilities first by launching an attack in space that destroyed one or more satellites. That attack would not have taken human life directly, nor would it have been easily observ- able to third parties. Weighing these considerations, the adversary might well conclude that such a threat is a bluff and risk attacking orbital assets. Threats to respond with punitive strikes against ASAT launchers, ground-based directed-energy weapons, or other portions of the adversary’s counterspace architecture, such as tracking systems or command-and-control nodes, would have better linkage in that they are more clearly relatable to the act to be deterred. However, these threats might also be doubted in many scenarios because carrying them out would likely result in horizontal escalation. Such targets are likely to be outside the area in which the limited conflict is being fought. Striking them would broaden the scope of the conflict, inviting the enemy to respond with its own attacks on targets outside the area of operations. Even if believed, the threats might lack potency, given the resiliency of dispersed networks and the difficulty of finding and destroying mobile weapon systems.11 Moreover, the adversary might not attach a high cost to the prospective loss of ASAT infrastructure if it believed that it could inflict severe and irreparable damage on U.S. space assets before effective counterstrikes could be carried out. Threats made in efforts to deter reversible-effects attacks before the onset of lethal hostilities suffer even more from defects in linkage and proportionality, and those made after combat has ensued would be largely irrelevant from a deter- rence perspective.

**ASATS lack the ability to deter space attacks**

Morgan 10 – Forrest E. Morgan, Ph.D. in policy studies, University of Maryland; M.A.A.S. in airpower arts and sciences, Maxwell Air Force; M.A. in computer systems management, Webster University; B.S. in business management, University of Maryland, Senior Policy Analyst at RAND (2010, Forrest E. Morgan, “Deterrence and First-Strike Stability in Space A Preliminary Assessment,” RAND Project Air Force, [www.rand.org/pubs/monographs/2010/RAND\_MG916.pdf](http://www.rand.org/pubs/monographs/2010/RAND_MG916.pdf))

Efforts to deter would-be aggressors by persuading them that the United States can deny them the benefits of attacking its space capa-bilities also face serious challenges. While the United States should always emphasize the resilience of its space systems in order to dis- courage potential adversaries from attacking them, several factors may make this difficult. First, it is necessary to assume that potential adversaries are well aware that the transformational capabilities that give U.S. military forces their qualitative advantage are significantly enhanced by space support. They are likely to believe that attacking U.S. space systems offers a high payoff, because even limited success in attacks on some high-value, low-density assets might provide substan- tial warfighting benefits. Second, future enemies will also understand how difficult it is to defend space assets. Satellites possess inherent vul- nerabilities, and all claims to the contrary are unlikely to be believed until proven. That presents a problem. There are passive defenses that the United States can employ to make satellites somewhat more resil- ient, but unlike visible forces and fortifications in the terrestrial envi- ronment, passive defenses on satellites are not observable in ways that deter attack. Electromagnetic pulse (EMP) shielding, radio frequency (RF) filters, and shuttered optics are not visible to the naked eye or even observable in the data collected by space surveillance systems. In fact, some defenses may need to be concealed in order to remain viable, thus eliminating the deterrent value of their existence. Consequently, the challenge will be to find ways to reduce the prospective benefits of attacking U.S. space systems that are demonstrable to potential ene- mies without undermining their effectiveness. Several approaches are possible, but all of them suffer certain limitations.

# SBL Fails

**SBL’s fail, too many variables**

Garwin 3 \*Richard L. Garwin is on the Council on Foreign Relations [Space Weapons: Not Yet, 4/14/3, <http://www.fas.org/rlg/030522-space.pdf>]

But, as analyzed in detail in the RAND publication, many targets are not vulnerable to destruction by SBL, and many that are can be protected by smoke, by water shields, or in other ways. Aircraft yes, and combustible targets or thin-skinned storage tanks. But not bunkers, armored vehicles, or many buildings. We have already seen that the use of an SBL can easily cost in the range of $100 million per target and is contingent on the target being thin-skinned and not obscured by a cloud. For comparison, a Tomahawk missile costs some $600,000 and will attack heavily armored and non-flammable targets, and is not affected by cloud. Even enthusiasts consider SBLs a weapon to attack very special targets, while most military capability against similar targets is to be provided by more conventional means. In contrast almost all portions of the earth are reachable by existing cruise missiles (Tomahawk Block 3) launched from outside the 12 nmi limit. The flight time can be several hours. For the space-based laser, "rapid response" is a sometime thing, since it is necessary to have clear air to allow the laser beam to strike the target—no cloud in the way. With these competitive means of striking the target, observation could still be provided by nonweapon space assets, so that in addition to attack by navigation (using GPS) one could use a laser - target designator from space with observation and designation provided at the time when a destructive payload arrives in the vicinity of the target—an example of non-weapon military space capabilities contributing to US military capability. In summary, the one target which can surely be held at risk at modest cost is important and costly satellites, of which the US possesses by far the greatest number and value.

**SBL’s fail, can penetrate**

DeBlois et al. 4 \*Bruce M. DeBlois is Formerly Adjunct Senior Fellow for Science and Technology at the Council on Foreign Relations, Richard L. Garwin, formerly Senior Fellow for Science and Technology at CFR, R. Scott Kemp, Fulbright Fellow to the European Union and research staff at the Program on Science and Global Security at Princeton University, Jeremy C. Marwell is a Furman Scholar at the New York University School of Law. He was formerly Research Associate for Science and Technology Studies at CFR [http://www.fas.org/rlg/041100-rubicon.pdf]

Space-based lasers, however, face significant operational barriers. Because the satellite would move with respect to a fixed point on Earth, continuously covering strategically important regions (in clear weather) would require a constellation of several dozen lasers. The lasers would be effective only against a narrow class of targets, such as combustibles, aircraft canopies, and thinskinned storage tanks. Common military objectives such as bunkers, armored vehicles, and buildings would be basically immune to laser attack. Rudimentary shielding by smoke screens, ablative cork coatings, or even pools of water can provide a substantial and cheap defense for nearly any target. Furthermore, space-based lasers could not attack targets under cloud cover-on average 30-40 percent of the Earth's surface and some 70 percent of the time in parts of Germany or North Korea.

**Space BMD fails**

**Eisendrath et al. 1** \*Craig Eisendrath is Senior Fellow with the Center for International Policy, a foreign policy institute in Washington, D.C., and a former U.S. Foreign Service Officer with expertise in nuclear and outer space issues, George Mars, Elvin Goodman [<http://findarticles.com/p/articles/mi_m1272/is_2676_130/ai_78256881/?tag=mantle_skin;content>, “Can We Count on Missile Defense” Sep. 2001]

Expanded theater defenses, such as the Army's Theater High-Altitude Defense and the Navy's Theater-Wide System, designed for defense against intermediate-range ballistic missiles, have been touted as forming the basis for a full national defense. This is a serious error. The kill vehicles of both systems lack the necessary lateral acceleration capability needed for boost-phase intercept. This is really the end of the story, although the fact that these systems use the wrong kind of sensors, designed for midcourse interception, makes them inappropriate as well. The Coyle Report makes it clear that current theater systems are many years away from reliable deployment, even for use at the ranges for which they have been designed. The airborne model. Both the Air Force's Airborne Laser, mounted on a Boeing 747, and space-based lasers fail because of their vulnerability. Anti-aircraft missiles do work, and the components of space-based defenses are sitting ducks for longer-range missiles. Space-based lasers are quite heavy, require enormous amounts of fuel, and have to be in the right place when a missile is launched. Since they have to be in low-Earth orbit to maximize the energy they can put on the missile, to have one always in the right place to destroy an attacking missile means there must be a very large constellation of lasers in space. This becomes very expensive, very quickly. Still another problem is that space-based systems would violate the 1967 Peaceful Uses of Outer Space Treaty and thus set a dangerous precedent of weaponizing outer space. As for propagation of lasers through the atmosphere, there are numerous reasons why this simply does not work: the turbulence of the atmosphere; the tendency of the laser beam to spread; the efficacy of countermeasures to confuse compensatory mechanisms ("adaptive optical techniques"); divergence of the beam through what is called "thermal blooming"; and the use of countermeasures to carry off the heat. In sum, such defenses are still very much at the research stage, and have remained there for well over 20 years.

# \*\*\*Counterplans\*\*\*

# \*\*\*1NC -BAN BMD CP\*\*\*

**CP Text: The United States federal government should offer a “Zero Ballistic Missile” defense initiative to all open and willing nations. Signature to this agreement should be conditioned on the removal of all ballistic missiles with ranges greater than 500 kilometers from the signing nation(s).**

**A global ban on ballistic missiles solves—doesn’t hinder US deterrence and still allows us to attack rogue states**

**Andreasen 4**—national security consultant and lectures at the Hubert H. Humphrey Institute of Public Affairs (Steve, “ Reagan Was Right: Let’s Ban Ballistic Missiles,” Survival, vol. 46, no. 1, Spring 2004, ingenta, DA: 7/27/2011//JLENART) \*\*NOTE—ZBM stands for Zero Ballistic Missiles. It is a policy Reagan tried to implement during his administration in 1986.

During the Reagan administration, ZBM proponents argued that American security could be assured in a world without ballistic missiles (but still a potentially hostile Soviet Union) through reliance on bombers and cruise missiles that incorporated the latest in ‘stealth’ technology. In short, bombers and cruise missiles utilising stealth technology would, by themselves, be effective instruments of deterrence and retaliation. Seventeen years after Reykjavik, the same points remain valid. ZBM will enhance the importance of nuclear long-range heavy bombers, as well as nuclear-armed cruise missiles, both air-based and sea-based (currently in storage though deployable), as the core of the US nuclear deterrent force. But the ability of the United States to execute a devastating nuclear strike against any potential adversary using air-breathing weapons would remain robust; while that strike might be delayed in comparison to a ballistic missile strike, it could not be denied. As is the case with the current US nuclear force, it would effectively deter those who can be deterred. And while greater reliance on air-breathing systems (in particular, cruise missiles) for deterrence could raise new concerns over the potential proliferation of these systems outside the US and Russia, in practice, this problem exists, and could well grow, with or without ZBM. Moreover, the security benefits of ZBM in a US–Russia context would be substantial. Global ZBM could reduce the incentive for either the US or Russia to strike the other first with nuclear weapons, as well as eliminate the most effective tools for such a strike – ballistic missiles. ZBM would reduce the risk of an accidental or unauthorised launch by unravelling the dangerous nexus between thousands of US and Russian ballistic missile warheads that can hit the other within 30 minutes of launch; huge gaps in Russia’s early warning system; and the substantial and increasing capability of the US to launch a devastating first strike. ZBM would also greatly simplify the challenge of missile defence, in two ways. First, the need for a ‘thick’ defence against ballistic missiles with ranges greater than 500km would be greatly reduced as ZBM was implemented. While there may still be a rationale for deploying defences against systems banned by ZBM as insurance against a potential cheat or non-participant, these defences are likely to be less extensive and less costly, freeing up resources for other defence missions. Second, missile defence could focus on the threat from short-range missiles not banned by global ZBM – that is, missiles with ranges less than 500km. For the foreseeable future, defences against shorter-range missiles whose warheads have lower re-entry velocities are likely to be more effective than defences against ‘faster-flying’ longerrange systems, which typically are harder to shoot down. ZBM could also have a very positive impact on US–Russian political relations, as it would dramatically reduce – symbolically and in practice – the nuclear component of the relationship. As was the case in 1986, there will be vocal opposition in the United States to the idea of giving up ICBMs and SLBMs, no matter what might be gained as part of a global accord. In an age where pre-emption is enshrined as the national security strategy of the United States, some will argue that global ZBM would remove one option for pre-empting threats from a rogue state or terrorist group – that is, a US first strike using ICBMs or SLBMs. Indeed, the Pentagon is now exploring the possibility of arming long-range ballistic missiles with conventional instead of nuclear warheads to make them more usable. For the same reason, some are now advocating the development of a low-yield nuclear warhead for ICBMs and SLBMs. There are, however, real arguments against the use of ICBMs or SLBMs – whether nuclear or conventional – against terrorists or rogue states. At the top of the list, US policy for decades has been to increase the threshold for using these horrific weapons; arming them with conventional or low-yield nuclear warheads would send a different message. Moreover, under global ZBM, the United States would maintain a full menu of credible options for pre-empting rogue states or terrorists, including precision guided munitions (conventional or nuclear) delivered by heavy bombers, tactical aircraft, attack submarines, bombs and cruise missiles.

**(\_\_) Long-range ballistic missiles are the most fearsome weapons invented—massive attacks would cause global catastrophe**

**Andreasen 4**—national security consultant and lectures at the Hubert H. Humphrey Institute of Public Affairs (Steve, “ Reagan Was Right: Let’s Ban Ballistic Missiles,” Survival, vol. 46, no. 1, Spring 2004, ingenta, DA: 7/27/2011//JLENART)

Ballistic missiles armed with nuclear warheads remain the most fearsome weapon system ever devised. One missile fired in anger or by accident or miscalculation could produce tens of millions of casualties within minutes; a few tens of missiles could destroy a society and trigger a global conflagration. As is the case with any weapons technology, one can always fall back on the argument that the ‘genie is out of the bottle’ and nothing can, or should, be done to reduce the potential for catastrophe; or make the argument that it is political factors, not weapon systems, that are the key to conflict resolution and threat reduction (the geopolitical equivalent of the American gun-advocate’s slogan, ‘guns don’t kill people, people kill people’). But if the United States under President Reagan’s leadership was prepared to consider the elimination of its entire offensive ballistic missile force in 1986, at the height of the Cold War, in exchange for the elimination of Soviet offensive ballistic missiles, it is worth re-examining the merits of such a proposal – this time, applied globally.

## SOLV- Deterrence

**ZMD prevents proliferation and deters conflict in hot-spots across the globe—promotes diplomatic approaches to resolve conflict**

**Andreasen 4**—national security consultant and lectures at the Hubert H. Humphrey Institute of Public Affairs (Steve, “ Reagan Was Right: Let’s Ban Ballistic Missiles,” Survival, vol. 46, no. 1, Spring 2004, ingenta, DA: 7/27/2011//JLENART) \*\*NOTE—ZBM stands for Zero Ballistic Missiles. It is a policy Reagan tried to implement during his administration in 1986.

Not since the negotiation of the CTBT (1994–96) has the great majority of the international community united behind a diplomatic approach for tackling proliferation. Since then, there has been no progress on an international treaty to stop the production of fissile material – which many saw as the logical next step in multilateral non-proliferation negotiations – or on strengthening existing agreements like the Biological Weapons Convention. In fact, the Bush administration has downgraded multilateral arms control as a tool for combating the proliferation of weapons of mass destruction and elevated in its place a controversial military doctrine – pre-emption – as the centrepiece of its national security strategy. This approach has found few proponents outside the United States. Indeed, many believe the threat of pre-emptive strikes only encourages the development of weapons of mass destruction, including ballistic missiles, in states that fear – and thus want to deter – a US attack. ZBM would provide what is sorely lacking in today’s international security policy mix: a bold diplomatic approach to missile nonproliferation that can be applied globally, without discrimination. As is the case with the CTBT’s ban on nuclear explosive testing, global ZBM’s ban on ballistic missiles with ranges greater than 500km would apply equally to all countries, large or small. By eliminating weapons optimised for pre-emptive strikes, ZBM could improve regional stability in a number of hotspots where states with historic and bitter grievances are routinely at odds. Most of these states lack a ballistic missile early warning system or reliable command and control to coordinate a response to a ballistic missile attack. In a crisis, the state that delivers the first blow could reap a significant advantage, putting these countries on their own hair triggers. Convincing India, Pakistan, Israel, Syria, Iran, Saudi Arabia, Egypt and North Korea to give up missiles with ranges greater than 500km will require a huge diplomatic effort. Each of these countries has made or is planning to make significant investments in these weapons precisely because they believe they need such a threat to deter their enemies or defend their interests. Some states will argue ballistic missiles are their only deterrent against even greater threats. Iran, for example, will point to Israel’s nuclear weapons or US conventional and nuclear strike capabilities as a reason to cling to its missile programmes. Others will note that missiles with ranges less than 500km will not be banned under global ZBM (a necessary incentive for China); thus, they will remain vulnerable to short-range missiles. Still, the elimination of ballistic missiles with ranges greater than 500km could prove a turning point in political relations between regional antagonists (just as the Reagan–Gorbachev INF agreement was a turning point in relations between Washington and Moscow). Moreover, global ZBM would markedly improve the threat environment for states that live under the shadow of ballistic missile attack: it would remove the most dangerous weapons from regional arsenals and make it easier to mount a conventional defence – or deploy effective missile defences – against residual threats from short-range systems.

## RUSSIA SAYS YES

**Russia would agree—ZBM improves Russia’s strategic position and they would still keep most of their nuclear weapons**

**Andreasen 4**—national security consultant and lectures at the Hubert H. Humphrey Institute of Public Affairs (Steve, “ Reagan Was Right: Let’s Ban Ballistic Missiles,” Survival, vol. 46, no. 1, Spring 2004, ingenta, DA: 7/27/2011//JLENART) \*\*NOTE—ZBM stands for Zero Ballistic Missiles. It is a policy Reagan tried to implement during his administration in 1986.

One fact, however, underscores the possible attraction of a global ZBM regime to Moscow: every ICBM and SLBM not under Russian command today – whether American, British, French or Chinese – **is a threat to Russia**. A global ZBM regime would at least simplify, if not improve, Russia’s strategic position. Moreover, even with the elimination of offensive ballistic missiles, Russia would retain a sizeable nuclear force, one that could not be eliminated, or dismissed, by any potential adversary, including the United States. How Russia would evaluate these tradeoffs – including the possibility of having to redirect resources away from its ongoing ballistic missile modernisation into bombers and cruise missiles – remains uncertain.

## CHINA SAYS YES

**Empirics prove China says yes—they are focusing on economic issues and the agreement would allow China to maintain their nuclear deterrence**

**Andreasen 4**—national security consultant and lectures at the Hubert H. Humphrey Institute of Public Affairs (Steve, “ Reagan Was Right: Let’s Ban Ballistic Missiles,” Survival, vol. 46, no. 1, Spring 2004, ingenta, DA: 7/27/2011//JLENART) \*\*NOTE—ZBM stands for Zero Ballistic Missiles. It is a policy Reagan tried to implement during his administration in 1986.

Perhaps even more difficult than gaining Russian support for global ZBM would be gaining the agreement of the middle-ranking nuclear powers – China, the UK and France. In the absence of a substantial investment in long-range bombers, submarines and cruise missiles, China would give up the extremely limited capability it has today to strike the territory of the United States with nuclear weapons. At the same time, the United States would maintain a nuclear strike capability against the Chinese mainland. Could China be convinced such an ‘unequal’ agreement was in its national interests? Intuitively, the answer would seem to be a resounding ‘no’, but **historical example suggests otherwise**. For at least two decades, China has had the ability to deploy a larger and more capable force of ICBMs against the United States. Instead, China has committed its resources towards economic growth and improving its military position in Asia, in particular with respect to Taiwan. The domestic economic imperative is unlikely to change in China, barring a dramatic change in the leadership’s priorities (or the leadership itself). Moreover, even under global ZBM, China would retain the ability to conduct nuclear strikes throughout Asia, using aircraft, bombs and short-range ballistic missiles not banned by the agreement (a major incentive for China). Under these circumstances, China might well conclude it can maintain a sufficient nuclear deterrent – in particular, if each of the other major nuclear powers was committed to global ZBM. The case of the Comprehensive Nuclear Test Ban Treaty (CTBT) also suggests that China might agree to a global ban on ballistic missiles. During CTBT negotiations, it was clear that China had a great deal to gain from additional nuclear tests; but when the United States, Russia, Britain, and France – joined by the vast majority of the international community – made clear their determination to conclude the Treaty, China curtailed its test programme, cut the best deal it could and became the second signatory.

## EUROPE SAYS YES

**The UK and France will agree to ZBM—limits Chinese and Russian missiles and prevents proliferation in important countries**

**Andreasen 4**—national security consultant and lectures at the Hubert H. Humphrey Institute of Public Affairs (Steve, “ Reagan Was Right: Let’s Ban Ballistic Missiles,” Survival, vol. 46, no. 1, Spring 2004, ingenta, DA: 7/27/2011//JLENART) \*\*NOTE—ZBM stands for Zero Ballistic Missiles. It is a policy Reagan tried to implement during his administration in 1986.

Still, there would be important security gains for both countries, beginning with the elimination of Russian and Chinese ballistic missiles that could destroy much of Europe within minutes of a launch. In addition, the UK and France would need to weigh the potential benefits of global ZBM from the standpoint of ballistic missile proliferation in regions of the globe where each country has a substantial interest.

## AT: VERIFICATION

**The CP can be verified—the US and Russia can monitor the elimination of BMD systems—START proves**

**Andreasen 4**—national security consultant and lectures at the Hubert H. Humphrey Institute of Public Affairs (Steve, “ Reagan Was Right: Let’s Ban Ballistic Missiles,” Survival, vol. 46, no. 1, Spring 2004, ingenta, DA: 7/27/2011//JLENART) \*\*NOTE—ZBM stands for Zero Ballistic Missiles. It is a policy Reagan tried to implement during his administration in 1986.

Both the US and Russia have had years of experience – and success – monitoring the elimination of offensive ballistic missiles and their launchers under START. Both countries would be capable of monitoring permitted space-launch vehicles and ballistic missile defence systems, though an inspection regime would be required to guard against ‘breakout’ and provide confidence that these systems were not armed with nuclear or conventional warheads. A global ZBM regime would, however, introduce new challenges, and require cooperation from various states that, to date, have not been open to transparency and inspection of their ballistic missilerelated programmes – notably, China, Britain, France, Israel, Syria, Saudi Arabia, Iran, Egypt, India, Pakistan and North Korea. Countries with space-launch programmes, such as Japan and Brazil, may also need to be included in an inspection and verification regime.

## SOLV—GENERIC

**SBMD’s offensive military stance ignites an arms race for control of space—only ground-based BMD deters the attacks of nations and terrorist groups**

**Fox & Orman 6** (E and S, “Ballistic Missile Defense: A Review of Development Problems,” The Journal of Social, Political, and Economic Studies, Spring 2006, Vol. 31, Iss. 1, Proquest, DA: 7/23/2011//JLENART)

In this broad context of enhancing stability, BMD has a threefold function: (1) To act as a deterrent to hostile entities investing in missile technology by making it clear to them that their investment would be a waste of money because their missiles would not present a threat to the U.S. or its allies. (2) To provide protection for population centers and critical facilities should the deterrent aspect not be effective. (3) To give the President time to consider all the ramifications before launching an offensive strike in retaliation, should a hostile entity attempt to attack. Throughout the Cold War, America, France and Britain made every effort to ensure the effectiveness of their nuclear warheads that provided a deterrent against Soviet attack. While the hope was that those warheads would never be used, every effort was made to ensure that they would function as designed should they ever be needed. Thorough testing of those warheads prior to and throughout their deployment was considered essential. In addition to providing confidence to the operators, it was a way to signal to the Soviets that we were serious about deterrence. One might reasonably argue that the same criteria should apply to the quality of BMD, if we are to move to a defense-oriented means of retaining stability. There are several good reasons for no longer relying on retaliatory offense as a means of maintaining security. The proliferation of warhead and missile technology has led to far more nations acquiring the ability to inflict calamitous damage on democratic countries. Accompanying this growth is the risk that the leaders of some of these nations may react irrationally, as judged by conventional western thinking, and in a time of crisis might launch an attack. China, North Korea, and Iran have active programs to improve the range and payload capacity of their missiles, and the latter two nations have made no secret of their ambitions to acquire nuclear warheads. These two countries have a history of supporting terrorist activities, adding to the concern that these offensive systems might be passed on to terrorist groups, who at times appear to welcome rather than be deterred by the threat of retaliation. Improvements in technology can also allow hostile nations, or even terrorist groups, to disguise the origin of an attack by launching from a ship at sea, thereby making it difficult, if not impossible, to retaliate against the aggressor. This possibility has recently caused Congress to request a study into ways to defend against short-range missiles fired from cargo ships off the coast. The concern is not new, and other similar studies have been conducted in the past without leading to concrete action. This time, conference appropriators recommended that $10 million be allocated to conduct a comprehensive analysis of the need for, and deployment of, an asymmetric missile defense capability, including both land- and sea-based solutions, against the full range of asymmetric missile threats4. Congress has belatedly recognized that such attacks would render retaliatory deterrence meaningless. For all of these reasons, BMD is acquiring greater importance in terms of ensuring security. Some suggest that investment in BMD is unnecessary because a terrorist group could bring a weapon into a US port on a cargo ship. While, of course, this is a possibility, this is being guarded against by other means. It does not follow that we should ignore the threat that already exists of more missiles in more unfriendly hands than ever before. If we are retain and enhance our security we have to acknowledge all the dangers and guard against them accordingly.

## SOLV- HEG

**Missile Defense system would maintain military primacy**

**Eaglen 11**-(By Mackenzie Eaglen, Research Fellow at The Heritage Foundation, March 3, 2011, Assessing Strategic Readiness Of U.S. Armed Forces, <http://www.eurasiareview.com/assessing-strategic-readiness-of-u-s-armed-forces-03032011/>)

Another reason the U.S. must maintain military primacy is that the military’s missions are not only to fight but also to deter conflict. America decisively won Operation Desert Storm because it brought overwhelming power to bear. Clear victory in that conflict is one reason why no other country has since chosen to engage the U.S. in a direct, high-intensity conflict. Similarly, a missile attack is less likely if America deploys a comprehensive, layered missile defense system. China is less likely to use aggressive means to reunify with Taiwan if U.S. air and naval assets can unquestionably protect the island. Russia will be less adventurous in the former Soviet republics if its leaders feel that NATO is more than prepared for any contingency. However, the current superiority of America’s capabilities should not lead officials to be complacent. Military primacy is fleeting unless purposefully maintained through robust investment in next-generation technology and systems. Equipment ages and deteriorates from wear and tear, and America’s enemies and potential foes are constantly developing new ways to challenge the U.S. On one end of the spectrum, more countries with sophisticated militaries are developing nuclear weapons and intercontinental ballistic missiles (ICBMs) that could soon reach the U.S. homeland. On the other end, terrorists constantly find creative ways to defeat U.S. advanced technology with cheap, primitive weapons, such as improvised explosive devices, which have caused thousands of casualties in Iraq and Afghanistan. To keep its global edge and to develop the abilities to defeat shifting threats ranging from IEDs to ICBMs, the U.S. military must maintain, modernize, and ultimately replace old weapons while simultaneously researching, designing, testing, and fielding next-generation systems. The average ages of most major weapons systems in use are startling, and many next-generation programs are being eliminated. Congress has acceded to most of the Administration’s defense budget requests and voted to terminate or truncate more than one dozen major defense programs in the 2010 defense bills–predominantly for budgetary rather than strategic reasons. As a result, the military will lose vital capabilities along with the potential to develop them later as defense industries shut down production lines and hemorrhage skilled workers.

**Improved BMD systems bolster US hegemony—it reassures key allies and deters enemies from attacking—Bush policy proves**

**Calgary Herald 1**—Canadian newspaper (5/3/1, “Here to stay: Bush's missile defence decision ensures American hegemony,” lexis, DA: 7/25/2011//JLENART)

President George W. Bush's announcement that the U.S. will develop and deploy a system of ballistic missile defence may well turn out to be the most significant decision of his administration. It does not, as some critics charge, spell the end of mutually assured destruction. Nor will it inevitably spark an arms race. It does serve notice upon the rest of the world, however, that the U.S. means to maintain its ability to protect its interests and allies around the world. The president's missile defence policy consists of National Missile Defence, a ground-based system of 100 interceptors to parry such small-scale attacks against this continent as so-called rogue states using intercontinental rockets might attempt, and a number of shorter range mobile missile defence systems, capable of protecting U.S. interests elsewhere. The latter, of which the Patriot missile familiar to watchers of CNN during the Gulf War is typical, is the weathervane of U.S. intentions. Ineffective against intercontinental missiles, Patriot and its classmates can provide what the military terms theatre defence. With it, the U.S. can shelter Taiwan against any putative attack by China, its own forces against hostile forces in the Persian Gulf, South Korea against North Korea and so on. Without it, U.S. forces will soon find themselves unable to engage in littoral operations, that is, those military actions conducted close to the shores of hostile states. This is a relatively recent shift in the strategic balance, caused by the proliferation of modern weapons technology in regionally dominant countries, such as Iran, Iraq and, of course, China. Acquiring the means to sustain interventions in such sensitive areas can be taken as a clear statement by the Bush administration that there will be no retreat into Fortress America. While the whole world may not regard that as an unmitigated blessing, it will be welcome reassurance to American allies. Given America's intention to remain the world's beat cop, it makes sense that it should attempt to diminish its vulnerability to nuclear blackmail by those upon whose littoral it intends to linger. This is the function of the National Missile Defence, about which critics such as Canada's Lloyd Axworthy have been so vocal.

**Deployment of NMD bolsters US superiority—helps avoid major war between great powers**

**Miller 9**—professor of international relations at the University of Haifa (Benjamin, “Is peace possible--and how? The four-fold response of international relations theory,” International Journal, 65.1, Winter 2009, Academic OneFile, DA: 7/25/2011//JLENART)

A related conceptual and policy question concerns the potential tradeoffs between deterrence and defence: will the deployment of a defensive antimissile system like Star Wars, the strategic defence initiative, or national missile defence reinforce US security and world peace or jeopardize it? Defensive realists, who tend to be deterrence purists, argue that a defensive buildup, which makes the state less vulnerable to attack and therefore more capable of preemption, increases the opponent's security dilemma, thus leading to an arms race and greater mutual insecurity. Since the potential deployment of missile defence, as planned by the Bush administration, would have led to arms races with Russia and China, which would have feared the loss of their retaliatory capabilities, the US should avoid the buildup of such defensive systems. In opposition, defence advocates assert that in the absence of defence, deterrence can fail with catastrophic consequences. Accordingly, they recommend the deployment of missile defence. The logic of offensive realism suggests that the combined effect of nuclear deterrence, anti-missile defence, and, overwhelming, sophisticated conventional capabilities will ensure US military superiority, which, in their eyes, is the best guarantee of both national security and world peace. Even if this peace were cold and heavily armed (especially by the hegemon itself), it would at least result in the avoidance of wars between the great powers.

**NMD boosts US first-strike capability—bolsters US hard and soft power**

**Lodal 1**—chairman of Lodal and Company and of CoManage, Inc and former deputy for program analysis at the National Security Council (3/2001, Jan, “Pledging 'no first strike': A step toward real WMD cooperation,” Arms Control Today, Vol. 31, Iss. 2, Proquest, DA: 7/25/2011//JLENART)

Challenges to the Cold War arms control paradigm have been crystallized by U.S. plans to deploy an NMD system. As Russia's nuclear arsenal continues to shrink with age, a significant NMD could give the United States, for the first time in the nuclear age, a true "first-strike" capability-the ability to launch a pre-emptive attack destroying enough of Russia's nuclear force to permit the NMD to intercept any residual retaliation. A nuclear first-strike capability would be the ultimate military advantage, giving the United States enough force to threaten the survival of any rival. Launching a pre-emptive nuclear attack for any reason short of stopping an inevitable WMD attack against the United States would be contrary to all American traditions and values. But just as the United States has always insisted on evaluating any potential adversary's capabilities rather than only its intentions, other nations will evaluate U.S. capabilities in deciding how to respond to the United States. Even if other nations accept the near certainty that the United States would not launch a pre-emptive nuclear attack, they will worry about the diplomatic, economic, and even cultural power such a capability could afford. It is thus not surprising that Russia has held progress in arms control, and therefore greater cooperation in stopping emerging WMD threats, hostage to obtaining America's commitment to the continued prohibition of national missile defenses as codified by the ABM Treaty.

**Funding missile defense preserves hegemony**

**McKeon 11**-(Howard “Buck” McKeon (R–CA) is a Member of the United States House of Representatives and Chairman of the House Armed Services Committee, May 17, 2011 , America’s Choice in a Dangerous Age: Lead or Follow, heritage foundation, [http://thf\_media.s3.amazonaws.com/2011/pdf/hl1185.pdf\](http://thf_media.s3.amazonaws.com/2011/pdf/hl1185.pdf/))

The President’s budget request calls for $800 million over the next two years to fund MEADS, a joint American and European missile defense pro-page 5 No. 1185 Delivered May 5, 2011 gram that has had a poor record of performance and will never be deployed. I understand Heritage has been a proponent of this joint effort, but the program is broken. Here we need to harvest what benefits and savings we can and then redirect these scarce resources to more urgent priorities, including the Ground Based Midcourse Defense deployed in Alaska and Hawaii—the only protection we have to defend our homeland against long-range missile attack. Armored Fighting Vehicles. The Defense Department has plans to temporarily halt the production lines of the Bradley Fighting Vehicle and the Abrams Tank. Friends, the defense industry cannot be turned on and off like a light switch. Shutting down production and then restarting at a later date costs more than just keeping the lines open! This is a no-brainer. With ground forces heavily deployed in Iraq and Afghanistan and the threat of IEDs still very real, increasing cost to decrease our fleet of armored fighting vehicles is foolishness. We plan to fund both these production lines in fiscal year 2012. This will spare the Pentagon expensive shutdown and startup costs, keep a robust labor force working, and provide our troops with modernized armored fighting vehicles. With the future of U.S. security on the line, there are two paths we can take. We can adopt President Obama’s plan and cut $400 billion from the defense budget. This won’t dent the deficit and doesn’t address the real federal money pit: entitlements. But it will hit the Pentagon and the troops hard. They will lose certain capabilities, and their ranks will be thinned. Secretary Gates recently said, after trimming $78 billion earlier this year, that we were approaching the minimum level of defense spending needed to maintain our global commitments. We are projected to fall below that figure by an average of 7 percent each year for the next 12 years. That’s the Obama plan. Or we can roll up our sleeves and get serious about oversight and reform. We can work the defense budget with a scalpel instead of a sword, securing the blessings of liberty for our children and our grandchildren. If, God forbid, America does stumble, if we do lose our way, historians will ask for generations: Was America pushed, or did America fall? My challenge to you is to ensure that question never has to be asked…and never has to be answered. The Heritage Foundation has sounded the trumpet’s blast on smarter defense spending. Continue your good work. Continue to offer your sage advice to Congress. Let’s work together to ensure that President Reagan’s “shining city on the hill” burns bright for future generations. Twenty years ago, our nation liberated Kuwait and won the Cold War. America appeared invulnerable, and tyrants trembled. A decade’s worth of peace followed. Let us stand up and be strong again. Let us meet the security challenges of the 21st century with the determination and resolve that has littered our history with the remains of despots and dictators. Let this Republic stand tall once more to protect our liberty, to preserve our prosperity, and to pledge to the world that America will always lead so that America will always be free.

**Deploying Ballistic Missile Defense sustains America’s Hegemony**

**Marquardt 2000**, James J. Marquardt Visiting Assistant Professor, Department of Government, Colby College, Grand Strategy and the Next President of the United States, <http://www.colby.edu/par/Winter%2000/grand%20strategy.htm>

The strategy of primacy essentially says that a preponderance of American power is the best way to achieve peace after the Cold War. Such an imbalance of power in America’s favor (relative to all other great powers) will have two basic effects. First, it will reassure our allies and coalition partners that we will stand by them in time of need. Second, it will signal to potential aggressors—both at the regional and global levels—that moves against the United States and its many interests abroad can only come at very high cost to them. The hope is that American power will act as a strong deterrent against aggression and, if need be, soundly defeat aggression should deterrence fail. This internationalist grand strategy sees America as a "benign hegemon" or a non-threatening global leader whose unique and preeminent position in world affairs can persist for years, if not decades, so long as America’s actions help maintain a world order that is generally agreeable to other great powers. Proponents of primacy are committed to policies like NATO expansion and a continued American role in international organizations so long as institutions do not stray far from American core interests, such as maintaining American preeminence. Primacy pays much attention to identifying potential threats to American interests and measures to contain them. A rising China and a resurgent Russia top the list of potential challengers to American preeminence. Primacy advocates are also concerned with non-traditional military threats from non-state actors such as terrorist organizations with weapons of mass destruction. Also, fear that a rogue state like North Korea may try to strike the American homeland is the rationale behind primacy’s call for the continued strong support for the development and eventual deployment of ballistic missile defense. Meeting all potential threats to America’s preeminence will not be cheap, but the real challenge for primacy proponents is America’s political will to lead rather than the costs of that leadership.

## SOLV-NK/IRAN

**BMD bolsters US security—allows us to retaliate against Iranian and North Korean aggression**

**Garrett & Franklin 7**—vice president and deputy of Patriot Programs at Raytheon AND conservative policy analyst (Joseph (Skip) and Peter, “A Case for Global Ballistic Missile Defence,” Military Technology, Aug. 2007, Vol. 31, Iss. 8, DA: 7/20/2011//JLENART)

Taking advantage of the United States' progress in Ballistic Missile Defence (BMD) and deploying US BMD-related assets globally against an evolving ballistic missile threat provides increased security for the United States and its allies. It is impossible to deny the threat to peaceful nations that exists in the world today. North Korea, for example, test-launched ballistic missiles into the Sea of Japan for two days in July 2006, and shortly thereafter conducted a nuclear test. These tests by North Korea have underscored the imperative need to have an integrated air- and ballistic missile defence system. Although these long-range tests were not entirely successful, they did demonstrate North Korea's intent to develop weapons that have an extended range, multi-missile launch capability to threaten any country in the region. The Japanese people fully appreciate the threat of ballistic missile attack, having experienced a North Korean TAEPO DONG-1 missile fired over their nation, and Japan is one of the United States' most active partners in the pursuit of building ballistic missile defence capabilities. Iran is another country actively exploring long-range missile technologies and nuclear weapons. It has been aided by countries such as North Korea and Libya, who supplied Iran with SCUD short-range ballistic missiles in the 1980s. More recently, the North Koreans have provided production technology for the NODONG medium range ballistic missile. Iran used short-range missiles against Mujaheddine Khalq insurgents in Iraq in the 1990s and is active as a "proliferator", supplying Syria with liquid propellant technology and Hezbollah with rockets. Iran's SHAHAB-3 medium-range ballistic missile is operational and can reach significant distances today. In addition, the SHAHAB-4 and SHAHAB-5 are in active development and would threaten countries beyond the Middle East region. Iran is expected to continue its development programmes in the future, adding advanced capabilities in many key areas, which will extend the range of its ballistic missiles. Less traceable - but equally troubling - is the threat posed by extremist groups such as alQaeda and Hezbollah: these non-state actors are capable of obtaining and using destructive weapons. As evidenced by recent attacks in London and Spain, all allied nations are potential targets for terrorist groups intent on inflicting mass destruction. For these reasons, the United States and its allies worldwide are all vulnerable and determined to prepare to defend themselves against the evolving ballistic missile defence threat.

## SOLV- NK

**Improved BMD systems deter North Korea and Iran from attacking the US—lack of better BMD ensures attack**

**Klingner 1/7**—Senior Research Fellow for Northeast Asia @ The Heritage Foundation (2011, Bruce, “The Case for Comprehensive Missile Defense in Asia,” <http://www.heritage.org/research/reports/2011/01/the-case-for-comprehensive-missile-defense-in-asia>, DA: 7/24/2011//JLENART)

The United States and its allies are at risk of missile attack from a growing number of states and nonstate terrorist organizations. Today, this once exclusive nuclear club has nine members, and Iran, with its hostile regime and long record of supporting terror­ists, is actively pursuing a nuclear weapons capability. At least 32 countries have ballistic missile capabilities. The U.S. ballistic missile defense review of Febru­ary 2010 warned: [T]he ballistic missile threat is increasing both quantitatively and qualitatively, and is likely to continue to do so over the next decade. Cur­rent global trends indicate that ballistic missile systems are becoming more flexible, mobile, survivable, reliable, and accurate, while also increasing in range.1 Diplomacy, engagement, international condem­nation, and United Nations resolutions have not deterred North Korea from developing missile and nuclear weapons capabilities. While Washington continues to seek diplomatic resolutions to the bal­listic missile threat, it is critical that the U.S. simul­taneously pursue missile defense programs to protect itself and its allies.[1] Missile Defense Needs To deter and defend against ballistic missile attacks, the United States and its allies need a com­prehensive, integrated, multilayered ballistic missile defense (BMD) system. Regrettably, the United States military cannot currently protect all Ameri­can citizens or all of the homeland—much less its troops, allies, and friends abroad—from ballistic missile attacks. Despite recent deployments and technological advances, the United States still does not have sufficient defenses. U.S. missile defense capabilities “exist in numbers that are only modest in view of the expanding regional missile threat.”[2] The United States has 30 ground-based intercep­tors stationed in Alaska and California to defend against long-range missile attacks. The U.S. Navy has equipped 18 Aegis warships with sea-based interceptors and 21 Aegis warships with long-range surveillance and tracking systems. These sea-based interceptors can defeat short-range and medium-range missiles in mid-flight. Many of these ships are stationed in the Pacific and the Sea of Japan. Equipping additional Aegis cruisers would provide an ability to patrol America’s coasts as well. Additional destroyers are needed to perform the new phased-adaptive approach mission in Europe to replace the planned “third site” in Poland and the Czech Republic. The United States currently has the capability to shoot down approximately 10 ballistic missiles launched from North Korea or Iran, but not if Iran and North Korea continued to develop their nuclear capabilities and coordinated an attack. U.S. missile defense systems cannot protect against Russian or Chinese ballistic missiles or against short-range or medium-range missiles launched from ships off the U.S. coast. A comprehensive missile defense system would not only protect the American homeland, but also reassure U.S. friends and allies of Washington’s commitment to their security against steadily rising military risks and threats of coercion or aggression. Missile defense contributes to regional peace and stability and supports international nonprolifera­tion efforts by reducing other nations’ perceived need to acquire nuclear weapons. Conversely, the absence of sufficient missile defenses leaves the U.S. and its allies “limited in their actions and pursuit of their interests if they are vulnerable to North Korean or Iranian missiles.”[3]

**Missile Defense solves deterrence**

**Carroll 09-**([Conn Carroll](http://blog.heritage.org/author/ccarroll/) April 3, 2009 Morning Bell: A Missile Defense Wake Up Call, <http://blog.heritage.org/2009/04/03/morning-bell-a-missile-defense-wake-up-call/>)

That last item may just be the most important. According to a 2008 report by the International Crisis Group for the U.S. Army War College, North Korea has become “[the greatest supplier of missiles, missile components and related technologies](http://www.washingtonpost.com/wp-dyn/content/article/2009/03/26/AR2009032600414.html)” in the developing world. North Korea has sold missiles to Iran, Pakistan, Syria, Egypt, Libya, and Yemen. [When Iran launched their long-rang Safir missile in February, they used North Korean missile components and technical support. And Pakistan’s mid-range Ghauri missile, which can carry a nuclear warhead, is actually a renamed North Korean Nodong.](http://www.washingtonpost.com/wp-dyn/content/article/2009/03/26/AR2009032600414.html) President Barack Obama has been, [at best, incoherent](http://www.heritage.org/Research/BallisticMissileDefense/sr0026.cfm) on his support for missile defense. February’s Iran Safir missile launch and this weekend’s Taepodong-2 launch should serve as a wake up call to this administration. The requirements of today’s world demand a strategy to protect and defend the U.S. and its allies. The Cold War strategy of retaliation-based deterrence is insufficient. Ballistic missile defenses are therefore an essential component of a protect-and-defend strategy for the 21st century.

**BMD is the only way to deter North Korea—South Korea would agree**

**Lim 11**—research fellow at SERI (April, Soo-Ho, “Responding to the North Korean Nuclear Threat,” SERI Quarterly, Vol. 4, Iss. 2, Proquest, DA: 7/24/2011//JLENART)

The last option with respect to the strengthening of extended deterrence is to strengthen missile defense systems. Although disputes remain on the real world technical feasibility of intercepting missiles, anti ballistic missile (ABM) systems are at present the only viable military measure to counter the North Korean nuclear threat. The US Department of Defense has included South Korea, along with Japan and Australia, as a partner for its missile defense system in its "Ballistic Missile Defense Review" in February 2010. l2 The US also stated that since South Korea is interested in acquiring anti-missile capability, it would assist in determining what is needed to thwart North Korean threats. Thus far, the South Korean government has not made a clear statement of its intentions. This option has the disadvantage of requiring a massive expansion in the military budget should it the US missile defense network. In this case, both public sentiment and economic conditions would need to be considered. Furthermore, this option is also likely to result in objecfrom China, which could interpret the action as a move towards "containment" of its own ambitions by South Korea, the US and Japan.

**Ground-based BMD and engagement of North Korea solves—prevents attack and strengthens diplomacy**

**Cha 2**—Associate Professor of Government at Georgetown University's School of Foreign Service and Director of the American Alliances in Asia Project (Victor, “Korea's Place in the Axis,” Foreign Affairs, May/Jun 2002, Vol. 81, Issue 3, DOC, DA: 7/25/2011//JLENART)

Another way hawk engagement differs from more traditional approaches to North Korea is by being compatible with missile defense. Critics argue that the Bush administration's unswerving enthusiasm for developing and deploying ballistic-missile defense systems is wholly at odds with a policy of engaging North Korea. How, they argue, can you talk peace and prepare for war at the same time? Such criticism ignores the fact that missile defense can actually **strengthen the credibility of engagement strategies.** After all, engagement is most effective when undergirded by robust defensive capabilities. This demonstrates to an adversary that the decision to engage is the choice of the strong, not the expedient of the weak -- and that other, more aggressive, options exist. Progress on missile defenses would only enhance this logic by further boosting the United States' defensive power. On this point, the Armitage report was very clear: "One cannot expect North Korea to take U.S. diplomacy seriously unless we demonstrate unambiguously that the United States is prepared to bolster its ... military posture." By pursuing both engagement and missile defense simultaneously, Washington can encourage Pyongyang's better behavior and also **neutralize Kim Jong Il's one strong card**: his ballistic missiles and the threat they pose to other countries in the region. Of course, questions remain as to technological feasibility and the type of defensive system that could best handle the North's missile threat while incurring the fewest negative consequences. But the larger point remains that engagement and missile defense are compatible -- and complementary. Neither option is sufficient: deploying only missile defense systems would do little to solve the peninsula's tensions, whereas engagement alone would remain vulnerable to future acts of brinkmanship by Pyongyang. By pursuing missile defense, finally, the Bush administration also ensures that engagement will not be interpreted as appeasement or capitulation by critics at home or in Seoul.

## SOLV-CHINA

NMD prevents China-Taiwan war

Godwin and Medeiros 00 (Paul H. Professor of International Affairs at the National War College, Washington, DC, where his research focuses on Chinese security policy and defense modernization and Evan S. Senior Research Associate on the East Asia Nonproliferation Project at the Center for Nonproliferation Studies in Monterey, California, “China, America, and Missile Defense: Conflicting National Interests” SG)

China therefore anticipates an emerging NMD of increasing effectiveness complementing the world’s most capable mix of offensive nuclear and conven- tional forces. Sha Zukang, director-general of the Foreign Ministry’s Department of Arms Control and Disarmament, has criticized the linking of offensive and defensive capabilities, stating that the “United States practice of grabbing a spear in one hand while holding a shield in the other cannot but cause the legitimate concerns of other countries.” Sha’s criticism identifies Beijing’s primary con- cern. Even a “thin” deployment of 100 interceptors will severely undermine the credibility of China’s small, aging strategic deterrent of approximately 20 liquid-fueled, single-warhead intercontinental bal- listic missiles (ICBMs). These weapons are primarily based unfueled in highly vulnerable silos with theirwarheads stored separately. Not only are they sub- ject to a disarming first strike by precise United States weapons, but NMD would prevent any sur- viving weapons from reaching their target. If a mil- itary conflict over Taiwan erupted, Chinese leaders fear the United States would use nuclear threats to prevent China’s invasion of Taiwan, to stop a con- flict from escalating, or to force a resolution on United States terms. With such a small, technolog- ically inferior nuclear force, Chinese planners believe that—for the first time since 1964—their country could be vulnerable to nuclear coercion or black- mail, as it was in the 1950s and early 1960s. Many Chi- nese military officials see United States NMD plans and the Taiwan issue as intimately linked. These fears have become so acute that China’s continued adherence to its long-held policy of no-first-use is under debate in military circles. National missile defense also threatens the cred- ibility of China’s future strategic deterrent. Beijing’s aging, unreliable strategic force is to be replaced with a new family of solid-fueled weapons designed to increase the survivability, accuracy, and response time of China’s deterrent. Although two new road- mobile long-range missiles and one new nuclear- powered ballistic missile submarine have been under development for over a decade, the number of weapons Beijing considers adequate to sustain a credible deterrent is not known. There is sufficient indication from Chinese anal- yses of future requirements to assume that even without NMD, the number of ICBMs would be greater than the 20 or so now deployed.1Yet NMD injects a new factor into this equation and will play a defining role in determining the future size of China’s strategic capabilities.

**Aegis Missile Defense prevents Taiwan conflict**

**United Press International 06** (United Press International, Jun 12, 2006, SpaceDaily.AFP, Ballistic Missile Defense Key To Defending Taiwan, http://www.spacewar.com/reports/Ballistic\_Missile\_Defense\_Key\_To\_Defending\_Taiwan.html)

"Many credit its current status as a final strategy for dealing with a Chinese attack with former commander in chief of the U.S. Pacific Command Adm. Dennis Blair," the Taiwan Times report said. Arkin, in his report, noted that in recent years the Bush administration has put greater importance on missile defense. He noted that in the event of any Sino-American confrontation over Taiwan "an improved naval missile defense capability ... would allow the United States to interpose itself between Taiwan and China." Such a missile defense deployment, in fact, could take different forms or be composed of different layers. The most obvious level would be the deployment of U.S. Aegis missile cruisers and destroyers armed with Standard Missile 3s, or SM-3s to try and shoot down Chinese short-range ballistic missiles aimed at Taiwan.

## Solv- RUSSIA

**CP solves Russia—they are willing to compromise**

**BBC 5/4** (2011, British Broadcasting Company, “Russian pundit hopes for compromise with USA on missile defence,” Academic OneFile, DA: 7/26/2011//JLENART)

Moscow, 4 May: A possible compromise between Moscow and Washington on combining Russian and Western anti-missile systems may reduce the potential threat to Russia's security from the deployment of US missile defence elements in Romania, first vice-president of the Centre for Political Technologies Aleksey Makarkin has said. "Any deployment of US missile defence systems in Central Europe poses a potential threat to Russia. However, much will depend on whether we will be able to agree on the creation of a joint missile defence system, a mechanism which could reconcile the Russian and Western systems," Makarkin told Interfax today. According to the political analyst, most likely Russia and the USA will choose a compromise solution. "To date, it is most probable that Moscow and Washington will reach a compromise. It is not very soon that Romania will deploy missile defence elements, and therefore there is still an opportunity to find an agreement and reconcile the interests so that both the Russian and Western anti-missile systems can be combined in this or that format," Makarkin said. It is unlikely that negotiations on these issues will reach a deadlock, but such a development should not be ruled out, the expert said.

## Solv- boost phase

**CP solves boost phase—ground-based BMD can solve North Korean and Iranian threats**

**Canavan 1**—PhD from UC-Davis and scientists @ Physics Division Office of the Los Alamos National Laboratory (Gregory, “Space-Based Missile Defense: Has Its Time Come?” Marshall Institute, <http://www.marshall.org/pdf/materials/56.pdf>, DA: 7/26/2011//JLENART)

Of course, **boost phase doesn’t have to be from space**. In limited circumstances, surface-based possibilities are quite efficient for the threats which are accessible to them – addressing missiles and boost from, say, North Korea, Iraq, parts of Iran, and some Libyan launches, by putting interceptors on nearby ships in international waters or on secure Allied bases. But as threats grow – either in number or extent inland – the easy defenses go away. If you want to have a survivable, global missile defense with a boostphase layer, then you are driven to a space-based system.

## AT:Russia Solv-Def

**It’s a bluff—Russia won’t attack the US if they create BMD—it’s propaganda—empirics**

**Shirinov 8**—Research Associate with the Transatlantic Institute (London, UK) (Rashad, Spring 2008, “US Missile Defense Shield and Russia: Second Cold War as a Farce,” Caucasian Review of International Affairs, Vol. 2 (2), <http://www.cria-online.org/3_4.html>, DA: 7/24/2011//JLENART)

Russian leaders have not concealed their fierce opposition to the US proposed shield. The Russian leadership clearly stated that the shield targeted Russia and in this case a Russian response would not be late. In June 2007, President Putin threatened to target Europe with nuclear ballistic or cruise missiles if the proposed defense system moved ahead. One of the arguments the Russian government holds against the shield is that defensive interceptors may be turned into offensive weapons. Theoretically as well as practically it seems possible[15]. However, experts agree that Russian leaders use the argument as a propaganda tool, whereas, in fact, they are more concerned with the possible increase of the American missile defense shield in the future[16]. Along with threatening to aim missiles at Europe, the Russian side came up with another proposal to the US. At the G-8 Summit in Germany in June 2007 President Putin has offered Russian-rented radar in Azerbaijan to be jointly used by Russia and the US. The radar station was a part of an early-warning system, designed to detect possible missile attack on the Soviet Union. The government of Azerbaijan has been leasing the radar to Russia after the dissolution of Soviet Union and in 2002 two governments have agreed on another 10-year period lease. Vladimir Putin has offered Gabala Radar Station to be jointly used by the US and Russia. At the same time, Russian government has also tried to assure the Iranian side that joint use would be of no harm to Iran. Later, the Iranian ambassador to Baku expressed his confidence that Russia and Azerbaijan would never use Gabala against his state. Reportedly, official Iran has had little doubt that the Americans would accept the Russian initiative.

## Net-Benefit’s

### ARMS RACE

**Weaponization of space causes an arms race and leads to the destruction of US space assets which culminates in nuclear war**

**Hitchens and Samson 7**—Vice President of the Center for Defense Information AND research associate at the Center for and Senior Policy Associate at the Coalition to Reduce Nuclear Dangers (Theresa and Victoria, “Space-Based Interceptors: Still Not a Good Idea,” Georgetown Journal of International Affairs, Vol. 5, Iss. 2, Summer 2004, Proquest, DA: 7/20/2011//JLENART)

SnOWball Effect. The mere act of weaponizing space will set in motion a series of moves by other countries that would threaten U.S. space assets. Despite the wide gap in capabilities and spending between the U.S. military and the rest of the world in space plans, the United States can be rendered vulnerable by relatively inexpensive, rudimentary technologies. If other countries genuinely believe that the United States intends them harm using space assets, these counteractions cannot be ruled out. Regular ballistic missiles could possibly be modified to provide anti-satellite capabilities. U.S. ground stations could be attacked, harming command and control to the point where space systems would be made worthless. A low-yield nuclear warhead placed on a ballistic missile could menace satellites in Low Earth Orbit. Or something as basic as gravel, unleashed at the right time against a satellite, might degrade U.S. space capabilities to a dangerous low.30 Along those lines, orbital debris from space weapons cannot be overlooked. The smallest chips can prove lethal at the astonishing high speeds in which objects orbit the Earth-some IO km per second in Low-Earth Orbit.3' The destruction of satellites or space weapons would undoubtedly spawn scores of dangerous new objects that could collide with satellites and spacecraft. Presently, the U.S. Air Force's Space Surveillance Network tracks some 13,000 on-orbit objects, only about 6 percent of which are working satellites and spacecraft, the rest being debris.32 While improving U.S. space situational awareness is currently a high priority for the Air Force, space weapons would only add to this already challenging space surveillance mission.33 Blinded Eyes in the Sky. Space weapons also would be highly destabilizing for global security. Space-based weapons would be high-value but highly vulnerable military assets, thus imparting a "use it or lose it" mentality on their operators. That is, because such space assets might be quickly made useless by a first strike, the urge to employ them in a conflict before they are made ineffectual would no doubt be strong. Such hairtrigger weapons could lead the United States very quickly into a disaster in a time of hostilities.34 During recent war games, military commanders have been stunned at how quickly the employment of space weapons escalated conflicts into nuclear war. If military commanders cannot see what their adversaries are doing, an ability provided primarily by those same, highly vulnerable space based assets, they must assume the worst and act accordingly.35 The real-life implications of that fact are haunting. Aside from the threat of nuclear conflict stemming from the use of weapons in space, U.S. commanders would also have to worry about their basic military fighting capabilities. At present, the U.S. military is more dependent on the use of space than any other. Even the loss of civilian satellite capacity would harm the military. During Operation Iraqi Freedom in 2003, 80 percent of the military's communications in-theater was provided by commercial satellite networks.36 About one-third of the 30,000 munitions dropped on Iraq were GPSguided.37A disintegrated satellite picture, whether it was military or commercial, would have a ripple effect on U.S. national security.

**SBMD causes China to think nuclear war is inevitable—propels them towards weaponization and an arms race with the US**

**Zhang 11**—Associate Professor of Political Science and Director of the Center for Asia Pacific Studies at Lingnan University (Hong Kong) (Baohui, “The Security Dilemma in the U.S.-China Military Space Relationship,” Asian Survey, Vol. 51, Iss. 2, Proquest, DA: 7/20/2011//JLENART)

In another study, Major General Ling Yongshun argues that the U.S. is implementing a coherent plan to neutralize other countries’ strategic deterrence through the deployment of space-based missile defense. As he observes: Using space weapons to attack ballistic targets is a major goal of space weapon development. The U.S. believes that others’ ballistic missiles pose significant threats to its security. To be immune from this threat, the U.S. is putting major efforts into ballistic missile defense, with space-based weapons being one of the important intercepting platforms.27 In October 2008, the U.S. Congress approved $5 million for an independent study of possible space-based missile defense. This move gravely alarmed the Chinese military, which believed that the deployment of space-based missile defense could become inevitable. In fact, some PLA experts have claimed that “Star Wars has come back.”28 Li Daguang even charged that this decision by the U.S. Congress amounted to “declaring a new Cold War against China.”29 Chinese military strategists believe U.S. missile defense poses a real threat to China’s nuclear deterrent. Until recently, the Chinese military tended to believe that U.S. missile defense could not effectively deter a major nuclear power like China or Russia. It was thought that a range of countermeasures, such as deploying decoys and multiple warheads, could be employed to deceive and overwhelm U.S. missile defense. Now, however, with the maturing of a multilayered missile defense system by the U.S. and its allies, Chinese nuclear experts are losing confidence in China’s offensive capabilities. This pessimism was illustrated in a 2008 interview of Wang Wenchao in a Chinese military magazine. Wang, credited with being the chief designer of China’s sea-based strategic missiles, expressed grave pessimism about China’s offensive nuclear capability against U.S. missile defense. He said, “I have done research: Facing a multi-tiered missile defense system, if any single layer can achieve a success rate of 70%, then 100 single warhead missiles could all be intercepted even if they are mounting a simultaneous attack.”30 This is why Wu Tianfu—arguably the most important deterrence strategist of the Second Artillery of the PLA, which runs China’s strategic nuclear forces—charges that the U.S. has “forced China to engage in a space arms race.”31 More specifically, U.S. missile defense has forced China to integrate space war with its strategic nuclear deterrence. China must possess the ability to weaken American space-based assets such as early-warning satellites, to ensure the credibility of its own offensive nuclear forces. Thus, space war and nuclear war are now intertwined in Chinese strategic thinking. Indeed, China’s official media have credited Wu with establishing the PLA’s first space war research institute.32

### POLITICS

**Missile defense has bipartisan support in congress**

**UPI 7**—United Press International (5/14/7, Martin Sieff, “Missile Defense Funding Reaches Compromise Point,” <http://www.spacewar.com/reports/Missile_Defense_Funding_Reaches_Compromise_Point_999.html>, DA: 7/25/2011//JLENART)

The MDAA tacitly acknowledged the political realities of a federal budget deficit and the Democrats' control of both houses of Congress since last November's midterm elections. "Though MDAA does not agree with taking funding from already existing programs and would much prefer to get those reprioritized funds added back on to the authorizing budget, we understand the new dynamics of a changed Congress," the advocacy group said. **The significance of last week's horse-trading and compromises on BMD are of the greatest importance. Two of them stand-out: The new Democratic Congress is not going to gut BMD but is committing itself to funding it and supporting it,** albeit with much more aggressive oversight than its predecessor Congresses did. And **the makings of a new bipartisan consensus to support BMD are now in place on Capitol Hill.**

**BMD has support on both sides of the aisle—senators fear an attack from other countries**

**Weekly Standard 9**—American news website (4/6/9, Michael Goldfarb, “Bipartisan Call for Obama to Reverse Missile Defense Cuts,” <http://www.weeklystandard.com/weblogs/TWSFP/2009/04/bipartisan_call_for_obama_to_r.asp?page=1>, DA: 7/25/2011//JLENART)

Republican Senators Murkowski, Sessions, Inhofe, and Kyl joined Democratic Senators Lieberman and Begich in sending a letter to President Obama calling on him "to sustain the ability of the Missile Defense Agency and the military services to develop an integrated, layered defense against the threat of ballistic missiles to the United States, our deployed forces, and our allies." The Senators urge Obama to halt plans announced today by Secretary Gates "to cancel or reduce such major programs as the Airborne Laser, Multiple Kill Vehicle, and the installation of additional Ground-Based Interceptor missiles in Alaska, and cut the MDA's budget for Fiscal Year 2010 by $1.4 billion." The Senators stress that these systems are not only necessary because "our adversaries continue to invest large sums in the development" of offensive missiles, but because "Cooperation on ballistic missile defense is also essential to our most important alliances." Gates's announced cuts to missile defense, including what amounts to the complete elimination of the Airborne Laser Program, seems poorly timed coming just 24 hours after the North Korean missile test. The Airborne Laser was designed for just such a threat, but will now be relegated to "an R&D effort."

# \*\*NWC CP\*\*

**Counterplan text: the United States federal government should immediately negotiate a Nuclear Weapons Convention with the express purpose of eliminating all nuclear weapons.**

**Missile defense only makes deterrence worse and ensures arms races – logic and history prove – only the counterplan solves**

**Krieger 1** (David, founder of the Nuclear Age Peace Foundation, former Assistant Professor at the University of Hawaii and San Francisco State University, “Nuclear Deterrence, Missile Defenses and Global Instability”, April 2001, Nuclear Age Peace Foundation, http://www.wagingpeace.org/articles/2001/04/00\_krieger\_nuclear-deterrence.htm)

President George W. Bush cites as his primary reason for wanting a ballistic missile defense system for the US his lack of faith that nuclear deterrence would work against so-called "rogue" states. Yet, the uncertainty in nuclear deterrence increases when ballistic missile defenses are introduced. If country A believes that it has a perfect defense against country B, then country B may also believe that it has lost its deterrent capability against country A. Ballistic missile defenses, therefore, will probably trigger new arms races. If countries A and B each have 500 nuclear warheads capable of attacking the other, both are likely to believe the other side will be deterred from an attack. If country A attempts to introduce a defensive system with 1,000 anti-ballistic missile interceptors, country B may believe that its nuclear-armed ballistic missile force will be made impotent and decide to increase its arsenal of deliverable warheads from 500 to 2,000 in order to restore its deterrent capability in the face of B's 1,000 defensive interceptors. Or, country B may decide to attack country A before its defensive force becomes operational. If country A plans to introduce a defensive system with only 100 interceptors, country B might believe that its nuclear force could still prevail with 500 deliverable nuclear weapons. But country B must also think that country A's interceptors would give A an advantage if A decides to launch a first strike attack against B's nuclear forces. If country A is able to destroy 400 or more of country B's nuclear weapons, then A would have enough interceptors (if they all worked perfectly) to believe that it could block any retaliatory action by B. Thus, any defensive system introduced by any country would increase instability and uncertainty in the system, making deterrence more precarious. Worse, this introduces a fear that ballistic missile defense has little to do with defense, and far more to do with an offensive "shield" behind which a country could believe that it could coerce the rest of the world with impunity. It was concern for the growing instability of nuclear deterrence to the point where it might break down that led the US and USSR to agree in 1972 to place limits on defensive missile forces in the Anti-Ballistic Missile (ABM) Treaty. In this treaty each side agreed to limit its defensive forces to no more than two sites of 100 interceptors each. These sites could not provide protection to the entire country. It is this treaty that the United States is now seeking to amend or unilaterally abrogate in order to build a national ballistic missile defense. It claims this defense is needed to protect itself against so-called "rogue" states such as North Korea, Iran or Iraq. At present, however, none of these countries is even expected to be able to produce nuclear weapons or a missile delivery system capable of reaching the United States before 2010 at the earliest. Russia and China have both expressed strong opposition to the US proceeding with ballistic missile defense plans. Russia wants to maintain the ABM Treaty for the reasons the treaty was initially created, and is aghast at comments from the US such as those of Secretary of Defense Rumsfeld calling the treaty "ancient history." Russia is also seeking to reduce the size of its nuclear arsenal for economic reasons and its leaders fear the instabilities that a US national ballistic missile defense system would create. Russian leaders have said that such a system that abrogated the ABM Treaty could result in Russia withdrawing from other arms control treaties including the START II and the Comprehensive Test Ban Treaty. China has a nuclear force a fraction of that of Russia or the US. It has some 400 nuclear weapons, but only some 20 long-range missiles capable of reaching the US. If the US sets up a system of some 100 to 200 interceptors, China would have to assume that its nuclear deterrent capability had been eliminated. Chinese leaders have called for the US not to go ahead with a ballistic missile defense system that would force China to develop a stronger nuclear deterrent force. Were China to do so, this would inevitably provoke India to expand its nuclear capability, which in turn would lead Pakistan to do the same. At a time when major progress toward nuclear disarmament is possible and even promised by the nuclear weapons states, the US desire to build a ballistic missile defense system to protect it against small nuclear forces is introducing new uncertainties into the structure of global nuclear deterrence and increasing the instability in the system. Nuclear deterrence has never been a stable system. One country's nuclear strategies have both predictable and unpredictable consequences in other countries. Security built upon nuclear arms cannot endure. US nuclear weapons led to the development of the USSR and UK nuclear arsenals. These led to the development of the French and Chinese nuclear forces. The Chinese nuclear forces led to the development of Indian nuclear forces. India's nuclear forces led to the development of Pakistani nuclear forces. Israel decided to develop nuclear forces to give it a deterrent among hostile Middle East neighbors. No doubt this provoked Saddam Hussein - and gave him the pretext - to develop Iraq's nuclear capability, and is driving Iran to follow suit. Now the US is seeking to introduce national and theater ballistic missile defenses that will provide further impetus to nuclear arms development and proliferation. The world is far more complicated than country A deterring country B by threat of nuclear retaliation. As more countries develop nuclear arsenals, more uncertainties enter the system. As more defenses are set in place, further uncertainties enter the system. While the US seeks to make itself invulnerable against threats that do not yet even exist, it is further destabilizing the existing system of global nuclear deterrence to the point where it could collapse - especially when the President demonstrates his belief that the system can no longer be relied upon. The full consequences of US missile defense plans are not predictable. What is predictable is that the introduction of more effective defenses by the US will change the system and put greater stress on the global system of security built upon nuclear deterrence. The system is already showing signs of strain. With new uncertainties will come new temptations for a country to use nuclear forces before they are used against it. Nuclear deterrence is not sustainable in the long run, and we simply don't know what stresses or combination of perceptions and/or misperceptions might make it fail. Nuclear deterrence cannot guarantee security. It undermines it. The only possibility of security from nuclear attack lies in the elimination of nuclear weapons as has already been agreed to in the Non-Proliferation Treaty and reiterated in the 2000 Review Conference of that treaty. Ballistic missile defenses, which increase instability, move the world in the wrong direction. For its own security, the US should abandon its plans to deploy ballistic missile defenses that would abrogate the Anti-Ballistic Missile Treaty, and instead provide leadership in immediately negotiating a Nuclear Weapons Convention leading to the phased and verifiable elimination of all nuclear weapons, like the widely-acclaimed enforceable global treaty banning chemical weapons

# \*\*Russia CP \*\*

**Russia says yes to SBMD**

**Frederick 4** (Lorinda A., Senior Space and Missiles Operator with operational tours in Minuteman III Intercontinental Ballistic Missiles (ICBM) and Missile Warning and Space Surveillance, Master’s degree in Military Arts and Sciences from USAF Air Command and Staff College, served in Headquarters Air Force Space Command (HQ AFSPC) in Space and Missile Officer Assignments and ICBM Requirements, “DETERRENCE AND SPACE-BASED MISSILE DEFENSE,” June 2008)

According to a realist perspective, international pressure should not restrict the options available to the United States in pursuing SBMD. This approach would steer away from considering the views of organizations such as the United Nations, European Union, and the North Atlantic Treaty Organization until those views disrupt some other issue on which the United States really wants or needs their cooperation. Unilateral approaches to other forms of BMD are less viable because international actors frequently restrict these US options. Russia already opposes US plans to base missile defenses in the Czech Republic and Poland to protect other countries against ballistic missiles launched by rogue elements, such as Iran. International pressures are less likely to restrict the unilateral pursuit of SBMD than its land-based counterparts.

## Stability

**Multilateral development of SBMD key to global stability and deters rogue attacks**

**Frederick 4** (Lorinda A., Senior Space and Missiles Operator with operational tours in Minuteman III Intercontinental Ballistic Missiles (ICBM) and Missile Warning and Space Surveillance, Master’s degree in Military Arts and Sciences from USAF Air Command and Staff College, served in Headquarters Air Force Space Command (HQ AFSPC) in Space and Missile Officer Assignments and ICBM Requirements, “DETERRENCE AND SPACE-BASED MISSILE DEFENSE,” June 2008)

Arguments for a Multilateral Approach to SBMD There are many benefits the United States could accrue in the international community if it developed and deployed SBMD multilaterally. These benefits include increased security and global stability. Space-based missile defenses have more to offer than merely power projection and freedom of action. A multilateral approach to SBMD may open doors within the international community on many issues. The demand for missile defenses by other countries may create opportunities for SBMD as another way to address their security concerns. SBMD introduces a new dimension to missile defense. Some argue that effective missile defenses will merely lead adversaries to search for other vulnerabilities and find other means to threaten their foes. To which Dr Everett Dolman would reply “Good. The threat of missile attack is now over. If the state is protected from missile attack, which was once a serious threat, this is a laudable result.”11 The international community may appreciate the benefits of SBMD even if they do not necessarily agree with the method. Members of the international space regime could cooperate on missile defense initiatives to increase global stability. “If a large enough coalition can band together and agree to collectively repel an attack against any member, then war should be deterred. This requires the norms that participating states are both willing and able to come to the assistance of other members, and the rules and decision-making procedures that determine, among others, if an attack has occurred, how much each member is obligated to provide in the defense of the attacked state, which nations shall control the coalition forces, and the like.”12 States and rogue elements will not be able to strike surreptitiously if they know that the international community could quickly discern the origin of any launch and compute potential impact points. The shared international ability to identify launch and impact points might deter states and rogue elements from launching in the first place. The more nations cooperate with each other, the more stable the world becomes.

## Int’l co-op

**Multilateral development of SBMD key to reassure allies**

**Frederick 4** (Lorinda A., Senior Space and Missiles Operator with operational tours in Minuteman III Intercontinental Ballistic Missiles (ICBM) and Missile Warning and Space Surveillance, Master’s degree in Military Arts and Sciences from USAF Air Command and Staff College, served in Headquarters Air Force Space Command (HQ AFSPC) in Space and Missile Officer Assignments and ICBM Requirements, “DETERRENCE AND SPACE-BASED MISSILE DEFENSE,” June 2008)

Leading the agenda allows the United States to set terms favorable to its interests. The United States could gain support from those who find fault with SBMD methods by framing the issue in another dimension, for instance the need to deter threats in new ways.15 “Today, the United States has only an extremely limited capability to defend its people, territory, foreign deployed forces, allies, and friends against ballistic missile attack.”16 Current US missile defenses cannot shoot down missiles in their boost phase. Many areas around the world may not be defended from ballistic missiles. The proliferation of ballistic missiles increases the chances of an attack against vulnerable nations with no defenses. These are all reasons the United States could use while making a case for placing missile defenses on the international agenda. The United States could also appeal to a larger audience to gain widespread acceptance of SBMD on the international stage. SBMD allows the United States to give deterrence a broader appeal because it could benefit many more countries than any other form of missile defense. Confidence in the US’ ability to defend itself from an attack may allow the US to extend this same protection to allies and coalition partners. These international partners may perceive the United States as being more apt to stand by them during conflict versus retreating into an isolationist position due to concerns about the homeland. Effective integrated defenses, which include SBMD, could reassure friends and allies of the US’ commitment to deter, and respond should deterrence fail. SBMD therefore may keep other countries out of conflicts because they are confident the United States could protect them from missile attack.

# \*\*China Talks CP\*\*

**US should engage in talks with China to prevent arms race and develop new agreements**

**This solves Case**

**Blazejewski 08**

(Kenneth S. Blazejewski is in private practice in New York City, focusing primarily on international corporate, space development and financial transactions. He received his master’s degree in public affairs from the Woodrow Wilson School at Princeton University and his JD degree from the New York University School of Law, “Space Weaponization and US-China Relations”, Strategic Studies Quarterly, 2008, Defense Technology Information Center, pg online @ [http://www.dtic.mil/dtic/tr/fulltext/u2/a509492.pdf //](http://www.dtic.mil/dtic/tr/fulltext/u2/a509492.pdf%20//) sc)

 The US refusal to engage in discussions on the weaponization of outer space imposes two significant costs. First, it increases Chinese uncertainty and suspicion, leading China to assume its worst-case scenario about US space weaponization. Second, it prevents the international community from developing new rules and norms in areas such as advancing situational awareness, coordinating launches, and deterring the further development and proliferation of ASAT weapons that could benefit US space assets. There is broad consensus that the United States can no longer afford to remain silent in the international debate on the weaponization of outer space. The Rumsfeld Commission, the US-China Commission, and many space-arms-control advocates all recommend greater US participation in setting rules for the use of outer space beyond the existing legal framework. For years China has pressured the United States to negotiate a new inter-national agreement on space and space weaponization. If the United States now accepts this invitation, it may find that it has substantial leverage in determining the parameters of the discussion. The United States should use this leverage to assure that the final agreement reflects its interests in space. One issue for the United States to consider is whether the CD is the best forum to negotiate rules on space. Admittedly, most member states recognize the CD as “the single multilateral disarmament negotiating forum” and as such the appropriate forum for the discussion of space weaponization. But agreeing to PAROS discussions at the CD may place the United States in a defensive position. For years, China and other states have used the CD as a forum to lambaste the US position on space weaponization. At the CD, the United States risks appearing like a reluctant defendant facing a hung jury. More importantly, the current formulation of the discussion at the CD as “prevention of an arms race in outer space”—such as through the advancement of a limited BMD system—may subtly shape discussions against US interests. Preventing an arms race does not fully encompass the interests at stake in space. International discussions on space should consider not only preventing destabilizing actions in space but encouraging stabilizing actions in space as well. Moreover, a new agreement on space might address a wider array of issues than just the “space arms race,” including civilian space use and space debris.

# \*\*Privatization CP- Solvency\*\*

**Momentum moving towards weaponization but cuts prevent development**

**UNIDR 2k4**

(United Nations Institute for Disarmament Research is an institute within the United Nations — conducts research on disarmament and security with the aim of assisting the international community in their disarmament thinking, decisions and efforts , “Safeguarding Space for All: Security and Peaceful Uses”, Conference Report, March 2004, Print: pg 12 // sc)

James Clay Moltz (Monterey Institute of International Studies) spoke about so-called restraint regimes for space from an American perspective and the chances for current American restraint in outer space. In his view, the United States chose restraint in space weapons competition in the 1960s and 1970s, as exemplified by the Outer Space Treaty. As of 2004, **however, the momentum of American policy was pointing toward keeping open all defensive and offensive options in space**, especially as there was no other serious competitor in sight. This development of American space policy was reflected in blueprints such as the United States Air Force's "Vision 2020" and the report of the January 2001 Commission to Assess United States National Security Space Management and Organization (the Rumsfeld Space Commission), identifying space vulnerabilities: "The United States must develop, deploy and maintain the means to deter attack on and to defend vulnerable space capabilities".2 Nonetheless, Moltz also pointed out that the last word on American space policy had not yet been spoken. There are people in the military that doubt the practicality and strategic usefulness of weapons in space. Instead, they prefer so-called pop-up defences that could potentially be employed during crises. There is also military opposition to the debris from tests. Furthermore, even the Republican-led US Congress had considerably cut budgets for space weapons, delaying space initiatives. Moltz stated that the position of the United States therefore seems unclear. It wants to investigate near-term ASAT capabilities for space "denial" and to limit debris, but only on a voluntary basis. A treaty to ban space-based weapons, in Moltz's view, is unlikely in the current climate.

# \*\*\*Disadvantages\*\*\*

# START DA

**START has been successful**

Rose **Gottemoeller**, Assistant Secretary, Bureau of Arms Control, Verification and Compliance, July 1, **2011**, Statement at the Annual Security Review Conference http://www.state.gov/t/avc/rls/167477.htm

By far, the most important arms control success of the past year has been the entry-into-force of the New START Treaty with Russia in February. The Treaty responsibly limits the number of strategic nuclear weapons and launchers that the United States and Russia may deploy. When the Treaty is fully implemented, it will result in the lowest number of deployed strategic nuclear warheads since the 1950s, the first full decade of the nuclear age. The implementation of the Treaty is well underway. We have exchanged data on our strategic nuclear facilities and forces. This information forms the foundation of the Treaty’s database, which will be updated by the Parties continuously through a notification process and exchanged anew every six months throughout the life of the Treaty. As of April, the Parties began conducting on-site inspections of each other’s Treaty-related facilities.

**If U.S. doesn’t consult Russia on SMD, they will withdraw from START**

**Anton Kulikov,** Jan 27**, 2011** Russia responds to USA with own air and space defense system <http://english.pravda.ru/russia/politics/27-01-2011/116683-russia_defense_system-0/>

Russian Defense Minister Anatoly Serdyukov said the country was developing its own missile defense system. This was his answer to the question what  Russia would do if the United States violated the terms of the Strategic Arms Reduction Treaty (START-3).On Wednesday, the Federation Council has ratified the treaty. The senators supported the amendments to the treaty during its ratification by the Duma deputies. These amendments describe the conditions of Russia's withdrawal from the treaty. The first one has to do with a violation of its provisions by the United States. The second is the development of missile defense systems by the Americans that would qualitatively change the situation in this area, and would significantly violate national security and defense capability of Russia. The "exceptional circumstances" also include the adoption by the U.S. of weapons systems with strategic non-nuclear equipment without it being discussed by a bilateral consultative committee, reports RIA Novosti.

**START prevents accidental nuclear war**

**DPC, 2010** http://dpc.senate.gov/docs/fs-111-2-30.html

The START Treaty has led to significant reductions in the U.S. and Russian Cold War nuclear stockpiles. According to data from the State Department, the United States had more than 10,500 accountable warheads deployed on an estimated 2,250 delivery vehicles and Russia had more than 10,000 accountable warheads deployed on 2,500 delivery vehicles in September 1990, prior to the treaty’s entrance into force. During the Cold War, each one of these 20,000 U.S. and Russian nuclear warheads was maintained on a hair trigger alert, keeping the world’s two superpowers locked in a dangerous military posture, known as mutually assured destruction. The risk of nuclear war was real and posed an existential threat to both countries as well as the world. Beyond the threat of an intentional attack, there was a possibility of inadvertent war from an unauthorized or accidental launch. Although data on Russian nuclear incidents are unavailable, according to conservative figures from the Department of Defense, there were 32 nuclear weapons incidents involving U.S. nuclear weapons between 1950 and 1980 – twenty of which, experts say, could have started an accidental nuclear war between the U.S. and Russia.[[7]](http://dpc.senate.gov/docs/fs-111-2-30.html%22%20%5Cl%20%22_edn7%22%20%5Co%20%22) With the implementation of the START, both sides have markedly reduced their stockpiles – and markedly reduced the risk of nuclear war. As of July 2009, the United States had 5,916 accountable warheads on 1,188 delivery vehicles and Russia had 3,897 accountable warheads on 809 delivery vehicles. These mutual reductions have ensured stability in our nuclear relationship, while significantly contributing to American, Russian, and global security.[[8]](http://dpc.senate.gov/docs/fs-111-2-30.html%22%20%5Cl%20%22_edn8%22%20%5Co%20%22)

## XT 1- Uniquness

**Current missile defense doesn’t threaten Russia nuclear forces**

By Desmond **Butler** 9/27/**2007** http://www.msnbc.msn.com/id/**2**1020132/ns/technology\_and\_science-space/t/physicists-contest-missile-shield-claims/

While all six scientists are skeptical that the U.S. missile defense system can work, they believe that in terms of raw speed, U.S. interceptors in Poland could catch a Russian ICBM launched from western Russia at any part of the continental United States. In Postol’s model, the intercept would occur at a point over the North Pole. The Missile Defense Agency says the Polish rockets would reach a burnout speed of 6.3 kilometers (3.9 miles) per second, roughly the speed of the Russian missiles depicted in Obering’s slides. At that speed, the interceptors could not catch the Russian missiles. But Postol says the interceptors could top 9 kilometers (5.6 miles) per second. Responding to Postol’s criticism, the MDA said Postol made assumptions about the interceptors that are based on theory, but in the real world they do not work as well. Not only are the interceptors one-third slower, their rocket motors’ thrust is not as efficient when tested, and to get to Russian missiles they would be going through various stresses that exceed what would be considered normal design. The MDA presented a chart of rocket motor efficiency from tests and noted that Postol’s estimates did not reflect what happens in the real world.

**START has been successful for Russia and US**

**Voice of Russia**, Apr 9, **2011**, US happy about New START http://english.ruvr.ru/2011/04/09/48684014.html

The US is fully satisfied with the implementation of the provisions of the New START treaty with Russia where it comes to regular information exchanges between the two countries about the state of their nuclear arsenals and their precise location. In a sign of growing confidence between the onetime Cold War foes, the Americans recently showed one of their strategic bombers to a team of visiting Russian specialists. Russia, in turn, showcased part of its own armory to American experts. The New START nuclear arms reductions treaty, signed by Presidents Dmitry Medvedev and Barack Obama in Prague on April 8, took effect in February 2011 after being ratified by Russian and American MPs.

**Obamas committed to START**

Mark **Guzylak-Shergold**, May 26, **2011** Obama Administration Committed to New START Treaty American Affairs http://www.suite101.com/content/obama-administration-committed-to-new-start-treaty-a372890

Despite [Russia's recent comments](http://www.suite101.com/content/russia-reconsiders-their-strategic-use-of-nuclear-weapons-a371835) on their willingness to give up on the New START Treaty, the Obama administration is still voicing its commitment to it. The New START Treaty is a nuclear arms agreement between the former Cold War rivals that seeks to limit the amount of armed strategic nuclear warheads in each country. Last week, Russian President Medvedev announced that if NATO did not include his country in discussions on their missile defense shield, then Russia would develop "the offensive potential of [their] nuclear capabilities."

**U.S. and Russia show commitment to START**

Sally **Rountree** 01 Apr **2011** The Prague Agenda: The New START’s Next Steps <http://www.uspolicy.be/headline/prague-agenda-new-start%E2%80%99s-next-steps>

Washington — The New START treaty not only represents a commitment by the United States and Russia toward nuclear disarmament, but also strengthens the reset between Washington and Moscow “that is helping us to address the most urgent proliferation threats we face in Iran and North Korea,” National Security Advisor Thomas Donilon says. The New Strategic Arms Reduction Treaty (START), signed April 8, 2010, by President Obama and Russian President Dmitry Medvedev, marks the first major arms reduction pact since the last days of the Cold War. Keynoting the Carnegie International Nuclear Policy Conference meeting in Washington on March 29, Donilon outlined the next steps to establish missile-defense cooperation. Referencing President Obama’s vision for achieving the “peace and security of a world without nuclear weapons” in a speech the president delivered in Prague in 2009, Donilon presented the Obama administration’s plans to advance each of the four dimensions of the president’s agenda. To reduce the number and role of nuclear weapons, the United States recently exchanged data with Russia on nuclear facilities under the auspices of the Bilateral Consultative Commission, the treaty’s implementing body, currently meeting in Geneva. On-site inspections conducted under the treaty will soon follow. Once the treaty is fully implemented, Donilon said, it will mark the lowest number of deployed nuclear warheads since the 1950s, the first full decade of the nuclear age.

## XT 2- Links

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| **Russia would withdraw from START if U.S. expanded missile defense threatening to Russian nuclear forces**Vladimir **Isachenkov** February 7, **2011** Russia eyes U.S. missile defense**:** May rethink New STARThttp://www.washingtontimes.com/news/2011/feb/7/report-russia-warns-us-over-missile-defense-plans/ [Russia](http://www.washingtontimes.com/topics/russia/) sees the planned [U.S.](http://www.washingtontimes.com/topics/united-states-of-america/) missile defense system as a potential threat to its nuclear forces and may review its participation in a landmark nuclear arms treaty, officials said Monday. The New START deal, the centerpiece of President [Obama](http://www.washingtontimes.com/topics/barack-obama/)’s efforts to reset ties with [Russia](http://www.washingtontimes.com/topics/russia/) and the most significant arms control pact in nearly two decades, took effect last week. It limits each country to 1,550 strategic warheads, down from the previous ceiling of 2,200. The treaty doesn’t prevent the [U.S.](http://www.washingtontimes.com/topics/united-states-of-america/) from building missile defense systems, but [Russia](http://www.washingtontimes.com/topics/russia/) has warned that it reserves the right to withdraw from the treaty if the [United States](http://www.washingtontimes.com/topics/united-states-of-america/) significantly boosts its missile shield. Russian Deputy Foreign Minister [Sergei Ryabkov](http://www.washingtontimes.com/topics/sergei-ryabkov/) reaffirmed Monday that a buildup in the [U.S.](http://www.washingtontimes.com/topics/united-states-of-america/) missile defense capability would prompt Moscow to reconsider its obligations under the New Strategic Arms Reduction Treaty. “If the [U.S.](http://www.washingtontimes.com/topics/united-states-of-america/) increases the qualitative and quantitative potential of its missile defense … a question will arise whether [Russia](http://www.washingtontimes.com/topics/russia/) should further abide by the treaty or would have to take other measures to respond to the situation, including military-technical measures,” [Mr. Ryabkov](http://www.washingtontimes.com/topics/sergei-ryabkov/) said, according to Russian news agencies. [Russia](http://www.washingtontimes.com/topics/russia/) was strongly critical of the previous [U.S. administration](http://www.washingtontimes.com/topics/us-administration/)’s plan to deploy missile defense sites in [Poland](http://www.washingtontimes.com/topics/poland/) and the [Czech Republic](http://www.washingtontimes.com/topics/czech-republic/) and hailed [Mr. Obama](http://www.washingtontimes.com/topics/barack-obama/)’s decision to scrap it. But the Kremlin has remained concerned about revamped [U.S.](http://www.washingtontimes.com/topics/united-states-of-america/) missile defense plans and continued to see them as potentially dangerous to its security. Russia Believes START limits U.S. missile defense[John Boone](http://www.lipmantimes.com/?author=181) January 26, 2011 Russia Approves New START Treaty The Lipman Capital Times http://www.lipmantimes.com/?p=19711The treaty’s preamble notes a connection between offensive and defense strategic weapons that the United States has interpreted to mean that the treaty does not impose limits on missile-defense systems. The Russians are expected to say, in commentary to be released after ratification, that it does. “They are welcome to interpret any language of the treaty as they want, but that interpretation is not legally binding on the United States,” Micah Zenko, a fellow at the[Council on Foreign Relations](http://topics.nytimes.com/top/reference/timestopics/organizations/c/council_on_foreign_relations/index.html?inline=nyt-org), said in a telephone interview. Anybody remember Detente? It collapsed primarily because of American development of defensive missile networks (SDI, or “Star Wars”) in the 1980s, though, Detente’s failures could be seen as early as Carter. Whatever becomes of New START, it’s still amazing that the treaty has come this far.**START Constrains U.S. missile defense** [David J. Kramer](http://shadow.foreignpolicy.com/blog/12812) April 30, 2010 [New START vs. missile defense: is it one or the other?](http://shadow.foreignpolicy.com/posts/2010/04/30/new_start_vs_missile_defense_is_it_one_or_the_other) http://shadow.foreignpolicy.com/posts/2010/04/30/new\_start\_vs\_missile\_defense\_is\_it\_one\_or\_the\_otherU.S.-RussiaIn a speech last week at the Atlantic Council, undersecretary of State for Arms Control and International Security Ellen Tauscher stated three times that the New START agreement "does not constrain U.S. missile defense programs." Despite the repetition, Tauscher's claim, like that of other Administration officials, is simply not accurate. Article V, Section 3 of the text states: "Each Party shall not convert and shall not use ICBM (intercontinental ballistic missile) launchers and SLBM (submarine-launched ballistic missile) launchers for placement of missile defense interceptors therein. Each Party further shall not convert and shall not use launchers of missile defense interceptors for placement of ICBMs and SLBMs therein. This provision shall not apply to ICBM launchers that were converted prior to signature of this Treaty for placement of missile defense interceptors therein." This section makes clear that the treaty does indeed constrain one possible way for the U.S. to develop missile defense capabilities. This may not be the way the current administration envisions developing its missile defense system, but that isn't what Tauscher claimed. (A White House fact sheet issued March 26 is more accurate in stating, "The Treaty does not contain any constraints on testing, development or deployment of *current* or *planned* U.S. missile defense programs..." [emphasis added].) Conversion of offensive ICBMs has been done in the past: there are five Minuteman III ICBMs at Vandenberg Air Force Base in California that were converted into defensive interceptors. These have been grandfathered into the treaty in the section noted above, but additional conversion of launchers into interceptors, which is arguably the fastest way to develop such a defensive capability should an urgent need arise, is now forbidden under this new agreement. That *constrains* our missile defense programs, plain and simple.  |

## XT 3- Link U

**Russia wants to cooperate on European Missile Defense**

Valery Melnikov, June 9, 2011**,** RIA Novost, Russia calls for broader discussion on European missile defensehttp://rt.com/politics/russia-calls-discussion-european/

Russian envoy to NATO Dmitry Rogozin has called for broader cooperation in developing European missile defense after NATO officials said that separate systems were the only option. In an opinion article published in the New York Times daily on Wednesday Rogozin wrote that missile defense was a real necessity in times when missile technology has become more affordable and certain nations could use it to make delivery vehicles for their weapons of mass destruction. But the Russian politician questioned the initial motives behind such decisions and said that sometimes non-European nations could use their missiles in response to an aggression similar to the one that happened in Iraq, even though Saddam Hussein had possessed no weapons of mass destruction. Rogozin also writes that Russia does recognize the fact that missile challenges are gradually becoming a risk and a reality. But he insists that European missile defenses should be based on equal participation and a common indivisible security for all the countries of the continent, including Russia. He also insists that main missile defense bases should be placed closer to the potential threat which is in the South and not in Northern Europe.

**Russia will cooperate on European Missile Shield**

RIA Novosti**,** April 29 2011**,** [Russia outlines its vision of European missile shield](http://en.rian.ru/mlitary_news/20110429/163762332.html) http://en.rian.ru/mlitary\_news/20110429/163762332.html

Russia and NATO [agreed to cooperate on the so-called Euro missile shield](http://en.beta.rian.ru/russia/20101120/161425965.html) during the Russia-NATO Council summit in Lisbon in November 2010. NATO insists there should be two independent systems that exchange information, while Russia [favors a joint system](http://en.rian.ru/mlitary_news/20110303/162846424.html) with full-scale interoperability. "We are ready to develop together with NATO experts on missile defense the architecture of this [joint] network, from the concept and selection of the best sites for the deployment of radars and interceptors to the set up and operation of joint data processing and control centers," Ostapenko said in an interview with Izvestia daily newspaper. The general said it would be logical and efficient to create a network of "sector" defenses where each member state or group of states would assume responsibility for intercepting and destroying ballistic missiles over assigned territory. Russia is ready to provide a "missile shield" over Eastern Europe, the Black Sea, the Barents Sea and the Baltic Sea, Ostapenko said, adding that a decision to deploy missile defenses must be coordinated by a joint command center on the basis of information provided by a joint data processing center.

**Even if NATO and US missile defense talks fail, Russia doesn’t need to cooperate**

Voice of Russia, Jul 9, 2011, Russia can intercept missiles on its own, http://english.ruvr.ru/2011/07/09/53003392.html

Having caught up on technology, Russia no longer needs outside cooperation on protecting itself against incoming missiles. This means that even if its missile defence talks with NATO and the United States fall through, it can find ways to adequately shield itself on its own. The only setback would be extra costs. NATO Ambassador Dmitry Rogozin was speaking about this in a television news programme Saturday. At the latest session of the NATO-Russia Council in Sochi on Monday, NATO head Anders Fogh Rasmussen refused to extend written guarantees that no NATO ABM installation on European soil will compromise Russia’s deterrence capability.

**European Missile Defense doesn’t threaten Russian nuclear forces**

[Chupina **Maria**](http://english.ruvr.ru/by_author/36366328/index.html) **Jul 7, 2011** The Voice of Russia, European missile defense political weapon,http://english.ruvr.ru/2011/07/07/52898935.html

Russia can provide effective answers to the deployment of missile defense elements in Europe, says chief designer of Russia’ submarine-launched Bulava missile Yuri Solomonov. The designer is sure that there are in fact no threats except for political ones coming from a missile defense shield in Europe. A European missile defense system with the participation of Russia was on the agenda of talks between President Dmitry Medvedev and NATO leaders in Russia’s Black Sea resort of Sochi several days ago. As before, NATO is doggedly refusing to build a missile umbrella in Europe jointly with Russia. While asserting the importance of strategic partnership with Russia, the North Atlantic alliance is resisting a united and undivided security structure proposed by Moscow. Russia can respond appropriately, particularly in light of the recent test launches of brand new missiles which cannot be intercepted by European missile defenses in powered flight phase. With regards to flight characteristics, the planned missile defense shield is not as advanced as the US claims it is. Russian expert Pavel Zolotaryov comments. "The bulk of Russia’s missile defense potential is beyond US reach. Claims that they will summon all ships in the Arctic to shoot down Russian missiles are inconsistent with reality. They are nothing but political games." Russian missiles will easily penetrate through any missile defense system, Pavel Zolotaryov says.

**Russia and NATO made an agreement to work on European missile defense together**

**BBC** , 20 November **2010**, Russia 'to work with Nato on missile defence shield' http://www.bbc.co.uk/news/world-europe-11803931

Mr Rasmussen said: "The Nato nations and Russia have today agreed in writing that while we face many security challenges, we pose no threat to each other." He said Russia had agreed to allow more supplies to travel through Russian territory to support Nato's mission in Afghanistan and to allow equipment out as well. Moscow withdrew from Afghanistan in 1989 after a bloody 10-year conflict. Mr Rasmussen said there would also be increased co-operation with Russia on terrorism, weapons of mass destruction, piracy and counter-narcotics. Mr Medvedev hailed the "constructive atmosphere" of the talks, adding: "We have ambitious plans, we will work across all directions, including European missile defence and the Russia-Nato council has demonstrated that."

# I/L – US-Russia Relations Ext.

# Start Impacts

# Impact – Nuclear Security

Failure to ratify START crushes U.S. national security

**Bergmann and Charap 10**; (Max Bergmann is a Nuclear Non-Proliferation Policy Analyst for American Progress. He works on nuclear nonproliferation, military affairs, and other related U.S. foreign policy issues.; Samuel Charap is Associate Director for Russia and Eurasia and a member of the National Security and International Policy team at American Progress. He focuses on the domestic politics, political economy, and foreign policies of the former Soviet states and U.S. policy in the region.); 4/6/10; “A Strong Case for a New START”; http://www.americanprogress.org/issues/2010/04/new\_start.html

Nuclear stability between the United States and Russia would shatter if START fails in ratification. Conservative arms-control opponents’ worst fears would come true if the Senate fails to ratify New START. It would eliminate the framework that has created nuclear stability for nearly two decades since the end of the Cold War. Senator Kyl, perhaps the most outspoken opponent, has even warned of what would occur in the absence of a treaty: “For the first time in 15 years, an extensive set of verification, notification, elimination and other confidence building measures will expire. The U.S. will lose a significant source of information that has allowed it to have confidence in its ability to understand Russian strategic nuclear forces.” Senator Kyl is right, and the implication is clear: failure to ratify the New START would have dangerous consequences for U.S. security.

# Impact – Laundry List

Failure to ratify START results in nuclear terrorism, collapse of NPT, and Iranian and North Korean nuclearization

**Bergmann and Charap 10**; (Max Bergmann is a Nuclear Non-Proliferation Policy Analyst for American Progress. He works on nuclear nonproliferation, military affairs, and other related U.S. foreign policy issues.; Samuel Charap is Associate Director for Russia and Eurasia and a member of the National Security and International Policy team at American Progress. He focuses on the domestic politics, political economy, and foreign policies of the former Soviet states and U.S. policy in the region.); 4/6/10; “A Strong Case for a New START”; http://www.americanprogress.org/issues/2010/04/new\_start.html

The nonproliferation regime could collapse. Should New START ratification fail, it could push the world past a nuclear tipping point. It would undermine the NPT’s foundational bargain, possibly leading to an overall weakening of the nonproliferation regime. Efforts to clamp down on loose nuclear materials that could be acquired by terrorists would be severely undermined, as would efforts to stop states from acquiring nuclear weapons. Efforts to confront Iran and North Korea’s nuclear programs would also lose steam, since the failure to cut the U.S. nuclear arsenal would be seen as hypocritical abroad, leading to an erosion of international will.

# Impact – Proliferation Ext.

START ratification key to US non-proliferation credibilty

Sen. Mark Udall 6.30.10 (D Colorado, “Senate needs to ratify New START to reduce nuclear weapon levels”, The Hill, http://thehill.com/special-reports/defense-a-aerospace-july-2010/106601-senate-needs-to-ratify-new-start-to-reduce-nuclear-weapon-levels?sms\_ss=twitter)

Forty-two years ago today, 62 countries — including the United States — signed the Nuclear Nonproliferation Treaty, agreeing to restrict the proliferation of nuclear weapons, technology and materials. The premise of the NPT, one of the most significant multilateral arms control treaties of our time, is that a world with fewer nuclear weapons is a safer world. This premise has been reinforced over the years. It was Ronald Reagan who committed America to “the ultimate goal of eliminating these weapons from the face of the earth.” This goal has animated numerous arms control agreements since then, and it underpins the New START treaty — an agreement we cannot fail to ratify. The dangers of nuclear proliferation have grown. While the threat of global nuclear war has receded, the risk of nuclear attack — enabled by the spread of nuclear technology and danger of materials falling into the wrong hands — has increased. We cannot be seen as a credible leader — or as a nation strongly committed to meeting our non-proliferation obligations — without pursuing further nuclear arms reductions ourselves. With more than 90 percent of the world’s nuclear arms between us, the United States and Russia have an obligation to verifiably decrease our nuclear stockpiles and reduce this primary threat to global and national security. That’s why the New START Treaty matters. Begun under the Bush administration, the treaty was finally signed in April. It establishes limits for U.S. and Russian nuclear weapons to levels lower than the 1991 START Treaty and the 2002 Moscow Treaty. These limits have been validated by our defense planners and ensure we have the flexibility to meet our security needs. The treaty also includes a strong verification regime, which Defense Secretary Robert Gates called the “key contribution” of the agreement.

Passing START lowers risk of Nuclear Proliferation by reducing nuclear weapons and encouraging other countries

Samual Charap and Max Bergmann 4.6.10 (Max Bergmann is a Nuclear Non-Proliferation Policy Analyst for American Progress, Samuel Charap is Associate Director for Russia and Eurasia and a member of the National Security and International Policy team at American Progress, A Strong Case for a New START: A National Security Briefing Memo, American Progress, http://www.americanprogress.org/issues/2010/04/new\_start.html)

Senators would do well in their deliberations to consider the consequences of not ratifying the treaty. If the Senate rejects New START, we would enter a period of nuclear instability and potentially a new arms race. This would be disastrous for U.S. national security. The United States and Russia are no longer adversaries. Yet two decades after the end of the Cold War they still possess more than 20,000 nuclear weapons—95 percent of the world’s total. This new treaty represents an important step toward moving us beyond this haunting legacy. What does New START accomplish? The new agreement maintains and modernizes the existing verification system, places significant limits on deployed strategic warheads, lays the groundwork for stronger international action on arms control and nonproliferation, and restores U.S.-Russia nuclear relations. It establishes a robust verification regime that modernizes the framework contained in Reagan’s START agreement. This treaty enables the United States and Russia to continue to monitor each other’s nuclear stockpiles, ensuring that both sides are living up to the agreement. U.S. and Russian negotiators reportedly leveraged their experience with START’s verification and monitoring measures to streamline some of the more lumbering procedures to build a more efficient and effective verification regime. The actual text of the treaty has yet to be released, but early information indicates that this new verification regime will deepen trust and confidence between the two nuclear superpowers and even go further than START in ensuring compliance. The original treaty’s verification system only counted delivery vehicles, such as the number of deployed missiles. It didn’t actually count the number of warheads contained inside of each missile, and this new system will. It limits the number of nuclear warheads to levels not seen since the days of the Eisenhower and Kennedy administrations. New START will limit the number of deployed strategic nuclear warheads to 1,500—a 30 percent drop from the 2,200 currently allowed. The allowable number of nuclear launchers—land-based missiles, submarine-based missiles, and bombers—will see their aggregate limit reduced from 1,600 to 800. No more than 700 launching systems can be deployed at a given time. It significantly bolsters upcoming efforts to combat nuclear terrorism and proliferation. The signing of New START comes just days before President Obama convenes the Nuclear Security Summit, a meeting in Washington, D.C. with 44 heads of state on April 12 and 13 that will focus on strategies for preventing nuclear terrorism. These meaningful limits on the United States’ deployed nuclear weapons will put the United States in a stronger position to convince other world leaders to take steps to secure nuclear stockpiles and prevent nuclear trafficking. The new agreement also gives fresh momentum to next month’s Non-Proliferation Treaty Review Conference in New York, which is meant to bolster the agreement that is the backbone of international efforts to counter nuclear proliferation. Nuclear-armed states under the Non-Proliferation Treaty agree to reduce their arsenals and provide non-nuclear-armed countries with access to civilian nuclear technology in exchange for an agreement from non-nuclear-armed states to forgo the pursuit of nuclear weapons. New START gives the United States credibility to bolster the NPT by showing progress on its end of the nuclear bargain and puts us on a much better standing from which to forge a strong international diplomatic effort to confront North Korea and Iran over their nuclear programs.

START solves prolif – spills over towards more reductions and shows commitment to the NPT

**IISS** (The International Institute for Strategic Studies); 4/20/20**10**; “New START provides for significant arms cuts”

The New Strategic Arms Reduction Treaty (**START**) signed by United States President Barack Obama and Russian President Dmitry Medvedev in Prague on 8 April is the latest milestone in the over 40-year-long effort to control strategic arms. It **brings a step closer Obama’s goal of a world free of nuclear weapons**. **The agreement is widely seen as a precursor to further negotiations which could produce deeper reductions, including in tactical nuclear weapons and non-deployed nuclear warheads, and which could begin the construction of a regime to control the dismantling of warheads and their fissile material.** The new treaty, which requires approval by the US Senate and the Russian Duma, will replace the START I Treaty of 1991, which expired on 5 December 2009, and the Moscow Treaty of 2002 (SORT), which was scheduled to run until 31 December 2012. Though the START I Treaty did provide the option of a five-year extension, which would have allowed more time to negotiate over its replacement, it was decided by both sides to forgo this option and to formulate a new treaty more quickly. This put considerable time pressure on the negotiators, who tried but failed to complete their work in time to avoid a gap in the verification regime provided by START I. **New START returns to the idea that constraints on strategic arms should be effectively verifiable and reductions irreversible** – principles that had been largely abandoned by the George W. Bush administration, which abhorred constraints on its freedom of action and believed that US and Russian nuclear forces were essentially not related to each other. It adopts significant portions of language from the START I Treaty and draws heavily upon the data exchange, notifications, definitions and on-site inspections pioneered by START I, while generally reducing the volume and complexity of these provisions to take account of the greater trust and transparency now evident in US–Russian relations. The new treaty addresses only partially Russia’s concerns regarding the ‘upload potential’ of US forces – the ability to add warheads to existing missiles and bombers. This had emerged as an issue as some warheads were removed from deployed systems and other systems were taken out of service, but no procedures were agreed to make such reductions irreversible. **An additional effect of the verification regime will be to strengthen the positions of both the US and Russia at the five-yearly Nuclear Non-Proliferation Treaty (NPT) Review Conference in May by demonstrating that they are serious about fulfilling their commitments under Article VI of the NPT, under which parties undertook to pursue negotiations with a view to eventual nuclear disarmament.**

Proliferation leads to extinction.

Victor AUtgoff, Deputy Director of Strategy, Forces, and Resources Division of Institute for Defense Analysis, Summer 2002, Survival, p.87-90

In sum, widespread **proliferation is likely to lead to an occasional shoot-out with nuclear weapons**, and that **such shoot outs will have a substantial probability of escalating to the maximum destruction possible** with the weapons at hand. **Unless** nuclear **proliferation is stopped, we are headed towards a world that will mirror the American** Wild **West** of the late 1800s. **With most, if not all, nations wearing nuclear “six shooters”** on their hips, the world may even be a more polite place than it is today, but every once in a **while we will all gather together on a hill to bury the bodies of dead cities or even whole nations.**

START bolsters non-nuclear proliferation regime

Peter **Baker**; 5/18/20**10**: “White House Presses Senate to Approve Russia Arms Pact” New York Times, http://www.nytimes.com/2010/05/19/world/europe/19treaty.html

WASHINGTON — **The Obama administration encountered some Republican skepticism on Tuesday about its new arms control treaty with** [**Russia**](http://topics.nytimes.com/top/news/international/countriesandterritories/russiaandtheformersovietunion/index.html?inline=nyt-geo) **but little outright opposition that might threaten the chances of ratification by the Senate**. As [President Obama](http://topics.nytimes.com/top/reference/timestopics/people/o/barack_obama/index.html?inline=nyt-per)’s national security team assured the Senate that the so-called New Start treaty would not compromise American security, Senator [Richard G. Lugar](http://topics.nytimes.com/top/reference/timestopics/people/l/richard_g_lugar/index.html?inline=nyt-per) of Indiana, the ranking Republican on the Foreign Relations Committee, offered his support and warned that failing to ratify it would be an “extremely precarious strategy.” The White House had been counting on Mr. Lugar’s support to offset Republican criticism, and he spoke with some passion about the continuing threat from so many [nuclear weapons](http://topics.nytimes.com/top/news/science/topics/atomic_weapons/index.html?inline=nyt-classifier), noting that a single one could devastate New York or Philadelphia. “If I become dogmatic or emotional about it,” he said, “it’s from some experience of seeing what could hit us.” Other Republican senators, though, remained unconvinced and accused the administration of either giving away too much or failing to accomplish enough. Some peppered Mr. Obama’s senior advisers with questions about whether the administration had effectively let Russia wield veto control over future American missile defense programs, while others asked why the treaty did nothing to rein in tactical nuclear weapons. The Obama team deflected the criticism, insisting that nothing in the treaty would inhibit missile defense plans and noting that it would re-establish a mutual inspection system that had expired last year. **The advisers described the treaty as a critical step to improving relations with Moscow and bolstering solidarity against emerging nuclear powers like Iran and North Korea.** “The U.S. is better off with this treaty than without it, and I am confident that it is the right agreement for today and for the future,” Defense Secretary [Robert M. Gates](http://topics.nytimes.com/top/reference/timestopics/people/g/robert_m_gates/index.html?inline=nyt-per) told the committee. Adm. [Mike Mullen](http://topics.nytimes.com/top/reference/timestopics/people/m/michael_g_mullen/index.html?inline=nyt-per), chairman of the [Joint Chiefs of Staff](http://topics.nytimes.com/top/reference/timestopics/organizations/j/joint_chiefs_of_staff/index.html?inline=nyt-org), added that “this treaty has the full support of your uniformed military.” Secretary of State [Hillary Rodham Clinton](http://topics.nytimes.com/top/reference/timestopics/people/c/hillary_rodham_clinton/index.html?inline=nyt-per) said **the treaty would make it easier for the United States to rally the world against nuclear proliferation.** “I am not suggesting that this treaty alone will convince Iran or North Korea to change their behavior,” Mrs. Clinton said. “But **it does demonstrate our leadership and strengthens our hand as we seek to hold these and other governments accountable**.” The treaty, which would bar each side from deploying more than 1,550 strategic warheads or 700 launchers, is perhaps the most tangible foreign policy accomplishment of Mr. Obama’s presidency to date, and **winning ratification is one of his top priorities. The administration hopes the Senate will vote as early as this summer**, but certainly by the end of the year. Russia’s Parliament is waiting for the Senate before acting. Senator [John Kerry](http://topics.nytimes.com/top/reference/timestopics/people/k/john_kerry/index.html?inline=nyt-per), Democrat of Massachusetts and the committee chairman, was cautious about timing as he tried to build bipartisan consensus. “We should do it when we’re ready,” he said in an interview. “My goal would be to do it as soon as possible. Does that mean I’d like to get it done before the election? Absolutely. But the important thing is to get it done right.” Mr. Kerry said he would summon two former Republican secretaries of state, [Henry A. Kissinger](http://topics.nytimes.com/top/reference/timestopics/people/k/henry_a_kissinger/index.html?inline=nyt-per) and [James A. Baker III](http://topics.nytimes.com/top/reference/timestopics/people/b/james_a_iii_baker/index.html?inline=nyt-per), to support the treaty. “The treaty’s pretty tight,” he said, “and the administration has done a pretty good job of including all the stakeholders.” But Senator [Jim DeMint,](http://topics.nytimes.com/top/reference/timestopics/people/d/jim_demint/index.html?inline=nyt-per) Republican of South Carolina, said it was “absurd and dangerous” to think that the United States “should seek parity” with Russia given America’s unique role in the world. “Russia doesn’t have 30 countries counting on them for protection,” Mr. DeMint said. Mr. DeMint took issue with nonbinding language in the treaty and a separate Russian statement noting Moscow’s concerns about missile defense. “For us to even include in the treaty the idea that these things are interrelated is somewhat frightening to me,” Mr. DeMint said. Mrs. Clinton said the language would not constrain American missile defense plans, just as similar statements in the past had not. “The facts really refute any concerns that you and others might have,” she told Mr. DeMint. Senator Bob Corker, Republican of Tennessee, noted that Russia already has fewer launchers than the ceiling in the new treaty. “Did we really get anything in this treaty at all?” Mr. Corker asked. “We’re the ones that are actually making cuts, not them.” Mr. Gates noted that Russia still had more warheads than would be allowed. “They will be reducing the number of warheads,” he said. Senator [Johnny Isakson](http://topics.nytimes.com/top/reference/timestopics/people/i/johnny_isakson/index.html?inline=nyt-per), Republican of Georgia, pointed out that the treaty would permit fewer inspections than the original Strategic Arms Reduction Treaty of 1991, which expired in December. Under the new treaty, each side could conduct 18 inspections a year instead of the 28 inspections permitted in the past. Obama advisers said American inspectors would have to monitor only 27 nuclear facilities in Russia today, compared with 73 monitored in the old Soviet Union.

START is key to US-Russia relations

Office of press secretary, 6.24.10 (U.S.-Russia Relations: “Reset” Fact Sheet, The White House, http://www.whitehouse.gov/the-press-office/us-russia-relations-reset-fact-sheet)

In one of his earliest new foreign policy initiatives, President Obama sought to reset relations with Russia and reverse what he called a “dangerous drift” in this important bilateral relationship. President Obama and his administration have sought to engage the Russian government to pursue foreign policy goals of common interest – win-win outcomes -- for the American and Russian people. In parallel to this engagement with the Russian government, President Obama and his administration also have engaged directly with Russian society -- as well as facilitated greater contacts between American and Russian business leaders, civil society organizations, and students -- as a way to promote our economic interests, enhance mutual understanding between our two nations, and advance universal values. On the occasion of President Medvedev’s visit to the United States and one year after President Obama visited Russia, it is time to take stock of what has been achieved from this change in policy and what remains to be done in developing a more substantive relationship with Russia. Government-to-Government Agreements and Accomplishments The New START Treaty: On April 8, 2010, in Prague, Presidents Obama and Medvedev signed the New START Treaty, a strategic offensive arms reduction treaty to follow-up on the START Treaty, which expired on December 5, 2009. The New START Treaty reduces limits on U.S. and Russian deployed strategic warheads by approximately one third. The Treaty provides the flexibility needed for the United States to structure its forces at the reduced level to meet national security and operational requirements. The Treaty limits each side to 1550 deployed strategic warheads, 700 deployed strategic delivery vehicles, and 800 deployed and non-deployed ICBM launchers, SLBM launchers and heavy bombers equipped with nuclear armaments. The Treaty has a strong verification regime to allow each party to confirm that the other party is in compliance with the treaty limits, including on-site inspections, data exchanges, exhibitions, and notifications about the movement and production of strategic systems, as well as a provision on non-interference with National Technical Means of verification. In their June 24 Joint Statement on Strategic Stability, President Obama and President Medvedev acknowledged their commitment to continuing the development of a new strategic relationship based on mutual trust, openness, predictability and cooperation by following up on the New START Treaty.

# Impact – Terrorism

Passing START prevents nuclear proliferation and terrorism

Lawrence Korb, 6/24/10, senior fellow at Center for American Progress, served as assistant secretary of defense during Reagan administration. (U.S. Senate must ratify New START, Atlanta Journal Constitution, http://www.ajc.com/opinion/u-s-senate-must-556960.html0

President Barack Obama and Russian President Dmitry Medvedev signed the New START treaty in Prague on April 8, and the U.S. Senate has now begun deliberations. The treaty would verifiably reduce each country’s nuclear arsenals to 1,500 warheads and 700 launchers. There are clear security benefits to ratifying the treaty, and clear risks to failing to do so. Verifiably reducing U.S. and Russian arsenals will increase U.S. security both by kick-starting the process of reducing redundant weapons that are a deadly legacy of the Cold War and by adjusting U.S. policy to meet the security challenges of the 21st century: proliferation and the threat of nuclear terrorism. While reducing the number of nuclear weapons that can be aimed at the United States and improving verification procedures are valuable in and of themselves, the treaty has other strategic benefits. During the Cold War the United States’ greatest danger was the nuclear arsenal of the Soviet Union, but today the greater threat is the prospect of unchecked nuclear proliferation, which would, in turn, increase the potential for nuclear terrorism. To combat this new security landscape, the United States needs to play a leadership role working with Russia and other states whose cooperation will be essential. The threats of proliferation and nuclear terrorism can only be addressed by a multinational effort.

And, Leaks of nuclear material and knowledge from Russia are the most likely scenario for nuclear terrorism, spark prolif, and cause global nuclear war

Patrick F. Speice, J.D. at College of William and Mary- ‘6 Jr., J.D. Candidate 2006, Marshall-Wythe School of Law, College of William and Mary, February, 2006, NOTE: NEGLIGENCE AND NUCLEAR NONPROLIFERATION: ELIMINATING THE CURRENT LIABILITY BARRIER TO BILATERAL U.S.-RUSSIAN NONPROLIFERATION ASSISTANCE PROGRAMS, 47 Wm and Mary L. Rev. 1427

Organizations such as the Russian military and Minatom are now operating in circumstances of great stress. Money is in short supply, paychecks are irregular, living conditions unpleasant ... [D]isorder within Russia and the resulting strains within the military could easily cause a lapse or a breakdown in the Russian military's guardianship of nuclear weapons. n38 Accordingly, there is a significant and ever-present risk that terrorists could acquire a nuclear device or fissile material from Russia as a result of the confluence of Russian economic decline and the end of stringent Soviet-era nuclear security measures. n39 Terrorist groups could acquire a nuclear weapon by a number of methods, including "steal[ing] one intact from the stockpile of a country possessing such weapons, or ... [being] sold or given one by [\*1438] such a country, or [buying or stealing] one from another subnational group that had obtained it in one of these ways." n40 Equally threatening, however, is the risk that terrorists will steal or purchase fissile material and construct a nuclear device on their own. Very little material is necessary to construct a highly destructive nuclear weapon. n41 Although nuclear devices are extraordinarily complex, the technical barriers to constructing a workable weapon are not significant. n42 Moreover, the sheer number of methods that could be used to deliver a nuclear device into the United States makes it incredibly likely that terrorists could successfully employ a nuclear weapon once it was built. n43 Accordingly, supply-side controls that are aimed at preventing terrorists from acquiring nuclear material in the first place are the most effective means of countering the risk of nuclear terrorism. n44 Moreover, the end of the Cold War eliminated the rationale for maintaining a large military-industrial complex in Russia, and the nuclear cities were closed. n45 This resulted in at least 35,000 nuclear scientists becoming unemployed in an economy that was collapsing. n46 Although the economy has stabilized somewhat, there [\*1439] are still at least 20,000 former scientists who are unemployed or underpaid and who are too young to retire, n47 raising the chilling prospect that these scientists will be tempted to sell their nuclear knowledge, or steal nuclear material to sell, to states or terrorist organizations with nuclear ambitions. n48 The potential consequences of the unchecked spread of nuclear knowledge and material to terrorist groups that seek to cause mass destruction in the United States are truly horrifying. A terrorist attack with a nuclear weapon would be devastating in terms of immediate human and economic losses. n49 Moreover, there would be immense political pressure in the United States to discover the perpetrators and retaliate with nuclear weapons, massively increasing the number of casualties and potentially triggering a full-scale nuclear conflict. n50 In addition to the threat posed by terrorists, leakage of nuclear knowledge and material from Russia will reduce the barriers that states with nuclear ambitions face and may trigger widespread proliferation of nuclear weapons. n51 This proliferation will increase the risk of nuclear attacks against the United States [\*1440] or its allies by hostile states, n52 as well as increase the likelihood that regional conflicts will draw in the United States and escalate to the use of nuclear weapons. n53

# Impact – Iran Disarm

START causes Iranian disarm- they follow US- Russia model.

Harden 2010 (Douglas Harden, Speacial to the Telegraph. *Nuclear Arms in the 21st Century*, 6/06. <http://www.macon.com/2010/06/06/1151072/arms-control-in-the-21st-century.html>)

The most recent activity that promised any sense of progress with the START Treaty before the agreement between the two sides in March of this past year occurred in 1997 when former President Clinton and former Russian Premier Yeltsen agreed to reduce nuclear stockpiles from 2,500 to 2,000 warheads. Talks deteriorated for the next two years until Clinton attempted to restore negotiations in 1999 with renewed vigor, but this eventually faded as both sides could not agree on missile defense parameters.

This issue has been dormant for over 10 years until this year when President Obama and Russian Premier Medvedev agreed in principle to sign an agreement on April 8 after a year of frequent and often times tense negotiations that will reduce their deployed strategic warheads from the current 2,200 to 1,550 within seven years after the treaty begins.

Delivery vehicles, missiles, bombers and submarines will be cut from 1,600 to 800. Eliminating half of the weapons in this category not only forces each side to rely on tactical defenses, but proves to be a major foreign policy achievement for Obama as treaty agreements are few and far between and often times result only after the parties in question forfeit more than they want.

Reducing the total number of weapons should such an agreement be ratified by the United States Senate would breathe new life into the art of arms control reduction and give the world hope that perhaps the example set by the United States and Russia would compel Iran and North Korea to enter into multilateral talks and move toward disarmament.

Iranian nuclearization causes terrorism and Middle East arms race

Lee Michael Katz, Special to Global Security Newswire, 6-23-10, http://www.globalsecuritynewswire.org/gsn/nw\_20100409\_5302.php

My biggest concern is Iran will acquire nuclear weapons and we will not have prepared ourselves, allies or partners to cope with it. And I’m not worried that Iran’s leadership would be so crazy as to actually detonate a nuclear weapon on the U.S. or a friend or a partner. But I am worried that it would embolden Iran to act much more aggressively in the region. And worried it would embolden a group like Hezbollah, thinking it was operating within an Iranian nuclear umbrella, to operate much more aggressively.The second line of threat really relates to the risk of an arms race in the Middle East. I’m worried that other countries in the region could decide that they need nuclear weapons, too. And a nuclear arms race in the Middle East probably wouldn’t be immediate, but it could still be quite messy and quite destabilizing with the risk of miscalculation, with the risk of accident, with an increased risk of nuclear weapons or materials getting in the hands of terrorists.

And, Middle East proliferation causes regional nuclear war- high tension and short decision times

Richard Russell- Prof of National Security Affairs at the National Defense University-2006, Military Planning for a Middle East Stockpiled with Nuclear Weapons, Military Review. Volume: 86. Issue: 6

How would the Middle East be affected by numerous states armed with nuclear weapons? The good news is that some international security experts argue that the spread of such weapons would actually stabilize the region. In fact, they argue that international relations would be enhanced if nuclear weapons proliferated slowly, if states had time to become accustomed to them, and if nuclear arsenals were immune from preemptive strikes. They argue that nuclear deterrence is easy to understand and to put into practice: statesmen would realize that the costs of going to war with nuclear weapons would be prohibitive, which would reduce the risk of war between states to nearly zero. To support their argument, these analysts cite the fact that two nuclear-armed states have never waged war against one another.3 The bad news is that these experts probably are dead wrong. The theory is appealing, but theory rarely, if ever, conforms to reality. States armed with nuclear weapons in the Middle East might well wage war against one another under a variety of strategic circumstances. Iran might undertake conventional military operations against neighboring states calculating that its nuclear deterrent would prevent a retaliatory American or Arab Gulf state response. Saudi Arabia, in turn, fearing its conventional forces are inferior, could resort to the tactical use of nuclear weapons to blunt Iranian conventional assaults in the Gulf, much as NATO had planned to do against Warsaw Pact forces in cold-war Europe. Egypt had no nuclear weapons in 1973, but this did not stop it from attacking Israeli forces in the Sinai. Along with other Arab states, Egypt could use conventional forces in saber rattling against Israel, and conventional clashes could erupt into a general war. Right now, American forces cannot deter a Syria without nuclear weapons from sponsoring jihadist operations against U.S. forces in Iraq. A Syria armed with a nuclear deterrent might be emboldened to undertake even more aggressive sponsorship of guerrilla war against U.S. and Israeli forces, and this could tip a crisis into open warfare. Sitting on hair triggers in the narrow geographic confines of the Middle East, states armed with nuclear weapons would be under strong incentives to use them or lose them and to fire nuclear ballistic missiles in a crisis. At the height of a regional crisis, Iran, for example, might launch huge salvos of ballistic missiles armed with nuclear weapons against Israel in order to overwhelm Israeli ballistic missile defenses, decapitate the Israeli civilian and military leadership, and reduce the chances of Israeli nuclear retaliation. During the cold war, the United States and the Soviet Union had about 30 minutes of breathing time from the launch of intercontinental ballistic missiles to their impact. That was 30 potential minutes of precious time to determine whether warnings of launches were real. In the Middle East, there would be only a handful of such warning minutes, and regimes would feel even more vulnerable than the United States and the Soviet Union did during the cold war. Many nation-states in the Middle East resemble city-states more than industrialized nations; they have much less time to hide their leaders from enemy attack and fewer places to hide them.

And, Middle East nuclear war causes nuclear winter and extinction

**HOFFMAN**, 20**06**Ian, Inside Bay Area, 'Nuclear winter' looms, lexis

Researchers at the American Geophysical Union's annual meeting warned Monday that even a small regional nuclear war could burn enough cities to shroud the globe in black smoky shadow and usher in the manmade equivalent of the Little Ice Age. “Nuclear weapons represent the greatest single human threat to the planet, much more so than global warming," said Rutgers University atmospheric scientist Alan Robock. By dropping imaginary Hiroshima-sized bombs into some of the world's biggest cities, now swelled to tens of millions in population, University of Colorado researcher O. Brian Toon and colleagues found they could generate 100 times the fatalities and 100 times the climate-chilling smoke per kiloton of explosive power as all-out nuclear war between the United States and former Soviet Union. For most modern nuclear-war scenarios, the global impact isn't nuclear winter, the notion of smoke from incinerated cities blotting out the sun for years and starving most of the Earth's people. It's not even nuclear autumn, but rather an instant nuclear chill over most of the planet, accompanied by massive ozone loss and warming at the poles. That's what scientists' computer simulations suggest would happen if nuclear war broke out in a hot spot such as the Middle East, the North Korean peninsula or, the most modeled case, in Southeast Asia. Unlike in the Cold War, when the United States and Russia mostly targeted each other's nuclear, military and strategic industrial sites, young nuclear-armed nations have fewer weapons and might go for maximum effect by using them on cities, as the United States did in 1945. "We're at a perilous crossroads," Toon said. The spread of nuclear weapons worldwide combined with global migration into dense megacities form what he called "perhaps the greatest danger to the stability of society since the dawn of humanity." More than 20 years ago, researchers imagined a U.S.-Soviet nuclear holocaust would wreak havoc on the planet's climate. They showed the problem was potentially worse than feared: Massive urban fires would flush hundreds of millions of tons of black soot skyward, where -- heated by sunlight -- it would soar higher into the stratosphere and begin cooking off the protective ozone layer around the Earth. Huge losses of ozone would open the planet and its inhabitants to damaging radiation, while the warm soot would spread a pall sufficient to plunge the Earth into freezing year-round. The hundreds of millions who would starve exceeded those who would die in the initial blasts and radiation.

# Impact – Arms Race

Passing start will prevent an arms race by ensuring US and Russia will reduce nuclear arms

Samual Charap and Max Bergmann 4.6.10 (Max Bergmann is a Nuclear Non-Proliferation Policy Analyst for American Progress, Samuel Charap is Associate Director for Russia and Eurasia and a member of the National Security and International Policy team at American Progress, A Strong Case for a New START: A National Security Briefing Memo, American Progress, http://www.americanprogress.org/issues/2010/04/new\_start.html)

Senators would do well in their deliberations to consider the consequences of not ratifying the treaty. If the Senate rejects New START, we would enter a period of nuclear instability and potentially a new arms race. This would be disastrous for U.S. national security. The United States and Russia are no longer adversaries. Yet two decades after the end of the Cold War they still possess more than 20,000 nuclear weapons—95 percent of the world’s total. This new treaty represents an important step toward moving us beyond this haunting legacy. What does New START accomplish? The new agreement maintains and modernizes the existing verification system, places significant limits on deployed strategic warheads, lays the groundwork for stronger international action on arms control and nonproliferation, and restores U.S.-Russia nuclear relations. It establishes a robust verification regime that modernizes the framework contained in Reagan’s START agreement. This treaty enables the United States and Russia to continue to monitor each other’s nuclear stockpiles, ensuring that both sides are living up to the agreement. U.S. and Russian negotiators reportedly leveraged their experience with START’s verification and monitoring measures to streamline some of the more lumbering procedures to build a more efficient and effective verification regime. The actual text of the treaty has yet to be released, but early information indicates that this new verification regime will deepen trust and confidence between the two nuclear superpowers and even go further than START in ensuring compliance. The original treaty’s verification system only counted delivery vehicles, such as the number of deployed missiles. It didn’t actually count the number of warheads contained inside of each missile, and this new system will. It limits the number of nuclear warheads to levels not seen since the days of the Eisenhower and Kennedy administrations. New START will limit the number of deployed strategic nuclear warheads to 1,500—a 30 percent drop from the 2,200 currently allowed. The allowable number of nuclear launchers—land-based missiles, submarine-based missiles, and bombers—will see their aggregate limit reduced from 1,600 to 800. No more than 700 launching systems can be deployed at a given time.

And, Arms racing causes nuclear wars

**McDonough** – Research Associate, CIPS –**‘6** David, Center for International Policy Stuides, 'Nuclear superiority' and the dilemmas for strategic stability, Adelphi series, Volume 46, Issue 383

'Strategic stability' and the appropriate means of assuring such a mutually beneficial outcome are generally associated with two inter-related criteria. Firstly, there is the need to maintain 'arms-race stability' in order not to provide an incentive to build excessive nuclear capabilities that would likely lead to a sub-optimal 'arms race'.27 Such a situation would **strengthen each party's perception that the other side had adversarial intentions and reinforce the foundations for the nuclear rivalry itself**. Even more dangerous is the potential that one side may temporarily perceive to have a strategic advantage. These 'strategic windows', when combined with competition and insecurity, could **lead to pressures for preventive war**.28 Secondly, 'crisis stability' is the need not to provide any incentive for either side to undertake a pre-emptive strike. The side with a first-strike capability would, during any tense crisis situation, be tempted to make use of such an advantage. This could range from a greater willingness to escalate a crisis to scenarios in which disarming and/or decapitating attacks are indeed contemplated. Yet this reality **would only increase the anxiety of the opposing side and lead it to prepare pre-emptive-strike plans of its own**. **Both sides would share 'first-strike anxiety'** and be under pressure to reduce negative control over their respective nuclear arsenals and to **instigate destabilising postures** with higher levels of alert and reductions in the necessary warning signals to initiate a nuclear attack. **The possibilities for accidental escalation and brinkmanship, where miscommunication and false intelligence can inadvertently lead to a nuclear exchange, would be dramatically increased.**

# Impact – Hegemony (1/2)

START key to U.S. leadership – sends global signal

Tamar **Malz-Ginzburg;** 4/14/20**10**; “The Importance of the New Strategic Arms Reduction Treaty (START)” Canada Free Press, http://www.canadafreepress.com/index.php/article/22010

The new Strategic Arms Reduction Treaty (START), which the presidents of the United States and Russia signed a few days ago in a festive ceremony in the ancient castle in Prague, is a continuation of START I, signed between the United States and the former Soviet Union in July 1991. The treaty dealt with a reduction in the number of nuclear warheads and the means of launching nuclear weapons. This is likewise the stated purpose of the new treaty: to reduce the strategic nuclear arsenal of both countries. The treaty also allows the continuation of the attempt to control the proliferation of fissile material from Russia to hostile elements – one of the primary goals of the original START. The first treaty expired in December 2009, so in order to preserve the regulation and verification regime it was necessary to sign a continuation treaty. However, the declared purpose of this treaty in fact encompasses two processes: the first is the “reset” approach between the United States and Russia announced by Obama, and the second is the current public debate in the United States about the need to reduce the arsenal of nuclear weapons in the world. The debate is focused on the dangers inherent in the proliferation of fissile material and leak of nuclear knowledge from nuclear weapons states into the hands of hostile entities. Already during his election campaign, President **Obama joined the supporters of a vision of a nuclear arms-free world. He made his famous speech emphasizing this vision a year ago in Prague, and declared that the United States must spearhead a move that would result – even if not in his own lifetime – in the fulfillment of this vision**. Therefore, the signing of the new treaty is extremely important to the American president. START has been presented to the public as a significant nuclear control agreement, but in practice it does not contain any unprecedented decisions about the reduction of the two countries’ nuclear arsenals. The treaty discusses only the strategic nuclear arsenal, not the tactical one. It also makes no reference to American nuclear weapons stationed in Europe, because these are not defined as strategic. Beyond this, the scope of the reduction in nuclear warheads and their launching means (including intercontinental missiles, submarines, and bombers) discussed in the treaty are insignificant, if not outright confusing. While according to the treaty the warheads mounted on missiles (on land and at sea) will be counted, not all the nuclear warheads that a bomber can in practice carry will be counted. According to the new rules of counting, one warhead per bomber will be counted, whereas in practice every bomber, both Russian and American, can carry anywhere from six to twenty bombs. Thus, according to the counting rules of this treaty, the United States maintains only some 1650 operational warheads and not the 2100 – the actual number of operational warheads it has. Russia, according to the treaty, has 1740 warheads rather than 2600 – the actual number. While the treaty does reduce the means for launching nuclear weapons, it still allows the two countries to maintain a number of operational nuclear bombs such that neither country in fact has to undertake a real change in its current nuclear power structure. The delays in the signing of this treaty resulted from a dispute between the sides over two main issues: one concerns questions about the treaty’s means of verification. Russia claimed that the previous treaty’s verifications methods were too intrusive. The second concerns the American missile defense program and Russia’s doubt that this defensive battery is directed only against rogue states such as Iran. Moscow demanded linkage between the decisions in this treaty about offensive nuclear arms and the defensive missile program. Ultimately no such clause was inserted into the treaty. Though a new treaty has been formulated, it will not go into effect until ratified by both countries. This process may be dragged out and become an obstacle for Obama when attempting to showcase his achievements. In the United States, the ratification of the treaty requires a two-thirds majority in the Senate, thus requiring bi-partisan agreement between the Democrats and Republicans. Currently, there is widespread debate in the United States over publication of the NPR – a document extensively discussing the American nuclear weapons arsenal. The debate centers on the purpose of the American nuclear arsenal, and specifically the number of weapons needed; the necessity of developing new weapons; the nation’s level of readiness; and more. In order to achieve the majority necessary for the ratification of the treaty (and subsequently for the CTBT – Comprehensive Nuclear Test Ban Treaty – as well) Obama must be able to demonstrate that no damage has been done to America’s nuclear deterrence capabilities. The very modest reduction contained in this treaty will likely help Obama in this process. **One could thus argue that the importance of START stems primarily from the fact that it continues the process of verification and regulation**. It is also presented as a means of strengthening the ties between the nations, though in fact it does not seem that there will be meaningful political ramifications (such as, for example, for the Iranian issue). **However, beyond this the new treaty is the kind of agreement whose importance lies more in the narrative it is supposed to embrace and less in the substance of the decisions it contains.** It was not for naught that that the presidents of both countries signed the treaty in Prague. The 2009 Prague speech introduced into international consciousness the notion that Obama has a vision of the United States leading the way in reducing the world’s nuclear arsenal. On the basis of this vision he was also awarded the Nobel Peace Prize. However, until this treaty Obama found it difficult to point to any concrete action – and in fact, he recently approved a significant increase in the defense budget designated for the United States nuclear arsenal. **A year after that famous speech in Prague, Obama is presenting START as a step in service of his vision**. This week Washington will host a nuclear summit dealing with the securing of nuclear weapons, and next month New York will see the Review Conference of the Nuclear Non-Proliferation Treaty (NPT). **Obama needed this treaty to demonstrate that he holds fast to his vision and is acting to implement it by leading the United States in taking steps to reduce the number of nuclear arms in the world.** And so, reality notwithstanding, **the treaty is presented as a significant step in nuclear arms reduction by the two nations that hold the vast majority of the world’s nuclear arms** (about 95 percent of all nuclear weapons). Thus after the announcement of the formulation of the treaty, Senator John F. Kerry wrote in the Boston Globe: “A year ago, President Obama threw his weight behind efforts to make the world safer from nuclear weapons. It is working. On April 8, he [signed] a new arms control treaty with Russia that would cut the nuclear arsenals of both countries and reinforce America’s leadership on efforts to reduce the threat of nuclear weapons.”

START is critical to U.S. hegemony – Ratifying START demonstrates benign hegemony to Russia, otherwise Russia proves threatening to U.S. heg

**Shafei 10**; (Rhonda Shafei is a Columbia College, She is the publisher of the Columbia Political Union and the director-general of CMUNCE.); 4/14/10; “Why you should still care about Russia”; http://www.columbiaspectator.com/2010/04/14/why-you-should-still-care-about-russia

However, such ill will does exist and is characterized by popular resistance to American encroachment in Europe and Central Asia. Three recent events best demonstrate why we must directly deal with and care more about Russia: 1) the success of a pro-Moscow candidate in February Ukrainian presidential elections, 2) revolutionary tides in Kyrgyzstan at the hands of a pro-Moscow, socialist opposition party, and 3) the complete obliteration of the pro-Washington Polish executive (albeit by the doing of nature). The significance of the victory of Ukrainian candidate Viktor Yanukovich and the resurgence of Russia across Europe and Asia lies in the fact that both occurred via popular support. This is precisely why **Russia is a hegemonic risk to the United States**. **Establishing hegemony is not just about exhibiting brute military strength—it’s about persuading, motivating, and expanding one’s reach over hearts and minds**. Ukrainians were fed up with their 15 percent GDP loss following the global economic crisis, and viewed their pro-Western government as incapable of handling their bread and butter issues. Pro-Russian alignment therefore became widely attractive by comparison. The extent of Russian involvement in last week’s Kyrgyz unrest is only beginning to unfold. Recent news reports state that the Russian media actively worked to criticize Kyrgyz president Kurmanbek Bakiyev’s government in the weeks leading up to the outburst of opposition riots and protests. While Russian Prime Minister Putin has supported Kyrgyz popular discontent against Bakiyev’s corruption, morals and corruption have little to do with Russian interests in Kyrgyzstan—it’s all strategic for Russia. Russian opposition to Bakiyev and support for the resistance movements only began after Bakiyev reneged on a deal to close an American military base at Manas. Russia retaliated on Bakiyev’s deal-breaking by slapping tariffs on Kyrgyz commodities, slashing natural resource subsidies to Kyrgyzstan, and supporting the forced removal of Bakiyev and his cronies. To attempt to bring my argument full circle, I’ll leave you with a conspiratorial-esque note on the most recent Polish plane crash disaster. **The major point of contention between Russia and the United States that stalled the signing of New START** was the ballistic missile shield the U.S. hopes to construct in Eastern Europe. The Russians vehemently oppose a shield that they believe will be pointed at them. During New START negotiations, Russia failed to convince the U.S. to abrogate this defense plan. It’s worth mentioning that the fallen Polish president Lech Kaczynski approved the construction of the US defense shield within his nation, and that his fellow passengers aboard the crashed plane were of the most vocal supporters of an augmented U.S. presence in formerly Soviet Europe and Asia. I don’t mean to say that Russia plotted the Polish crash or that the Russians are scheming for a new Cold War. Rather, I simply urge you to rethink, examine, and scrutinize Russian politics. We can take **political developments** at face value and assume the best or effectively analyze them, preparing ourselves for the worst.

Leadership prevents global nuclear exchange

Zalmay **Khalilzad 95**, Defense Analyst at RAND , "Losing the Moment? The United States and the World After the Cold War" The Washington Quarterly, RETHINKING GRAND STRATEGY; Vol. 18, No. 2; Pg. 84

Under the third option, the United States would seek to retain global leadership and to preclude the rise of a global rival or a return to multipolarity for the indefinite future. On balance, this is the best long-term guiding principle and vision. Such a vision is desirable not as an end in itself, but because a world in which the United States exercises leadership would have tremendous advantages. First, the global environment would be more open and more receptive to American values -- democracy, free markets, and the rule of law. Second, such a world would have a better chance of dealing cooperatively with the world's major problems, such as nuclear proliferation, threats of regional hegemony by renegade states, and low-level conflicts. Finally, U.S. leadership would help preclude the rise of another hostile global rival, enabling the United States and the world to avoid another global cold or hot war and all the attendant dangers, including a global nuclear exchange. U.S. leadership would therefore be more conducive to global stability than a bipolar or a multipolar balance of power system.

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# Impact- Nat Security

START is key to U.S. security and preventing nuclear war

Richard **Klass**; 4/25/20**10**; Richard Klass is a retired USAF colonel. He served as a White House Fellow in the Nixon administration and in the Pentagon in the Carter administration where he dealt with strategic arms control issues. He currently sits on the board of the Council for a Livable World and is president of the Veterans Alliance for Security and Democracy Political Action Committee. He is a resident of Arlington, Va., but often visits his granddaughter and her parents in Somesville, Maine. “New START Treaty Crucial for U.S. Security” The Center For Arms Control and Non-Proliferation, http://www.armscontrolcenter.org/policy/nonproliferation/articles/new\_start\_crucial\_for\_US\_security/

Over the course of the next several months, policymakers, military leaders, and the general American public will have the most profound and consequential debate on nuclear weapons since the dawn of the Cold War. I recently returned from a two-day tour of Maine discussing what exactly constitutes this “nuclear spring.”

On April 6, the administration released a Nuclear Posture Review, which outlined a new nuclear weapons strategy designed to reduce our reliance on Cold War weapons systems. On April 8, President Barack Obama and Russian President Dmitry Medvedev signed a new Strategic Arms Reduction Treaty to reduce the countries’ numbers of deployed, strategic nuclear weapons.

On April 13, President Obama hosted a Global Nuclear Security Summit in Washington, D.C., where more than 40 heads of state to discuss how to best ensure the security of nuclear weapons and materials. Finally, in May, as New START is submitted to the Senate for its advice and consent, a review conference on the Non-Proliferation Treaty, the cornerstone of the global arms control regime, convenes in New York.

Looking farther down the line, the Obama administration is also committed to submitting a second crucial arms control treaty, the Comprehensive Test Ban Treaty, to the Senate, likely next year.

These events have set the stage for a major national security debate over the next six to 12 months.

**The biggest question is whether this spring will truly be a new beginning in the efforts of the United States to confront the dangers of the 21st century, or whether it will be a “false spring,” leading to a bleak future where the U.S. remains focused on threats of the past.**

The key to answering that question, and the link that will signal U.S. leadership on the other arms control priorities, is the fate of New START in the U.S. Senate where 67 senators are needed to secure its approval.

**While the Senate debate will likely focus on the new treaty’s verification measures, the rest of the world will likely give greater weight to the size of the reductions.**

As parties of the Nuclear Non-Proliferation Treaty, the U.S. and Russia are legally bound to take steps toward the reduction and eventual elimination of their nuclear weapons arsenals — the fundamental bargain of the NPT bars states without nuclear weapons from acquiring them and commits the five original nuclear powers to reduce and ultimately eliminate their arsenals.

**The status of New START in the U.S. Senate will signal to the rest of the world how seriously America takes its commitment to these and other arms control priorities.**

A bipartisan majority is needed to approve the treaty. It is vital that a goal as serious and bipartisan as protecting America from the threat of nuclear weapons not fall into the trap of partisan political gridlock that often plagues Washington, D.C.

If the past is precedent, this should not be a problem. Indeed the major treaties arms control treaties such as SALT I (Nixon), Intermediate Nuclear Forces (Reagan) and START I (George H.W. Bush) were signed by Republican presidents and received overwhelming bipartisan support.

In the current toxic environment in Congress, it will take strong and early leadership to have New START considered on the basis of national security, not partisan politics. Both Sens. Susan Collins and Olympia Snowe will be critical in determining the tone and outcome of New START’s debate. And other Maine voices — such as former senator and Defense Secretary William Cohen — could add important weight on the side of civility.

**Nuclear weapons may have kept us safe during the Cold War, but today, we live in a different century and face new dangers. In the 21st century, more nuclear weapons mean more opportunities for accidents or theft by terrorists.**

**Reducing the numbers and stopping the spread of nuclear weapons will require a global effort, and** both **New START** and the test ban treaty **are critical measures that will do both, greatly enhancing our national security. The fate of New START in the Senate will decide the outcome of our nuclear spring and our hopes for a more secure future.**

# Relations DA

(only links)

**Plan kills US-Russia and US-China relations**

**Indian Pugwash Society 9** (Society dedicated to promote study, discussion, knowledge, and stimulate general interest in problems relating to science and world affairs, written in association with the Institute for Defense Studies and Analyses, Contributors: Arvind Gupta – senior diplomat with expertise on security issues and is Lal Bahadur Shastri Chair, Amitav Malik – former member of the National Security Advisory Board and Director Defense Science Centre, Ranjana Kaul – partner, Dua Associates, Rajaram Nagappa – former associate director of Vikram Sarabhai Space Centre, Sampreet Sethi – Senior research fellow at the Centre for Air Power Studies, P.K. Sundaram – senior research fellow at the Indian Pugwash Society, Ajey Lele – Research fellow at the Institute of Defense Studies and Analyses, Space Security Need For A Proactive Approach, 2009, print, page 44, PC)

While the US seems to have identified space as the singular force multiplier for its future military activities and hence seeks its control and dominance, others such as Russia and China, would rather deny such capabilities to the US so as to preserve the effectiveness of their nuclear missile deterrence capabilities, both quantitatively and qualitatively. While the US claims that the missile defence systems are being built to cater to threats from rogue nations or fundamentalist groups, Russia is apprehensive of the positioning of missile defence components in Poland and Czech Republic, and China sees the US space capability expansion as challenging its power equation in the region. There is thus, a growing **'trust deficit'** between the major space-faring powers, that can lead to a destabilising offence-defence spiral in space capabilities.

**Plan destabilizes international relations**

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The trend lines indicate that the pull of technology and the imperatives of protecting national interests will push the envelope for military use of space, with the introduction of advanced technology systems and weapons in outer space for missile defence, anti-satellite operations and for extended force projections. Besides the US, Russia and China are the other major investors in space technology and both are believed to have advanced missile defence and ASAT capabilities. R&D in other space critical technologies such as energy beam technologies and microsatellite technologies has gained momentum in several other countries. All these are dual-use technologies that have legitimate applications for civilian use. Clearly, nations that are still without space capabilities will aspire for it and the advanced nations with space capabilities will try to preserve their leadership in space. This essentially will mould the emerging global space order (See Figure 6.2). Another major aspect of the emerging global space order will be the offence-defence spiral of techno-military competition among the stronger space faring nations for building necessary deterrence capacity. As discussed in an earlier chapter, building of counter-space capabilities can create a **'trust deficit'** in interstate relations **and can create destabilising effects in international relations.**

# Arms Race DA

**U.S. Space Missile Defense would spark a space arms race**

**News Bulletin 05** (U.S. national missile defense program may unleash space arms race – expert, January 24, 2005, , Lexis Nexis) E.L.

Deployment of the U.S. national missile defense system may provoke a space arms race, Vladimir Belous, a leading scientist with the International Economy and Affairs Institute, told Interfax-Military News Agency on Monday. "Deploying reconnaissance and attack components of the national missile defense system in space will tip the military danger threshold in the world, and start a space arms race," Belous said during the seminar on military space problems, held at the Space Research Institute of the Russian Academy of Science in Moscow. Belous noted that the national missile defense system envisioned deploying almost all informational and reconnaissance components in space. "Besides, it is worth mentioning that space-deployment combat systems, including air-and space-based lasers, are being developed," Belous said. He noted that the U.S. slated air-based laser tests for 2007, while space-based laser tests for 2012. Academician Roald Sagdeyev of the Russian Academy of Science, who also participated in the seminar, said that national missile defense system components could be considered a threat to spacecraft in low orbits. "Anyone, possessing ground-based interceptors of the national missile defense system, will have the prototype of the ground-based anti-satellite system," Sagdeyev said. According to him, national missile defense interceptors may be considerably more efficient in engaging satellites, rather than ballistic missiles. "It is easier for an interceptor, launched from the ground, to intercept a satellite, flying along a predetermined orbit, than a covertly launched missile, which has to be destroyed within mere minutes," Sagdeev said. According to him, should the U.S. deploy the national missile defense system, China or Russia may choose to do the same. On the whole, the problem of deploying arms in space requires an urgent discussion on the part of the international community, and corresponding international agreements, signed by all states.

**SMD would create a space weapons global arms race**

**The Guardian 04, (**December 7, 2004, Former U.S. ambassador warns against missile defence, Lexis Nexis) E.L.

 The proposed North American ballistic missile-defence shield will be ineffective against ground-based systems and could spur a new arms race, says a former U.S. ambassador to disarmament talks. In an open letter to the prime minister, Jonathan Dean, who participated in reduction talks with Warsaw Pact countries three decades ago, says the system is vulnerable to simple countermeasures and therefore is unjustifiable. Its real impact will be as a stepping stone to space-based weapons, warns Dean, now a global security adviser to the Union of Concerned Scientists. "The missile defence program is already proving to be a major political driver for U.S. development of space weapons," Dean said in the letter, co-signed by David Wright, the organization's senior scientist. "Many missile defence proponents in and out of the (U.S.) government see space-based missile defence interceptors as the ultimate goal of the program." Prime Minister Paul Martin has said Canada is considering signing on to the continental missile defence program, but he maintains Canada adamantly opposes weapons in space. Opponents fear the program is the thin edge of a wedge that will eventually weaponize space and escalate a global arms race. Dean said the U.S. Missile Defence Agency has announced plans to place prototype interceptors in space later this decade. The missile defence program is already raising concerns in China, which sees itself as a potential target of such weapons, Dean said. It has also cooled U.S.-Russian relations. Russian President Vladimir Putin has in the past year announced tests of defence- evading warheads and missile defence interceptors, as well as a new nuclear warhead.

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| **China is peaceful toward space, weaponizing it would spark an arms race****Xinhua General News Service** September 1, 20**05**, China's Endeavors for Arms Control, , Lexis Nexis) E.L.China views and handles missile defense issues from the perspective of maintaining global strategic balance and stability and safeguarding regional peace and security. China understands the security concerns of relevant countries about the proliferation of ballistic missiles and their technology and stands for political and diplomatic solution to this matter. Research, development and deployment of missile defense systems are by no means an effective way to solve the problem. China does not wish to see a missile defense system produce negative impact on global strategic stability, bring new unstable factors to international and regional peace and security, erode trust among big powers, or undermine legitimate security interests of other countries. China is even more reluctant to see some countries cooperate in the missile defense field to further proliferate ballistic missile technology. China believes that relevant countries should increase transparency in their missile defense program for the purpose of deepening trust and dispelling misgivings. As the Taiwan question involves its core interests, China opposes the attempt by any country to provide help or protection to the Taiwan region of China in the field of missile defense by any means. Preventing Weaponization of and an Arms Race in Outer Space Outer space is the common wealth of mankind. At present, the danger of weaponization of outer space is increasing with each passing day. Taking weapons into outer space will lead to an arms race there and make it a new arena for military confrontation. Such a prospect is not in the interest of any country. China has all along stood for peaceful use of outer space. The existing international legal instruments on outer space cannot effectively prevent weaponization of and an arms race in outer space. The inter-national community should take effective preventive measures, negotiate and conclude relevant international legal instrument to prohibit deployment of weapons in outer space and the threat or use of force against objects in outer space so as to ensure that outer space is used purely for peaceful purposes. (more)  |

**Space Missile Defense would start an arms race threatening mankind**
Michael **Byers**, Professor Michael Byers teaches international law at Duke University, North Carolina. Independent on Sunday, May 6, **2001**,THE RETURN OF DR STRANGELOVE; THE USA'S DECISION TO SCRAP THE ABM TREATY IN FAVOUR OF ITS OWN MISSILE DEFENCE SYSTEM INCREASES THE RISK OF NUCLEAR WAR, Lexis Nexis E.L.

The world became a more dangerous place on Tuesday, when George W Bush confirmed that the United States would move forward with its plan to build a large-scale missile defence system. By rejecting the 1972 Anti- Ballistic Missile Treaty as "outdated", Bush did more than abandon a decade- long policy of defence through mutual deterrence. He launched a new arms race which will extend beyond defensive systems into increased numbers of offensive weapons and - almost inevitably - into space. In the past 30 years, considerable progress has been made in arms control. The numbers of missiles and warheads have been greatly reduced by agreements between the United States and the Soviet Union (and now Russia). China has limited its long-range nuclear arsenal to 18 missiles with single warheads. And the proliferation of advanced military technology has been limited, to the point where nuclear weapons have not been a factor in the last century's countless civil wars. Cooperation between the major powers on the subject of arms control has rested on the simple fact that no country is at present able to protect itself against nuclear attack. But 18 long-range missiles, or a couple of Trident submarines, provide more than enough deterrence to achieve the very same end. The anti-ballistic missile treaty preserves this state of mutual deterrence by prohibiting the construction of large-scale missile defence systems. Thanks to the treaty, countries such as the United Kingdom have been able to get on with the business of feeding, housing and schooling their citizens - and, sometimes, saving strangers abroad. Right-wing Americans, however, many of whom own guns and live in gated communities, find the vulnerability and reliance on others that is inherent in mutual deterrence impossible to accept. Those feelings have only increased in intensity because of their country's new-found status as the single superpower, with its unparalleled ability to project force around the world. And the end of the Cold War, followed by eight years of Democratic control of the White House, has led to substantial reductions in military spending - much to the annoyance of the defence industry, whose links to the Republican party are particularly strong. Donald Rumsfeld, the new defence secretary, is still in the process of divesting himself of his personal investments of $ 15m of defence-industry assets. The President's father, George Bush Sr, is closely affiliated to the Carlyle Group, a huge private investment fund that owns a number of key armaments companies. The new Bush administration has become fully subsumed within a "military-industrial" network of interests - something another US president, General Dwight Eisenhower, identified and warned against almost 50 years ago. Missile defence, an exercise that has been described as trying to hit a bullet with a bullet, is extraordinarily expensive, and likely to become even more so. A price tag of $ 60bn was attached to the plan proposed to Bill Clinton by the Pentagon last year. President Bush has been silent on the cost issue, no doubt because the numbers are growing quickly. The Pentagon's long-term plans for missile defence platforms in orbit will cost even more. Make no mistake: at a price that may eventually rival Bush's $ 1.6 trillion tax cut, missile defence is designed to rescue and revitalise the US military and the companies it serves. As for the technology involved, the question is not whether it will work, but when. With unlimited resources at its disposal, it might take the Pentagon 10 years to develop the capacity reliably to shoot down a single missile before it reaches the United States. But this capacity would only partly address the "rogue state" problem that has provided the ostensible justification for missile defence. There are lots of other ways to deliver a nuclear bomb to the US - in a suitcase, for instance. Chemical and biological weapons are even easier to transport. What is striking is how the language used by the Bush administration has changed in the month since an American surveillance plane and a Chinese fighter jet collided over the South China Sea. Bush now speaks of the "different threats" that now exist, an ambiguous phrase that is clearly meant to include China. His recent commitments to defend Taiwan with US troops is yet further evidence of the fundamental policy shift that has occurred. A missile defence system capable of reliably shooting down single missiles would also be capable of stopping many, if not all, of the missiles now in the Chinese arsenal. This capacity would dramatically shift the balance of power between the United States and China, leaving the latter open to an American attack unless it were to build many more missiles - and perhaps a defensive system of its own. And if China builds more missiles, India, and then Pakistan and Israel in turn, will feel compelled to follow suit. The end result of missile defence will be, quite simply, more missiles. Nor is it likely that the Bush administration will stop at a system that could not fully protect the United States. The Pentagon has been quite upfront about its plans for the militarisation of space, with a view to controlling not only the final frontier but also the Earth itself. Those who oppose the US in the future will have far more to worry about than trade sanctions, cruise missiles and precision-guided bombs: they will ultimately face laser strikes from space. Another international instrument, the 1969 outer space treaty, which prohibits the militarisation of space, is heading for the chopping-block. The Bush administration, however, has learned from the negative reaction to its abrupt rejection of the Kyoto protocol: that foreign leaders and publics need to be managed, if not led. With the fig-leaf of consultations and vague offers of shared protection and control, Washington's spin doctors and their legions of envoys are betting that strong opposition to missile defence can be confined to a handful of countries - notably China, Russia and France. The leaders of other countries, they calculate, will weigh the uncertain benefits of opposing the US against the considerable risks - and all with regard to a plan that will take at least two or three electoral cycles to implement. Indeed, Bush's announcement last week may well have been timed to coincide with the general election campaign in Britain - a time when New Labour feels compelled to protect its right flank. Election campaign or not, Tony Blair and other political leaders abrogate their most important responsibility when they waffle on about US missile defence. In doing so, they make the probable inevitable: the start of a new arms race that threatens the lives of their citizens, not to mention humankind. If the anti-ballistic missile treaty is allowed to perish, we will be thrust back into the 1960s: Dr Strangelove, the Cuban missile crisis and all. As children of the Cold War, our leaders should know better. Did they not too suffer from nightmares of nuclear war?

**US unilateral deployment of space weapons causes an arms race**

**Krepon and Katz-Hymen 05** (Michael- MA from the School of Advanced International Studies at Johns Hopkins University, and a BA from Franklin & Marshall College. He also studied Arabic at the American University in Cairo and Michael-Professor at Carnegie Melon University, “Weapons and Proliferation”, July 2005, http://www.stimson.org/images/uploads/research-pdfs/Space\_Weapons\_and\_Proliferation.pdf)np

Will flight-testing or deploying space weapons prompt arms races?1 This assertion figures prominently in the writings of both critics and boosters of space warfare initiatives. Critics Helen Caldicott and Craig Eisendrath argue that “placing weapons in space inevitably would provoke an arms race there. Such a race eventually would consume hundreds of billions of dollars.”2 Similarly, Mike Moore contends that, “If the United States chooses to go the route of space dominance, other countries will look at ways to make sure it doesn't happen, and we'll be back in another arms race.”3 Supporters of space warfare initiatives also base their advocacy, at least in part, on preempting an arms race. Everett Dolman argues that, “The time to weaponize and administer space for the good of global commerce is now, when the United States could do so without fear of an arms race there.”4 Baker Spring agrees: “If the US military squanders its lead in military space capabilities, it will invite the arms race that arms control advocates say they wish to avoid.”5 We contend that the arms race argument is weak and beside the point, since arms racing is not needed to negate the space weapons of a potential adversary. Advanced space-faring nations like Russia and China could, if they felt it necessary, compete in making low earth orbit inhospitable to satellites with modest investments and unsophisticated techniques. Simply put, asymmetric warfare can be waged in space as well as on the ground. Any nation that possesses medium-range ballistic missiles, space tracking capabilities, and the means to precisely insert a satellite into orbit also has the ability to destroy a satellite. Satellites are expensive and vulnerable; they don’t need to be attacked by large numbers of highly sophisticated weapons in order to be placed in jeopardy. Rather than engaging in an expensive arms race, states threatened by US space warfare initiatives are likely to respond in cost-effective ways to negate US efforts to dominate space.

**An SLB system has the potential to encourage other countries to expand their missile defense**

**FAS, 10 –** (10/20/10, Federation of American Scientists Space Policy Project, “Space Based Lasers”, <http://www.fas.org/spp/starwars/program/sbl.htm>) MH

The potential to intercept and destroy a missile over enemy territory soon after launch, rather than over friendly territory, makes the development of a boost phase intercept (BPI) capability very desirable. In concert with ground based theater missile defense (TMD) systems already under development, the U.S. continues to investigate BPI concepts for BMD systems. The SBL program could develop the technology to provide the U.S. with an advanced BMD system for both theater and national missile defense. BMDO believes that an SBL system has the potential to make other contributions to U.S. security and world security as a whole, such as inducing potential aggressors to abandon ballistic missile programs by rendering them useless. Failing that, BMDO believes that the creation of such a universal defense system would provide the impetus for other nations to expand their security agreements with the United States, bringing them under a U. S. sponsored missile defense umbrella. An SBL platform would achieve missile interception by focusing and maintaining a high powered laser on a target until it achieves catastrophic destruction. Energy for the sustained laser burst is generated by the chemical reaction of the hydrogen fluoride (HF) molecule. The HF molecules are created in an excited state from which the subsequent optical energy is drawn by an optical resonator surrounding the gain generator.

Bottom of Form

# China DA

**BMD causes china to proliferate rapidly**

**Zhang 05** (Hui Zhang, Senior Research Associate at Harvard John F. Kenned center for Foreign Policy , August 2005, “Chinese Perspectives on Space Weapons”, <http://www.amacad.org/hui3.pdf>) JB

Chinese analysts and policy makers are discussing whether and how to respond to U.S. missile defense and space weaponization plans. A few Chinese scholars argue that China should not respond at all because the U.S. missile defense program is not feasible and will likely be given up. However, conversations with Chinese experts and officials demonstrate that most Chinese believe that China must respond. Historically, China developed nuclear weapons for the sole purpose of guarding itself against the threat of nuclear blackmail. Many Chinese officials and scholars believe that China should maintain the effectiveness of its nuclear deterrent by every possible means, to negate the threats from missile defense and space weaponization plans.78 As one Chinese official stated, “China is not in a position to conduct [an] arms race with [the] U.S. and it does not intend to do so, particularly in the field of missile defense. However, China will not sit idly by and watch its strategic interests being jeopardized without taking necessary measures. It is quite possible and natural for China to review its military doctrine and a series of policies on [its] relationship with big powers, Taiwan issues, arms control and nonproliferation, etc.”79 In response to the pursuit of space weapons by the United States, the first and best option for China—and the option it is now pursuing—is to advocate an arms control agreement. However, if this effort fails and if security concerns perceived to be legitimate are ignored, China will very likely develop responses to neutralize any threat presented by U.S. actions. The timing of such measures is still being debated. Because it is not clear what type of missile defense system the United States will finally deploy, or whether U.S. space control plans will be implemented, it is difficult to identi- fy conclusively China’s specific countermeasures. China’s options for re- sponse include: building more ICBMs; adopting countermeasures against boost, mid-course, and terminal phase missile defense; developing ASAT weapons; and reconsidering China’s commitments on arms control. In the discussion below, I examine the types of countermeasures that could be used effectively to neutralize U.S. missile defense and space control plans; China’s technical capabilities in applying those countermeasures; and the other re- sponses, diplomatic or legal, that might be expected. It should be noted that these discussions are based on China’s capabilities, and should not be under- stood as a characterization of China’s intentions.

**Build More Warheads**

One optimal countermeasure for China is to build more ICBMs.80 Although some supporters of U.S. missile defense claim that China’s nuclear modern- ization will go forward whether or not the system is deployed, many Chinese analysts believe that U.S. missile defense efforts will encourage an accelera- tion of China’s nuclear modernization and influence its force both quantita- tively and qualitatively. China’s strategic nuclear force is among the smallest forces of all declared nuclear powers and also the most outmoded in quality. China’s silo-based, single-warhead ICBMs (the DF-5A), of which there are approximately twenty, are liquid-fueled missiles with warheads and fuel stored separately from the missile. They require about two to four hours of preparation time before launch. China has one nuclear-armed submarine, which entered service in the late 1980s; however, the twelve submarine-launched ballistic missiles (SLBMs) it carries have a fairly short range (Julang I, with a range of about 1700 km). The submarine patrols close to the Chinese mainland and is infrequently at sea.81 China’s pursuit of nuclear modernization is understandable. China initiated its nuclear modernization programs in the early 1980s. Current efforts focus mainly on enhancing the survivability of China’s strate- gic nuclear force via greater mobility. It is reported that China is replacing its silo-based, liquid-fueled ICBMs with a road-mobile, solid-fueled missile (the Dong Feng-31, or DF-31). China conducted the first flight test of this missile in August 1999, with deployment anticipated to begin in 2005. It is believed that the DF-31 will have a range of about 8000 km and will be targeted prima- rily against Russia and parts of Asia. Although it may be able to hit targets in Hawaii and Alaska, it will not reach the continental United States.82 It is re- ported that China is also developing the DF-31A, a road-mobile, solid-fueled missile with a range of up to 12,000 km. The CIA estimates that the DF-31A may be tested “within the next several years.”83 In addition, China is reported to have begun work on the development of new nuclear-armed submarines (through Project 094), each carrying 16 Julang II SLBMs that may have inter- continental range. However, deployment of these submarines is most likely many years away. Chinese nuclear modernization has proceeded at a very moderated pace. Were it not for U.S. missile defense plans, the pace might not be expected to change significantly. Because China’s focus is on survivability rather than quantity, the size of its nuclear arsenals would likely be much smaller if they did not have to contend with U.S. missile defenses. China certainly did not rush to bring new missiles into its force in the past. Western sources report that China deployed two ICBMs in 1981, a total of four by 1987, a total of five by 1990, and about 20 by 2004.84 Extrapolating from past experience, China would be expected to build no more than 50 ICBMs by 2015. In fact, the un- classified 1999 U.S. National Intelligence Estimate (NIE) on nuclear forces noted that by 2015 China “will likely have tens” of ICBMs capable of attacking the United States, having added “a few tens” since 1999.85 In the most recent NIE estimate, China is projected to have about 75–100 ICBMs by 2015.86 However, the U.S. intelligence community seems to often overestimate China’s nuclear forces. For example, in 1984, the Defense Intelligence Agency set “the best estimate” for the projected number of Chinese nuclear warheads at 592 in 1989 and 818 in 1994.87 In reality, according to western reports, it is estimated that there are approximately 400 warheads in the Chinese arsenal. Given that China is currently focusing on the quality of its force, and not on the number of its ICBMs, it might be expected that without a U.S. missile defense deployment, China would deploy no more than 50 ICBMs by 2015. However, this situation would surely change significantly with the deployment of U.S. missile defenses. To maintain a credible minimum retaliatory capability, China would have to shift the size and quality of its nuclear arsenal. The nature of the response would depend on a number of factors, including technology, cost, and the specific missile defense system. Without knowing the specifications of U.S. missile defense system, including the numbers of interceptors and the firing doctrine, it is difficult to predict an exact response. One could still project the potential changes in the size of China’s nuclear arsenal based on a few simple assumptions. Assume that China keeps its no- first-use policy and that the survival rate of Chinese ICBMs after a U.S. first strike is expected to be about 50 percent. With no U.S. missile shield, this would leave China with 10 ICBMs for retaliation, a sufficient number to kill at least several hundred thousand people and to deter a first strike attempt by the United States. However, as the United States proceeds with deployment of its limited ground-based missile defense—for example, a deployment of 100 interceptors and a follow-up deployment of up to 250 interceptors, as envisioned by the Clinton administration88—China’s nuclear force would need to grow to maintain a credible deterrent. Assuming a U.S. missile defense system would operate under a firing doctrine of two-on-one, shoot-look- shoot, which means that two interceptors would be first launched to hit every incoming warhead, and if these fail then another two interceptors follow, then one might assume that four interceptors would be deployed for every expect- ed warhead. A Chinese military planner, however, would assume the worst case, i.e., that the first two interceptors would successfully hit their target warhead. Thus, if the United States deployed 100 interceptors, and if China wished to preserve for the purpose of deterrence its current retaliatory capa- bility of 10 surviving ICBMs, then it would need a force of 120 ICBMs. Half of these would be wiped out in an initial strike, and the missile shield would in- tercept 50 of the remaining 60 missiles once they were launched in retalia- tion. This would leave 10 to find their targets. In the case of 250 interceptors, China would need at least 270 ICBMs.

**China hates the Plan – hates the unilateral action and China will build up its own arsenal, resulting in a destabilizing arms race**

**Zhang 05** (Hui Zhang, Senior Research Associate at Harvard Belfare Center for Science and internaitional Affairs, August 2005, “Chinese Perspectives on Space Weapons”, <http://www.amacad.org/hui3.pdf>) JB

Chinese officials have expressed a growing concern that U.S. missile defense and “space control” plans, particularly the development of space weapons, will stimulate a costly and **destabilizing arms race**. In April of 2002, Vice Foreign Minister Qiao Zonghuai summarized the official Chinese view of U.S. plans: “Considerable progress has been made in outer space-related weapons research and military technology. It will not take long before drawings of space weapons and weapon systems [are] turned into lethal combat instruments in outer space. Meanwhile, military doctrines and [concepts] such as “control of space” and “ensuring space superiority” have been unveiled successively, and space operation [command] headquarters and combatant troops are in the making. If we should remain in- different to the above-mentioned developments, an arms race would very likely emerge in outer space in the foreseeable future. Outer space would eventually become the fourth battlefield besides land, sea and air. If such a scenario should become reality it would be virtually impossible for mankind to continue their anticipated exploration, development and utilization of outer space, and all economic, cultural and social activities in connection with the utilization of outer space would be severely interrupted.” Although those in the Chinese scientific community have more nuanced perceptions than many officials, particularly regarding the feasibility and ultimate result of U.S. space plans, they share in the widespread concern over U.S. ambitions. The prevailing view in China is that U.S. space weaponization plans will have disastrous consequences for international security and the peaceful use of outer space. Through space weaponization, the United States seeks to neutralize China’s nuclear deterrence capabilities. Many in China worry that this would free the United States to intervene in China’s affairs and to undermine efforts at reunification with Taiwan. These concerns have prompted China to clearly express—with sufficient frequency to merit an acronym—that the Prevention of an Arms Race in Outer Space (PAROS) is an urgent and realistic objective. A 2004 white paper on China’s national defense emphasized, “Outer space is the common property of mankind. China hopes that the international com- munity would take action as soon as possible to conclude an international legal instrument on preventing the weaponization of and arms race in outer space through negotiations, to ensure the peaceful use of outer space.” In recent years, the UN General Assembly has adopted resolutions—annually, and with an overwhelming majority—calling for the UN Conference on Disarmament (CD) to begin negotiations on PAROS. China and other nations have also advocated at the CD in Geneva for a negotiation of PAROS. Despite these efforts, the United States staunchly opposes any official discussion on outer space in this forum. The dispute has resulted in a deadlock at the CD in recent years. To resume and facilitate the CD negotiations on arms control, the issue of space weapons will have to be examined. In this paper, I first examine in detail the major Chinese security concerns that are prompted by U.S. ambitions for missile defense and control of outer space. Second, I explore possible measures that China might consider in response to U.S. plans. Finally, I suggest technical and legal measures that the international community could take to protect the broad range of scientific, commercial, and military activities of all countries in space.

**BMD capabilities worry China and threaten miscalculation**

**Zhang 05** (Hui Zhang, Senior Research Associate at Harvard John F. Kenned center for Foreign Policy , August 2005, “Chinese Perspectives on Space Weapons”, <http://www.amacad.org/hui3.pdf>) JB

Even a limited missile defense system could in principle neutralize China’s twenty single-warhead ICBMs capable of reaching the United States.49 Chinese officials realize this danger. “It is evident,” said Ambassador Sha Zukang, who until recently was the director general of the Department of Arms Control and Disarmament at the Chinese Ministry of Foreign Affairs, “that the U.S. NMD will seriously undermine the effectiveness of China’s limited nuclear capability from the first day of its [NMD] deployment. This cannot but cause grave concerns to China.”50 Many Chinese fear that whether or not U. S. missile defenses are as effective as planned, decision-makers could become incautious in their actions, willing to risk a disarming first strike because they believe they have the capability to intercept any surviving Chinese missiles.51 Some Chinese analysts argue that deployment of U.S. missile defenses will also support offensive operations.52 China is concerned about the U.S. refusal to declare a no-first-use policy, and the 2002 NPR has fed these anxieties. The NPR specifically described conditions for the use of nuclear weapons in the event of conflict in the Taiwan Strait, and the possible use of tactical nuclear weapons.53 The United States’ lack of a no-first-use policy, in combination with a deployed BMD system, would lower the nuclear threshold and increase the reliance on nuclear weapons, making nuclear conflict with China more likely. According to John Steinbruner, China and other countries have good cause for concern: “A defensive missile deployment operating in conjunction with a preemptive attack would pose a formidable threat to the deterrent capability of any military establishment operating out- side of the United States alliance system.”54 There is also concern in China about U.S. plans for global force projection. Current Chinese nuclear modernization plans call for the development of mobile ICBMs. Some proposed space weapons (such as common aero vehicles) would be used against hard and deeply buried land targets and mobile targets, and would pose a huge threat to mobile ICBMs. The NPR recognizes the value of enhancing U.S. capacity to target mobile missiles. As the report says, “A U.S. demonstration of the linkage between long-range precision strike weapons and real-time intelligence systems may dissuade a potential adversary from investing heavily in mobile ballistic missiles.”55 Consequently, China worries that U.S. space weapons and its missile defense system could subject China to political or strategic blackmail and in- fringe on China’s sovereignty. These capabilities would free the United States to intervene much more in China’s affairs, including efforts at reunification with Taiwan. This concern has been underscored in recent years by U.S. ef- forts to boost cooperation with Japan, and potentially with Taiwan, in re- search and development of advanced theatre missile defense.

# Russia relations DA

**SMDs would just exacerbate tensions with Russia, empirics**

**Moten 10** (Matthew, Colonel and general editor of the Combat Studies Institute Press, 6/21/10, Combat Studies Institute Press, "War Termination," pg. 264, http://www.cgsc.edu/carl/download/csipubs/WarTermination2010.pdf, MM)

The United States responded to the Soviet move into Afghanistan with everything short of a declaration of war. Traumatized by the fall of Saigon in April of 1975, ignominiously ending years of war in Vietnam and by revolutionary Iran’s seizure and imprisonment of more than 50 American hostages and a humiliating failed effort to retrieve them, Americans were in an especially anxious and angry mood. President Jimmy Carter had taken office in 1977 committed to detente and even ending the Cold War but three years of frustration in negotiations with the USSR, a steadily worsening economy, and an uphill battle to get reelected left him in a pugnacious frame of mind. Under fire from both liberals and conservatives, he felt compelled to act decisively. With marked exaggeration, he branded the Soviet intervention in Afghanistan as the greatest threat to peace since World War II. In what came to be called the Carter Doctrine, he vowed that the United States would meet forcibly any Soviet threat to the Persian Gulf. He initiated the biggest defense buildup since the John F. Kennedy years and imposed on the USSR various punitive measures including a boycott of the Olympic Games to be held in Moscow in 1980. Hoping to make Afghanistan into the Kremlin’s Vietnam, the Carter administration began sending clandestine aid to the Afghan rebels. By the end of the year, detente was dead. Tensions increased dramatically under Carter’s successor, President Ronald Reagan. A former movie actor, Reagan had built his political career on the foundation of spread eagle Americanism and hard-core anticommunism. During the campaign of 1980 and his first years in office, he launched full-scale rhetorical warfare against the Soviet Union, branding it (with a name taken from the recent hit film, “Star Wars”) as “The Evil Empire” and accusing it of being the source of evil in the modern world. He placed a number of ardent Cold Warriors in key government positions. The Reaganites took an unyielding position on nuclear arms control negotiations and far outdid Carter in defense spending. They developed a military doctrine that called for fighting and winning a nuclear war. They sharply expanded aid to the Afghan mujahedeen, sent military assistance and advisers to the embattled Salvadorian government, and helped form a Nicaraguan counterrevolutionary group (the Contras) to overthrow the government of the Sandinistas. Reagan stunned an already edgy Moscow in the spring of 1983 by announcing his commitment to a Strategic Defense Initiative (SDI), which was a space-based missile defense system employing lasers. It was soon labeled as Star Wars. If perfected, it would render the United States invulnerable to a Soviet first strike. Tensions increased to the level of a full-fledged crisis in 1983. While indulging in often virulent propaganda campaigns throughout the Cold War, the two sides had generally observed certain unwritten limits on the level of insult. In the eyes of the aging, Soviet 259 leadership, Reagan had exceeded those limits and his anti-missile defense proposal was especially alarming. United States-Soviet arms control negotiations got nowhere and were eventually broken off in late 1983. The Soviet shooting down of a civilian South Korean airliner over the Sea of Japan with the loss of 269 lives, the product of nervous, inept air defenses, was branded by the United States as a deliberate and calculated act of aggression. Fears of nuclear war loomed large. In the fall of 1983, millions of Americans, Reagan included, watched a television movie called *“*The Day After” which was a harrowing account of the impact of a nuclear attack on the Midwest American town of Lawrence, Kansas. Unknown to these viewers, just days before, in response to a North Atlantic Treaty Organization nuclear exercise, nervous Soviet officials, fearing an attack, went on a full defense alert. Soviet-American tensions had reached their highest point since the 1962 Cuban missile crisis. In both nations there was fear of war. Remarkably, within less than two years after the crisis of 1983, tensions had eased and major steps were being taken toward accommodation. The war scare itself contributed to the transformation that led to a new detente and in time to the end of the Cold War. The talk of war forced sober second thoughts in both countries and discussion of ways to reduce the threat of nuclear Armageddon. After a period of marked political instability in Moscow, with three, aging leaders dying in rapid succession, the onset of new youthful leadership and stability under Gorbachev enabled the government to address pressing issues. Economic distress provoked a major reconsideration of priorities leading to a de-emphasis on the Cold War and focus on domestic reform. In the United States, Reagan won an overwhelming reelection victory in 1984 thereby gaining the freedom to mount new foreign policy initiatives. He alone among American politicians had the unimpeachable anticommunist credentials to undertake radical changes of policy toward America’s old adversary without fear of political retribution.

**Plan would prevent Russia from de-alerting missiles, risking accidental launch.**

**Also kills ABM treaty which is key to prevent prolif.**

**Newhouse 1** (John, Senior fellow at the Center for Defense Information, July/August 2001, Foreign Affairs, Volume 80 No.4, "The Missile Defense Debate," pg. 3-4. MM)

The deployment decision should not be driven by doctrine, the promise of a given technology, or the claim of affordability. The core question is whether Americans would be more secure and the world more stable if the United States deployed a national missile defense. The president's speech on May 1 purported to be about providing greater security for a greater number, but he was really proposing a radical change in U.S. strategic doctrine. To defend the living by deploying a missile defense system is for most advocates an article of faith. They always opposed the ABM Treaty, signed in 1972, under which the United States and the Soviet Union each surrendered any meaningful right to defend itself against the other's nuclear weapons. Indeed, various members of the Bush administration judge relying on deterrence immoral: far better to defend society than to have to avenge it after a destructive attack. And they lost no time in telling the Russians that the ABM Treaty was "a relic of the Cold War"; they might, it appeared, work with Russia to change the treaty, but they would walk away from it if they had to. The Cold War may be over, but the world is far from having settled into a new era or a less threatening environment. The danger of a nuclear weapon going off somewhere is actually greater now than it was then. And the threat to the United States in particular-also greater than before-is less from the rogues of the world than from the disrepair of Russian strategic forces. In the Cold War era, serious people with some responsibility for nuclear weapons knew that neither superpower was going to make a calculated strike against the other and invite national suicide. The greatest nuclear threat today comes not from rogue states but from accidental launches. The danger lay in the less remote threat of a nuclear weapon, or weapons, being used by accident or inadvertence. The command-and-control structures on either side were under stress, mainly because thousands of nuclear weapons deployed on silo-based missile launchers and on submarine launched systems were kept on hair-trigger alert; the time available to decision-makers for reacting to an ambiguous event was-is-correspondingly short. Remarkably, very little has changed except that the Russian structure is much weaker than it used to be. The early warning network is deteriorating and, like the rest of Russia's military infrastructure, is falling on increasingly hard times. But Russia still maintains a quick-launch posture for its intercontinental ballistic missiles (iCBMs) and keeps missile submarines on so-called dockside alert. Its missile systems, like those of the United States, could be launched within a few minutes of receiving the launch command. The sensible and direct way of reducing the immediate danger would be, in the jargon, "de-alerting" the weapons. De-alerting would amount to de-mating, meaning the physical separation of missile warheads from launchers. FOREIGN AFFAIRS July/August 2001 (99 John Newhouse) Quite clearly, Russia is not going to de-alert unilaterally, or even start the process. Obsolescence and shoddy maintenance are steadily diminishing Russian strategic forces, thereby strengthening the case for keeping a portion of what remains of them on alert status. Russia would see an extensive NMD System, together with the decision to scrub the ABM Treaty, as signaling an emergent U.S. bias toward reliance on defense and away from deterrence. Russia would be most unlikely then to agree to an American proposal to de-alert. Moscow, Beijing, and worried European capitals see in Bush's design a quest for unilateral advantage by a power already in full possession of the relevant strategic advantages. And they deplore the administration's apparent unconcern with the arms control process. The Bush team, in most cases, dislikes the nuclear arms control process because it sets limits in an area where they think the United States can best protect itself from the world's dangerous uncertainties. But cutting weapons unilaterally, as they prefer, could mean losing the on-site verification process. In that case, any reciprocal reductions by Russia could not be monitored, at which point confidence would decline and worst-case analysis would flourish, especially in an unstable environment. Arms control is a political process. Controlling nuclear weapons is less about cutting numbers of them than about building each side's confidence in the other. The mantra should be restraint, predictability, and transparency. Washington's internal argument about what exactly to do, if anything, is an inward-looking exercise until allies and other big powers begin thinking and talking about what the U.S. decision may mean for them. The private reaction of major allies to Ronald Reagan's Strategic Defense Initiative (SDI) ranged from abusively critical to angry. By planning to send skyward high-power lasers and other futuristic directed-energy weapons to destroy offensive missiles, Washington seemed to be imposing a whole new strategy on European governments and Russia without warning, let alone consultation. The guarantor of Europe's security, it seemed, had opted for shielded insularity. Then, as now, most Europeans hoped fervently that the ABM Treaty would be kept intact. They, like most orthodox American thinkers on the subject, were sure that any sizable defensive system would create an enormous spiral in offensive nuclear arms-a situation in which there would be far less stability, and so less security for all. Then, as now, Moscow more than shared that concern. The ABM Treaty, which forbade testing and deployment of the systems on which SDI was based, had become a Russian icon.

**Russia and China concerns spillover leading to huge conflict**

**Newhouse 1** (John, Senior fellow at the Center for Defense Information, July/August 2001, Foreign Affairs, Volume 80 No.4, "The Missile Defense Debate," MM)

Russian opposition has multiple sources. There is the fear that missile defense will create pressure to expand Russian strategic forces. The last thing Russians want is a competition in strategic arms. They see their increasingly worn-down offensive forces shrinking to very low levels and have little appetite or resources for a new arms race. They want to see a focus on arms-race stability, not crisis stability. They do not want to have to deploy a lot of countermeasures. They are, as noted, more reliant on nuclear weapons and launch-on-warning than either Washington or they would like. And their control of weapons through the nuclear chain of command is believed by some specialists to be deteriorating in physical, organizational, and human terms. President Vladimir Putin is seen as a work in progress, his direction unclear. His high-energy diplomacy in Europe is bearing fruit. And he has proposed that Russia and the NATO membership jointly examine prospects for missile defense, a step that some in Washington see as an effort to divide America from Europe. But that will not happen unless the Bush administration causes it to happen. A major and related Russian concern, one that China shares, is what both see as the militarization of space by the United States-of missile defense turning space into an arena of competition. They have read the Air Force Space Command's Web site, which talks about American domination of space and about space as the fourth frontier of warfare. And they have read "Joint Vision 2020," a document produced by the Joint Chiefs of Staff that advocates "full spectrum dominance-a capacity of U.S. forces ... to conduct prompt, sustained, and synchronized operations ... with access and freedom to operate in all domains-space, sea, land, air, and information. Probably more disturbing was another Rumsfeld Commission report, also congressionally mandated and dealing with threats to U.S. satellites. The report does not call for but implies a U.S. need to accelerate development of anti-satellite weapons, some of them space-based. But deploying such weapons will press other countries to develop and deploy countermeasures. And in any such tit for tat, the United States has the most to lose, since it is far more dependent on satellites for commercial communications and data gathering operations than any other country. Among the effects could be a sharp rise in the cost of insuring commercial satellites and an outcry from industry. Russian anxiety over what may transpire in space just might cause Putin to oppose any form of strategic missile defense, including the least threatening: a boost-phase system. A defense of this kind would target ICBMs in their first few minutes of flight, when they are easier to track because of the rocket plumes behind them and easier to destroy because they have not vet had a chance to launch decoys. A boost-phase defense system, moreover, could be designed to operate over an area small enough to be effective against emerging threats such as North Korea but nonthreatening against missile systems deployed in the vast expanses of Russia and China, thus making it more acceptable to the established nuclear powers. And because it has the virtue of its limitations-nonthreatening to Russian or Chinese strategic forces-a boost-phase system would be more acceptable to other governments. Russia's concern is that space-based sensors and other components of a boost phase, or indeed any, missile defense system, could be upgraded to provide more data, thereby giving defensive systems more capacity. And looking ahead, it worries about a multitiered U.S. missile defense that would include space-based lasers and interceptors. "Space could become Russia's Stalingrad," says Roald Sagdeev, former director of the Space Research Institute in Moscow. Just as western European leaders worry about Russia's reaction to missile defense, Russia worries about China's reaction (or overreaction). If Russia bends, China will claim the moral high ground.The Chinese reaction to missile defense proposals is negative, strongly felt, and expressed mainly in terms of cross-strait relations. China worries about political trends leading Taiwan further away from the fold. The Chinese leadership, its control at home gradually eroding, cannot allow itself to be accused Beijing assumes that a of "losing Taiwan," especially when President Jiang Zemin is trying to arrange his U.S. missile defense own succession. would be directed Deeply conscious of its vulnerability, China believes a system such as the one Clinton against Chinese forces- put forward would wholly neutralize China's small strategic force and could therefore threaten China's survival. And since China undoubtedly thinks of North Korean strategic weapons as nonexistent and conjectural, its leadership assumes that a U.S. missile defense along those lines would actually be directed against Chinese forces. China will almost certainly hedge against the prospect by expanding its strategic forces beyond the modest upgrade now underway. China could equip them with multiple warheads, a step that missile defense makes more attractive. As of now, China's nuclear deterrent is composed of 20 or so old, slow-reaction, liquid-fueled missile systems of dubious reliability; their warheads and fuel are stored separately. Also, China's strategic thinking has never had an American focus. Its forces have a largely regional focus, with many ofthem reserved for Russia. China's upgrade is most unlikely to alter that pattern by creating a force that is more than a deterrent-one that might actually threaten its American counterpart. Still, Washington, as in the past, could overreact to whatever China does and set in motion a self-fulfilling prophecy. It used to be called the "action-reaction cycle." A similar cycle could beget a nuclear arms buildup in South Asia. Washington tends to see Pakistan as India's major concern, even though China, which has been the main supplier of Pakistan's nuclear technology, is the abiding source of Indian insecurity. Indeed, India can deploy a more than ample retaliatory capacity against Pakistan but has almost no such ability to strike the Chinese heartland. And if China's upgrade enlarges its threat to India, as it probably will, India will expand its forces accordingly. Pakistan will follow suit. The world will indeed have become a more dangerous place. Missile defense can produce this scenario. Among the parties most concerned with Washington's decision are Japan, South Korea, and Taiwan. For them, U.S.-China relations are much more than a bilateral affair. They are uncomfortable whenever the two are seen as being close, but more so when Washington and Beijing are feuding. Treating China as a threat places Japan, for example, squarely between its principal ally and its mighty neighbor.

**Russia hates SMDs, leads to backlash and arms race; empirics**

**Fredrick 9** (Lorinda A, Lt. Col., USAF, Air& Space Power Journal, 9/1/09, "Deterrence and Space-Based Missile Defense," http://www.airpower.au.af.mil/airchronicles/apj/apj09/fal09/frederick.html, MM)

When he entered office in 1981, President Reagan inherited a deterrence strategy based on assured destruction, which relied on the unmistakable ability to inflict an unacceptable degree of damage upon any aggressor or combination of aggressors—even after absorbing a surprise first strike. Frustrated with this strategy, he announced the Strategic Defense Initiative (SDI) in 1983, beginning the United States’ pursuit of an active national missile defense (NMD). Thus began a research and development (R&D) effort to protect the United States against a full-scale missile attack from the Soviet Union.14 The envisioned system would consist of air-, land-, sea-, and space-based sensors and interceptors. Space-based elements included “constellations of Earth-orbiting battle stations” that would destroy ballistic missiles during their boost and midcourse phases.15 Technologies developed under SDI would allow deterrence policies to rely on defending the United States instead of destroying the enemy. The concept of using space-based hit-to-kill interceptors emerged from Project Defender, founded in 1958 by the Defense Advanced Research Projects Agency (DARPA), which recognized the promise of advanced weapons and initiated the development of laser technology scalable to the power levels required for BMD.16 In 1980 DARPA began exploiting newly emerging laser and particle-beam technologies for BMD applications, including space-based laser defense against ballistic missiles and aircraft.17 DARPA programs brought the United States closer to deterring and responding to ballistic missile attacks from space. Technologies pursued under SDI could be restricted, depending on the administration’s interpretation of the ABM Treaty. According to Article 5 of the treaty, “each Party undertakes not to develop, test, or deploy ABM systems or components which are sea-based, air-based, space-based, or mobile land-based.”18 The administration reinterpreted the ABM Treaty to allow for the testing of space-based missile defense (SBMD) technologies.19 Although members of Congress largely supported increased R&D, they rejected this broad interpretation of the treaty. It was one thing to explore the potential of SBMD on paper and develop technology; it was quite another to test and demonstrate the capability.SDI challenged the traditional treatment of space as a sanctuary.20 Believing that the benefits of missile defense outweighed the costs, President Reagan stood up new organizations and attempted to break down barriers, allowing these organizations to explore space capabilities for defense. This display of will to deploy SBMD technologies did not go unnoticed by the rest of the world, the Soviet Union in particular. At a summit meeting in 1986, Soviet president Mikhail Gorbachev pressed President Reagan to “accept limitations to the SDI program as a pre-condition for other agreements restricting offensive arms.”21 The Soviet Union opposed SDI because the new capabilities could weaken its power and security; however, President Reagan refused to accept any restrictions. In order to win the Cold War, President Reagan was willing to challenge old paradigms about deterrence and rethink treaty obligations, asking, “Wouldn’t it be better to save lives rather than to avenge them?”22 According to Henry Kissinger, former national security adviser and secretary of state, “Soviet leaders were not impressed by Reagan’s moral appeals, but they were obliged to take seriously America’s technological potential and the strategic impact of even an imperfect defense.”23 President Reagan was looking for a technological alternative to assured destruction. The bipolar world in existence at the start of his presidency would radically change in the next administration.

# Space Debris DA

**SMDs would increase the risk of space debris and satellite collisions**

**Croakely 10** (Sean P, major with B.A. from Norwich University, 2010, dodreports.com, "Defense Space Support to Civil Authority: How Can Policy Be Improved?" pg. 128, http://dodreports.com/pdf/ada524497.pdf, MM)

Second, to space weather and debris, the next most frequent threats are satellite collisions; and ground to space missile events. China shot down one of its aging satellites in January 2007 (Kaufman and Linzer 2007). The U.S. and the Soviet Union experimented with anti-satellite missiles in the 1980s, but discontinued the practice due largely to the creation of space debris. The U.S. shot down its last satellite under this program in 1985; however, it recently shot sown one of its own satellites over the Pacific Ocean, in February 2008, for safety reasons to neutralize an out of control satellite from falling to Earth and contaminating it with hydrazine fuel (Kaufman and Pincus 2008). China who had received a considerable amount of public ridicule for its renewed anti-missile test in 2007, and who was in-line for the satellite fallout from the missile in the Pacific, was very concerned. Ironically, in February of 2009, a U.S. and Russian satellite accidentally collided in the same area two years later. “The collision happened not far from the orbit of a defunct weather satellite blown to pieces by a ground-based missile in a Chinese weapons test in 2007. European and U.S. officials argue the resulting debris made it harder to identify crash risks” (Faulconbridge 2009).

**Weaponization turns impacts, destabilizes space through arms races and space debris.**

**Zhang and Baines 9** (Ze and Phillip, Zhang is a member of the Arms Control Department of the Ministry of Foreign Affairs of the People's Republic of China, Baines is the Deputy Director of the Non-Proliferation and Disarmament Division of Foreign Affairs and International Trade Canada, "Architectures for Improving Space Security" 6/15-16/2009, Space Security 2009: Moving Towards a Safer Space Environment, UNIDIR, pg. 3-4, MM)

SESSION 1 ARCHITECTURES FOR IMPROVING SPACE SECURITY Zhang Ze from the Arms Control Department of the Ministry of Foreign Affairs of the People's Republic of China began the session by presenting an overview of the ideas behind PAROS. Mr. Zhang stated that foundations must be built for a safer global environment and space is an integral part of this. It is estimated that more than 1,100 satellites will be launched between 2009 and 2018. Many of these will add to global well-being, and for that reason he supports a plan for "Zero Weapons Outer Space." The Zero Weapons Outer Space plan includes no weapons based in space, no use of force against systems in space, and no threat of use of force against outer space objects including hostile testing or actions that threaten space-based assets. The main threats from space weaponization are an arms race and the high potential for increased space debris. Mr. Zhang echoed the warning of Mr. Ordzhonikidze: once an arms race in space is full-fledged, it will be very difficult to turn it around. While political will is important, a legal framework is necessary. Many papers have been submitted in the past couple of years regarding the prevention of the weaponization of space. In particular, Mr. Zhang cited the Sino-Russian PPWT. The current space treaties and legal instruments have loopholes and, Zhang argued, it is time to open up serious discussion on the legal framework. China, he stated, is ready for bilateral and multilateral talks. He concluded by expressing that if the international community does not act now, the world may miss an important window for success. Phillip Baines, the Deputy Director of the Non-Proliferation and Disarmament Division of Foreign Affairs and International Trade Canada, discussed confidence- and security-building measures for space security. He first laid out the security challenges in terms of actions that cause irreversible and reversible harm. The threats that would create irreversible harm come from Earth-based and space-based weapons that are specially designed to damage or destroy. Further, there are threats from certain dual-use (military-civil) satellites that could also damage or destroy. Finally, there is also the threat from collisions in space or debris striking the surface of the Earth. The primary concern regarding this type of threat is the creation of space debris. In large quantities, debris could render space unusable for centuries or millennia. The threats to space security that could result in reversible harm are largely electronic, rather than direct physical threats. Examples are purposeful interference or inadvertent interference such as competing radio or electro-optical frequencies. Because states can generate space debris much faster than the natural space environment can cleanse itself, Baines argued strongly that states must not fight war in space with weapons that cause debris. If states decide to use radio or electro-optical tactics against satellites in times of war, those actions should be undertaken in conformance with international law, and should have only temporary and localized effects. Moreover, such purposeful interference should not originate from any satellite itself, except in the case of self-defense. Mr. Baines presented three rules for preventing a scenario where space is rendered unusable: • ban the placement of weapons in space; • prohibit the testing or use of weapons on satellites so as to damage or destroy them; and • prohibit the testing or use of satellites as weapons themselves. He proposed that these rules become the basis for a Space Security Treaty with an executive committee and a chairperson who reports to the UN Security Council. Compliance would be based on information collected by national or multinational technical means of observation. Mr. Baines also recommended creating Regional Space Operation Centres that would use improved space situational awareness systems to provide these monitoring services for compliance purposes.

**Solving Space debris is a pre-requisite to developing space technology in either LEO or GEO**

**Brachet 9** (Gerard, President of the French Air and Space Academy, "Architectures for Improving Space Security" 6/15-16/2009, Space Security 2009: Moving Towards a Safer Space Environment, UNIDIR, pg. 4-6, MM)

The president of the French Air and Space Academy, Gerard Brachet, closed the panel by bringing to light two primary issues addressed by the conference: space debris and space situational awareness. At the moment, there are over 50 states operating in space and over 880 operational satellites, he said. Because of the increased demand of space in low Earth orbit (LEO) and geostationary Earth orbit (GEO), orbital and spectral resources must be better managed if those resources are going to remain useable. Specifically, Brachet said, international mechanisms for space management are now required. If the international community does not put these mechanisms in place, more incidents such as the satellite collision of February 2009 will occur. As an example of a model that has helped make progress towards sustainable space operations, Mr. Brachet pointed to the Inter-Agency Space Debris Coordination Committee (lADC). According to the IADC, its purpose is to "exchange information on space debris research activities between member space agencies, to facilitate opportunities for cooperation in space debris research, to review the progress of ongoing cooperative activities, and to identify debris mitigation options". In addition to the IADC's work, member states of the UN Committee on the Peaceful Uses of Outer Space (COPUOS) in Vienna approved the topic of "Long Term Sustainability of Outer Space Activities" as a new agenda item in 2010 that will also be incorporated into a multi-year work plan. Mr. Brachet concluded that ensuring the long-term, safe and sustainable use of outer space is an issue that concerns all national and commercial operators. The February 2009 collision is clear evidence that the issue is not just academic theory but, in fact, a reality that must be addressed collectively. Following the panel the floor was opened to discussion. One question was raised regarding the development of the international policies and instruments: would larger space-faring nations be willing to take small steps to reach the greater international goal of sustainable space? Importantly, there was agreement that these countries are willing to take the steps. Both small and large countries recognize the need for space security and that the development of international instruments will be required to ensure that security-highlighting the critical nature of the CD's planned work under Agenda Item 3 on PAROS. A second question was raised regarding the type of weapons that could be used to disable satellites in a reversible manner. The potential for use of interfering or blocking signals against satellite broadcasts was discussed during the panel, and brought to light the idea of sending false signals to satellites. These signals would confuse the satellites by sending wrong or misleading instructions. While no conclusion was reached on how international policies should deal with such actions, there was the suggestion that satellite operators and developers should do their best to ensure high levels of data encryption for control of satellites. Another question raised during the discussion was whether the European Code of Conduct and the PPWT could complement each other or whether a decision to pursue one instead of the other should be made. The conclusion was they could coexist. Further, regardless of what political instrument or collection of political instruments is chosen to regulate space activities, the scientific and technical aspects must guide the instruments’ development.

**Weaponization biggest source of space debris, turns satellite impacts**

**MacDonald 9** (Bruce, Senior Director on the US Congressional Commission on the Strategic Posture of the United States, "Towards a Norm of No Harmful Interference," 6/15-16/2009, Space Security 2009: Moving Towards a Safer Space Environment, UNIDIR, pg. 8, MM)

To start these talks, Mr. MacDonald proposed starting small with a kinetic energy anti-satellite weapon (KE-ASAT) test ban. KE-ASATs could produce massive amounts of space debris and subsequent cascading effects that would significantly raise the risks to satellites. To prevent this, he suggested prohibiting tests or actual launches of KE-ASATs that intercept orbiting assets. While he conceded that this only covers one of the many issues facing the future of space use, he was clear that it would be a good start that could be completed relatively quickly, as opposed to a general treaty to ban anti-satellite weapons and space-based weapons. Mr. MacDonald concluded by reminding the conference attendees that they should not "let the best become the enemy of the good".

# Spending DA

**SMD would cost billions of dollars**

**Hitchens and Samson 04** (Theresa and Victoria, is Vice President of the Center for Defense Information. She also serves on the Editorial Board of the Bulletin of the Atomic Scien tists, and a member of Women in International Security and the International Institute for Strategic Studies, is a research associate at the Center for Defense Information and was Senior Policy Associate at the Coalition to Reduce Nuclear Dangers. “Space-Based Interceptors: Still Not a Good Idea”, Summer/Fall 2004, <http://www.cdi.org/news/space-security/space-based-interceptors.pdf>) np

Space-basing Limitations: Size, Weight and Cost. An SBI would likely comprise a kinetic kill vehicle, rockets for on-orbit maneuvering, and a “life jacket” that would provide the support and station-keeping needed to ensure that the SBI satellite functions throughout its designated lifetime. Under design now by the Pentagon and weapons laboratories is, according to officials familiar with on-going studies, a constellation of relatively small interceptors that would be based in Low-Earth orbits and would ease the adoption trajectories toward regions of concern. However, there are critical questions about the size and weight of the constellation that would be required to provide a meaningful defense. MDA officials and supporters of space-based interceptors at the U.S. national laboratories argue that only 300 to 600 interceptors would be required at a cost of $50 billion. Some of Reagan’s original Star Warriors, such as former Ambassador Henry (Hank) Cooper, have argued that a Brilliant Pebbles-like program could be revived and deployed for as little as $10 billion. These calculations are widely disputed by independent scientists. A study by the non-partisan American Physical Society, for example, determined that in order for an SBI system to be capable of intercepting a single solid-fueled ICBM launched from North Korea or Iran during its boost phase, “at least 1,600 interceptors would be required for a system having the lowest-possible on-orbit ass and providing an optimistically short time to construct a firing solution…Such a system would have a mass in orbit of at least 2,000 tonnes (metric tons). Considering that current launch costs for Low-Earth Orbit pay loads hover at $22,000 per kilogram, fielding even this minimal space-based KE-BPI capability would cost $44 billion in launch costs alone. The APS study, basing its estimate on those of the U.S. national intelligence community, assumed that “countries of concern” could obtain solid-fuel missile technology in fifteen years.

**SBMD requires hundreds of thousands of interceptors—costs billions**

**UCS 6/2**—Union for Concerned Scientists (2011, All Things Nuclear section, Laura Grego, “Space-Based Missile Defense: Still a Bad Idea,” <http://allthingsnuclear.org/post/6105337195/space-based-missile-defense-still-a-bad-idea>, DA: 7/26/2011//JLENART)

While $8 million is small money in this context, as Rep. Sanchez rebutted, space-based interceptors are big money. This has been established repeatedly in studies by, for example, the American Physics Society and the Congressional Budget Office, both in 2004, which show that hundreds to thousands of orbiting interceptors would be needed to provide global coverage against one or two ballistic missiles. For the foreseeable future, each of these hundreds to thousands of orbiting interceptors would require a mass of many hundreds of kilograms, larger than an Iridium communications satellite at launch. A deployed system would be enormously expensive and challenge the U.S. launch capability. It is unlikely to ever be deployed, and in today’s constrained budgetary environment, it is exceedingly unlikely to even be considered seriously. Aside from the cost, a deployed system would raise significant issues for low-earth orbit crowding and space traffic management. Currently, fewer than 500 active satellites are in low earth orbits (less than about 1700 km at perigee), yet the current system managing traffic in space was unable to predict or prevent a collision between two intact satellites in 2009. (The US Air Force has stepped up its game in this respect, but tripling the number of satellites that need to be closely monitored is not a trivial upgrade.) Why not just put up a few interceptors? A little protection is better than none, right? The answer is a resounding no. A space-based interceptor would only be in the right place to be able to intercept a given ICBM intermittently: space-based interceptors need to keep circling Earth to stay in orbit. Because space-based interceptors (like all satellites) orbit predictably and are readily observable from the ground, a single interceptor is like a single police officer who is charged with protecting a neighborhood from mischief but required never to deviate from the precise timing of her route. She would be only a minor nuisance to determined troublemakers, who would find it easy to do what they pleased without getting caught. Space-based missile defense is worse off than that, actually. In fact, even if a full system were deployed and the technology worked perfectly, an attacker could easily create such an absence by using a cheaper short- or medium-range missile either to draw out the space-based interceptor or to destroy it. Increasing the missile defense’s robustness by doubling the number of ground-based missiles such a defense could engage? This would require doubling the size of the entire interceptor constellation. Thus, this defense based on deploying hundreds to thousands of space-based interceptors can always be defeated by a handful of enemy missiles.

**SBL costs $50 billion dollars**

**Possel 98** (William H., Lt Colonel, USAF, has directed space system acquisitions and operations throughout his military career was Director of Production for the Titan IV space booster. tours with the Secretary of the Air Force for Special Projects, with responsibility for managing classified satellite technology programs and directing satellite operations at two mission ground stations served as a project officer for ground-based high-energy laser experiments as well as experiments on the Space Shuttle, “Lasers and Missile Defense: New concepts for Space-Based and Ground-Based Laser Weapons” pg. 22 http://www.au.af.mil/au/awc/awcgate/cst/csat5.pdf) RF

While the SBL “Plus” has technological benefits over both the space-based laser-only and ground-based laser concepts, a thorough study of this concept is required before a meaningful cost estimate is possible. However, the following analysis provides a rough estimate of the overall cost of this system in comparison with other architectures. The twenty platform space-based laser-only constellation will cost between $17 billion to $29 billion, based on the estimates by the DOD. But an analysis based on weight on-orbit yields the more realistic cost estimate of $81 billion. As described in the previous section, the ground-based laser architecture is estimated to cost as much as $170 billion. The cost estimate for the SBL “Plus” architecture is based on the weight of the space platforms. Each of the space-based laser platforms weighs an estimated 35,000 kilograms. If each mission mirror were the same aperture size and weight as the bifocal mirrors for the ground-based laser architecture, they would each weigh 8,500 kilograms. For a space-based laser with orbiting mission mirrors, the number of laser platforms could be reduced by fifty percent from the space-based laser-only architecture. With ten mission mirrors placed in low earth orbit, the overall system weight would be 435,000 kilograms (ten laser platforms at 35,000 kilograms each and ten mission mirrors at 8,500 kilograms each). Using the historical cost of $100,000 per kilogram, the cost for the systems would be $43.5 billion. Since the laser demonstrator will test the critical laser hardware in space but not the bifocal mirrors, the space-based laser “plus” architecture merits a technology readiness level of 5, which adds another ten percent to the estimate based on experience from previous space programs. When launch costs are included (based on the Evolved Expendable Launch Vehicle's proposed costs of $5,650 per kilogram), the total cost rises to $50 billion.\*

# Terrorism DA:

**US space missile defense discourse encourage terrorist attacks**

**Stocker 4** (Jeremy, Director of Studies at the Centre for Defense and International Security Studies (CDISS). He served in the Royal Navy for 20 years, specializing in air defense, before transferring to the Royal Naval Reserve in 1996, 7/1/04, SSI, "Britain's Role in U.S. Missile Defense," pg. 17, http://www.strategicstudiesinstitute.army.mil/pdffiles/00374.pdf, MM)

A further related difficulty is the sometimes exaggerated rhetoric used by advocates of missile defense in the United States. While aimed at a domestic audience, it is heard further afield and can, ironically, provide ammunition to BMD’s most strident and vociferous opponents. A particular culprit in this regard is the U.S. Air Force Space Command, whose website and doctrine publications are routinely cited by organizations opposed to missile defense as evidence of the malign purposes behind BMD.62 Bush’s determination to provide for missile defense of the national territory was given added impetus by the terrorist attacks on New York and Washington in September 2001.63 This reinforced European views on the inevitability of missile defense deployment. As Colin Gray puts it, “. . . that homeland defense is now a hardy perennial among American strategic desiderata, virtually regardless of wider considerations, has come to be accepted in Europe as a fact of trans-Atlantic political life.”64 American policies by now had forced many European governments, especially the British, to examine the issue more closely. While the extent of missile proliferation became increasingly apparent, the end of the ABM Treaty also demonstrated that many of the fears about its demise were ill-founded. The British Foreign Office stated that one of its objectives in its relationship with the United States was to ensure that “. . . Missile Defense is pursued in a way which protects UK interests and minimizes divisions within NATO.”65 How far British thinking has moved on was shown by a statement from the new Foreign Secretary, Jack Straw: “. . . we in this country have long recognized the case, in appropriate circumstances, for measures of missile defence.”66 He added that: “There is an overwhelming case for missile defense in principle . . . Our view is that the United States is fully entitled to want to develop systems of missile defence.”67 This is a dramatic, if little-noticed, shift in British official thinking which since the 1960s had consistently viewed missile defense as destabilizing. By no means were all public figures convinced, however, as one Labour backbencher asked the government about the “first-strike” potential of missile defense.68 But by early 2002 the British Government, if not 12 all its supporters or the general public, had become fully reconciled to the prospect of a limited missile defense of North America. The debate in Europe, and especially in Britain, has therefore moved on from “whether” to “when” and “how” missile defenses are to be deployed.69 This process has been aided by the readiness of the present U.S. administration to consult its allies in a way that its predecessor appeared not to. The ability of the U.S. Government to secure further offensive arms reductions with the Russians also met another consistent European objective. Working against this trend, however, has been what is perceived as evidence of American unilateralism in regard to other international treaties such as the Comprehensive Test Ban Treaty, the International Criminal Court, and the Kyoto Climate Change Protocol. Though many of these issues do not impinge directly on missile defense, they do, in many eyes, indicate a U.S. willingness to act in defiance of the “world community.” To some extent, fears that missile defense will not work have been replaced by fears that it will, thereby allowing the United States even greater freedom to act unilaterally, heedless of the wishes and interests of others.70

# Cooperation DA

**International trust and cooperation key to prevent space arms race**

**Lewis 9** (Jeffrey G., Director of the Nuclear Strategy and Nonproliferation Initiative at the New America Foundation, "Elements of Treaty-Based Security," 6/15-16/2009, Space Security 2009: Moving Towards a Safer Space Environment, UNIDIR, pg. 10, MM)

Jeffrey G. Lewis, Director of the Nuclear Strategy and Nonproliferation Initiative at the New America Foundation, followed up with a discussion of the challenges to establishing treaty verification measures. The most important aspect of promoting stability in space is preventing an arms race. To prevent an arms race, verification is essential, particularly as nations currently interact with mutual suspicion in space. An important issue in verification is the fact that many satellites are dual-use--often only a software change makes the difference between a military and commercial satellite. Therefore, possible verification methods could include the sharing of SSA data, improved missile launch warning agreements, a mix of ground-and space-based sensors, protocols for cooperative verification, development of protocols for laser ranging, and a non-interference clause to determine permitted activities to account for dual-use satellites.

**International actions needed to solve the problem of space debris.**

**Makarov 9**, (Andrey, Col., "Elements of Treaty-Based Security," 6/15-16/2009, Space Security 2009: Moving Towards a Safer Space Environment, UNIDIR, pg. 10, MM)

The discussion moved then to a preciously unaddressed aspect of the space debris issue: not just developing debris prevention methods through treaties, but ameliorating the current problems. What can be done in the near future to remove debris and how does this play into any treaty process? Models have shown that by 2050 the rate of debris production in LEO will exceed the natural decay of such debris, resulting in yet more rapid increase. The question becomes how to focus resources--what debris should be targeted for removal and in what order? Even if one large piece of debris is removed from orbit every 10 years, it would still not be fast enough to prevent serious problems. The engineering discussion should be started immediately, because implementation is very far away. Regardless of what debris mitigation solution is used, the bottom line is that the international community will need to develop a model of the space debris environment upon which to base proposed solutions that is as close to reality as possible. The optimal version of this model would require data from an international undertaking for which political and legal bases must be established.

# Weapon DA

**SMD is a weapon – purpose is irrelevant**

**UNIDIR 6** (United Nations Institute for Disarmament Research – intergovernmental organization within the United Nations, conducts research on disarmament and security, “Introduction,” “Building the Architecture for Sustainable Space Security Conference Report 30-31 March 2006,” March 2006, <http://www.unidir.org/pdf/ouvrages/pdf-1-92-9045-185-8-en.pdf> DA: 7/6/11, PC)

Concerning the definition of space weapons, one point of debate was whether a nation’s nuclear-tipped intercontinental ballistic missiles (ICBMs) and space-based BMD should be considered as space weapons. Regarding weapons capable of targeting objects in outer space, such as ICBMs, it was argued that these should not be included in the definition of space weapons as only those weapons specifically designed to physically attack objects in space and weapons with latent or residual ASAT capabilities ought to be considered space weapons. However, space-based BMD should be considered as a space weapon because, as had already been expressed, a weapon in space is a weapon in space, regardless of its purpose there. It was noted that there is a difference between “objects in space” (for example, warheads) and “space objects” (for example, satellites), and that certain states are working toward a suitable definition on this front. It was generally thought that the definition needed more input from a variety of interested actors.

**SMD is a weapon**

**Nardon 6** (Laurence, researcher at the French Center on the United States at the Institut francais des relations internationals, expert on US and European space policy, aeronautics industry and security issues, senior visiting fellow at the Center for Strategic and International Studies, author of *Satellite Detection,* and *Frace cedes leading role in space to Europe,* “Threats to the Security of Outer Space: Emerging Technologies,” from the UNIDIR March 2006 conference, Building the Architecture for Sustainable Space Security Conference Report 30-31 March 2006,” March 2006, <http://www.unidir.org/pdf/ouvrages/pdf-1-92-9045-185-8-en.pdf> DA: 7/6/11, PC)

The definition of space weaponry is a difficult issue that the conference participants had to tackle. In this presentation, we chose to define as “threats to the security of outer space” all ASAT weapons, **including systems meant for missile defence** when they can have a secondary use as an ASAT. 2 This is a broad definition. A more limited one may prove politically more adequate when it comes to writing an arms control proposal.

**US deployment of SMD would facilitate the weaponization of space-causes other nations to freak out**

**Hitchens** **02** (Theresa-CDI Vice President, “Weapons in Space: Silver Bullet or Russian Roulette?
The Policy Implications of U.S. Pursuit of Space-Based Weapons”, April 18, 2002, <http://www.cdi.org/missile-defense/spaceweapons.cfm>) np

"To be sure, not deploying weapons in space is no guarantee that potentially hostile nations (such as China) will not develop and deploy ASATs. However, it is virtually certain that deploying U.S. weapons in space will lead to the development and deployment of ASATs to counter such we[[1]](#footnote-1)a[[2]](#footnote-2)pons," notes a new policy brief by the Cato Institute.[[3]](#footnote-3)27 China and Russia long have been worried about possible U.S. breakout on space-based weaponry. Officials from both countries have expressed concern that the U.S. missile defense program is aimed not at what Moscow and Beijing see as a non-credible threat from rogue-nation ballistic missiles, but rather at launching a long-term U.S. effort to dominate space. Both Russia and China also are key proponents of negotiations at the UN Conference on Disarmament to expand the 1967 Outer Space Treaty to ban all types of weapons. The effort to start talks known as PAROS, for "prevention of an arms race in outer space," has been stalled due in large part to the objection of the United States. For example, in November 2000, the United States was one of three countries (the others were Israel and Micronesia) to refuse to vote for a UN resolution ci[[4]](#footnote-4)t[[5]](#footnote-5)ing the need for steps to prevent the arming of space.[[6]](#footnote-6)28 It is inconceivable that either Russia or China would allow the United States to become the sole nation with space-based weapons. "Once a nation embarks down the road to gain a huge asymmetric advantage, the natural tendency of others is to close that gap. An arms race tends to develop an inertia of its own," writes Air Force Lt. Col. B[[7]](#footnote-7)r[[8]](#footnote-8)uce M. DeBlois, in a 1998 article in Airpower Journal.[[9]](#footnote-9)29 Chinese moves to put weapons in space would trigger regional rival India to consider the same, in turn, spurring Pakistan to strive for parity with India. Even U.S. allies in Europe might feel pressure to "keep up with the Joneses." It is quite easy to imagine the course of a new arms race in space that would be nearly as destabilizing as the atomic weapons race proved to be. Such a strategic-level space race could have negative consequences for U.S. security in the long run that would outweigh the obvious (and tremendous) short-term advantage of being the first with space-based weapons. There would be direct economic costs to sustaining orbital weapon systems and keeping ahead of opponents intent on matching U.S. space-weapon capabilities — raising the proverbial question of whether we would be starting a game we might not be able to win. (It should be remembered that the attacker will always have an advantage in space warfare, in that space assets are inherently static, moving in predictable orbits. Space weapons, just like satellites, have inherent vulnerabilities.) Again, the price tag of space weapons systems would not be trivial — with maintenance costs a key issue. For example, it now costs commercial firms between $[[10]](#footnote-10)300 million and $350 million to replace a single satellite that has a lifespan of about 15 years, according to Ed Cornet, vice president of Booz Allen and Hamilton consulting firm.[[11]](#footnote-11)30 Many experts also argue there would be costs, both economic and strategic, stemming from the need to counter other asymmetric challenges from those who could not afford to be participants in the race itself. Threatened nations or non-state actors might well look to terrorism using chemical or biological agents as one alternative.

**Just the mere act of weaponizing space would trigger offensive moves from other countries that would threaten US space assets**

**Hitchens and Samson 04** (Theresa and Victoria, is Vice President of the Center for Defense Information. She also serves on the Editorial Board of the Bulletin of the Atomic Scien tists, and a member of Women in International Security and the International Institute for Strategic Studies, is a research associate at the Center for Defense Information and was Senior Policy Associate at the Coalition to Reduce Nuclear Dangers. “Space-Based Interceptors: Still Not a Good Idea”, Summer/Fall 2004, <http://www.cdi.org/news/space-security/space-based-interceptors.pdf>) np

Space Weaponization: The Debate Is Launched. Even if SBIs were technologically feasible and cost effective, there would still be one major concern regarding their development: basing interceptors in space would open the door to weaponizing space, a move that would prove extremely destabilizing to international security and thus to the United States. If the United States decides to deploy weapons in space, then it is guaranteed that other countries will follow: the United States is not only a model for accepted behavior by state actors all around the world, but other powers will also grow uneasy if the United States aggressively pursues space hegemony.24 One only needs to look at how Russia, no longer considered an adversary, has reacted to the planned U.S. missile defense deployment to gain an indica tion of the unease with which other nations are regarding U.S. efforts. In February 2004, Russia held the biggest exercise for its strategic forces in nearly two decades. Afterwards, Russian President Vladimir Putin announced that his strategic forces will soon “receive new hypersound-speed, high-precision new weapons systems that can hit targets at intercontinental distance and can adjust their altitude and course as they travel.”25 According to Col.-Gen. Yuri Baluyevsky, first deputy chief of the General Staff of the Russian Armed Forces, this maneuver reentry vehicle “would make any missile defense useless.” 26 This whole new class of weapons is being developed to make sure that Russia is still relevant in the face of the U.S. missile defense deployment.27 This gives some context to the way U.S. actions can motivate arms development by other nations, and sets the stage for how Russia might react to the development of space-based defenses. Current allies regard U.S. intentions in space with apprehension as well. The European Union has decided to establish its own version of a satellite naviga tion network, known as Galileo, so that it will not be beholden to the United States’ Global Positioning System (GPS). The overall Galileo project is projected to cost 3.25 billion euros, with 200 million euros now expected from China and a similar contribution from India.28 That is a significant investment to confirm that the Europeans will not be harmed by a possibly uncooperative U.S. government in the future. U.S. allies in Europe are all on record as supporting U.N. sponsored talks, known as the Prevention of an Arms Race in Outer Space (PAROS) aimed at an eventual space weapons ban. Indeed, the United Nations General Assembly has passed a resolution supporting PAROS every year since 1981; and PAROS became an item on the agenda of the Geneva-based Conference on Disarmament in 1982 where it remains on the table today.29 While PAROS is supported by a majority of the world's nations, it has in the past fallen afoul of big-power politics among the United States, China, and Russia. Today, the discussions remain stalemated in large part due to shifting U.S. priorities and the Bush administration's disdain for international treaties.

Snowball Effect. The mere act of weaponizing space will set in motion a series of moves by other countries that would threaten U.S. space assets. Despite the wide gap in capabilities and spending between the U.S. military and the rest of the world in space plans, the United States can be rendered vulnerable by relatively inexpensive, rudimentary technologies. If other countries genuinely believe that the United States intends them harm using space assets, these counteractions cannot be ruled out. Regular ballistic missiles could possibly be modified to provide anti-satellite capabilities. U.S. ground stations could be attacked, harming command and control to the point where space systems would be made worthless. A low-yield nuclear warhead placed on a ballistic missile could menace satellites in Low Earth Orbit. Or something as basic as gravel, unleashed at the right time against a satellite, might degrade U.S. space capabilities to a dangerous low.30 Along those lines, orbital debris from space weapons cannot be overlooked. The smallest chips can prove lethal at the astonishing high speeds in which objects orbit the Earth—some 10 km per second in Low-Earth Orbit.31 The destruction of satellites or space weapons would undoubtedly spawn scores of dangerous new objects that could collide with satellites and spacecraft. Presently, the U.S. Air Force's Space Surveillance Network tracks some 13,000 on-orbit objects, only about 6 percent of which are working satellites and spacecraft, the rest being debris.32 While improving U.S. space situational awareness is currently a high priority for the Air Force, space weapons would only add to this already challenging space surveillance mission.33[[12]](#footnote-12)[[13]](#footnote-13)[[14]](#footnote-14)[[15]](#footnote-15)[[16]](#footnote-16)[[17]](#footnote-17)[[18]](#footnote-18)[[19]](#footnote-19)

**Turn: Space Weaponization threatens American Hegemony**

**Stares 2001** ( Paul B. Stares is associate director of the Center for International Security and Cooperation and isthe Gen. John W. Vessey Senior Fellow in Conflict Prevention and Director of the Center for Preventive Action May 15, 2001 The New York Times , Making Enemies in Space, , Lexis Nexis) E.L.

Their anxiety is increased by the knowledge that some of the missile defense systems currently under consideration -- especially those to be based in space -- would have the inherent capability to attack satellites. A satellite is less challenging to shoot down than a warhead. Satellites are more fragile and harder to disguise and move in predictable paths, making them easier prey. A mediocre antimissile system can still constitute a highly effective antisatellite weapon. Thus, not all missile defense options available to the United States are viewed by other nations as unambiguously defensive. A missile shield that America may think is nonthreatening to Russia and China could still make those countries profoundly nervous in a serious crisis because of the menace it poses to their satellites. From their perspective, the most worrisome missile defense systems are those capable of intercepting their missiles and their satellites either in or from outer space. But an appropriately structured missile defense program need not alarm the rest of the world. The United States should focus its research and development on ground-, sea- or air-based missile defense systems that are designed to intercept warheads either immediately after their launch -- in the so-called "boost phase" -- or as they re-enter the earth's atmosphere at the end or "terminal phase" of their trajectory. Such systems -- which would not have offensive capabilities against satellites -- are less likely to be considered provocative by Russia or China. At the same time, the Bush administration should pursue a diplomatic strategy designed to promote space as a sanctuary from weapons attack even if it means forgoing some freedom to counter an adversary's satellites that might be used to target our forces in wartime. The goal of such a strategy should be to lock in America's unrivaled superiority in space. Moving aggressively in this realm, however, would only encourage others to challenge America's dominance and make a missile defense less attainable.

**US should not weaponize space- arms race, elimination of weapons, and vertical proliferation**

**Blazejewski 08**

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I recommend that the United States accept a commitment to forgo placement of weapons in outer space. The costs of space weaponization simply outweigh the benefits. Above, I argue that China would respond to US space weaponization with some level of military buildup. In the least, this response would include the deployment of a more robust ASAT system capable of attacking and potentially eliminating space weapons.52 After all, space weapons, like military satellites, make for vulnerable military targets.53 The use of space-based weapons in a conflict must be discounted by the likelihood that they would be eliminated by Chinese ASAT attack. More importantly, increased ASAT deployment would have the counterproductive effect of exposing US satellites to greater threat. Aside from ASAT issues, Chinese response to US space weaponization would include an increase in China’s ICBM fleet and nuclear arsenal. Vertical proliferation cannot be in the interests of the United States, if only for the increased peacetime risks of accidental launch or the terrorist risk associated with increased availability of weapons technology and components. Finally, the United States should not discount the possibility, often cited by opponents of space weaponization, that the deployment of US space weapons would instigate a space arms race. These costs must be weighed against the benefits of space weapons championed by advocates of space weaponization. Despite their relatively open exposure to ASAT attack, some space weapons do provide significant military capability. One question, however, is whether the military benefit of space weapons, for example a long rod penetrator, is much greater than the benefit provided by terrestrial or Air Force weapons

**Weaponization bad- environmental and security issues**

**UNIDR 2k4**

(United Nations Institute for Disarmament Research is an institute within the United Nations — conducts research on disarmament and security with the aim of assisting the international community in their disarmament thinking, decisions and efforts , “Safeguarding Space for All: Security and Peaceful Uses”, Conference Report, March 2004, Print: pg 57 // sc)

The weaponization of space is an environmental as well as a national security issue. The environmental degradation of space created by space-faring nations constitutes a danger to space exploration, the space shuttle and other peaceful uses of space. Space litter also poses difficulties for the military uses of space. The weaponization of space, particularly with respect to the flight-testing of ASAT weapons, would greatly compound existing concerns over safe passage. In the event of a resumption of ASAT tests, the Pentagon would attempt to mitigate space debris, as it does with respect to missile defense tests. Other states that test ASATs might not be as conscientious about debris mitigation. **The actual use of ASA Ts would compound these dangers exponentially**. Debris fields in the upper reaches of space could be more long lasting than environmental degradation on earth. Traffic management and debris mitigation efforts are essential components of space assurance.

**Weaponization of space causes long term consequence and proliferating- new approach towards weapons key**

**UNIDR 2k4**

(United Nations Institute for Disarmament Research is an institute within the United Nations — conducts research on disarmament and security with the aim of assisting the international community in their disarmament thinking, decisions and efforts , “Safeguarding Space for All: Security and Peaceful Uses”, Conference Report, March 2004, Print: pg 36 // sc)

 The weaponization of space is a looming tragedy for all humanity, an immense destructive iceberg that we can see bearing down on us, even more significant in its long-term consequences than today's real worries over the proliferation of nuclear and biological weapons among rogue states and terrorists. If the weaponization of space does take place, with whatever weapons or justification, it will be the ultimate act of weapon proliferation. All of humanity will feel its self-destructive effects. To meet these evident dangers, it is time that government and nongovernmental organization (NGO) thinking begin to coalesce around a specific, fully articulated approach for preventing the weaponization of space. Given the fact that world governmental and public opinion largely opposes weaponization and that there is today only one potential proponent of weaponization-the US government-the objective of an agreed approach should be to convince the United States of the fact that the costs of weaponization outweigh its potential gains. This effort must be made at all levels of the US political system: executive, Congress, commercial interests, media and public.

**No benefit to weapons- increases costs and instability**

**Moltz 2k2**

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 On the other hand, a space race cannot be ruled out as a likely outcome-especially given that many countries with much fewer economic and technical resources than the United States are already going to space. **A strategic-level space race could have negative consequences for U.S. security in the long run that could outweigh any short-term advantage of being the first with space-based weapons**. In particular, it would be costly in dollar terms to sustain orbital weapon systems and stay ahead of opponents intent on matching U.S. space-weapon capabilities. The price tag of space-weapon systems and protective measures would not be trivial for anyone choosing to pursue themwith maintenance costs a key issue. One problem is that space weapons, just like satellites, would have inherent vulnerabilities (for example, fixed orbital paths), raising the specter of an ever-spiraling need for better weapons and force protection. Just as it is difficult to protect satellites, it is difficult to protect space weapons. For example, satellites or space weapons traveling in fixed paths in low-Earth orbit (LEO) are virtual sitting ducks for ground-based ASATs or even fighter aircraft equipped with rockets, not to mention space-based ASATs. The other related negative side effect of the inherent vulnerability of orbiting weapons is the pressure to use them first. The strategic dynamic of space-based weapons could perhaps be compared to that of nuclear intercontinental ballistic missiles- offense-dominant weapons with inherent vlllnerabilities (fIxed sites). This is a recipe for instability, as the United States and Soviet Union soon found in their nuclear competition. Spurring other nations to acquire spacebased weapons, either ASATs or weapons aimed at terrestrial targets, would undercut the ability of U.S. forces to operate freely on the ground on a global basis and thus negate what today is a unique advantage of being the world's only military superpower.3 Along with military assets in space, U.S. commercial satellites would also become targets (especially because the U.S. military is heavily reliant on commercial providers, particularly in communications). In other words, the United States could be in the position of creating strategic and military

**Weaponization increases costs to maintain commercial satellites**

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The competitive and cost challenges the U. S. satellite industry faces could be increased if the United States moved to make space a battlefield. Until now, the threat that commercial satellites could become direct wartime casualties has been negligible. But an aggressive U.S. pursuit of ASATs would likely encourage others to do the same, thus potentially heightening the threat to commercial satellites. This could be costly for industry, especially because current commercial satellites have little protection (electronic hardening, for example, has been considered too expensive). There would be costs for increasing protection, not to mention the likely further skyrocketing of already sky-high insurance costs, and it is not at all clear that the U.S. government would cover all those costs.

**Space weaponization not inevitable- cooperative efforts to promote space assurance key**

**UNIDR 2k4**

(United Nations Institute for Disarmament Research is an institute within the United Nations — conducts research on disarmament and security with the aim of assisting the international community in their disarmament thinking, decisions and efforts , “Safeguarding Space for All: Security and Peaceful Uses”, Conference Report, March 2004, Print: pg 51-52 // sc)

**The weaponization of space is not inevitable**. If it were, it would have occurred during the Cold War. Rather than engaging in such a competition now, a far wiser course would be to strengthen efforts to promote space assurance. Key elements of a space assurance posture include unilateral initiatives that enhance situational awareness in space and reduce satellite vulnerability; research and development programmes that deter others from crossing key thresholds and hedge against adverse developments by potential adversaries; and cooperative measures, international agreements and codes of conduct for responsible space space-faring nations. Cooperative measures, including information exchanges and greater transparency regarding space launches and payloads, could lend credence to declaratory statements of peaceful intent, while also serving to clarify threatening and destabilizing activities in space. Transparency measures must be sufficient enough to alleviate concerns over worrisome activities, particularly that military capabilities designed for other purposes are not being tested in ways that are virtually indistinguishable from preparations for space warfare. If states are sufficiently concerned about the weaponization of space, they will agree to significant, intrusive and broad-ranging cooperative and transparency measures.

## Space Debris

**Weaponization increases space debris causing spacecraft and mission failure**

**UNIDR 2k4**

(United Nations Institute for Disarmament Research is an institute within the United Nations — conducts research on disarmament and security with the aim of assisting the international community in their disarmament thinking, decisions and efforts , “Safeguarding Space for All: Security and Peaceful Uses”, Conference Report, March 2004, Print: pg 110-111 // sc)

A decision to test and deploy weapons in space might not only make space weapons more attractive to other nations, it also affects the common use of space in general. Space is not "empty"-natural (meteoroids or comets) and artificial (man-made) objects can be found in the space environment. They travel through Earth orbital space at high velocities and pose a risk to orbiting objects. Orbital debris is not of natural origin, rather it is the result of about 45 years of space exploration-parts of spacecraft, remains of intentional and unintentional explosions as well as missionrelated objects. Each of these objects can be classified by its source (debris type) or its size. With particle size, a distinction is made between small objects (less than 1 mm), medium-sized objects (from 1 mm to 1 cm) and large objects (more than 10cm). The number of objects varies with orbit parameters and size. Small-sized objects are more prevalent than larger objects, resulting in different mean times of debris impacts on target objects (for example, spacecraft). Mean times of impacts can vary from days to several thousand years. Although the probability of a spacecraft colliding with a large fragment is low, such an impact could have catastrophic results. Collision with medium fragments would cause significant damage to a spacecraft and possibly result in mission failure. Small fragments can cause component damage, spallation or degradation of spacecraft surfaces.

**Weapon causes space debris buildup and threatens satellites in space**

**Moltz 2k2**

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Any kind of space warfare will put all satellites at risk. The explosion of nuclear weapons in space (prohibited by the Outer Space Treaty, but routinely considered by military planners) would indiscriminately destroy unprotected satellites by electromagnetic pulse (EMP) or nuclear radiation.14 Perhaps worst of all would be the deliberate injection into LEO of large numbers of particles as a cheap but effective anti-satellite measure. Any country that felt threatened by America's starting to place lasers or other weapons into space would only have to launch the equivalent of gravel to destroy the sophisticated weaponry. Many of these pieces of metallic gravel and fragments of broken weaponry would join all the other debris in orbit. It would hasten the fragmentation of the 3,000,000 kg of dead satellites and rocket bodies now in LEO, and thus produce an enormous cloud of debris that would threaten all satellites in LEO.

**Weapons increases space debris**

**Moltz 2k2**

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 Despite the U.S. Army's program to develop a kinetic kill ASAT, army officials haw expressed concerns that using such weapons could create debris clouds that could render useless the U.S. military's own space assets in a kind of "orbital own goal" (to use a soccer term) or "space fratricide" (to use a military term). This concern has been echoed by top officials at U.S. Space Command. According to Saperstein, there are at least 24 U.S. military reconnaissance, electronic intelligence, and meteorological satellites in LEO (below 1,000 miles or 1,667 kilometers) alone-the orbit in which satellites currently are the most vulnerable to ground-based ASATs, precisely because it is easiest to reach. This is also the orbit where today's commercial imagery satellites are parked, not only those in L'.S. corporate hands but also the French and Russian systems--as well as the many satellites used for scientific Earth observation, including the International Space Station.5 In fact, the United States has been quite concerned about limiting debris, including in its missile defense testing program, and is one of the leading nations raising the issue on the international stage. However, other countries entering into a space weapons race might not be so diligent. **Increased space-based testing. especially of kinetic kill or explosive ASATs. could result in serious problems with space debris.**

# \*\*\*Case Arguments\*\*\*

# \*\*Space Power Adv\*\*

# SMD destabilizing

**SMD deployment destabilizes space defense**

**Grabbe 91**, (Crockett L. Grabbe is a research physicist at the University of Iowa, working on instabilities in space, *Space Weapons and the Strategic Defense Initiative*, Iowa State University Press, Print.) KL

If the United States deploys strategic defense, it is very likely that both sides will deploy upgraded anti-satellite weapons. The Soviets will build and deploy upgraded versions to help in countering the space based components of the strategic defense of the United States and the global surveillance that will be necessary to accompany it. The United States will deploy upgraded versions because the technological developments made for the defense will be very useful for advanced anti-satellite weapons and as a natural response to the Soviet deployment.

 If the United States continues the development of strategic defense, it will decrease the stability provided by satellite monitoring, for two reasons. First, no ASAT treaty will be negotiable because of the close link between strategic defense and ASAT technologies. Second, ASAT technology that becomes available from strategic-defense development will be applied to ASATs deployed. The danger of nuclear war will become much greater because the satellites that provide stability and that would provide vital information in a major crisis would be threatened.

**The aff violates arms control treaties – destroys nuclear stability**

**Newberry 01**, (Robert D. Newberry, Major USAF. *Space Doctrine for the Twenty-first Century*. Air University press. Print) KL

There are a number of arms control treaties in force between the United States and the Soviet Union that impinge directly or indirectly on the development of a strategic defense. It is important that these treaties be carefully examined for the implications that the development or building of a missile defense will have on them. Before any decision is made to undertake questionable activities with respect to the treaties, an evaluation should be made of the possible consequences of violating them. This is important and necessary, since these treaties have been carefully developed over years of negotiating and have provided us with a degree of nuclear stability.

 If the United States disregards the provisions of these treaties, it will encourage the Soviets similarly to break their commitments in those treaties, and visa and versa; this will undo decades of progress that we have made toward arms control and disarmament. The nuclear stability that has been achieved by those treaties will then be lost.

 The United States and the Soviet Union cannot negotiate meaningful and effective new arms control treaties if either party violates existing treaties. Given the precarious nuclear state of affairs whereby each side has first-strike weapons, anti-satellite weapons, and the ability to make a nuclear strike against the other in a short time, such new treaties and agreements are urgently needed. Thus, the violation of existing treaties places in serious jeopardy opportunities for further progress with the negotiation of new treaties. If treaties are violated in developing a strategic defense, it will provide another motivation for accelerating the arms race (in addition to those discussed in Chapters 6 and 8).

**Instability happens before the defense systems save us – plan does nothing**

**Grabbe 91**, (Crockett L. Grabbe is a research physicist at the University of Iowa, working on instabilities in space, *Space Weapons and the Strategic Defense Initiative*, Iowa State University Press, Print.) KL

Thus the development of a strategic defense will provide major nuclear instability before any defensive capability is available. In addition to the jeopardizing of treaty negotiations and the confidence that one could have in compliance with those treaties, the uncertainty created by the resulting vulnerabilities to critical satellites might lead to an accidental nuclear launch in a major crisis that develops between the United States and the Soviet Union. Given the global concern about the possibility of nuclear destruction, it is quite undesirable to have systems that would significantly increase this possibility.

**Strategic missile defense will cause proliferation – two warrants**

**Grabbe 91**, (Crockett L. Grabbe is a research physicist at the University of Iowa, working on instabilities in space, *Space Weapons and the Strategic Defense Initiative*, Iowa State University Press, Print.) KL

A strategic defense will in fact produce a continuation, probably even an acceleration, of the offensive nuclear arms buildup, for two reasons. One is that the cost of the defense is so much more expensive than the cost of offense that the uncertainty created by the deployment of a defense will cause the other side to counter with an offensive buildup. They know that they can do so for much less cost than the side with the defense can to counter the extra offense.

 The second reason is that the defensive technologies will be much more useful in certain offensive capacities with counterforce weapons of anti-satellite weapons before they can be useful in a defensive capacity. These uses are clearly destabilizing to the international nuclear arms balance and will provide the other side with a motivation for a massive arms buildup.

# AT: Hege

**Other ways to defend space assets- reconstitution, hardening, maneuverability, and threat reduction**

**Moltz 2k2**

(James Clay Moltz is the Associate Professor and Academic Associate for Security Studies at the NSA, expert on: space security, nuclear proliferation and nonproliferation, Russian and Northeast Asian security, international relations theory, and U.S. national security policy, received the 2010 Richard Hamming Award for Interdisciplinary Achievement, worked previously as a staff member in the U.S. Senate, served as a consultant to the NASA Ames Research Center, the Department of Energy’s National Nuclear Security Administration, and the Department of Defense’s Office of Net Assessment, “Future Security in Space: Commercial, Military, and Arms Control Trade-Offs”, Center for Non-Proliferation Studies, Montery Institute of International Studies, Jul 2002, Print: 12-13 // sc)

 There are also, however, other possible approaches to defending space-based assets, ones that do not depend on deploying counterforce approaches. Some examples: • Redundancy/Reconstitution: existence of replacement satellites stored in orbit or terrestrially housed spares capable of launch-on-demand; large networked constellations of assets with a distributed architecture (so that 12 destruction of one or even several satellites does not take down the entire system); designated back-up or redundant assets (both space segment and TT&C) in secure locations for critical missions; rapid in-orbit or transatmospheric repair capabilities; autonomous in-orbit navigation and housekeeping against the event that communication with the TT&C ground segment is severed for an extended period. • Hardening/Shielding: alternative power sources (reducing the impact of damage to vulnerable solar arrays); rapid-acting shutters deployable against debris or intense illumination; radiation hardening; counter-electromagnetic pulse (EfviP) measures such as grounding or Faraday cages; component selection for immunity to system-generated EMP (SGEMP) effects; enhanced encryption of the uplink and downlink; electronic countermeasures to safeguard communications systems (e.g., agile frequency hopping, signal power boosting and antenna nulling to defeat enemy jamming); and operation from higher and thus less accessible altitude orbits. • Awareness/Maneuverability: enhanced situational vigilance to predict and detect attack, including improved operational intelligence, threat analysis, space surveillance and on-board in situ sensing, combined with built-in rapid maneuvering capability for critical or high-value orbital assets (allowing them to dodge some types of attacks), including robotic refuelling options for maneuvering thrusters. • Denial/Deception: steps to make key orbital assets stealthy or harder to detect from Earth in the first place, inter alia through observational signature reduction, deception (reduced or disguised interaction with the ground segment) and enhanced security measures surrounding deployment and purpose. Military Approaches to Space Vulnerability: Seven Questions • Passive Defense: increased fixed and mobile security features (e.g., personnel screening, physical barriers and guard forces) for the ground segment in particular. • Diplomacy and Threat Reduction: reinforcement and extension of the international legal regime prohibiting space-based weapons, inter alia by negotiating and gaining broad adherence for international legal instruments (e.g., on anti-satellite weapons); cooperative measures to protect terrestrial military operations among allies and associates (e.g., multilateral shutter control mechanisms); strengthening of export controls and other non-proliferation measures on pertinent technology; and increased international pressure on violators of existing norms and obligations.

**Space dominance does not assure dominance on Earth**

**Hardesty 05**

(Captain David C. Hardesty was a member of the US Navy and is an expert in Law. He is also a journalist for the Navy Law Review, “Space-Based Weapons: Long-Term Strategic Implications and Alternatives”, Naval War Coll Newport, Defense Technology Information Center, 2005, pg online @ [http://handle.dtic.mil/100.2/ADA521114 //](http://handle.dtic.mil/100.2/ADA521114%20//) sc)

Everett Dolman argues that the downsides of space-basing weapons can be avoided by using current and near-term capabilities “to . . . seize military contro lof low-Earth orbit. From that high ground vantage . . . space-based laser or kinetic energy weapons could prevent any other state from deploying assets there, and could most effectively engage and destroy terrestrial enemy ASAT facilities.” Other states would be allowed to compete commercially in space with the United States, but only after notification and approval of each launch. Underlying this view and the arguments adduced in its support is the ideathat by seizing space the United States will have seized a vantage point from which the earth itself can be dominated. This is the “ultimate high ground” ar-gument, which, as we have seen, has serious weaknesses; **it is not at all clear that even in strictly military terms dominance in space means dominance on earth.In fact, its benefits are likely to be both marginal and temporary if an enemyshifts the terms of the engagement**

**US weaponization decreases soft power- Sputnik proves**

**Coffelt 2k5**

(Christopher A. Coffelt is the vice commander of the Minot Air Force Base, served in a variety of space and missile operations, staff, and leadership assignments. Served as a senior ICBM flight commander/instructor , political-military officer on the Secretary of Defense's Bosnia Task Force, space and missile force programmer on the Air Staff, served at the Defense Threat Reduction Agency as the Chief, numerous awards , “The Best Defense: Chartering the Future of US Space Strategy and Policy”, School of Advanced Air and Space Studies, Defense Information Technology Center, June 05, pg online @ [http://www.dtic.mil/dtic/tr/fulltext/u2/a477110.pdf. //](http://www.dtic.mil/dtic/tr/fulltext/u2/a477110.pdf.%20//) sc)

Weaponizing space also decreases the united states’ ability to influence Adversaries and achieve policy objectives short of military action (soft power). It Undermines the legitimacy of the united states’ actions and its role as the leader of the Free world. How can the United States assume the mantle of world leadership if it Continues to act unilaterally at the expense of the international cooperation, peace, and Interests it claims to value? Putting weapons in space is the ultimate unilateral act and Affords no opportunity to form “coalitions of the willing.”289 the united states currently Enjoys a significant superiority in air/land/sea combat power, robustly enhanced and Enabled by space capabilities. In this position of advantage, **it makes little strategic sense To disrupt the status quo with the deployment of destabilizing, offensive weapons in space.** Putting weapons in space or pursuing an offensive space strategy upsets an advantageous Status quo and overplays the united states’ hand, shortening the period of advantage. Moreover, if, as some believe, the world is on a path to the inevitable weaponization of Space, there are clear advantages in assuming the follower role. Sputnik’s launch bestowed the honor and prestige of being first in orbit upon the Soviet union, but was fortuitous for united states policy makers, as well. Whether or Not the soviets beat the united states outright or the united states allowed the soviets To go first is irrelevant. The critical point is the soviets *did* go first. In one stroke, Sputnik solved the complicated, politically charged overflight issue that us policy Makers grappled with and could not resolve. This enabled the united states to pursue Its space reconnaissance program free from the legal and policy quagmire that Accompanied launching first, and avoided appearing as an aggressor. Responding to the Soviet capability fueled and legitimized the united states’ spending on its space program, And garnered unprecedented public support. Robust funding complemented by International legitimacy and public support provided the united states space program a Significant advantage. If, as some argue, weaponization of space is truly inevitable, the United states should manage risk, research and develop in secret, allow an adversary to Cross the weapons in space threshold first, and reap the sputnik-like rewards of being a Close second. In spite of the apparent advantages this strategy offers, it is likely much Easier said than done. Advocating or supporting any second-follower strategy would be An extremely difficult position for an elected official or military officer, considering the Us’ clear, longstanding preference for positive action and offensive solutions.

**Space weapons wont deter conflict- nuclear weapons prove**

**Coffelt 2k5**

(Christopher A. Coffelt is the vice commander of the Minot Air Force Base, served in a variety of space and missile operations, staff, and leadership assignments. Served as a senior ICBM flight commander/instructor , political-military officer on the Secretary of Defense's Bosnia Task Force, space and missile force programmer on the Air Staff, served at the Defense Threat Reduction Agency as the Chief, numerous awards , “The Best Defense: Chartering the Future of US Space Strategy and Policy”, School of Advanced Air and Space Studies, Defense Information Technology Center, June 05, pg online @ [http://www.dtic.mil/dtic/tr/fulltext/u2/a477110.pdf. //](http://www.dtic.mil/dtic/tr/fulltext/u2/a477110.pdf.%20//) sc)

Just as us advantages in nuclear weapons throughout history could not deter all Conflict, so it will be with orbital weapon systems. The sophisticated technological Solution definitely showcases american power and may dissuade some potential Adversaries, but it cannot completely deter all of them from aggression. The soviets Blockaded berlin in 1948 despite the fact the us had a monopoly on nuclear weapons and Had shown their willingness to employ them. Despite the fact the us had a clear Superiority in numbers and quality of nuclear weapons in the 1950s, the soviets and Chinese supported the north korean’s invasion of south korea and participated in the Conflict themselves. The us nuclear superiority of the 1960s did not prevent north Vietnam from invading south vietnam and the soviets support of that direct conflict with The united states. Over the past several decades, there are numerous other examples Which illustrate how possession of greatly superior nuclear and conventional weapons And capability did not completely deter, further reinforcing the conclusion that there is No basis for a modern-day assumption that highly responsive, non-nuclear strike capability From space would provide any greater deterrent effect. It is unrealistic for us Strategists to assume deployment of “rods from god” (kinetic, tungsten rods) or any Other orbital weapons platform will drive potential adversaries to behave or bend to us Will any more than present weapon systems do.

**US wouldn’t be perceived as a hegemon with space weapons**

**Coffelt 2k5**

(Christopher A. Coffelt is the vice commander of the Minot Air Force Base, served in a variety of space and missile operations, staff, and leadership assignments. Served as a senior ICBM flight commander/instructor , political-military officer on the Secretary of Defense's Bosnia Task Force, space and missile force programmer on the Air Staff, served at the Defense Threat Reduction Agency as the Chief, numerous awards , “The Best Defense: Chartering the Future of US Space Strategy and Policy”, School of Advanced Air and Space Studies, Defense Information Technology Center, June 05, pg online @ [http://www.dtic.mil/dtic/tr/fulltext/u2/a477110.pdf. //](http://www.dtic.mil/dtic/tr/fulltext/u2/a477110.pdf.%20//) sc)

While compelling and well-argued, the weaknesses are profound. First, trustee Advocates assume away the consequences back here on earth. Even if the us was capable Of successfully executing a hegemonic grab of low earth orbit, thereby advancing its Ability to single-handedly control an important medium, life continues on or in the other Three mediums. It is highly unlikely that the rest of the world would perceive that the us Action was in everyone’s best interests. Truman believed the us would be the benevolent Trustee of atomic power, which did little to soothe the soviet’s anxieties over how the us Would behave. This is not to suggest that the us should allow itself to be held hostage to The will of the international community. The us must reserve the option to act in self Defense or to secure its vital interests, but unilateral acts to secure interests Oftentimes incur negative costs in other areas. Specifically, while other nations may be Powerless to stop a hegemonic space grab, they can still exert power and influence over The us through diplomatic and economic means. There would be a subsequent loss of Legitimacy for this and other us actions and an accompanying decrease in soft power Which enables the us to influence other nations short of resorting to violence or the Threat of violence. Analysis of the case studies does not give any indication that other State’s ever put faith in benevolent hegemonic control of something that all could benefit From. Therefore, the us should expect a similar response to any offensive actions in Space. Second, the argument goes further, asserting that being in such a position enables The us to provide protection from ballistic missile launches, air raids, and even land Invasions by aggressor nations against their neighbors. It envisions that this may even Allow the us to put an end, once and for all, to interstate conflict.287 abm discussions in The mirv and sdi case studies reveal the weaknesses in this argument. Assuming one Could deploy a perfect, impenetrable defensive shield that also had the capability to Affect other targets in space, in the air, on land, or at sea**, there is no evidence that such a Capability would have any ability to prevent cross border incursions or conflicts**. The Monopoly on nuclear weapons did not prevent such acts, therefore, why would the us Assume that orbiting space weaponry would? Analyses of these cases indicate that Deployment of an impenetrable defense is also highly unlikely. Even if the us could deploy A system that was 99.9999% reliable, these machines still will have some associated, finite Mean time between failures. Essentially, the question becomes “when” not “if.” The us Would certainly not find itself in a tenable position if it had publicly stated it would shoot Down all ballistic missile launches only to experience a system failure or simply miss when Country a fired a missile on country b. World opinion would be more apt to believe the us Allowed the impact of country a’s missile on country b’s sovereign territory vice the Truth that the system simply malfunctioned. The us would immediately be viewed as having Taken a side in the conflict and would be subject to the accompanying strategic Implications of that perceived support or non-support. Therefore, there is no evidence to Support a conclusion or belief that an offensive space strategy enabled by orbital Weapons would be welcomed by the rest of the international community who would accept The us as the benevolent trustee of space.

# \*\*New Deterrence Adv\*\*

# Squo solves Deter

**Status quo solves China—even if conflict is inevitable, limited ground-based BMD checks escalation**

**Butler 7** (Jeffrey T, a National Defense Fellow at Boston University, Massachusetts, performing research on Russia, Central Asia, and international military affairs, “The Influence of Politics, Technology, and Asia on the Future of Us Missile Defense” pg. xi) RF

In the near term, the United States should only pursue a limited ballistic missile-defense system with emphasis on theater systems and countering long-range missiles from the handful of rogue states that are pursuing them. Concurrently, the United States must improve threat definition, demand increased technical maturity and testing, and pursue flexible systems that can perform militarily significant missions in addition to missile defense. Furthermore, engagement with friends and foes is essential to developing an effective missile-defense system, maximizing deterrence value and supporting other critical efforts such as WMD counterproliferation and intelligence gathering. This strategy will reduce the technical risk of missile defense, increase the United States’ freedom of action against a rising cadre of WMD-capable actors, **and avoid unnecessary escalation in tension between the United States and Asia**

**Status quo sufficient—weaponizing space crushes status quo stability and triggers a negative response**

Butler 7 (Jeffrey T, a National Defense Fellow at Boston University, Massachusetts, performing research on Russia, Central Asia, and international military affairs, “The Influence of Politics, Technology, and Asia on the Future of Us Missile Defense” pg. 42) RF

Much like Russia, China’s response to the planned US missile defense system is not likely to change in the near future **unless there is significant escalation in the numbers of deployed missiles or a push to weaponize space**. Deployment of US missile defense systems to Taiwan and Japan will likely be met with a correlated increase in deployed missiles. **Furthermore, China’s leaders have clearly articulated that placing interceptors in space will create a strong negative response**. 24 Moreover, the cancellation of the planned US missile-defense system will not stop China’s missile buildup, as China was already committed to massive military modernization prior to the current US missile-defense effort. Indeed, the buildup started during the Clinton administration before the Missile Defense Act of 1999. 25 China planned a 15 percent increase in defense spending in 2006 in large part due to Taiwan’s politically provocative actions such as dissolving the government organization responsible for reunification with the mainland. 26 Thus, China’s tangible response to US missile-defense efforts has been to increase an already ongoing arms buildup and reaffirm the commitment to “one China” with regard to Taiwan

**[Insert Arms Race/militarization DA]**

**Status quo BMD deters North Korea and checks escalation—low number of missiles, geography, and economy**

**Butler 7** (Jeffrey T, a National Defense Fellow at Boston University, Massachusetts, performing research on Russia, Central Asia, and international military affairs, “The Influence of Politics, Technology, and Asia on the Future of Us Missile Defense” pg. 44-46) RF

One of the main objectives of MDA’s limited long-range ballistic-missile-defense capability was to dissuade and deter threats from countries such as members of the axis of evil: Iraq, North Korea, and Iran. The US invasion and occupation has mitigated ballistic-missile concerns in Iraq, but North Korea and Iran continue as threats. Unfortunately, the United States has adversarial relations with Iran and North Korea with repeated threats of military action from all parties. Moreover US military interventions over the past decade have justifiably heightened fears of military operations against these two countries. North Korea’s Kim Chong-Il has consistently threatened to preemptively launch WMD attacks against the United States, South Korea, Japan, or any other US ally. North Korea’s launch of the Taepo Dong ballistic missile over Japan is clear indication of the seriousness of the threat. Likewise, Iran’s radical president has promised to “wipe Israel off the map” and has also threatened WMD attacks against the United States for interfering with Iran’s internal activities.34 Iran’s threats are not to be taken lightly given its use of ballistic missiles and WMD to target Iraq’s population during the “war of the cities” in the Iran-Iraq war and its current pursuit of uranium enrichment technology.35 The decision to focus US missile-defense efforts against Iran and North Korea is justified given the acrimonious relationships. Beyond ill will, both North Korea and Iran possess credible WMD and ballistic-missile programs. North Korea is widely assessed to already possess nuclear capability, while Iran recently announced plans to resume research in uranium enrichment. Iran claims its nuclear program is for peaceful purposes, but there is ample evidence that it aspires to possess a nuclear weapon capability. The development of an indigenous uranium enrichment capability would open the door for Iran to produce weapons-grade uranium and plutonium. Both countries also possess domestic ballistic-missile capability. North Korea’s Taepo Dong missile, in a three stage configuration, has an estimated range of 15,000 km which could hit anywhere in North America. Likewise, Iran has a large inventory of short-to-medium range ballistic missiles including the Shahab-3 which can reach Israel with its 1,300 km reach.36 Moreover, both countries have a history of illegally proliferating ballistic missile technology thereby increasing the overall threat to the United States.37 North Korea continues to engage in negotiations to renounce its WMD programs in return for international support and security guarantees. The “Six Party” talks involving North Korea, South Korea, Russia, China, Japan, and the United States are making progress, but North Korea’s history of irrational behavior and reneging on promises suggests caution is in order. **North Korea is uniquely vulnerable to missile defense due to its low number of missiles, geography, and failing economy**. First, North Korea’s limited number and relatively unsophisticated missiles create doubt that it could overwhelm or fool the existing and planned US missile-defense system. Second, geography works against North Korea as it is a small country on a peninsula. Consequently, US sea- , land- , and air-based missile defense assets can flank the country and **maximize the likelihood of intercept**. Finally, North Korea has a failing economy and can not afford the arms buildup needed to guarantee defeat of the US missile-defense system. North Korea runs the risk of imploding, much as Reagan’s strategic defense initiative created uncertainty for Russia and contributed to Soviet economic collapse. There is little public evidence from North Korean officials to evaluate how significant a factor the US missile-defense program was in their decision to pursue negotiations. However, it is likely more than coincidence that North Korea agreed to more substantive disarmament discussions in the same timeframe that US missile defense interceptors began their operational deployment. Therefore, **even a limited US missile-defense program could contribute to the overall US goal of dissuading and deterring North Korea.**

# BMD solves

**BMD’s solve – key to deterrence and power projection, solves arms races, and prevents escalation**

**Frederick 4** (Lorinda A., Senior Space and Missiles Operator with operational tours in Minuteman III Intercontinental Ballistic Missiles (ICBM) and Missile Warning and Space Surveillance, Master’s degree in Military Arts and Sciences from USAF Air Command and Staff College, served in Headquarters Air Force Space Command (HQ AFSPC) in Space and Missile Officer Assignments and ICBM Requirements, “DETERRENCE AND SPACE-BASED MISSILE DEFENSE,” June 2008)

BMD’s Role in Deterrence BMD actively defends against the threat of ballistic missiles and strengthens the overall US deterrent posture.19 Active defense is required when deterrence fails. BMD strengthens US deterrence by giving US leaders a viable alternative to escalation, enabling power projection, and reassuring allies and coalition partners. Limited offensive actions taken in active defense, such as launching an interceptor against a ballistic missile on a trajectory towards United States, deny the enemy access to contested areas.20 New and emerging threats may not be deterred by the prospect of retaliation, even though deterrence worked in the past. Without defenses, an undeterredadversary could strike the United States, its allies, and/or its coalition partners precisely and lethally. Thus many experts agree that the United States can no longer rely on the deterrent capability of its offensive forces; it must augment them with defensive capabilities.21 BMD could protect the United States from incoming missiles. If BMD does nothing else, it must protect the United States from attack.22 DOD defines missile defense as “defensive measures designed to destroy attacking enemy missiles, or to nullify or reduce the effectiveness of such attack.”23 BMD cannot completely nullify ballistic missile attacks because such attacks are bound to have diplomatic, military, and/or economic consequences whether the launched missiles reach their intended targets or not. Effective defenses could dissuade a country from resorting to a missile attack to settle its disputes, especially if the chances of a successful attack are low because of multiple layers of missile defenses. While it is true BMD responds to failures of deterrence, the relationship between deterrence and BMD is complex. BMD supports deterrence by limiting options an adversary has to use force to achieve his objectives. BMD also expands US options to further deter an adversary attempting to upset the status quo. The likelihood of active defenses countering a hostile attack may directly influence an adversary’s courses of action. BMD is an integral part of deterrence because it makes escalation less likely and enables the United States to project power. BMD makes escalation less likely by allowing the United States to call an aggressor nation’s bluff. Confidence in BMD technology may allow US decision makers to accept an increased risk of attack and allow other instruments of power time to diffuse the situation. The adversary must consider US defensive capabilities in relation to his/her offensive capabilities. BMD also reduces the chance of the United States escalating the conflict. With adequate defenses, the United States may seek other response options. Confident that inbound ballistic missiles will not reach its homeland, the United States could choose not to respond in kind to such provocation. Effective deterrence and BMD may dissuade adversaries from starting an arms race with the United States. Developing new technologies to thwart US BMD may pose a financial burden the adversary cannot afford.24 BMD makes the possession and use of ballistic missiles less attractive.25 There may be little value for the adversary to have ballistic missiles to threaten the United States, if the United States will question the adversary’s ability to follow through on those threats. “US and allied active and passive defenses can serve to enhance the perceived probability of severe cost imposition, because such defenses will increase the confidence of US leaders in their ability to limit damage to the US and its allies.”26 BMD lets the United States project power by making the threat of a ballistic missile attack on its homeland, allies, or coalition partners less likely to occur, or less severe if it does occur. Power projection is “the ability of a nation to apply all or some of its elements of national power - political, economic, informational, or military - to rapidly and effectively deploy and sustain forces in and from multiple dispersed locations to respond to crises, to contribute to deterrence, and to enhance regional stability.”27 BMD allows the United States to focus on other options for resolving the situation. Extending BMD to allies and coalition partners bolsters deterrence by reassuring allies that the United States could defend them from ballistic missile attacks. This extended deterrence may ease the formation and maintenance of US-led coalitions.28 For example, the United States provided Israel with theater missile defenses during Operations Desert Shield/Desert Storm to protect them and keep them out of the broader conflict. Extended deterrence may also encourage allies to “forgo indigenous development or procurement of duplicative military capabilities, thereby enhancing US counterproliferation efforts.”29 BMD is more than just a defensive measure the United 11 States possesses to knock down threatening missiles. Decision-makers could think of BMD as a vital part of deterrence that could restrain the dangerous behaviors of rogue elements and proliferators. If deterrence should fail, however, BMD can provide the protection and security that would allow the United States to respond differently to ballistic missile attacks. The face of deterrence was different during the Cold War because of the threat posed by the Soviet nuclear arsenal, versus threats posed by rogue elements and proliferators today, and the lack of a BMD capability, versus limited defenses today. Maturing ballistic missile defense technologies let the United States alter the face of deterrence. BMD strengthens deterrence by easing escalatory pressures, enabling power projection, and reassuring our allies and coalition partners.

**Status quo of limited missile defense and cooperation solves—increasing missile defense leads to China missile build-up and Asian instability, US doesn’t have technical means to deter Russia**

Butler 7 (Jeffrey T, a National Defense Fellow at Boston University, Massachusetts, performing research on Russia, Central Asia, and international military affairs, “The Influence of Politics, Technology, and Asia on the Future of Us Missile Defense” pg. 50) RF

 **The current US policy of limited missile defense and engaging international partners is the best course of action**. The United States does not have the technical means or the funding to field a credible missile defense against Russia’s nuclear ICBM force. In addition, China is already substantially improving the quality of its nuclear force and, with time, could also overwhelm the US missile defense against long-range ballistic missiles. A significant increase in China’s arsenal could ripple through Asia inducing destabilizing force-level escalation in India, Pakistan, and Japan. However, this could happen even without the existence of missile-defense systems. For example, US and Soviet missile inventories increased in the 1970s and 1980s after the signing of the 1972 ABM Treaty.

# No Threats (Deter)

**North Korea Isn’t a threat, Missile Defense isn’t needed**

Gwynne **Dyer**, a native of Newfoundland and Labrador, is a London- based independent journalist whose articles are published in 45 countries., St. John's Telegram (Newfoundland) March 6, 20**05** Sunday, The missile defence secret, , Lexis Nexis) E.L.

What Washington really wanted from Ottawa (and what Martin was being rebuked for failing to deliver) was Canadian approval of the principle of ballistic missile defence. The United States has been isolated on this issue since the Bush administration tore up the Anti-Ballistic Missile treaty, and Canadian approval would have been useful diplomatically. The controversy will die down in a few days - but it did rouse former defence minister Paul Hellyer to speak the truth that no other Canadian public figure was willing to utter: "missile defence" is not really about defence. Writing in the Globe and Mail, Hellyer said bluntly that "BMD ... has about as much to do with rogue missiles as the war on Iraq had to do with weapons of mass destruction." The notion that North Korea might fire one or two ballistic missiles at the U.S., even if it had a few long-range missiles and nuclear warheads to put on them, is ludicrous. The entire leadership and most of the country would instantly be destroyed by a massive U.S. retaliation. Pyongyang is a very nasty regime, but it hasn't attacked anybody in the past 50 years, it isn't suicidal and it can be deterred by the threat of retaliation just like Russia or China. So what is BMD really about.

**Missile Defense Perpetuated By Lies – Rumsufeld, Heritage, and Corporations Lobbying – Programs Empirically Fail**

**Caldicott &Eisendrath, 7**-  (is an [Australian](http://en.wikipedia.org/wiki/Australia) [physician](http://en.wikipedia.org/wiki/Physician), author, and [anti-nuclear](http://en.wikipedia.org/wiki/Anti-nuclear) advocate who has founded several associations dedicated to opposing the use of [depleted uranium](http://en.wikipedia.org/wiki/Depleted_Uranium) munitions, [nuclear weapons](http://en.wikipedia.org/wiki/Nuclear_weapons), [nuclear weapons](http://en.wikipedia.org/wiki/Nuclear_weapons) proliferation, war and military action in general. \*\*\* Chairman, Project for Nuclear Awareness (Helen and Craig, War in Heaven, pgs. 48-61). gh~hak)

Missile defense got a new spurt of energy when the then Sec­retary of Defense Richard Cheney falsely claimed that the U.S. Patriot anti-missiles successfully intercepted Scud missiles during the Gulf War in 1991, claims later largely negated by the General Accounting Office, which reported that Patriots hit only 9 percent of the Iraqi Scud warheads. The Israelis claimed that none had been hit. Televised footage believed by many Americans to have been tapes of Patriots intercepting actual Iraqi weapons turned out to be stock promotional footage of simulations and tests. Never­theless, false and misleading claims for the success of the Patriot have continued to fuel support for missile defense. The somewhat better record of "theater" or short-range missile defenses during the 2003 Iraq War, and in recent testing, has also helped boost sup­port for long-range missile defense. The problem is that range mat­ters, particularly because incoming 5hort-and middle-range missiles cannot use decoys, the major obstacle to defending against long­ range missiles. During the Reagan and Bush administrations, another anti­missile technology, also proposed by Edward Teller, drove a separate campaign for more appropriations. This was the idea of autonomous, small "kill-vehicles," which would be lifted into outer space to en­gage ICBMs in the boost-phase, as the missiles were launched. Called "Brilliant Pebbles," this system, like the X-ray Laser, consumed vast amounts of research money, and ultimately came to naught. Pro­jected costs of $85 billion, poor performance, and the absurd growth in size of the "pebbles" into virtual "boulders" as more and more necessary equipment was added, doomed the project, and President Bush Senior eventually dropped it. By the end of the first Bush ad­ministration, around $100 billion had been spent on anti-missile re­search, making it the largest weapons-research project in history, with virtually nothing to show for it. Fourteen years later, "Brilliant Pebbles" is under consideration again today, as the U.S. moves toward space weaponization (see Chapter 4). In 1999, during the Clinton administration, the U.S. Senate, by a vote of 97-3, adopted legislation calling for deployment of na­tional missile defense as soon as technologically possible. Never­theless, on September 1, 2000, President Clinton announced that he would defer the decision to deploy such a system to the next administration, citing the system's unproven technology, dramati­cally brought home by a series of failed tests; the likelihood that countermeasures, such as decoys, could foil it; and the objections of Russia, China, and our NATO allies that deployment would jeop­ardize the 1972 ABM treaty. He also added four related caveats for any future funding: that the system. be affordable, that it be techno­logically proven, that the missile threat be established, and that de­ployment not undermine the pursuit of arms control. Ironically, these same caveats, if taken seriously, would ha.ve prevented deploy­ment of the present ground-based system installed by the current Bush administration, and plans for future deployment of a space­ based system. President George W Bush ignored these problems and called for early deployment of a national missile defense system. Many of the same people and institutions that had lobbied successfully for a missile defense system in the earlier Reagan and Bush periods were back in the game. These included Donald Rumsfeld, Richard Perle, Paul Wolfowitz, and Frank Gaffney (who runs the Center for Security Policy), as well as the Heritage Foundation; and corporations such as Lockheed Martin, Boeing, Northrop Grumman, Raytheon, and Gen­eral Dynamics, which have continued to donate millions of dollars to members of Congress to push through national nussile defense.

**Missile Defense Threat False – Constructed By Bush Era Lies – Carnegie Assessment Proves**

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One development that motivated President Bush was the 1998 report of the Commission to Assess the Ballistic Missile Threat headed by Donald Rumsfeld. HI That report falsely claimed that, within a few years, North Korea, Iran, and Iraq, which President Bush referred to as "rogue states," and the "axis of evil," could de­ploy operational intercontinental ballistic missile systems with "lit­tle or no warning," and that the United States could be threatened by such missiles as early as 2005. Not highlighted in the adminis­tration's argument for the immediate need to build a missile de­fense system in response was the fact that any long-range missile development by these countries would require an extended series of flight tests, which would allow the United States considerable warning time. Moreover, because chemical weapons have only a limited ef­fectiveness and microbes or spores would probably be destroyed on impact, only nuclear-armed ICBMs would be effective, and none of these countries possessed these. As Ambassador Thomas Graham, past director of the U.S. Arms Control and Disarmament Agency (ACDA) and President Clinton's special ambassador for nuclear disarmament, points out, "Developing a nuclear weapon small and light enough to be carried by a ballistic missile the con­siderable distance from, say, North Korea to the continental United States would also certainly require a series of nuclear weapon tests, which would provide additional warning."ll Close analysis of the Rumsfeld report also reveals that Rumsfeld essentially changed the verbs of earlier less threatening CIA estimates from "mights" and "coulds" to "wills," a shift to a series of worst-case assumptions, despite the lack of evidence of any significant changes in other countries' real missile capability.12 Nevertheless, the report cited an imminent threat as the rationale for the United States to begin im­mediate construction of a ballistic missile defense. In 1999, a year after the report, the CIA concluded that over the next fifteen years the United States "most likely will face ICBM threats from Russia, China and North Korea, probably from Iran, and possibly from Iraq, although the threats will consist of dramatically fewer weapons than today because of significant re­ductions we expect in Russian strategic forces." The CIA report had, of course, dutifully reiterated some of the conclusions and techniques of the Rumsfeld report, supporting the case for deploy­ ment of a national missile defense. 13 A more balanced net assessment of global ballistic missile arsenals, undertaken by Joseph Cirincione of the Carnegie Endowment for International Peace, revealed that the ballistic-missile threat was confined, limited, and changing rel­atively slowly. Nevertheless, on December 13,2001, President George W Bush, marking the first abrogation of a disarmament treaty ever made by an American president, announced withdrawal from the ABM Treaty, which became effective in six months according to the terms of the treaty. The president stated, "Today, I have given formal notice to Russia, in accordance with the treaty, that the United States of America is withdrawing from this almost 30-year-old treaty. I have concluded the ABM Treaty hinders our government's ability to de­velop ways to protect our people from future terrorist or rogue state missile attacks." Thus was the door opened for the deployment of a national missile defense (NMD) system. The president invoked terrorism to justify his withdrawal from the ABM Treaty, just as he would invoke terrorism to invade Iraq. But in neither case was terrorism really a factor. Given the enormous expense and technical difficulties involved in their development, in­tercontinental ballistic missiles are the least likely weapons for terror­ists to acquire. Nor do terrorists have the capability to launch them. Weapons delivered by ships or planes, or hand-carried, or even cruise or short-ranged missiles, are much more likely weapons for terror­ists, as the attacks of September 11 brought home. And these delivery systems will never be countered by national missile defense. 15

**Adequate Satellite And Base Defense in the Status Quo – Space Pearl Harbor Claims Are Propaganda**

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The new policy was further defined in January 2001 under the second Bush administration by a report of the Commission to As­sess United States National Security Space Management and Orga­nization, which had been set up by the Republican Congress in 1999, with Bob Smith (R-NH) serving as point person. The com­mission was chaired by Donald Rumsfeld before his subsequent appointment as Secretary of Defense by President Bush. The 2001 report concluded: If the US. is to avoid a space Pearl Harbor, it needs to take seriously the possibility of an attack on US. space sys­tems.... Those hostile to the US. can acquire on the global market the means to deny, disrupt or destroy US. space systems by attacking satellites in space, communica­tions links to and from the ground or ground stations that command the satellites and process their data. The Commissioners believe that the US. government should vigorously pursue the capabilities called for in the National Space Policy to ensure that the President will have the option to deploy weapons in space to deter threats to and, if necessary, defend against attacks on US. interests. In order to extend its deterrence concepts and capabil­ities to space, the U.S. will require development of new military capabilities for operation to, from, in and through space. In August 2004, the U.S. Air Force moved even further toward space weaponization with the release of its Counterspace Opera­tions doctrine. This document explicitly mentions military opera­tions conceived to "deceive, disrupt, deny, degrade, or destroy adversary space capabilities."! The belligerent tone of these recent pronouncements is as disturbing as their content. They employ rhet­oric of complete dominance and hegemony, not multilateral cooper­ation or diplomacy. Yet with these proclamations, the way has been cleared for the weaponization of outer space. The notion of a "space Pearl Harbor" borders on the absurd, be­cause other nations fully realize that an attack on u.S. space assets would necessarily involve their own nuclear annihilation. When the Japanese attacked the American fleet on December 7, 1941, there were no atomic bombs, and the United States was not mobilized to fight a war. Karl Mueller, political scientist at the RAND Corpora­tion, says that the Rumsfeld Commission's conclusion that space warfare is inevitable was "based on a smattering of evidence and logic, extrapolated into facile overgeneralizations that are well-suited for television talk-show punditry but which are a poor basis for na­tional policymaking. "Yet, it is precisely this kind of warped think­ing that is steering the United States into space weapons. In recent years, the United States has taken the first steps to­ward its stated goal of Full Spectrum Dominance. On May 18, 2005, Tim Weiner of the *New York Times,* noted: "With little pub­lic debate, the Pentagon has already spent billions of dollars de­veloping space weapons and preparing plans to deploy them." Weiner cited recent statements by Pentagon officials affirming this policy: \*From Pete Teets, who recently stepped down as the acting Secretary of the Air Force: "We haven't reached the point of strafing and bombing from space. Nevertheless, we are thinking about such policies." From General Lance Lord, who heads the Air Force Space Command: "We must establish and maintain space superi­ority. Simply put, it's the American way of fighting." From Ge-ne-rJI James E. Cartwright, who heads the United States Strategic Command, who told the Senate Armed Ser­vices nuclear forces subcommittee that the aim of develop­ing space weaponry was to allow the nation to deliver an attack "very quickly, with very short time lines on the plan­ning and delivery, any place on the face of the earth." While, as we have seen, the placement of satellites in space can yield immense benefits to mankind, the growing dependence of the United States and other countries on outer space military and commercial systems has been deemed to require the weaponization of space to protect these assets. During the Cold War, both the So­viet Union and the United States developed military space systems to provide warning of nuclear attack. Nuclear attacks could be dis­cerned from a satellite which detected the launch plume of a mis­sile, and nuclear testing could be identifIed by the particular thermal signal of a nuclear detonation. Satellites were also developed to pro­vide military communications, reconnaissance, and intelligence, as well as the guidance of weapons. Satellite imagery is so sharp and fInely tuned today that pictures can identify tiny ground-based ob­jects of 15 centimeters' width, while infrared sensors and space-based radar can provide pictures with less than a meter of resolution.lO During its recent wars in the Middle East, the United States further demonstrated its dependence on satellites, for communication, tar­get identifIcation, and for weapons guidance. But protection of these tremendously sophisticated satellites has led to the development of equally sophisticated weaponry to protect them-mostly designed to be based in space. These include counter-jamming de­vices, shielding against blasts and radiation, and "redundancy"-the deployment of more satellites than necessary to insure against loss. Weapons have also been developed to protect the ground stations from which such missiles are launched. Apart from these defensive measures, dependence by the United States on satellite-directed warfare has led to its development of ag­gressive means to destroy or counter the space capacity of other countries. In moving toward such weapons, the United States is par­ticularly concerned with China, as exemplified by numerous hostile statements in Department of Defense documents, in war games with the Chinese as the putative enemy, and in direct actions to control outer space. While the United States has moved to perfect its use of satellites for military reconnaissance and fIre direction control, it has also moved into outer space with another set of weapons: missile de­fense. Today, the United States is conducting basic research on the Space-Based Laser (SBL), which would operate in low-earth orbit and destroy hostile ballistic missiles during theif boost-phase. While it might be argued that the Bush administration is moving into outer space as an alternative to its failed ground-based system, it is still doubtful that the administration accepts its ground-based mid­course defense as a definite and fmal failure. Rather, it has been push­ing space-based defense not as a substitute for ground-based defense, but as part of its concept of a multilayered defense, which also includes sea-based interceptors that are carried on the U.S. Navy'sAegis ships and the Terminal High-Altitude Area Defense (THAAD), sys­tems designed for short-and medium-range missiles. The deployment in Alaska and· California is only part of the package, and is not intended itself to be afull-fledged national mis­sile defense system. Paul Wolfowitz, then U.S. Deputy Defense Sec­retary, and one of the major figures in the Bush foreign policy . group, declared in 2001, "It is not an effort to build an impenetrable shield around the u.s. This is not Star Wars [when President Rea­gan spoke of a comprehensive missile defense shield]. We have a much more limited objective to deploy effective defenses against limited missile attack." 11 Now, despite Wolfowitz's placating words, the United States is considering the possibility of a comprehensive missile defense, with at least one major component in outer space. Here, as in its ground­based defense, the United States is proceeding despite technical difficulties, and a rash of negative reports by the Government Accountability Office (GAO) on the ground-based system, which should create a sense of caution in moving ahead with space-based defenses. The reports not only deal with launch failures, but also poor planning, unmet schedules, inadequate security, problems with quality control, and cost overruns. A January 2006 report states, "[I]f, however, costs grow as they have historically, pursuing the pro­grams included in CBO's missile defense projection will cost an additional $3 billion a year, on average, peaking at about $19 billion in 2013."12

**There is no space threat to US space assets-threats are mixed with vulnerabilities**

**Hitchens** **02** (Theresa-CDI Vice President, “Weapons in Space: Silver Bullet or Russian Roulette?
The Policy Implications of U.S. Pursuit of Space-Based Weapons”, April 18, 2002, <http://www.cdi.org/missile-defense/spaceweapons.cfm>) np

While it is true that other countries are pursuing both space assets and counter-space options, there is some reason to question whether the current threat assessment is justified. Leaving aside the question of the ballistic missile threat, it is unclear what real threats to U.S. space assets exist today or will exist in the near and medium term. Proponents of weaponizing space usually cite the emergence of an acute threat in the 2020 time frame or beyond; the Space Commission report puts the possible development of hostile anti-satellite systems at decades away. They 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." For example, a September 2001 report by the U.S. Department of Transportation, "Vulnerability Assessment of the Transportation Infrastructure Relying on the Global Positioning System," highlights the fact that the GPS network is easily disrupted in part due to its low power signals and because its characteristics are well known due to its civil uses.[[20]](#footnote-20)25 The Space Commission noted that there already are available Russian-made, handheld jamming devices that can block GPS receivers for up to 120 miles. In addition, like other satellite networks, the 24 GPS satellites have stable and predictable orbits. However, vulnerabilities do not necessarily result in threats. In order to threaten U.S. space assets, military or commercial, a potential adversary must have both technological capabilities and intent to use them in a hostile manner. There is little hard evidence that any other country or hostile non-state actor possesses either the technology or the intention to seriously threaten U.S. military or commercial operations in space — nor is there much evidence of serious pursuit of space-based weapons by potentially hostile actors. Currently, the simplest ways to attack satellites and satellite-based systems involve ground-based operations against ground facilities, and disruption of computerized downlinks. Hacking and jamming also are the least expensive options for anyone interested in disrupting space-based networks, because they do not require putting anything into orbit. The high cost of space launch (ranging between $5,000 and $10,000 per pound) is not a trivial matter, even for space-faring nations such as Russia and China, much less for 'rogue' states such as North Korea or non-state actors.

# Nuke Deter solves

**Nuclear deterrence solves the aff—prevents major conflict—empirics**

**Payne 11**—PhD and president of the National Institute for Public Policy and professor and head of the Graduate Department of Defense and Strategic Studies at Missouri State University (Keith, “Maintaining flexible and resilient capabilities for nuclear deterrence,” Strategic Studies Quarterly 5.2, Academic OneFile, DA: 7/26/2011//JLENART)

To the extent that an informed, reasoned answer to the lead question is possible, my necessarily nuanced answer is yes--at this particular time, nuclear deterrence should be deemed critical for US and allied security. For some plausible threats, to paraphrase Frederick the Great, deterrence without nuclear weapons is like an orchestra without instruments. It can produce noise but probably not the desired music. In offering this answer I am not claiming to know that in all or any future occasions, deterring attack will require credible nuclear deterrence or that deterrence will even be possible. As noted above, many factors go into the functioning of deterrence. And, there are other potentially important tools for deterrence, including nonnuclear and nonmilitary. By the same token, however, no one can claim with any honesty to know that nonnuclear deterrence will be adequate on some future occasions, possibly including an existential threat to the United States and its allies. Fortunately, by introducing some evidence into this discussion, we can move beyond competing speculation that nuclear weapons will or will not be important for deterrence. My conclusion that credible nuclear deterrence is important for the United States follows from three basic empirical reference points: 1. Nuclear deterrence appears to have been key to deterrence functioning on critical occasions during the Cold War and since. Further, I see zero evidence to suggest that nuclear deterrence could not again be key to deterrence working on some critical future occasions. As Mark Twain said, "The past may not repeat itself, but it sure does rhyme." 2. In the contemporary era, the consequences of a single significant failure of deterrence are potentially so catastrophic for society that we need deterrence strategies that are as effective as possible; nuclear deterrence cannot ensure their functioning, but we should avoid the risk of their failing for the lack of credible nuclear deterrence. 3. Our great need for credible deterrence corresponds directly to our general societal vulnerability to WMD attacks. We should ever seek effective deterrence strategies, but they are particularly needed when we are so ill prepared to protect civil society against even relatively limited WMD strikes. As William Perry, Ashton Carter, and Michael May observed with regard to the detonation of a single nuclear weapon in a US city, "The scale of disaster would quickly overwhelm even the most prepared city and state governments." (25) The unfortunate level of US vulnerability could change, but until then our deterrence strategies must be as effective as possible, and if the past is precedent, credible nuclear deterrence will have an essential role to play. Conventional deterrence has been manifestly effective on occasion, but it also has an unfortunate 2,000-year record of periodically failing catastrophically: most recently, there were no nuclear weapons to deter war in 1914 and 1939. What followed were approximately 110 million casualties in fewer than 10 combined years of warfare. The subsequent 6-1/2 nuclear decades compare very favorably to that horrific prenuclear record. Nobel laureate Thomas Schelling makes the material point simply: "One might hope that major war could not happen in a world without nuclear weapons, but it always did." (26) Indeed, we have already been to the "nuclear zero mountaintop." Nuclear deterrence has helped to prevent a repeat of such horrors. In a comprehensive examination of the US-Soviet historical record, Ned Lebow and Janice Stein conclude: "The reality of nuclear deterrence had a restraining effect on both Kennedy and Khrushchev in 1962 and on Brezhnev in 1973. When Superpower leaders believed that they were approaching the brink of war, fear of war pulled them back." (27) And, "The history of the Cold War suggests that nuclear deterrence should be viewed as a powerful but very dangerous medicine ... As with any medicine, the key to successful deterrence is to administer correctly the proper dosage." (28) Yes, indeed.

**Nuclear deterrence prevents terrorism and conventional deterrence failure—alt causes are wrong**

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In short, while conventional deterrence may well be adequate on some or many future occasions, there is sufficient historical evidence available to demonstrate that nuclear deterrence has helped to prevent conflict or escalation in the past. It also suggests that, in the absence of some significant transformation, the absence of credible nuclear threats would increase the risk of deterrence failure in some future cases. This deterrent value of nuclear threats may be of increasing importance as chemical and biological weapons become potentially more lethal and more easily acquired; the undeterred use of CBW could destroy the fabric of society, without nuclear use. This is why the elimination of nuclear weapons would not eliminate catastrophic threats to civilization, but would preclude nuclear deterrence from helping to counter such threats. The "mountaintop" vision of "nuclear zero" may well include the dark potential of leaving unprotected civilians more vulnerable to CBW attack. One reason why nuclear threats contribute to the functioning of deterrence appears to be because they can help to reduce the chances that opponents will be so optimistic about their circumstances, so committed to their goals, or so cost-tolerant that they will accept or ignore the risks of defying our deterrence threats. There is a deeply ingrained human cognitive drive to believe and interpret information in ways consistent with one's established desires and preferred facts, despite contrary evidence. This can cause opponents to discount or deny deterrent threats that we believe should be sufficient and credible. On this basis, they undertake high-risk gambits that defy our sense of reason, and deterrence can fail unexpectedly as a result. This is not necessarily a matter of an opponent's rationality but the fragility of perceptions, judgments, and imprudence. The self-serving hope, of course, is that no opposing leader will be so optimistic, committed, cost-tolerant, or imprudent, and, thus, all opponents will be predictably deterred. Unfortunately, history does not warrant such a hope. (36) While US nuclear deterrence cannot close down these well-traveled avenues to deterrence uncertainty, we do know that it can moderate an adversary's otherwise unduly sanguine perceptions, expectations, and calculations and thereby strengthen US deterrence strategies. As Alexander George and Richard Smoke concluded in 1974 based on their case studies, an opponent's belief that the risks of provocation are incalculable or uncontrollable can provide the basis for deterrence success. (37) The cases I have cited appear to illustrate this deterring effect of nuclear weapons. Can we be certain that nuclear deterrence always will perform as we hope? Of course not. But, do we want to run the potential risk of degrading deterrence by taking our credible nuclear threats off the table? Again, my answer is, of course not. The bipartisan Congressional Strategic Posture Commission reached the same answer and specifically endorsed the maintenance of credible US nuclear escalation threats, as did the Obama administration's generally commendable 2010 Nuclear Posture Review.

# Case Turns

## China Taiwan Conflict

**Two scenarios for Taiwan war post SMD:**

**1) Space lockout causes China-Taiwan conflict**

**Hardesty 05**

(Captain David C. Hardesty was a member of the US Navy and is an expert in Law. He is also a journalist for the Navy Law Review, “Space-Based Weapons: Long-Term Strategic Implications and Alternatives”, Naval War Coll Newport, Defense Technology Information Center, 2005, pg online @ <http://handle.dtic.mil/100.2/ADA521114//> // sc)

Other rogue state space “lockout” issues are even more problematic. Iran is frequently quoted as a potential future threat to the United States, but it seems almost certain that a space “lockout” against a country that has not attacked its neighbors in recent history and has functioning democratic institutions would cause a severe international backlash. Additionally, any deployment of space-based weapons against a “rogue state” is likely to elicit space-based weapons deployments by third parties. China is likely to be one of the first countries to follow suit. The destabilizing aspects of space-based weapons would be particularly unhelpful in any future crisis over Taiwan. Thus, a decision to space-base weapons should not be made under the illusion that it will result in unilateral U.S. advantage. Some limited “lockout” from space of a rogue state may be possible under certain circumstances, but the space-basing of weapons in response by other states that could become enemies must be considered.

**2) A more advanced MD system causes Taiwan to attack china pre-emptively**

Russell 1 (Richard L, Professor of National Security Affairs at the National Defense University's Near East and South Asia Center for Strategic Studies, “What if…’China Attacks Taiwan!”’, From the Journal *Parameters*) RF

Conventional wisdom also assumes that any near-term Chinese attempt to invade Taiwan would be an irrational act because China needs much more time to procure and deploy more technologically sophisticated weapon systems. This assumption overlooks the political and historical wisdom revealed by Richard Betts in observing, "The probability of armed conflict depends not only on the actual dangers of war to the attacker, but also on the perceived dangers of peace."[20] Beijing does not have the combat power needed to replicate a US Marine Corps-style amphibious assault on Taiwan, but Chinese leaders may fear that they will never have sufficient time to develop such capabilities. Time is eroding Chinese interests by allowing Taipei the luxury of strengthening its economic and political linkages to the world while improving its military qualitatively with modern and technologically sophisticated weapon systems from the West, particularly from the United States.[21] Counter-intuitively, the bolstering of Taiwanese military capabilities may be decreasing Taiwanese security. As Betts explains, "Defenders may assume erroneously that their military strength inhibits the enemy, not recognizing that consciousness of weakness may impel him to compensate with audacity in order to redress the balance."[22] Beijing may be feeling pressure to move militarily sooner rather than later, worrying that the gap between Taiwanese and Chinese military capabilities and Taiwan's integration into the world at large will only grow with time, **particularly if Taiwan receives protection under a US theater ballistic missile defense system.**[23]

## Iran Prolif

**Increasing missile defense triggers asymmetrical Iranian development of weapons, destabilizes the Middle East and sparks massive regional prolif of nuclear, chemical, and conventional weapons**

Senn 9 (Martin, lecturer in security studies in the Department of Political Science at the University of Innsbruck, Austria, “The Arms-Dynamic Pacemaker: Ballistic-Missile Defense in the Middle East” A journal article from the Middle East Policy Council, pg. 2-5, <http://www.mepc.org/journal/middle-east-policy-archives/arms-dynamic-pacemaker-ballistic-missile-defense-middle-east>) RF

As missile defense becomes a reality in the Middle East, it is imperative to ask how it will affect the Islamic Republic of Iran. The following investigation of Tehran’s threat perceptions and deterrence posture reveals answers to this question and hence explains why Iran will be forced to react to MD deployments in its neighborhood. It is commonly known that a military capability is not a threat per se. The threatening quality of a certain capability depends on assumptions about associated intentions. For decades, assumptions of Iran’s ruling elite regarding U.S. intentions have derived from the image of an imperialist force that “seeks to dominate the Middle East and, together with its local allies, control the region strategically and loot its resources.”21Ultimately, however, the United States is seen as pursuing the goal of overthrowing the theocratic regime one way or the other.22 In recent years, this perception has been strengthened by a number of policies (e.g., funding for oppositional groups and extra-territorial broadcasts in Farsi) and rhetoric (e.g., “axis of evil,” “real men go to Tehran,” “all options are on the table” and the like). As a consequence, Tehran undoubtedly perceives missile defense as anything but purely defensive. It is, rather, seen as a shield that will allow the United States and Israel to use force against Iran with greater freedom, whether to attack the ruling elite or to destroy Iran’s nuclear program. In other words, the deployment of missile defenses by the United States and its allies is most likely regarded as ultimately serving an offensive purpose. The prospect of increased BMD capabilities is particularly troubling for Tehran, because the ability to credibly threaten U.S. allies and assets with ballistic missiles is a central pillar of its deterrence posture. The role of Iran’s ballistic missiles is the consequence of the lessons Tehran learned as a victim of missile attacks during the Iran-Iraq War, as an attentive observer of the military and political virtue of ballistic missiles during the 1991 Gulf War, and as a user of asymmetric warfare (AW) tactics during the “Tanker War.”23However, Iran’s reliance on missiles as a means of AW is not a matter of pure choice, but rather of necessity, due to the war-depleted and sanction-stricken state of its conventional armed forces. The resulting obsolescence of Iran’s military technology, which is predominantly of Western origin, has been aggravated by comparatively low levels of funding.24 As illustrated in Table 1, Iran’s military expenditures were considerably smaller than Saudi Arabia’s and not much more than the defense expenditures of small Kuwait and the UAE during the 1990s. In the realm of arms imports, a recent report by the Stockholm International Peace Research Institute (SIPRI) notes that Iran “accounted for only 5 percent of transfers to the Middle East for the period 2004-2008 and was the 27th-largest recipient of major conventional weapons worldwide.”25 While Saudi Arabia ranks twenty-sixth worldwide, the UAE has turned into the prime arms importer in the region (with a share of 34 percent) and the third-largest arms importer globally.26 Given the poor state of its conventional forces and its experience with asymmetrical and missile warfare, Tehran’s reliance on ballistic missiles as a central means of deterrence is hardly surprising.27 The importance of missile-based deterrence has also been underlined by a number of measures that have been intended to strengthen the material and psychological dimension of the deterrent’s credibility. Tehran has begun to increase the resilience of its missile force by constructing hardened silos. Uzi Rubin noted in 2006 that “hardened fixed sites were preferred by both superpowers as the chief (and in the case of the United States, the exclusive) basing mode of the core of their ground-based ICBMs. There are indications that the Iranians are now following suit.”28 More information on the location and architecture of Iran’s silo sites was provided by Sean O’Connor on his IMINT & Analysis blog in 2008 and 2009.29 While a first set of silos near Tabriz in Iran’s East Azerbaijan province already offers some degree of protection for missiles, the second set of silos at the Imam Ali missile base near Khorramabad in the Lorestan province could considerably improve the survivability of Shahab missiles, which could be housed at the site. As far as the range of these missiles is concerned, a recent report by the East West Institute notes that Iran’s Shahab-3M is at present able to transport a 1,000 kg payload to a range of 1,100 km. Moreover, Iran already possesses the technology to be able to extend this range to 2,000 km in a couple of years.30 Table 2 indicates that these ranges enable Iran to reach crucial targets in the region and therefore provide a second-strike capability against the military facilities of the United States and its allies in the Middle East. Unlike the comparatively short history of the above-mentioned efforts to bolster the material basis of its credibility, psychological “boosters” have been a long-term feature of Iran’s missile deterrent. The psychological dimension combines “an outstanding degree of transparency,”31 which at times borders on exhibitionism, with aggressive rhetoric. Iran’s missile tests are carefully staged and usually broadcast on TV. The faked picture of a missile test, which was unmasked in July 2008,32 indicates that Tehran places great value on its image as a capable missile power. Moreover, missile tests are frequently accompanied by rhetoric that is intended to emphasize the increasing technological maturity of Iran’s missile arsenal and the leadership’s strong determination to retaliate in case of attack. In March 2008, for example, the commander of Iran’s Revolutionary Guard announced that “Iran has missiles with a range of 2,000 km (1,250 miles), and based on that all Israeli land, including that regime’s nuclear facilities, are [sic] in the range of [Iran’s] missile capabilities.”33 In addition to the strategic challenge posed by missile-defense deployments in the region, ideological and popular pressures will be further factors thwarting the dissuasive effect of BMD. Iran’s missile program has been cultivated as a widely visible sign of the country’s technological craftsmanship and great-power status and therefore fulfills an important function beyond the military dimension. Given Iran’s historical great-power aspirations, it is unlikely that it will reevaluate the utility of its missile program. Furthermore, the assumption that it can be dissuaded disregards the fact that defiance and self-reliance in the face of external threats are deeply engrained in Iran’s strategic culture. A critic of the action-reaction argument in this article might raise the point that Iran could rely on its current missile arsenal to overcome defense systems and would therefore not see itself as being forced to react. A historical example, however, reveals that this point is wishful thinking. In their article on U.S. reactions to Russian missile defense around Moscow, Kristensen, McKinzie and Norris refer to recently declassified documents showing that “[d]espite disagreements and doubts, U.S. nuclear planners gave high priority to targeting the Moscow and Tallinn systems, worrying that even a limited ABM capability could diminish a strike against Soviet ICBM silos.”34 In addition to targeting the Soviet systems with approximately 10 percent of its ICBM arsenal (about 100 Minuteman missiles), Washington also intensified research into, and eventual deployment of, penetration aids and multiple independently targetable reentry vehicles (MIRVs).35 Unlike the United States, however, which directed its planning and modernization efforts against two systems with largely unknown performance capabilities, Iran confronts systems that are considered to be the most successful parts of the U.S. missile-defense program.

As this article has suggested so far, there are strong indicators that Iran will not passively witness the deployment of numerous, possibly interconnected missile-defense systems in its neighborhood. Hence, the question arises of how Tehran could eventually meet this challenge. As a preliminary answer, it can be noted that Iran’s ability to react symmetrically is very limited, whereas the range of asymmetrical options appears to be broad. On the symmetrical side, Iran’s efforts to acquire a missile-defense capability have not been successful. Although Russia has already supplied Iran with modern air-defense equipment worth $700 million,36 the future of an alleged sale of S-300PMU-1 air- and missile-defense systems, which is considered to be Russia’s PAC equivalent, is shrouded in uncertainty. It was reported that this sale would include 40 to 60 launchers37 (each carrying 4 interceptors) of the sophisticated S-300PMU-1, but the deal has been persistently denied by Russian decision makers. In view of Russia’s reluctance to sell S-300s, Tehran now seems to show interest in China’s Hong-Qi9 (HQ-9) air-defense system,38 which is reported to draw on the Russian S-300 and U.S. Patriot systems. If Iran eventually acquired either of the two, it would considerably boost its ability to protect critical assets such as nuclear facilities or missile silos against air and missile strikes. On the asymmetrical side, Tehran could resort to at least four types of measures to overcome or avoid BMD. The first measure is a quantitative extension of Iran’s ballistic- missile arsenal that would ensure the saturation of MD systems. A December 2008 article in Jane’s indicates that this prospect is not farfetched, as Iran is reported to have extended its Shahab-3 arsenal from 30 to over 100 missiles in a year’s time.39 Even if the deployment of BMD in the Middle East does not lead to a further increase in the production and deployment rate, it will certainly not induce Iran to curb the steady expansion of its arsenal. Second, Tehran could draw on qualitative improvements to maintain its missile deterrent. Provided that Iran does not receive significant foreign assistance, MIRV technology will likely remain beyond its reach. Tehran could, though, deploy less sophisticated but equally effective BMD countermeasures. The form and availability of BMD countermeasures was analyzed in a report by the Union of Concerned Scientists (UCS), which, among other measures, mentions submunitions with biological or chemical agents as a very effective way of overcoming missile-defense systems.40 Submunitions provide BMD systems with too many targets to intercept, allow an attacker to cover a wide area and thus compensate for the inaccuracy of less sophisticated ballistic missiles. Hence, submunitions with chemical agents ideally suit Iran’s needs. As far as the availability of submunitions technology is concerned, the report notes that the required information is freely available and that “[t]he level of technology required to develop submunitions is simpler than that required to build long-range ballistic missiles.”41 The alleged test of a submunitions warhead on a Shahab-3 missile in November 200642 indicates that Iran may already be exploring the use of submunitions on ballistic missiles. As far as Iran’s chemical-weapons capability is concerned, experts deem it likely that Tehran still retains a certain ability to produce and weaponize chemical agents.43 Third, Tehran could seek to counter the defensive edge by extending its arsenal of cruise missiles and unmanned aerial vehicles (UAV). Compared to ballistic missiles, cruise missiles offer a number of advantages.44 Due to their small size and similarity to other (non-)military vehicles, they are easier to conceal than ballistic missiles and therefore less vulnerable to enemy strikes. Moreover, cruise missiles are not as cost-intensive as BM, allow greater accuracy, are ideally suited to disperse chemical and biological agents and, most important, pose a considerable challenge to missile-defense systems. This is due to their “inherently low visual, infrared and radar signatures”45 and their ability to fly at low altitudes, enabling them to remain below the horizon of ground-based radars. As Dennis Gormley notes for Patriot, which is also designed to intercept cruise missiles, “The earth’s curvature means that the Patriot’s ground-based radar, in trying to detect a cruise missile flying at a 50-metre altitude, might first see it only when it has closed to some 35 km or less [emphasis in original].”46 The advantages of cruise missiles and their ability to overcome missile-defense systems was vividly demonstrated by the performance of PAC-3 systems during Operation Iraqi Freedom. While the systems successfully intercepted nine Iraqi ballistic missiles, they proved ineffective against four out of five Iraqi cruise missiles.47 Iran already possesses Anti-Ship Cruise Missiles (ASCM) such as the Chinese HY-2 (referred to as Seersucker) and is also engaged in the acquisition of more sophisticated Land Attack Cruise Missiles (LACM). In addition to purchasing cruise missile systems from foreign sources, as was the case with the KH-55 LACM (3,000 km range) it obtained from Ukraine in 2001, Iran is also reported to be exploring the technically challenging conversion of ASCM into LACM,48 as well as the indigenous (further) development of an allegedly stealthy ASCM labeled Kosar. Iran’s cruise-missile program is expanding, and Gormley already identifies missile-defense capabilities in the region as a decisive motivator.49 As far as the possible operational posture of Iran’s arsenal of cruise missiles is concerned, Iran could choose to equip them with chemical agents or to follow the pattern of joint use with ballistic missiles. By neutralizing the radar systems of BMD systems, cruise missiles would increase the likelihood that ballistic missiles reach their targets.50 The same function could be fulfilled by UAV, which Iran has successfully built, deployed and even proliferated (to Hezbollah). In February 2009, Iran’s deputy minister of defense claimed that Iran possesses a new type of UAV with a range of 1,000 km.51 Finally, the question arises whether an efficient protection of U.S. assets and allies in the Middle East could induce Tehran to change its deterrence strategy to include targets beyond the region. For two reasons, however, this scenario is not plausible. First, a missile threat to Europe would eventually backfire, as European countries are important trading partners for Iran and could therefore put pressure on its already ailing economy. Second, Iran’s technological capabilities would only allow the development of “large, visible and cumbersome”52 IRBMs and ICBMs, which could not be deployed on mobile launchers or in silos, would take a long time to prepare for a launch, and would therefore be of little utility for deterrence. It has to be noted, though, that Iran could rely on foreign expertise to speed up the development of resilient IRBMs and ICBMs.53 For now, however, the inclusion of Europe in Iran’s deterrence strategy seems unlikely from both a political and a technological point of view. The deployment of missile defense in Iran’s extended neighborhood is a bellwether of the offensive-defensive arms dynamic that has been an enduring feature of the strategic landscape for decades. As Israel strives to erect a multilayered defense system, Iran’s neighbors fund programs to acquire the most advanced MD technologies, and Washington keeps pushing for an integrated defense system along the western shores of the Persian Gulf, Tehran will see a growing danger to its missile deterrent. The hope of missile-defense advocates that BMD may dissuade Iran’s missile ambitions is misleading, because Tehran’s missiles are not merely a means of choice but rather of strategic necessity, given the poor condition of its conventional forces. Moreover, the missile force and its technological advancement are precious symbols of Iran’s claim to great-power status. The prime question is, therefore, not whether, but how, Iran will react. As it was argued, Iran’s symmetrical-reaction capability is limited, but Tehran could still implement various asymmetrical measures to counter BMD. **All of these measures are utterly counterproductive from the perspective of non-proliferation and strategic stability in the region**. Not only would they stimulate the arms dynamic in the Middle East and weaken efforts to ban chemical weapons and cluster munitions; they would also move the ambitious goal of a nuclear-weapons-free zone in the Middle East further into the future and hence impede efforts towards global nuclear disarmament. What is more, missile defense will not ease Washington’s burden regarding the security of its allies. As Iran’s reactions will be perceived as a further aggressive arms build-up, American allies in the region will continue to seek U.S. protection. **Ultimately, the U.S. aim of ensuring stability in the Middle East is not compatible with a growth of missile-defense capabilities.** This is why Washington should extend the re-evaluation of its missile-defense policy to the regional level. An entire retreat from regional BMD developments is both unrealistic and unwise. Russia and China would be more than willing to satisfy regional missile-defense demands and the administration would face enormous domestic and allied pressure. What the Obama administration should do, though, is to freeze the further extension (i.e., deployment of more systems and their integration) of missile defense in the Middle East while pursuing an engagement policy toward Iran. The key to dissuading Iran from extending the quality and quantity of its missile arsenal eventually lies in a diplomacy that takes Tehran’s security-related concerns into account. **An attempt to dissuade by military build-up only contributes to Iran’s distorted view of the United States and therefore undermines efforts at rapprochement.**

## Proliferation

**Space weapons proliferation put US interests at risk**

**Spacy ‘98**

(William L. Spacy is a member of the US Air Force and writes articles about space weapons, “Does the United States Need Space-Based Weapons?”, Air Univ Maxwell Afb Al School of Advance Airpower Studies, Jun 1998, Defense Technology Information Center, pg online @ [http://handle.dtic.mil/100.2/ADA391888 //](http://handle.dtic.mil/100.2/ADA391888%20//) sc)

The argument against space-based weapons for attacking airborne or surface targets is very similar. If the United States deploys such weapons, other nations may feel compelled to do likewise. In this case, the United States would not only be making a segment of its defense system vulnerable to attack, we could very well make U.S. cities vulnerable. Unfriendly nations with orbital weapons capable of attacking terrestrial targets would be able to strike the United States, or anywhere else on the globe, without investing the tremendous resources necessary to field a U.S.-style military. This would, in effect, negate our present ability to intervene wherever it is in our interest to do so, since a country possessing these orbital weapons would be able to strike back. With the technology necessary to launch satellites even now becoming widely available, the number of countries capable of deploying space-based weapons is growing. This proliferation of technology makes U.S. development of space-based weapons fraught with peril. In consideration of the arguments outlined above, it seems to be much more in the interest of the United States to advocate a treaty banning space-based weapons entirely. Given the current international climate of antipathy toward weaponizing space, such a treaty is entirely plausible. Admittedly, space-based weapons are probably inevitable in the long term, however their eventual deployment can probably be delayed for decades, if not longer, with a carefully written treaty.

## Arms Race

**US weaponization insures arms race with China**

**Blazejewski 08**

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First, if the United States proceeds with space weaponization **China will respond by bolstering its own military capabilities**. China’s response will seek to preserve the asymmetric threat it poses to US space assets and maintain its nuclear deterrent. Under each of the interpretations considered, **China is not willing to allow the United States to build up its space weapons program unchallenged**. In the least, China would develop additional ASAT weapons to which the United States would seek to develop effective countermeasures. Alternatively or in addition, China could invest in more ICBMs and nuclear warheads, acquiring the capacity to overwhelms BMD shield. An option less likely in the near future, China could counter US space weaponization by deploying its own space weapons. Other potential Chinese responses include adopting a “launch on warning” policy or abandoning its no-first-use pledge. Each of these strategies would seek to counter the effectiveness of US space weapons. The United States, of course, could always respond to China’s response, but such tit-for-tat policy making risks devolving into an arms race. Chinese officials claim that **an arms race would “likely emerge” unless a negotiated solution can be reached on PAROS**. It is noteworthy, however, that under at least two interpretations, this is not China’s preferred outcome. Under the first and second interpretations, China will only proceed with further developing ASAT technology and acquiring additional weapons if it cannot be assured that the United States does not plan to weaponize outer space.

**US development of SMD causes arms race with Russia**

**Hardesty 05**

(Captain David C. Hardesty was a member of the US Navy and is an expert in Law. He is also a journalist for the Navy Law Review, “Space-Based Weapons: Long-Term Strategic Implications and Alternatives”, Naval War Coll Newport, Defense Technology Information Center, 2005, pg online @ [http://handle.dtic.mil/100.2/ADA521114 //](http://handle.dtic.mil/100.2/ADA521114%20//) sc)

Russia is clearly concerned about the potential pursuit of space weapons by the United States. As previously mentioned, Russia is leading the charge in the United Nations to prevent the weaponization of space. Despite their concern, Russia has perhaps the least to worry about if the United States develops and deploys these weapons.56 It is possible that even with a small space based defensive combined with ground-based defenses that are currently underdevelopment and deployment, it would not upset the strategic deterrence balance between the United States and Russia.57 Undoubtedly, **however, they would be compelled to respond.** Flush with revenues from crude oil sales, Russia has embarked on a program to upgrade its strategic deterrence capabilities. In a direct response to American ground based missile defense activities, Russia is developing maneuverable re-entry vehicles for its nuclear arsenal designed to foil these ground-based systems.58 This is clearly a defensive posture designed to preserve the perceived balance of deterrence. In reaction to a space-based component of missile defense, Russia would evaluate the threat and again, likely respond in some manner. How that response would manifest itself is unknown. Russia could respond in kind with their own space-based systems, they could develop anti-satellite capabilities to attack opposing space systems or they could further increase the capabilities of their strategic forces in an effort to overwhelm the system. Alternatively, Russia or any other potential adversary, might publicly link the use of space-based weapons to the first use of nuclear weapons in the same way that the United States and others have lumped chemical, biological and nuclear weapons into the category of Weapons of Mass Destruction (WMD).59 If that categorization took root internationally, it could have the effect of significantly raising the stakes for using the weapons rendering a space weapons as politically impotent as our stockpile of chemical weapons.

**Weaponization of space spurs arms race, preemptive attacks and negates security benefits**

**Coffelt 2k5**

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Additional weapons and forces can increase a state’s security until the build-up Reaches a turning point where neighboring states fear the offensive potential of the new Forces. This spurs a natural reaction to the potential threat, and threatened states add Weapons and forces to increase their security, thereby diminishing the security benefit Sought by the original state. **If the perception of danger is severe, it might even serve As the catalyst for an arms race that greatly increases costs** (without added security) as Competitors attempt to match the new capability. Even more dangerous than an expensive Arms race or marginalization of the original security benefit is the possibility of provoking A preemptive attack. Faced with what appears to be an untenable situation or imminent Attack, there are clear advantages for a threatened state to strike preemptively, and Neutralize the new threat before it achieves a state of full deployment or operational Capability. Decisions to increase weapons during periods of relative peace draw the Greatest amount of suspicion, especially when undertaken by a dominant military power. The united states cannot expect that the entire world will sit idly by as it deploys Weapons in space which, effectively, border every state on the planet. If the united States had unlimited armies, navies, and air forces, would it surround every border and Coastline with them, ready to put down potential aggression or implement united states Policy objectives at a moments notice? Adversaries and allies alike would certainly find Such action offensive, possibly spurring them to respond. Putting weapons in space will Elicit a similar reaction and/or countermeasures which decrease or negate the intended Security benefits. Even without the intense bipolar competitive environment of the cold War, weapons in space could spark an arms race where others (alone or cooperatively) Attempt to match the new capability to ensure their interests are similarly secured in Space. While the likelihood of spurring a preemptive attack appears low, it remains a Possibility that a strategist must consider. Putting weapons in space may elicit a preemptive attack from a threatened state or States. Striking in the early phases of a space weapon deployment is advantageous Because the new weapon system may not have its full capability. Additionally, striking Before the united states could potentially prepare and mass for a first-strike gives the Threatened state its best chance for success. Aside from the militarily negative Consequences of deploying weapons into space, there are also distinct non-military Disadvantages.

**Weaponization causes arms race- empirics prove**

**Moltz 2k2**

(James Clay Moltz is the Associate Professor and Academic Associate for Security Studies at the NSA, expert on: space security, nuclear proliferation and nonproliferation, Russian and Northeast Asian security, international relations theory, and U.S. national security policy, received the 2010 Richard Hamming Award for Interdisciplinary Achievement, worked previously as a staff member in the U.S. Senate, served as a consultant to the NASA Ames Research Center, the Department of Energy’s National Nuclear Security Administration, and the Department of Defense’s Office of Net Assessment, “Future Security in Space: Commercial, Military, and Arms Control Trade-Offs”, Center for Non-Proliferation Studies, Montery Institute of International Studies, Jul 2002, Print: 14 // sc)

Since a space-based ASAT weapon will itself suffer from many of the same vulnerabilities as its quarry, the development of such weapons will promote the development of the counter-force means to defeat them, resulting in an arms race focused on space and a consequent erosion of initial advantage. Deployment is likely to move opponents up the threat ladder in terms of vulnerabilities in space, to an extent and at a pace they might well not have considered necessary, absent first deployment by another state. In the case where a potential first deployer already enjoyed a significant technological in military use of space, especially combined with a consequent dependency on space-based military missions, it **is unclear why it would be to that state's longterm advantage to promote or provoke weaponization of that sphere**. Strategic advantage based on technological superiority has in any event often proven ephemeral in the past. Historically, the first use of new strategic technology has simultaneously provided three things: incentive for others to acquire either the same capabilities or an adequate asymmetrical response; a clear demonstration of what is technologically possible, obviating generations of R&D; and a licit (defense-shared or commercial) or illicit (espionage-mediated) source of that technology. Examples over the past half-century or so have included nuclear and thermonuclear weapons, long-range missiles of all types, and generations of spy satellites.

**SMD bas increases chances of arms race and econ collapse**

**Moltz 2k2**

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If there are significant military and national security advantages to be gained via commercial space, then it is important to recognize that there is the potential for great harm by placing military requirements at the forefront of how we think about space. While the January 2001 Space Commission report (and others) focus on the vulnerability of U.S. space assets and the potential for a "space Pearl Harbor," there is a "flip side" that must also be considered. John Newhouse, senior fellow at the Center for Defense Information, states: The [Space Commission] report does not call for but implies a U.S. need to accelerate development of anti satellite weapons, some of them space-based. But deploying such weapons will press other countries to develop and deploy countermeasures. And in any such tit for tat, **the United States has the most to lose, since it is far more dependent on satellites for commercial communications and data-gathering operations than any other country.** Among the effects could be a sharp rise in the cost of insuring commercial satellites and an outcry from industry.4 And, as John Logsdon, director of the Space Policy Institute at the George Washington University points out: "There appears to be no demand from the operators of commercial communication satellites for defense of their multibillion-dollar assets. If there were to be active military operations in space, it could be difficult not to interfere with the functioning of civilian space systems."5 In other words, weaponizing space could be costly to an American industry that has great promise to grow and increase its contribution to the U.S. (and world) economy. Ultimately, a vibrant commercial space industry will support and enhance U.S. military capabilities far better than letting military requirements dominate space policy. Therefore, the government should avoid overregulating commercial space activ-ities and imposing costly military requirements. ;,

**Increasing SMD will cause arms race and hurt current US assets**

**Spacy ‘98**

(William L. Spacy is a member of the US Air Force and writes articles about space weapons, “Does the United States Need Space-Based Weapons?”, Air Univ Maxwell Afb Al School of Advance Airpower Studies, Jun 1998, Defense Technology Information Center, pg online @ [http://handle.dtic.mil/100.2/ADA391888 //](http://handle.dtic.mil/100.2/ADA391888%20//) sc)

In developing this world-spanning power projection capability, the United States has come to rely heavily on space-based assets for communication, navigation and surveillance. Protecting these capabilities, and denying an enemy similar ones, is essential if U.S. armed forces are to remain dominant on the battlefield. That doing this requires the development and deployment of space-based weapons does not necessarily follow; in fact, **deploying space-based weapons is just as likely to place other space-based assets in jeopardy.** Indeed, the proliferation of space-based weapons may even give potential adversaries the ability to strike at the United States without incurring the enormous costs of U.S.-style armed forces. If the United States develops and deploys **space**-**based weapons** for controlling **space**, self-interest dictates that other countries will follow suit. As with other technology, the greatest costs are normally incurred in the initial research and development required to evolve a concept into a weapon. Once a new weapon has been deployed it is much easier, and less expensive, to observe the operational system, determine how it must operate, and then duplicate it. By doing this initial research and development, the United States will be paving the way for other nations to follow. The result may well be that assets which are now safe, because no other nation has a pressing need to develop **weapons** to attack them, will become vulnerable to attack because other nations will feel compelled to emulate the United States and deploy **space**-**based weapons** of their own.

## Preemptive Strikes

**Space mines causes preemptive strikes against the US**

**Hardesty 05**

(Captain David C. Hardesty was a member of the US Navy and is an expert in Law. He is also a journalist for the Navy Law Review, “Space-Based Weapons: Long-Term Strategic Implications and Alternatives”, Naval War Coll Newport, Defense Technology Information Center, 2005, pg online @ [http://handle.dtic.mil/100.2/ADA521114 //](http://handle.dtic.mil/100.2/ADA521114%20//) sc)

Placing space mines in the immediate vicinity of high-value American satellites would likely be a major component of an opponent’s strategy. These weapons could be fairly lightweight and possess considerable range. “For example, a directional fragmentation warhead similar to that of a Claymore mine could project 100,000 one-gram pellets in a pattern that would cover a 100 x 100 meter area with 10 pellets per square meter at a range of 1 kilometer.”17 One approach to the space mine is to “design a very small stealth weapon that is moved into position over a long period of time” and in secrecy.18 However, while a stealthy space mine has definite advantages, it is not clear that an unobserved approach is required. In a fully weaponized space environment, U.S. space-based lasers and mirrors, each capable of attacking satellites thousands of kilometers away, threaten distant satellites as much as would a space mine in close proximity. In any case, until space mines actually damaged or interfered with their victims, it would be difficult to challenge their legitimacy. To attack or disable them as a potential threat would set a precedent for preemptive strikes against U.S. space-based weapons, if not all its satellites. Thus, it is likely that other countries will respond to deployment of space-based weapons by the United States with space-control programs of their own. Lower-technology kinetic weapons may even be seen as attractive deter-rents to the sophisticated, reversible effects preferred by the United States. Would we jam a surveillance satellite, however important, if it meant having one of ours destroyed by a space mine? Would we not be deterred by the prospect of seeing the critical low-earth and geosynchronous orbital zones littered with the debris of kinetic weapons? In this area, simplicity may offer advantages to the opposition

## Solvency turn

**TURN: Missile defense development causes their impacts to happen**

**Newhouse 1** (John, Senior fellow at the Center for Defense Information, July/August 2001, Foreign Affairs, Volume 80 No.4, "The Missile Defense Debate," pg. 1-2. MM)

TO DEPLOY OR NOT TO DEPLOY WE L L B E FO R E the 2000 election, George W. Bush and his inner circle were clear on a few things, one of which was missile defense. If they won, it would become the centerpiece of national security policy, even if all or most of the world's other major capitals see national missile defense (NMD), especially the U.S. approach to it, as irrelevant or unresponsive to plausible threats and a potential danger to global security. There are various ways of looking at missile defense. Dispassionate advocates argue that it might actually have some deterrent value at some future moment against some violence-prone regime or possibly offer some protection against an accidental launch. And in any case, just deploying a missile defense could raise society's comfort level its confidence that the government was doing all that it could to prevent the irrational actors of the world from doing what has been called "the unthinkable " Less candid proponents favor a system with the declared purpose of managing a threat from the rogues of the world but envisage it as the first step toward a system really designed to neutralize China's modest strategic arsenal or the expanded Chinese arsenal they expect to see. Other, even more strenuous advocates favor a "thick" multi-layered system-combining land-, sea-, and space-based components-that would neutralize Russia's forces, along with China's. Many, probably most, opponents regard missile defense as capable of contributing nothing but trouble. They see it as threatening deterrence and the arms control structure, starting with the Anti-Ballistic Missile (ABM) Treaty; as inevitably creating major difficulties with America's allies and greatly agitating its former adversaries, Russia and China. Also, they say, the assumption that it might even work and actually serve as a shield is badly flawed-how flawed would be discovered only after an attack. Hitting ten or so bullets with ten other bullets under controlled testing conditions can prove nothing, they argue. And anyway, the argument runs, the offense can always outnumber and outperform any defense. Less committed opponents would say the United States should not rule out all forms of missile defense. Indeed, building on smaller, theater missile defense systems (TMD) that are now under development would not agitate other governments or upend the arms control structure. However, the most effective way of coping with a supposed threat of missile attack is and will remain deterring it with awesome strategic power. The next most effective way is, or would be, prior restraint, meaning a blend of political measures aimed at infusing the global environment with greater stability. The various steps would include arms control agreements, preventive diplomacy, some provisions of international law (including constraints on using space for military purposes), lengthening the reaction time of missile systems, exchange of surveillance data, and more transparency. Emphasizing missile defense would undermine prior restraint. Still, a system could be deployed not as the primary, let alone exclusive, response to a putative threat but as another string to the bow. And if deployment dictated an appropriate amendment of the ABM Treaty, so be it. However, the Bush administration has probably foreclosed any such moderate approach.

**Weaponization would destroy space security, now is key**

**Ordzhonikidze 9** (Sergei, Director-General of the United Nations Office in Geneva, "The Threats to Space: An Overveiw," 6/15-16/2009, Space Security 2009: Moving Towards a Safer Space Environment, UNIDIR (United Nations Institute for Disarmament Research), MM)

KEYNOTE ADDRESS 1 "THE THREATS TO SPACE: AN OVERVIEW" Sergei Ordzhonikidze, Director-General of the United Nations Office in Geneva The conference was opened by a keynote speech from Sergei Ordzhonikidze. He noted that the conference this year is starting off with a more promising tone, following the breakthrough in the CO, which could not come at a better time. The improvement in technology has allowed for the number of players in space to jump impressively in a relatively short time. Space is being used not only for pure scientific research, but also for communications, natural disaster mitigation, environmental monitoring, telemedicine, tele-education and *more.* Considering the world's dependence on space for development, nations must work together to protect this natural resource. To that end, preventing the weaponization of outer space is fundamental to collective security. This is why open discussions and improvements upon the space treaties from the 19605 and early 1970s are imperative. Mr. Ordzhonikidze stated that all areas of disarmament are connected. A continued sense of urgency and political will are necessary as the world works together for greater global security. He closed with the warning: the longer the international community waits before taking action, the more difficult it will be to achieve effective arms control in outer space. This is true for all disarmament issues, but it is true especially in space, where technology is advancing so quickly.

**Only cooperation can make SMD effective, unilateral action destroys relations**

**Frederick 9-** BA, Michigan State University; MBA, Regis University; Master of Military Operational Art and Science, Air Command and Staff College; Master of Airpower Art and Science, School of Advanced Air and Space Studies (fall 2009, Lorinda A., “Deterrence and Space Missile Defense”, <http://www.airpower.au.af.mil/airchronicles/apj/apj09/fal09/frederick.html#frederick>). ee

Cooperation on missile defense initiatives could increase global stability. By banding together in coalitions, countries can deter war by repelling an attack against any member.52 States and rogue elements will not be able to strike surreptitiously if they know that the international community could quickly discern the origin of any launch and compute potential impact points. Attempts by a rogue element to destabilize the region through the attribution of attacks to a state may initially promote the rogue elements own agenda. However, data provided by missile defense and other sensors can refute such claims. The shared international ability to identify launch and impact points might deter states and rogue elements from launching in the first place. The more nations cooperate with each other, the more stable the world becomes.Policy makers need to invest in the development of many different capabilities, including SBMD, to negate missiles in their boost phase and use the information gleaned from these developments to inform decisions. One approach involves bringing a system to the prototype stage for testing and accurately gauging its performance. This approach could let the United States invest in only a limited number of prototypes, thus deferring large-scale production to allow further research, development, and testing. These efforts could decrease the risk of failure during production and deployment.53 When the need arises, the United States should capitalize on preexisting prototypes as long as the industrial base could support rapid production.By funding R&D for SBMD, the United States would ensure the viability of these technologies. The DOD cannot expect developments in commercial industry to be available for national security purposes. Competitive pressures force industry to fund near-term R&D programs and choose near-term survival over long-term possibilities.54 Applied research into SBMD technologies would allow the United States to gain more knowledge about boost-phase defenses. America will get as much R&D in SBMD technologies as it is willing to fund. The United States may need to examine the standards it applies to the fielding of other BMD systems and adjust expectations for an initial SBMD capability. Henry Kissinger has commented on the standard of perfection applied to missile defense: The experts had all the technical arguments on their side, but Reagan had got hold of an elemental political truth: in a world of nuclear weapons, leaders who make no effort to protect their peoples against accident, mad opponents, nuclear proliferation, and a whole host of other foreseeable dangers, invite the opprobrium of posterity if disaster ever does occur. That it was not possible at the beginning of a complicated research program to demonstrate SDI’s maximum effectiveness was inherent in the complexity of the problem; no weapon would ever have been developed if it first had had to submit to so perfectionist a criterion.55 Fielding even imperfect elements of the architecture may deter an adversary, as occurred in Desert Storm when imperfect TMD helped keep Israel out of the war.The fact that senior leaders and policy makers tend to focus on current issues because they are more tangible puts the United States at risk of not funding research critical to its future defense. America may need to avoid pressures to sacrifice long-term research for the sake of short-term procurement by moving away from having policy determine the technologies pursued and letting feasible technologies inform policies necessary to deter threats.

# AT: Deterrence

**Iran prolif is slow—they depend on other nations for missiles**

**Pomper and Harvey 10**—senior research associate at the James Martin Center for Nonproliferation Studies AND research associate at the center (Miles and Cole, “Beyond Missile Defense: Alternative Means to Address Iran's Ballistic Missile Threat,” Arms Control Today, Vol. 40, Iss. 8, DA: 7/26/2011//JLENART)

Despite Iran's growing manufacturing and technical competence, its missile program still relies on imports of essential components. Because Tehran cannot manufacture its missiles entirely indigenously, international export controls, sanctions, and interdictions can slow the development and production of Iranian missiles and limit their range and effectiveness. Iran does not have the technical capacity to build up its ballistic missile forces based solely on domestic production. As the 2009 report to Congress by the director of national intelligence (DNI) stated, "Iran still remains dependent on foreign suppliers for some key missile components."2 For example, there is no evidence that Iran possesses the technology necessary to manufacture the large-diameter, flow-formed pressure tanks and large, composite pressure vessels necessary to construct larger, long-range missiles.3 It also appears that Iran continues to import whole engines, or at least critical engine components, for its liquid-fueled missiles.4 Likewise, there is no evidence to suggest that Iran has the capability to develop or produce the individual components of ballistic missile guidance systems.5 In order to expand the size and sophistication of its ballistic missile arsenal and the range and accuracy of the missiles themselves, Iran will need to import components. These gaps in Iran's missilerelated industry provide leverage points for the international community in seeking to slow or stop the export of these goods to Iran.

**New US policy shows weaponization key to deterrence**

**Blazejewski 08**

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Recent US actions and other internal statements, however, paint a much more aggressive picture of US plans for the weaponization of outer space. In 2001, a high-level commission headed by Donald Rumsfeld and charged with examining the future of US space security concluded that to avoid a “Space Pearl Harbor” the “U.S. government should vigorously pursue the capabilities called for in the National Space Policy to ensure that the President will have the option to deploy weapons in space to deter threats to, and, if necessary, defend against attacks on U.S. inter-ests.”9 In addition, the commission stated that since **space warfare is a “virtual certainty,” the “U.S. must develop the means both to deter and to defend against hostile acts in and from space.**”10 The commission called for improvements in “defense in space” and “power projection in, from and through space.”11 Before the commission concluded its work, Donald Rumsfeld assumed the post of secretary of defense. In 2006, President Bush issued a new US National Space Policy that emphasized the US de-termination to remain free of restraint in outer space. “The United States will oppose the development of new legal regimes or other restrictions that seek to prohibit or limit U.S. access to or use of space. Proposed arms control agreements or restrictions must not impair the rights of the United States to conduct research, development, testing, and operations or other activities in space for U.S. national interests.”12 In 2004, the Air Force published a paper called Counter space Operations that begins with the assertion that “counter space operations are critical to success in modern warfare.”13 The document goes on to explore the sorts of actions that would be included in a US offensive counter space operation, including possible preemptive attacks on satellites,

## Deterrence fails

**Deterrence is not a guarantee – depends on too many factors**

**Wieseltier, 85 -** Leon Wieseltier, Literary Editor of The New Republic and the author of Nuclear War, Nuclear Peace (1985, Council on Foreign Relations, Lexis Nexis, “When Deterrence Fails”, <http://www.lexisnexis.com.proxy.lib.umich.edu/hottopics/lnacademic/?shr=t&csi=7984&sr=HLEAD(When+Deterrence+Fails)+and+date+is+April,%201985)> MH

The essential fragility of deterrence must never be forgotten. Its central irony, that what may destroy us may be relied upon to deliver us, really is intolerable. That is the basis in reality for the criticism of deterrence from both the right and the left, for Ronald Reagan's dream of ballistic missile defenses and for the peace movement's dream of nuclear disarmament. Many of their arguments, to be sure, originate in moral, ideological and strategic assumptions that may be refuted. Against a great many alternatives, deterrence may be defended without apology. But there is at least one criticism of deterrence that may not be refuted: it may fail. The failure of deterrence is a plain possibility. It does not require any form of scientific or strategic expertise to see it. Deterrence is a wager upon a broad variety of technological, military, political and diplomatic arrangements, any of which may collapse in a crisis; but at bottom it is a wager upon the human heart. Who would dare make do with such a wager? History gives no grounds for such a quantity of trust. Just a reading of Thucydides should suffice to rattle the most devout defender of deterrence. There is evil in man, and folly. There has never been a weapon that was never used; and many more weapons were used unjustly than justly. The tragic dimensions of human experience, then, must haunt the nuclear debate.

**Nuclear idealists know they’re wrong – they pretend deterrence works even when they know it doesn’t**

**Wieseltier, 85 -** Leon Wieseltier, Literary Editor of The New Republic and the author of Nuclear War, Nuclear Peace (1985, Council on Foreign Relations, Lexis Nexis, “When Deterrence Fails”, <http://www.lexisnexis.com.proxy.lib.umich.edu/hottopics/lnacademic/?shr=t&csi=7984&sr=HLEAD(When+Deterrence+Fails)+and+date+is+April,%201985)> MH

The idealists of the nuclear debate who plead for the abolition of nuclear weapons, or the abolition of war, or the abolition of power politics, or the abolition of the system of sovereign states, certainly appreciate the magnitude of the nuclear danger; but they do not correctly represent either human history or human nature with their perfectibilian proposals. Their idealism is the same as a counsel of despair. The magnitude of the nuclear danger means, rather, that realism -- which is to say, deterrence -- is the better way. A time in which there are 50,000 nuclear weapons in the arsenals of two great powers caught in political and philosophical competition is not a time to reform man. It is a time to manage him; that is, to deter him. Yet deterrence may be complacently or uncomplacently constructed. Too many of its defenders construct it complacently. They avert their gaze from its flawed human origins, from the extent to which it is itself an expression for a state of emergency, from the luckless chance that it may fail. Consider some of the most influential American deterrers. Robert McNamara, for example, has stated categorically "that nuclear weapons serve no military purpose whatsoever. They are totally useless -- except only to deter one's opponent from using them." n1 Mr. McNamara is correct, of course, that there is no meaningful military mission that can be accomplished by weapons of mass destruction, that the military means will always exceed the political ends. Perhaps there are no circumstances of any sort in which the use of nuclear weapons will be justified, though the revolution that such a belief wreaks with Western strategy should be appreciated.

**The US doesn’t have a backup plan for when deterrence fails**

**Wieseltier, 85 -** Leon Wieseltier, Literary Editor of The New Republic and the author of Nuclear War, Nuclear Peace (1985, Council on Foreign Relations, Lexis Nexis, “When Deterrence Fails”, <http://www.lexisnexis.com.proxy.lib.umich.edu/hottopics/lnacademic/?shr=t&csi=7984&sr=HLEAD(When+Deterrence+Fails)+and+date+is+April,%201985)> MH

More examples could be cited of such complacency. There is a touch of liberal meliorism here, of liberalism's familiar disinclination to think the darker thoughts about man. There is also a hidden apocalyptic premise. The rejection of the idea of operational thinking about nuclear weapons implies that the end of deterrence will be the same as the end of history. More specifically, it implies that once any nuclear weapons are used, all nuclear weapons will be used. The possibility that the arsenals may not be emptied, that a nuclear exchange may consist of an infernally small number rather than an infernally large number of launchings, is not considered. It implies, too, that immediately after deterrence fails, from the moment that a nuclear weapon is fired, there will be nothing left to save. To be sure, the remorseless advance to annihilation that is euphemistically known as "escalation" is a very plausible way to consider the progress of a nuclear war; and much of the operational thinking about nuclear weapons is flawed precisely by an egregious refusal to entertain the possibility of escalation with sufficient seriousness. It makes sense to plan for the worst case. But it does not make sense to plan only for the worst case. In their planning for the post-deterrence predicament of the United States, many defenders of deterrence, well, they do not plan at all. Instead, as the British philosopher W. B. Gallie has remarked in a brilliant discussion of the apocalyptic approach toward nuclear weapons, "all less bad cases -- all possibilities of forestalling or moderating the danger before it reaches its climax -- are dismissed as delusive, as if on the principle that only the worst is bad enough for us!"

**Wieseltier, 85 -** Leon Wieseltier, Literary Editor of The New Republic and the author of Nuclear War, Nuclear Peace (1985, Council on Foreign Relations, Lexis Nexis, “When Deterrence Fails”, <http://www.lexisnexis.com.proxy.lib.umich.edu/hottopics/lnacademic/?shr=t&csi=7984&sr=HLEAD(When+Deterrence+Fails)+and+date+is+April,%201985)> MH

The theory of war termination has an interesting analytic role as well. It helps to show the sense in which the distinction between deterrence and war-fighting is not empty, as some have maintained. War-fighting means more than merely the use of nuclear weapons; war-fighting means the continued and purposeful use of nuclear weapons. There is a difference between a nuclear exchange and a nuclear war: a difference in the degree of damnation. The continued use of nuclear weapons constitutes a nuclear war. It represents a rejection of the fear that is implicit in both deterrence and war termination, in favor of a false ambition for military and political profit. The countervailing strategy and the prevailing strategy are not the dark side of deterrence, as their apologists claim, or its corollaries; nor are they historically inevitable when deterrence fails. They are conscious strategic choices based upon specific strategic assumptions. They may be challenged in the name of other strategic choices based upon other strategic assumptions. The theory of war termination makes such a challenge. It provides an opportunity to break the monopoly of the war-fighters on the operational dimension of the nuclear question. Not all the strategists who think about the failure of deterrence are nuclear war fighters. Only most of them are. War termination may provide a solution to the intellectual perplexity of liberal strategists and to the strategic perplexity of nuclear use. It is indeed that rare species of nuclear speculation, a way of thinking about the failure of deterrence that cannot be accused of contributing to its failure. Unlike some of the fantasies that have settled comfortably in the seats of American and Soviet power, war termination is strenuously sober about the technological and strategic circumstances in which we live. It denies neither the reality of counterforce nor the reality of escalation.

**Other countries are irresponsible with their nuclear deterrence – risks pre-emptive strikes**

**Russell, 3 –** Richard L. Russell, Professor of National Security Affairs at the National Defense University's Near East and South Asia Center for Strategic Studies (2003, Journal of Strategic Studies, “The Nuclear Peace Fallacy: How Deterrence Can Fail”, <http://www.tandfonline.com.proxy.lib.umich.edu/doi/pdf/10.1080/01402390308559311>) MH

Some scholars counter-intuitively argue that the proliferation of nuclear weapons increases international security by substantially reducing the chances for inter-state armed conflict. This school of thought draws heavily on the history of the American Soviet Cold War rivalry to inform its analysis. The security dilemmas in the contemporary Middle East and South Asia where numerous states have or want nuclear weapons, however, are profoundly different than the competition between the United States and the Soviet Union. States in the Middle East and South Asia today may see nuclear weapons as usable instruments of warfare in contrast to conventional wisdom in the West that views them as weapons of deterrence and last resort. As common sense would have it, American and Allied policy designed to stem the proliferation of nuclear weapons is prudent. American diplomatic intervention, moreover, in regional crises as a third party may be needed in the future in the Middle East and South Asia to lessen the risks of nuclear warfare. Nevertheless, American policy-makers are likely in the future to find themselves facing a nuclear-armed nation-state - or soon to be nuclear weapons-capable state - in a crisis and will have to grapple with the risks of pre-emptive or preventive military action.

# AT: Prolif

**Space weapons increase US attempts at power projection causing other countries to freak out and proliferate-the proliferation questions has largely been ignored**

**Krepon and Katz-Hymen 05** (Michael- MA from the School of Advanced International Studies at Johns Hopkins University, and a BA from Franklin & Marshall College. He also studied Arabic at the American University in Cairo and Michael-Professor at Carnegie Melon University, “Weapons and Proliferation”, July 2005, http://www.stimson.org/images/uploads/research-pdfs/Space\_Weapons\_and\_Proliferation.pdf)np

We argue that additional proliferation of nuclear weapons, rather than new arms races, is the most likely outcome in the event of renewed interest in space warfare. Proliferation will be a natural consequence of more nations feeling less secure as a result of space weapons. Adverse proliferation consequences could be both direct and indirect. China and Russia will likely feel most directly threatened by US space warfare initiatives. Beijing will likely increase its nuclear weapon requirements to counter increased threat perceptions without engaging in an arms race, while Moscow will likely seek to adjust the contraction of its nuclear arsenal, to the extent the Kremlin believes that its deterrent might be challenged by US initiatives. Indirect, horizontal proliferation is likely to result from greater strains in major power relations and in US-alliance ties triggered by US initiatives to dominate space. In the absence of united front’s against proliferation by major powers and by US friends and allies, international efforts to strengthen nonproliferation and disarmament norms are likely to fail, and hedging strategies against a more worrisome future are likely to multiply. The US Air Force’s Counterspace Operations doctrine, released in August, 2004, embraces power projection in and through space by means of what the Pentagon calls “offensive counter-space” capabilities.6 Pentagon research and development programs that could be applied to these space warfare initiatives include laser programs, space-based missile defense interceptors, and technology demonstrated on microsatellite programs, such as the recently launched XSS-11.7 The purpose of developing and fielding such capabilities is to ensure the unhindered exercise of dominant US ground, air, and naval power projection capabilities. US military dominance in these domains is already well established. Its implications for the nonproliferation regime— constructed during an era of bi-polar, Cold War competition—have not been carefully analyzed. The presumed positive or negative impacts of US military dominance on proliferation would surely be accentuated in the event that Washington also seeks dominant military capabilities in space. It is unfortunate that the connection between space warfare initiatives and proliferation has been little noted, since the two are bound together so closely. Unless the trade-off between flight testing and deploying the space warfare capabilities and proliferation is recognized, the implementation of the US Air Force’s new doctrine for offensive counterspace operations will spur more proliferation and generate increased dangers for national, regional, and international security. We believe that the extension of US military dominance into space, when accompanied by a low regard for international compacts designed to prevent proliferation and promote disarmament, will result in more, not less, proliferation. The US impulse to flight test and deploy offensive counterspace capabilities comes at a time when the Nonproliferation Treaty (NPT) regime is facing serious challenges. We view the advocacy of US space dominance as a useful prism to analyze why proliferation concerns are growing, and why efforts to strengthen nonproliferation and disarmament norms have encountered such great difficulty in recent years.

**SMD hurts nonproliferation efforts already happening in the status quo**

**Krepon and Katz-Hymen 05** (Michael- MA from the School of Advanced International Studies at Johns Hopkins University, and a BA from Franklin & Marshall College. He also studied Arabic at the American University in Cairo and Michael-Professor at Carnegie Melon University, “Weapons and Proliferation”, July 2005, http://www.stimson.org/images/uploads/research-pdfs/Space\_Weapons\_and\_Proliferation.pdf)np

The dominant power is not particularly persuasive when it demands strict, verifiable compliance of others while it insists on maximum flexibility and holds verification arrangements in low esteem. If the dominant nation insists on advantageous interpretations of its treaty obligations, weaker states can reserve this right with impunity—unless they pose such a threat to so many important states that they risk severe penalties. The chances of this happening are reduced, however, when the most powerful state takes actions that undercut coalition building and norm setting. Under these circumstances, it becomes easier for states to become “free riders,” standing on the sidelines in hard proliferation cases. They might also view US travails in dealing with proliferation as not being inimical to their interests. Dominance is proving to be a poor substitute for treaty norms, and an insufficient lever for collective security or unilateral enforcement. US military dominance has so far failed to persuade Egypt and Iran to stop blocking attempts to make the Additional Protocol a condition for nuclear supply. Nor has it been sufficient to persuade Moscow to refrain from nuclear commerce with Iran, or to accord expanded cooperative threat reduction initiatives a higher priority than more prosaic concerns. US dominance has not been decisive in persuading Beijing and Seoul to use their leverage to stop North Korea’s nuclear programs. Japan, Brazil, and the United States have particular qualms with controls over enrichment programs (as do non-NPT members India, Pakistan, and Israel). More and more states are adopting an a la carte approach to regime building. Hedging strategies are proliferating, as are blocking actions against measures that would limit freedom of action. The implementation of US offensive space warfare initiatives will accentuate these worrisome developments. Successful efforts to stop and reverse proliferation face long odds when the dominant state demands to play by its own rules. These odds become even longer when the dominant state cannot enlist the active support of Moscow and Beijing on hard proliferation cases that bother Washington more than them. Nor do Russian or Chinese leaders appear unduly distressed over the difficulties US forces presently face in Iraq. Burden sharing with respect to proliferation is not high on their list of priorities, and is likely to drop lower if US space warfare initiatives are pursued. Official Chinese and Russian threat perceptions of the United States are not articulated in public, but they may reasonably be inferred. Both capitals might well question why Washington seeks to extend its military dominance into space by pursuing capabilities that would not be particularly helpful in scenarios involving Iran, North Korea, or other developing countries. Instead, the pursuit of US dominance into space may well be viewed by Moscow and Beijing as part of a broader effort to negate their nuclear deterrents. If so, prospects for nonproliferation and disarmament would further decline. When dominance poses a threat to major powers whose cooperation is most needed to halt and reverse proliferation, dominance becomes part of the problem, rather than part of the solution.

# \*\*Solvency\*\*

# SMD Fails

**SMD fails – cost, vulnerability, and ability to be tricked**

**Grego 05** (Laura Grego, staff scientist at the Union of Concerned Scientists (UCS) for the Global Security Program, postdoctoral researcher at the Harvard- Smithsonian Center for Astrophysics from 1999 until 2002, March 21-22, 2005 , “WHAT SHOULD SPACE BE USED FOR? TECHNICAL GUIDELINES”, from the UNIDIR conference on nuclear disarmament) JB

The global coverage that space-based weapons can provide is also a key motivation for deploying ballistic missile defence interceptors in space. In principle, a space-based boost-phase missile defence system could offer capabilities that would not be available with a ground- or air-based system—the ability to intercept an intercontinental ballistic missile during “boost phase”, that is, while it is being launched, wherever it is launched on Earth. However, because of the short response time this mission requires, the system would be intrinsically vulnerable to debilitating attack and to being overwhelmed. The timescale required for boost-phase missile defence is 10 times shorter than that needed for a competitive ground attack weapon—just minutes. And so the number of satellites needed for the mission is 10 times larger and will require many hundreds to thousands of satellites. Besides the issue with cost, which may not be a conclusive argument since there are no feasible ground-based alternatives for this mission, space- based missile defence has another very serious shortcoming. There are inherent vulnerabilities to a space-based missile defence. To frustrate the defence, the targeted country just needs to be able to “punch a hole” in the system, since only a very few of the hundreds of missile defence interceptors will be near enough to a given ballistic missile launch to intercept the ballistic missile. A space-based missile defence consists of observable satellites with predictable coverage. An attacker can use a smaller and less valuable missile to attack the missile defence satellite and destroy it, and then send its intercontinental ballistic missile through the “hole”. The defence will always be imperfect. If your reaction to this scenario is just to “Make sure there are two interceptors in place!”, I draw your attention to the fact that because of the motion of satellites, making sure there are two interceptors in place requires doubling the size of the entire constellation and also points to the ability of an attacker to locally overwhelm the space-based missile defence system.

**Tech Is Too Expensive - Accelerated Time Frame Proves It Will Be Flawed**

**Caldicott &Eisendrath, 7**-  (is an [Australian](http://en.wikipedia.org/wiki/Australia) [physician](http://en.wikipedia.org/wiki/Physician), author, and [anti-nuclear](http://en.wikipedia.org/wiki/Anti-nuclear) advocate who has founded several associations dedicated to opposing the use of [depleted uranium](http://en.wikipedia.org/wiki/Depleted_Uranium) munitions, [nuclear weapons](http://en.wikipedia.org/wiki/Nuclear_weapons), [nuclear weapons](http://en.wikipedia.org/wiki/Nuclear_weapons) proliferation, war and military action in general. \*\*\* Chairman, Project for Nuclear Awareness (Helen and Craig, War in Heaven, pgs. 68-75). gh~hak)

The Space-Based Laser, for example, has still not overcome a ba­sic problem with using directed energy in the atmosphere-the phe­nomenon called "thermal blooming" in which the energy spreads in the atmosphere and so loses its power. Another problem is that the satellite needs to be very close to the target, which means having a huge number of satellites in orbit so that one might be in the proper location at the time of the missile's launch. n However, if the U.S. history of missile defense is any clue, these probJems will not inhibit development or deployment. The problem of decoys in mid-course missile defense was never solved, yet the system went into deployment, consuming tens of billions of U.S. taxpayer dol­lars. As some at the Pentagon say, this is a policy of "buy before you fly." As late as February 2006, a missile defense war game played on Capitol Hill did not use decoys, and as Representative Rush Holt (D-NY) noted, "The values used in the stimulation are not based on real data.... This should give you considerable skepticism about what these simulations may be showing about actual defense capabilities."14

**The Plan Brings Back Bad and Too Expensive Tech (caldicott’s descriptions of bad space tech don’t exist under obama’s policy)**

**Caldicott &Eisendrath, 7**-  (is an [Australian](http://en.wikipedia.org/wiki/Australia) [physician](http://en.wikipedia.org/wiki/Physician), author, and [anti-nuclear](http://en.wikipedia.org/wiki/Anti-nuclear) advocate who has founded several associations dedicated to opposing the use of [depleted uranium](http://en.wikipedia.org/wiki/Depleted_Uranium) munitions, [nuclear weapons](http://en.wikipedia.org/wiki/Nuclear_weapons), [nuclear weapons](http://en.wikipedia.org/wiki/Nuclear_weapons) proliferation, war and military action in general. \*\*\* Chairman, Project for Nuclear Awareness (Helen and Craig, War in Heaven, pgs. 68-75). gh~hak)

As the United States moves toward space-based anti-missile systems, it is proceeding toward a major investment in an unproven form of defense, and one which, for many cogent reasons, should not be undertaken at all. The cost of an effective space-based sys­tem that could protect the country against an attack by a relatively small number of missiles has been estimated as anywhere from $220 billion to $1 trillion dollars.22 Spending this exorbitant amount of money on an unnecessary and unproven system, at a time when the United States is experiencing $400 billion annual deficits, huge trade imbalances, and is radically cutting benefits to students, the el­derly, and the poor, brings into question both our values and our judgment. So far the United States has used space to launch its ICBMs and ground-based rnissile defenses, and orbit satellites to spot tar­ gets on the ground and direct its weapons. Now the United States is moving beyond these uses to dominate outer space by destroying the space capacity of other nations, either from the ground or from outer space. It is also planning to orbit weapons which will directly attack the satellites of other countries, and bombard targets on the earth.

**Tech and Cost barriers prevent the deployment of effective deployment of SMD**

**Hitchens** **02** (Theresa-CDI Vice President, “Weapons in Space: Silver Bullet or Russian Roulette?
The Policy Implications of U.S. Pursuit of Space-Based Weapons”, April 18, 2002, http://www.cdi.org/missile-defense/spaceweapons.cfm)

Indeed, the technical barriers to development and deployment of space-based weapons cannot be overestimated, even for the U.S. military. There are serious, fundamental obstacles to the development of both kinetic kill weapons and lasers both for use against targets in space and terrestrial targets — not to mention the question of the staggering costs associated with launch and maintaining systems on orbit. Problems with lasers include power generation requirements adding to size, the need for large quantities of chemical fuel and refueling requirements, and the physics of propagating and stabilizing beams across long distances or through the atmosphere. Space-based kinetic energy weapons have their own issues, including achieving proper orbital trajectories and velocities, the need to carry massive amounts of propellant, and concern about damage to own-forces from debris resulting from killing an enemy satellite. Space-based weapons also have the problem of vulnerability, for example, predictable orbits and the difficulty of regeneration. A detailed discussion of technology challenges is beyond the scope of this paper, but a comprehensive primer on the myriad problems with developing space-based weapons is a September 1999 paper by Maj. William L. Spacy II, "Does the United States Need Space-Based Weapons?" written for the College of Aerospace Doctrine, Research and Education at Air University, Maxwell Air Force Base, Ala. As noted, 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. Many experts, including a number of Air Force strategists, persuasively argue a U.S. move to put offensive weapons in space could have the perverse effect of creating a new threat because other countries would feel compelled to follow suit.[[21]](#footnote-21)26

**[[22]](#footnote-22)NASA and DOD space missile defense is not cost competitive**

**air force magazine.com**, 7/22/**2011**, US Space, Missile Defense Programs Lack Quality Control, [http://www.airforce-magazine.com/DRArchive/Pages/2011/July%202011/July%2022202011/USSpace,MissileDefenseProgramsLackQualityControl.aspx](http://www.airforce-magazine.com/DRArchive/Pages/2011/July%202011/July%2022202011/USSpace%2CMissileDefenseProgramsLackQualityControl.aspx)

Poor workmanship, undocumented and untested manufacturing processes, and parts complexity have led to significant cost overruns and schedule delays in US space and missile defense programs, reported the Government Accountability Office Thursday. All 21 Defense Department and NASA programs that GAO audited from October 2009 to May 2011 suffered from parts quality problems that led to many millions of dollars worth of cost increases, according to the office's new [report](http://www.gao.gov/products/GAO-11-404). The Air Force's Advanced Extremely High Frequency communications satellite program topped that list. Parts problems found during system-level testing of the first AEHF satellite forced officials to conduct a second round of thermal vacuum testing, delaying the spacecraft's launch by nearly two years and costing at least an additional $250 million, according to the auditors. DOD partially concurred with GAO's findings and agreed to address quality issues annually, including parts quality.

**[[23]](#footnote-23)The tests failed – the test claims are wrong – multiple reasons**

**Government Accountability Office, 92** – Government Accountability Office (Government Accountability Office, September 8, 1992, Government Accounatbility Office, <http://www.gao.gov/products/NSIAD-92-282>)

The Strategic Defense Initiative program is developing three types of kinetic kill interceptors intended to destroy incoming missiles by colliding with them head-on at speeds of up to 30,000 miles an hour. Brilliant Pebbles, a space-based interceptor, would be the first line of defense. Next, a ground-based interceptor would zero in on targets above the earth's atmosphere. Finally, a different ground-based interceptor would attack targets after they have reentered the earth's atmosphere. From January 1990 through March 1992, the Strategic Defense Initiative Organization (SDIO) conducted seven flight tests of early experimental versions. SDIO claimed that five of the seven flight tests were successes and the other two were failures. GAO concludes that SDIO **inaccurately described some results of four of the seven tests.**

GAO found that the: (1) Kinetic Kill Vehicle Integrated Technology Experiment (KITE) utilizes a shroud to protect the optical window sensor at the missile's front; (2) Army Strategic Defense Command inaccurately claimed that the KITE test successfully showed the shroud's effectiveness, but accurately claimed that the window cooling system functioned properly; (3) Army Strategic Defense Command accurately reported the KITE-2 test as a **failure** due to explosion at ignition; (4) Exoatmospheric Reentry Vehicle Interceptor Subsystem (ERIS) program is designed to resolve technical issues in developing a ground-based interceptor system; (5) Army Strategic Defense Command accurately claimed that the first ERIS test sucessfully met test plan goals, **but inaccurately claimed that target discrimination was achieved**; (6) ERIS-2 test failed to intercept the target and the Army Strategic Defense Command accurately explained the reasons for failure; (7) Lightweight Exoatmospheric Projectile (LEAP) program is designed to develop the smallest, lightest, kinetic kill interceptor possible; (8) LEAP tests succeeded in achieving test set up goals, but altitude and target positioning information claims were inaccurate; (9) Brilliant Pebbles interceptor project is designed to destroy ballistic missiles within the first two stages of their flight; (10) claims that Brilliant Pebbles test was 90-percent sucessful in light of reduced objectives, that increasingly sophisticated tests were successful, and that Phase I testing had been completed were overstated and inaccurate; (11) SDIO statements regarding the failure of the first test due to information transmission malfunctions were accurate; and (12) tracking software for intercepting targets was never tested and more difficult daytime tests were never conducted.

# MD useless

**Missile Defense is useless and wastes money**
Joshua **Kurlantzick** - is a Fellow for Southeast Asia at the Council on Foreign Relations. December, **2005**, The American Prospect Shots in the Dark;
You may have forgotten "missile defense," but Rumsfeld hasn't. He's still pushing a useless, secretive -- and very expensive – system, Lexis Nexis) E.L.

 ON A FRIGID DAY IN ALASKA LAST WINTER, A rocket, designed to simulate an incoming missile launched at the United States, blasted out of the ground. Fifteen minutes later, an interceptor rocket was to be deployed from a site in the Marshall Islands, knock down the deadly missile, and save America. That was the early February 2005 flight test of the Missile Defense Agency's (MDA) Ground-based Midcourse Defense, a program at the heart of the Pentagon's vaunted national missile defense that President Bush had promised would be operational by the fall of 2004. If this had been real life, some U.S. city would have been incinerated: The interceptor rocket never made it off the launch pad. It was the second test failure of the system in three months. In a December test, which cost more than $ 80 million, the interceptor rocket had failed to launch because of what the Pentagon called "an unknown anomaly" that it insisted was "a very rare occurrence." Only days prior to the February launch, the Pentagon was still struggling to fix at least 20 glitches in the system. On test day, the faulty software created an abort command before the interceptor was supposed to launch. "At the rate they're going . . . it could take them 50 years to do the kind of developmental testing" necessary for the system to work, said Philip E. Coyle, a missile-defense expert at the Center for Defense Information who performed much of the oversight on the program under President Clinton. Pentagon officials, however, didn't seem overly worried about the flubbed test. As *The New York Times* reported, in the wake of the failure MDA spokesman Richard A. Lehner was looking on the bright side. Lehner announced that the agency had learned "quite a bit" from the aborted test and called it "a very good training exercise." Though the Pentagon won't admit it, missile defense, one of the bedrocks of the Republican national-security doctrine, is virtually useless today. The MDA has lavished money on a system of interceptors that is nowhere near operational and might never work -- a rushed effort that diverts resources from other vital priorities, like the fighting in Iraq and Afghanistan, while making it harder to develop defense against longer-term missile threats. And it's not just outside analysts, dismissed by the hawks as doomsayers, who realize that missile defense is a train wreck. Throughout the history of the program, the government's own internal reports and analyses, buried out of public view, have shown it could be an abject failure. The trouble is that the administration is not looking to abandon the program. On the contrary, missile-defense officials have said that testing, halted after the February failure, will resume, and the coming year likely will be crucial to the future of missile defense, which Pentagon officials constantly claim is on the verge of being operational. Secretary of Defense Donald Rumsfeld has been close to declaring the missile-defense system active or deployed. If declared active, missile defense would in theory be responsible for protecting Americans, something the program simply can't do. Declaring it active would ensure there's no turning back -- and that billions of dollars continue being plowed into the program, already the most expensive military research-and-development program under the Bush administration. Ultimately, missile defense could be one of the costliest defense boondoggles in history.

**Missile Defence wastes money and risk an arms race with Russia and China**
Stephen **Moore**-member of the Maine-based Global Network Against Weapons and Nuclear Power in Space. The Leader-Post December 21, **2004,** Space no place for weapons, Lexis Nexis, E.L.

Every year out of its $400 billion budget. the U.S. military allocates $7 billion to $8 billion to missile defence -- an amount greater than the entire annual budget of the province of Saskatchewan. Over $100 billion has been spent so far, and the costs and risks will only grow and grow. As it wastes this money, the U.S. administration undermines efforts at international arms control, risking further proliferation of ballistic missile technology and an arms race with Russia or China as well. Having already scrapped one international agreement (the 1972 ABM treaty) to pursue this latest anti-missile scheme, the Bush administration has recently pushed Japan to relax its controls on the export of arms technology to facilitate BMD co-operation. At the same time, the Japanese have bowed to U.S. pressure and agreed to increase their spending on missile defence by 35 per cent next year -- to over 144 billion yen. What will the United States come to expect of Canada if we sign on? Prime Minister Paul Martin says he will commit no funds to missile defence, and yet he wants a key decision-making role for Canada if we sign on. Even if Martin were willing to pay the piper, however, we would have no chance to call the tune. A Dec. 3 article in Space and Missile Times, published at Vandenberg Airforce Base, made it clear USSTRATCOM -- a U.S.-only command -- would exercise overall command and control of the system. Canadians at NORAD may help the system "see" by sending it data, but its true controllers will be Americans. Another of Martin's "roadblocks" to participation is a demand the system not lead to space weapons. No meaningful guarantee on this score should be expected. Two years ago this month, Bush issued a presidential directive on missile defence (NSPD-23) which stated that the system would evolve over time, and would have no final "architecture." Among the evolutionary improvements listed in this document were the "development and testing of space-based defences, specifically space-based kinetic energy (hit-to-kill) interceptors and advanced target tracking satellites." This was nothing new: seven years ago the U.S. Space Command's Vision for 2020 document said that "National Missile Defence" would evolve into a mix of ground and space sensors and weapons." When the time seems right to launch orbiting weapons, the U.S. will hesitate no longer over cancelling any promise made to Canada than it did over scrapping its ABM pact with Russia.

**The U.S. shouldn’t waster their money on NASA or space defense funding, we should be spending it to pay off debt and help the earth issues.**

**Wah et al. 7**,- MSG at the Unites States Army Sergeants major academy ( Nov 27, 2007, Augustus N., “Military in Space”, <http://cgsc.cdmhost.com/cdm/fullbrowser/collection/p15040coll2/id/3148/rv/singleitem/rec/1>). EE

On 6 October 2006 the Bush administration rolled out a new space policy that, among many other goals, aimed at making a trip back to the Moon. The policy, which also supports trips to Mars and beyond, received strong criticism from several democratic politicians even before the ink could dry and it, be released. Although their criticism was most likely a political attack, their argument was one that many Americans agreed with. They argued that the money needed to fund the president’s space plans could be better used for issues we are dealing with here on Earth. Although the new policy was also intended to respond to a world of terrorist actions after 9/11 which included the need for gathering intelligence that was both internal and external intelligence to the United States, I still find myself agreeing that the billions spent each year on the space program could go a long way to take care of many other issues we face here on Earth. The new space policy stresses that "freedom of action in space is as important to the United States as air power and sea power." The administration argues that the American citizens need to understand that the resources of the U.S. should be unrestricted in carrying out their responsibilities in space. Since the space era began, the debate has been that we should focus on taking care of our underprivileged, rather than throw so much money into space exploration. This is not to say that we shouldn’t be exploring space. It’s simply a check on the priorities of the leaders of our country. Should we make such an investment on exploring space when we could put the money to better use elsewhere? Unfortunately, we can’t predict the benefits we might gain from space exploration. Those that believe that we are wasting money in space have a legitimate concern that needs to be addressed. Some people go so far as to say that the space program is bankrupting the country. I can see where they would get that impression when the U.S. National Debt is right around $9.1 trillion and the government continues to throw billions in NASA’s direction to fund projects like, Opportunity and Spirit, the roving Martian explorers which combined, cost the American taxpayer $1.64 billion. Not to mention what is spent on programs such as servicing the Hubble Space Telescope. NASA has estimated that the funding needed for a shuttle mission to service the Hubble could be as much as $2.4 billion. This estimate is only for a servicing mission. The engineering costs alone run between $9 and $10 million per month. Over the lifespan of the Space Shuttle program, NASA has spent $145 billion. That’s an aver cost of $1.3 billion per flight. Could you imagine what we could do with that money here on Earth? If budgeted properly, we could use it to provide every American with affordable health care, provide better benefits to our veterans, improve our education system, and make major improvements to our homeland security

**Space Weaponization is a waste of U.S. money and assets, we should be focusing on our military on earth.**

**Wah et al. 7**,- MSG at the Unites States Army Sergeants major academy ( Nov 27, 2007, Augustus N., “Military in Space”, <http://cgsc.cdmhost.com/cdm/fullbrowser/collection/p15040coll2/id/3148/rv/singleitem/rec/1>). EE

Weaponry in space is one of the many programs on the table for the United States’ half trillion dollar defense budget. Obviously this program is opposed by many, to include countries like China and Russia. Of course, they along with a laundry list of other countries are proposing a treaty that would prohibit weapons in space. I couldn’t agree with them more. There are two reasons I oppose weapons in space. The first is, of course the cost of developing, deploying, and maintaining them. The defense budget may be huge, but we should be focusing on improving equipment that our Soldiers, Sailors, Airmen, Marines, and Coastguardsmen use everyday and the equipment used to protect them while they defend this great nation. We should be spending more of the budget on better up-armored vehicles that will protect them against the improvised explosive devices (IED) that take more and more lives everyday. Instead of putting money into weapons in space, which may never be used, put more money into the research and development of the weapons we put in the hands of Soldiers and Marines that have boots on the ground. Invest more money into the weapons systems on the battleships and aircraft used by the Sailors and Airmen. The second reason and one that is of global concern is that an unmanned weapon in space could very easily fall into the wrong hands. Let’s face it; there are people out there that make a hobby of hacking into government systems, no matter how secure they are. Defense systems have been compromised as long as they have existed. A weapons system developed to protect our nation could, if acquired by the wrong organization or country, could ultimately lead to the demise of the freedom

**A pursuit of space missile defense will undermine U.S. security.**

**STEELE, 1**- thesis in MASTER OF MILITARY ART AND SCIENCE and Military Space Applications, and graduate student from sienna college (June 1, 2001, Claire E., “The Weaponization of Space a Strategic Estimate”, <http://cgsc.cdmhost.com/cdm/fullbrowser/collection/p4013coll2/id/459/rv/singleitem/rec/15>). EE

Space sanctuary is the act of keeping space free of space-based weapons. It also encompasses not developing terrestrial weapons that can attack space-based assets. The space sanctuary advocates all believe that the US should pursue treaties against the development of space-based weapons and ASAT weapons of all kinds. In *The Fallacy of Star Wars, Why Space Weapons Can’t Protect Us*, the Union of Concerned Scientists provided historical background up to 1984 on the development of space weapons. The Union of Concerned Scientists panel on ballistic missile defense (BMD) included professors of physics from several American universities, a member of the Manhattan Project, a Navy admiral, a member of the Central Intelligence Agency, several personnel formerly involved in forming the US government’s space policy, and Dr. Carl Sagan. The Union of Concerned Scientists believes that a diplomatic solution is necessary and include a draft of a proposed US-Soviet treaty on ASAT. The Union of Concerned Scientists concluded, “Only a treaty that forbids all space weapons tests can protect our most valuable military satellites, while an unconstrained pursuit of space-based missile defenses will undermine US security. Such a treaty would still permit research on strategic defenses, and would not close the door forever to the defense-dominated world that all desire.”17

**The U.S. should keep the status quo and not deploy space weapons until the future is apparent.**

**STEELE, 1**- thesis in MASTER OF MILITARY ART AND SCIENCE and Military Space Applications, and graduate student from sienna college (June 1, 2001, Claire E., “The Weaponization of Space a Strategic Estimate”, <http://cgsc.cdmhost.com/cdm/fullbrowser/collection/p4013coll2/id/459/rv/singleitem/rec/15>). EE

Lieutenant Colonel Bruce M. Deblois, US Air Force (USAF), wrote an article for the winter 1998, *Airpower Journal*, “Space Sanctuary: A Viable National Strategy.” because developing space-based weapons puts both countries in “positions that are patently inequitable and nonnegotiable.”21 “Sentinel’s Rising: Commercial High Resolution Satellite Imagery and Its Implications for US National Security,” appeared in the winter 1998, *Airpower Journal*. The author Lieutenant Colonel Larry K. Grundhauser wrote a short history of the legal status of satellites and discussed the threat of commercial imagery to US security. Grundhauser believes in “negotiation over negation” and called for a political solution. “Although there is great temptation to address the threat posed by commercial imagery satellites with ASAT weaponry, their use could actually encourage others to place US satellites and/or ground infrastructures in jeopardy. A better approach would be US sponsorship of a legally binding treaty on the rights and obligations of remote-sensing countries with respect to data distribution.”22 Grundhauser believes the US should keep the status quo in the near term and the US should not deploy space-based weapons until the future is more apparent.

**The U.S. should maintain its intelligence instead of gaining space systems in space.**

**STEELE, 1**- thesis in MASTER OF MILITARY ART AND SCIENCE and Military Space Applications, and graduate student from sienna college (June 1, 2001, Claire E., “The Weaponization of Space a Strategic Estimate”, <http://cgsc.cdmhost.com/cdm/fullbrowser/collection/p4013coll2/id/459/rv/singleitem/rec/15>). EE

Frederick W. Kagan’s article, “Star Wars in Real Life: Political Limitations on Space Warfare,” appeared in *Parameters* in August 1998. Kagan is a strong advocate of theater missile defense. However, Kagan believes that the US and its adversaries should agree not attack each other’s satellites. He stated that the US should retain its intelligence and communications with the understanding that the enemy has a similar capability. Kagan believes that the degradation of US capabilities by the loss of US intelligence and communications would be of greater concern than the problem posed by the enemy having the same access to space systems. The US should “refocus our efforts to attack the enemy shooter systems and the links between the sensors and those systems.

# SMD Violates Treaties

**OST restricts countries from weaponizing**

**Moltz 2k2**

(James Clay Moltz is the Associate Professor and Academic Associate for Security Studies at the NSA, expert on: space security, nuclear proliferation and nonproliferation, Russian and Northeast Asian security, international relations theory, and U.S. national security policy, received the 2010 Richard Hamming Award for Interdisciplinary Achievement, worked previously as a staff member in the U.S. Senate, served as a consultant to the NASA Ames Research Center, the Department of Energy’s National Nuclear Security Administration, and the Department of Defense’s Office of Net Assessment, “Future Security in Space: Commercial, Military, and Arms Control Trade-Offs”, Center for Non-Proliferation Studies, Montery Institute of International Studies, Jul 2002, Print: pg 5-6 // sc)

 Article IV of the OST prohibits placing in orbit around the earth any objects carrying nuclear weapons or other weapons of mass destruction. It also prohibits the testing and, I would argue, the deployment of any kind of 5 weapon on the moon or other celestial bodies. There is no provision for verification. As is well known, the 1967 Treaty does not prohibit the orbiting in space of weapons other than nuclear weapons or other weapons of mass destruction.4 However, the OST is not without useful features relevant to the possible weaponization of space. Article VII makes treaty parties that launch objects into outer space liable for damage to the property of another treaty party-this is also spelled out in the liability Convention of 1972. The liability Convention foresees the establishment of a Claims Commission to determine the extent of liability for damage by the space objects of one country to the space objects or property of another state. Article IX of the OST provides for consultations if any treaty party believes an activity planned by another treaty party would cause "potentially harmful interference with activities in the peaceful exploration and use of outer space." Beyond this, the General Assembly could by majority vote request an Advisory Opinion from the International Court of Justice if either the peaceful uses language of the 1967 treaty or these two articles on liability and consultation come under dispute as the space-based component of the missile defense system advances. In fact, requests for consultation or under Article IX, or also a General Assembly request for an advisory opinion, can and should come now to make world opinion aware of this issue before the damage has been done, and to motivate the United States government to study the issue seriously, including the possibility of rules of the road. The request for consultation under Article IX can come from any party or group of parties to the 1967 treaty. In addition, George Bunn and John Rhinelander point out in a letter to the editor in the June 2002 issue of Arms Control Todqy, that parties to the treaty 4 Article IV of the 1967 Treaty states: "States Parties to the Treaty undertake not to place in orbit around the Earth any objects catrying nuclear weapons or any other kinds of weapons of mass destruction, install such weapons on celestial bodies, or station such weapons in outer space in any other manner." This language would appear to preclude orbiting weapons around the moon, but Article III of the 1979 Moon Treaty makes this prohibition explicit. Jonathan Dean could convene and issue an interpretation that the U.S. testing or orbiting of space weapons was contrary to the peaceful uses language of the treaty, in effect amending it to preclude any weaponization. The General Assembly could then pass a resolution endorsing this interpretation. /

**ABM treaty excludes missile defense in space**

**Meredith ‘84**

( Pamela L. Meredith is a lawyer on Aerospace Contracts; Aerospace Regulation; Aerospace Insurance; Space Law is a lawyer on Aerospace Contracts; Aerospace Regulation; Aerospace Insurance; Space Law , “ The Legality of a High-Technology Missile Defense System: The ABM and Outer Space Treaties”, The American Journal of International Law, Vol 78: No. 3, April 1984, pg online @ : [http://www.jstor.org/stable/2202285 //](http://www.jstor.org/stable/2202285%20//) sc)

An ABM system, according to the Treaty, is "a system to counter strategic ballistic missiles or their elements in flight trajectory."13 The defense system proposed by President Reagan, which is based on the capacity to "intercept and destroy strategic ballistic missiles before they reach our own soil or that of our allies,"'4 appears to satisfy the definition. The Treaty indicates that an ABM system "currently" consists of: "(a) ABM interceptor missiles; (b) ABM launchers; and (c) ABM radars."'5 This text does not preclude Treaty jurisdiction over future ABM systems using devices other than those mentioned above. The question is whether the drafters intended to include such systems. An Agreed Statement between the Heads of the U.S. and USSR delegations states: In order to insure fulfillment of the obligation not to deploy ABM systems and their components . . . the Parties agree that in the event ABM systems based on other physical principles . . . are created in the future, specific limitations of such systems . . . would be subject to discussion in accordance with Article XIII and agreement in accordance with Article XIV of the Treaty. 16 In a subsequent address to the Senate Armed Services Committee, the head of the U.S. delegation, Ambassador Gerard Smith, stated that "the Parties have agreed that no future types of ABM systems based on other physical principles . . . can be deployed unless the Treaty is amended."'7 In addition, Secretary of State Rogers, in a statement before the Senate Foreign Relations Committee, said that "the Parties have agreed that future exotic types of ABM systems, i.e., systems depending on such devices as lasers, may not be deployed."'8 These excerpts clearly indicate that the drafters of the ABM Treaty also intended to include future ABM systems. It appears, therefore, that the defense system proposed by President Reagan is covered by the Treaty. The Treaty distinguishes between ABM systems according to their basing mode. While it completely outlaws development, testing and deployment of sea-, air-, space- and mobile land-based systems,'9 it allows for the development and testing" of fixed land-based systems and their limited deployment;2' each country may choose to protect either its national capital or an ICBM field.22 However, the deployment area is subject to geographical limitations, and the ABM systems must comply with certain qualitative constraints, i.e., only inter- ceptor missiles, launchers and radars may be deployed.23 Moreover, quantitative restrictions apply to each of these categories.24 The comprehensive ballistic missile defense as envisaged by President Reagan, therefore, seems to be inconsistent with the Treaty obligation for a party "not to deploy ABM systems for a defense of the territory of its country and not to provide a base [therefor] . . . except as provided for in Article III of this Treaty."25 Moreover, the development of such a system would undermine the entire raison d'etre of the Treaty, which is to make each party vulnerable to attack by the other.

**Weapons of mass destruction violate the OST**

**Meredith ‘84**

( Pamela L. Meredith is a lawyer on Aerospace Contracts; Aerospace Regulation; Aerospace Insurance; Space Law , “ The Legality of a High-Technology Missile Defense System: The ABM and Outer Space Treaties”, The American Journal of International Law, Vol 78: No. 3, April 1984, pg online @ : [http://www.jstor.org/stable/2202285 //](http://www.jstor.org/stable/2202285%20//) sc)

Article 4 of the Outer Space Treaty deals with the use of outer space for peaceful purposes. The term "peaceful" is generally taken to mean nonaggressive as opposed to nonmilitary.49 Accordingly, military uses of outer space are per- mitted (insofar as they do not amount to aggression). The first paragraph of Article 4 provides an exception regarding the deployment in earth orbit of nuclear weapons and other weapons of mass destruction. Antiballistic missiles based on laser or particle beam techniques are not weapons of mass destruction. Since they are meant to be a defense system, they are by definition nonaggressive, and their deployment in earth orbit would therefore not represent a violation of international space law. It should also be noted that the prohibition of weapons testing in outer space is geographically confined to the moon and other celestial bodies,50 and this prohibition does not affect testing in earth orbit. Overall, the preceding examination of the legal implications of President Reagan's proposal leads to the following conclusions. Deployment of a nationwide defense system to protect against ballistic missiles would not be consistent with the ABM Treaty; however, withdrawal from the Treaty seems possible. Inter- national space law presents no obstacle to the proposed system.

**SMD legal issues will continue despite US withdrawal from space treaties**

**Hardesty 05**

(Captain David C. Hardesty was a member of the US Navy and is an expert in Law. He is also a journalist for the Navy Law Review, “Space-Based Weapons: Long-Term Strategic Implications and Alternatives”, Naval War Coll Newport, Defense Technology Information Center, 2005, pg online @ [http://handle.dtic.mil/100.2/ADA521114 //](http://handle.dtic.mil/100.2/ADA521114%20//) sc)

 There are actually few legal limitations governing the weaponization of space. The Limited Test Ban Treaty of 1963 prohibits nuclear weapon tests or any other nuclear explosion in outer space.8 The Outer Space Treaty of 1967 prohibits weapons of mass destruction in space, on the moon or other celestial bodies for any military purpose.9 Together, these treaties only limit a space based weapon if it consists of, in any way, a weapon of mass destruction other wise has the purpose of detonating a nuclear devise in space, perhaps for example togenerate an electromagnetic pulse. A third treaty, the Anti-Ballistic Missile (ABM) Treaty of1972 prohibits the development, testing, or deployment of space based components of an anti-ballistic missile system.10 However, in December 2001, President George W. Bush formallynotified the Russian government that the United States was withdrawing from the treaty. Withthis resignation, the treaty is no longer legally binding on the United States or Russia. Several other treaties and conventions including bilateral arms control agreements have a tertiary affectas far as they prohibit the United States and Russia from interfering with satellites used tomonitor treaty compliance. Though these agreements would not prohibit the development anddeployment of space weapons, they could affect the legality of using the weapons against theother nation’s space systems. Finally, the Space Liability Convention of 1972 assigns to thelaunching state responsibility for damage caused to another state by a space object.11 Thiscould prove a nuisance to any nation employing space weapons but like the ABM treaty, anation can withdraw with one year notice

# AT: Solvency- Tech not viable

**Tech fails**

**Steele 07** (David-Bachelor of Science(Physics) from the RAAF academy, “The Weaponisation of Space: Next Arms Race?”, 2008, http://www.defence.gov.au/adc/docs/publications2010/Publctns\_050310\_TheWeaponisationofSpaceNextArmsRace.pdf) np

Directed Energy Weapons are characterised by propagation of destructive energy at very high speeds. However, whilst the speed of propagation may be impressive (the speed of light), the time to achieve the desired effect may not be so impressive. If the desired effect is destruction, then enough power must be focused on a critical component of the target for some time to heat it to a point where it no longer functions. However, the desired levels of effect of DEW range from short duration interference or jamming, through to destruction. Candidate technologies for DEW range from chemical lasers through to weapons that transmit microwave energy. Directed Energy Weapons are constrained by physics. The effectiveness of the directed energy reduces in proportion to the square of the range to the target. Also, the energy would be distorted if it was to be directed through or into the earth’s atmosphere. This makes target acquisition and tracking problematic from a technical perspective. DEW also require fuel, either as a stored chemical fuel or as electrical energy. Thus, such weapons have a finite number of firings and even a finite time between firings where they require refuelling or regeneration of energy.37 Despite these technical challenges, the US continues to progress research into DEW. The airborne laser prototype38 should be demonstrated in 2009 and research continues into the space-based laser concept.39 Kinetic Energy Weapons are characterised by the use of either blast or direct collision to disable an adversaries space assets. Candidate technologies for KEW cover a wide range of options; from simple technologies such as space mines in a micro-satellite through to high technology solutions such as guns that eject Mach 10+ projectiles known as ‘Rods from God’.40 Similar to DEW, challenges faced by scientists include target acquisition and tracking, energy generation for projectile acceleration and the extremes of heating encountered if the projectile was required to enter the earth’s atmosphere. Despite these difficulties, the US continues to research these technologies under the cover of funding lines such as space control and counter-space technologies. KEW have a critical limitation; if used in space they create debris fi elds which would pose a risk to not only an adversaries’ space assets, but also to one’s own space assets.41

**Fiscal and Technological barriers block the development of a SMD layer for at least 10 years**

**Taylor 06** (Fred D., Jr, Major, USAF, “

 “The Quest for Security: The Space-Based Missile Defense Debate”, April 2006-Air University Research Management System)np

Technical Considerations. Many experts contend that the US is technologically capable of developing a space-based missile defense layer. Technical experts at the 4th Annual Missile Defense Conference most recently stated that the “requisite technologies are mature today to warrant a demonstration of on-orbit interceptors to shoot down ballistic missiles in space.”41 Furthermore, other experts believe that a space-based missile defense layer could be developed in less than a decade. One expert, Dr. Greg Canavan, an advisor to the Space Command Advisory panel, contends that a space based interceptor could be developed in as little as four years if there was a political will to do so.42 Others dispute this claim contending that depending on the type of space-based missile defenses it could take considerable time to develop and deploy it. According to Pentagon sources the technological hurdles of a system such as a space based laser are not possible before 2020 because it is hampered by the fact that there is considerable difficulty in developing lightweight lasers, mirrors, and command and control structures to operate this system in a space environment.43 There are similar concerns to a lesser extent with a space-based kinetic energy interceptor. Considering the challenges in developing the Airborne Laser, which placed a high-powered laser onboard a 747 aircraft, the step to space may be considerable. Likewise, referencing the unanticipated problems with the Ground-based Midcourse Defense (GMD) segment of the missile defense system, opponents would expect to see difficulties with a space-based interceptor layer using similar hit-to-kill interceptor technologies resulting in increased cost and time to deploy.

**No reliable launch shuttles in the status quo prevent successful deployment of SMD**

**Pfaltzgraff 09** (Dr. Robert L., Jr., President of The Institute for Foreign Policy Analysis, work encompasses alliance relations, crisis management, missile defense, the development and conduct of gaming exercises, arms control issues, and strategic planning in the emerging security environment. He holds an M.A. in international relations, a Ph.D. in political science, and an M.B.A. in international business from the University of Pennsylvania, “Space and U.S. Security: A Net Assessment”, January 2009, http://www.ifpa.org/pdf/Space\_and\_U\_S\_Security\_Net\_Assessment\_Final\_Dec15\_08.pdf)np

Currently, the sole U.S. platform for manned space flight is the Space Transport System (STS), commonly referred to as the Space Shuttle. First launched in 1981, the shuttle fleet presently includes 3 orbiters: Discovery, Atlantis, and Endeavor. In 2010, the National Aeronautics and Space Administration (NASA) plans to end the shuttle program and retire the entire fleet of orbiters. The follow-on to the Space Shuttle, named Orion, is not slated to launch until 2015. During the interim time between the retirement of the Space Shuttle and the launch of Orion, the United States will be entirely dependent on Russian manufactured Soyuz space capsules, many of which will begin to be launched from the European Space Agency’s Soyuz launch facility in French Guiana.45 In this net assessment, we note that there will be a gap in the U.S. space program unless Soyuz proves to be a satisfactory interim capability and Russia continues to cooperate with the United States in the space program. Moreover, as far as unmanned re-supplying of the International Space Station (ISS) is concerned, the 2010 retirement of the Space Shuttle will also cause a reduction in U.S. participation. Until Orion becomes operational, the ISS will depend upon the comparatively small Russian Progress46 and the large European Automated Transfer Vehicle (ATV47) for all re-supply missions. Despite a forty-year history of success, the continued reliability and safety of Soyuz has been called into question by recent failures during capsule recovery. The Soyuz mission made an emergency landing on April 19, 2008, nearly 300 miles from the initial landing site in Kazakhstan. In an accident that that may have been the result of failure of a bolt connecting the Soyuz capsule and an equipment module, causing it to disconnect improperly, astronauts were forced to endure a very steep and rough ballistic landing. This followed a similar ballistic landing in October 2007.48 Two factors are likely to contribute to emerging problems with the Soyuz capsule and associated systems. First, the Russian company that makes the capsules has historically produced only four or five single-use Soyuz capsules a year. This will need to be increased to nine or ten a year to make up for the planned 2010 retirement of the U.S. space shuttle fleet. According to James Oberg, a former NASA mission control specialist, “We’re asking a lot of the Russians—a doubling of their Soyuz production—and we may well be overstraining their capacity.” Compounding the strain on Soyuz capsule manufacturing is a shortage of qualified aerospace work­ers in Russia since the collapse of the Soviet Union. Currently, the United States has a $719 million contract with Russia for crew and payload transport services from 2007-2011 and is in the process of negotiating a second, long-term contract.49 We turn now to other gaps in space capabilities that are likely to confront the United States in the years ahead.

**Lack of sufficient funding will undermine any attempts at a successful SBMD**

**Pfaltzgraff 09** (Dr. Robert L., Jr., President of The Institute for Foreign Policy Analysis, work encompasses alliance relations, crisis management, missile defense, the development and conduct of gaming exercises, arms control issues, and strategic planning in the emerging security environment. He holds an M.A. in international relations, a Ph.D. in political science, and an M.B.A. in international business from the University of Pennsylvania, “Space and U.S. Security: A Net Assessment”, January 2009, http://www.ifpa.org/pdf/Space\_and\_U\_S\_Security\_Net\_Assessment\_Final\_Dec15\_08.pdf)np

Funding Gaps. Though significant effort has been made to study current deficiencies in missile defense and space situational awareness, the lack of funding significantly undercuts the ability of the United States to address these weaknesses—particularly missile defense. When Congressional funding is reduced, systems are developed on a much reduced scale, over a longer period of time, and often with fewer capabilities. When funding is nonexistent, technological opportunities that might help address U.S. weaknesses in space are not pursued. In these instances, short-term political preference often takes precedence over strategic necessity, technical feasibility, and long-term thinking. In Fiscal Year 2008, funding for a key missile defense system was reduced significantly. Formerly known as SBIRS-Low, MDA’s Space Tracking and Surveillance System (STSS) was appropriated $233.1 million, compared to $322 million in FY 2007—a reduction of $88.9 million, or 28 percent.57 Congress cut missile defense funding for FY 2008 to $8.7 billion, some $700 million below FY 2007 funding levels. 58 The cuts were deepest in long-term, advanced development projects, a number of which are space-based, such as STSS.59 Although some systems are being funded at reduced levels, other space technologies are not being pursued at all due to a total lack of funding. In FY 2008, funding for development of a Space Test Bed to explore the potential for space-based missile defenses (much of the technology for which was pioneered during the late-1980s) was denied entirely, although the modest $10 million request amounts to far less than one percent of MDA’s budget.60 Instead, we have limited ourselves to an even more modest $5 million appropriation for an independent study of the option of space-based interceptors in the continuing resolution that contains the DoD appropriation for FY 2009. In point of fact, as already discussed, the United States had solved crucially important technology problems associated with space-based interceptors nearly a generation ago in the Brilliant Pebbles system.

**Lack of a specialized workforce in the aerospace industry prevents sustained deployment of SMD**

**Pfaltzgraff 09** (Dr. Robert L., Jr., President of The Institute for Foreign Policy Analysis, work encompasses alliance relations, crisis management, missile defense, the development and conduct of gaming exercises, arms control issues, and strategic planning in the emerging security environment. He holds an M.A. in international relations, a Ph.D. in political science, and an M.B.A. in international business from the University of Pennsylvania, “Space and U.S. Security: A Net Assessment”, January 2009, http://www.ifpa.org/pdf/Space\_and\_U\_S\_Security\_Net\_Assessment\_Final\_Dec15\_08.pdf)np

Future Workforce Development. If current trends continue, the United States will not have the specialized workforce necessary to support future U.S. primacy in space. Indeed, there is a major crisis in the aerospace industry, both in terms of sustaining the current workforce and developing the workforce of the future. With the reductions in defense spending that followed the end of the Cold War, the United States lost over 600,000 scientific and technical aerospace jobs.68 According to the Aerospace Industries Association, total industry employment went from 1,120,800 in 1990 down to 637,300 in 2007. In the space sector alone, employment slipped from 168,500 to 75,200 over the same period of time.69 Of the employees that remained following the initial post-Cold War cuts, it is suggested that 27 percent of America’s aerospace technical workforce is now eligible for retirement. This is simply the continuation of a wave of retirements that began some time ago70 The Aerospace Industries Association contends that nearly 60 percent of the U.S.-aerospace workforce was at least 45 years old in 2007. What is significant is that because many began their careers relatively young, a large number will be eligible for retirement in the next decade. Clearly, the workforce that supported U.S. space primacy during and immediately following the Cold War will need to be replenished with the infusion of new talent. The ability of the United States to fill the void left by retirements is in question. Currently, the portion of those workers 34 or younger has declined from 32 percent in 1992 to 16 percent in 2003. About 70,000 students each year receive undergraduate degrees in engineering in the United States. Subtracting the 15,000 degrees in non-space related engineering fields (civil, automotive, mining and transportation engineers) about 55,000 graduates are qualified for aerospace work. Of those, approximately 20 percent are international students who are expected to return home upon graduation. That leaves about 44,000 graduates per year for all American companies, not only aerospace firms. Given that a single leading aerospace company expects to hire 50,000 engineers in the next five years, the challenge of replenishing the aerospace workforce becomes a challenge. It is compounded by the fact that fewer students are earning degrees in math and science—from undergraduate to doctorate—while at the same time, there is an ongoing shortage of math and science teachers. 71

**There is no risk of proliferation**

**Pfaltzgraff 09** (Dr. Robert L., Jr., President of The Institute for Foreign Policy Analysis, work encompasses alliance relations, crisis management, missile defense, the development and conduct of gaming exercises, arms control issues, and strategic planning in the emerging security environment. He holds an M.A. in international relations, a Ph.D. in political science, and an M.B.A. in international business from the University of Pennsylvania, “Space and U.S. Security: A Net Assessment”, January 2009, http://www.ifpa.org/pdf/Space\_and\_U\_S\_Security\_Net\_Assessment\_Final\_Dec15\_08.pdf)np

How extensive future proliferation will be is not certain. Excessively gloomy prognostications hold their own dangers. Portraying a future that is essentially characterized by many nations with nuclear weapons may play directly into the hands of the nuclear abolitionists, who could claim that for this reason it becomes imperative to establish norms against such proliferation. In this regard, another member pointed out that President Kennedy felt there would be 20 to 25 nations with nuclear weapons by 1975. This did not prove to be true for several reasons: it was technically difficult for nations to develop nuclear weapons (this could be less the case today), and the West was creative in its policies, e.g., the United States provided extended deterrence to allies and friends and formed alliances obviating the need to develop nuclear weapons. In fact, several nations on the verge of going nuclear reversed course. These included Argentina, Brazil, South Africa, and South Korea.

**Major barriers to effective SMDs, empirics AND threats exaggerated**

**Newhouse 1** (John, Senior fellow at the Center for Defense Information, July/August 2001, Foreign Affairs, Volume 80 No.4, "The Missile Defense Debate," MM)

L EFT TO H IM S E L F, President Bill Clinton would have preferred to negotiate major cuts in offensive nuclear weapons rather than revive the hoary argument about whether a bullet can be made to hit another bullet or whether it is a good idea even to try. Instead, he approved the National Missile Defense Act of 1999, yielding to pressure from the missile defense lobby and denying Republicans a potentially powerful political issue. At the time, he laid down four sensible criteria on which to base a deployment decision: affordability, technological readiness, responsiveness to an actual threat, and consistency with foreign policy and arms control requirements. Otherwise, there was a lot wrong with the Clinton approach, starting with the analysis of the threat but also with the Pentagon's so-called architecture. Clinton did not like it much himself. The system, most of which his successor may revive as part of something bigger, would use ground-based interceptors deployed eventually at two sites and supported by an extensive network of ground-based radars and space-based infrared sensors. It did not test well, partly because the program was hurried to meet an unrealistic and arbitrary deadline. (Only three tests were conducted; two of them failed to hit the target.) The alleged threat lay in the prospect that North Korea or Iran would be able, possibly within a few years, to threaten the United States with strategic missile systems. But within and beyond the administration, as well as within the intelligence bureaucracy itself, the threat was widely seen as greatly inflated. And much of what occurred was reminiscent of the latter 1970s, a time when Cold Warriors in and out of government exaggerated the strength of Soviet strategic forces, in part by intimidating the intelligence community and skewing the intelligence product. A major player in that era, perhaps the key player, was current Secretary of Defense Donald Rumsfeld, who in the summer of 1998 chaired a bipartisan commission mandated by Congress to examine the threat from ballistic missiles. Rumsfeld has had more to do with establishing the putative threat from North Korea and Iran than anyone else. His agenda is modest. He concentrates on just a few subjects, but these he routinely bulldozes into submission. Both the Clinton and Bush inner circles read more into the Rumsfeld Commission report of August 1999 than was there, and Clinton, of course, used it to justify moving ahead as rapidly as possible. North Korea strengthened the case by launching the Taepodong I three-stage missile over Japan six weeks after the release of the Rumsfeld report. A whiff of irony clings to this dawning of the national missile defense era. North Korea's test was a failure. The missile's third stage malfunctioned, and it failed to put the satellite payload in orbit. Also, in conducting the test, North Korea had neither telemetry nor downrange ships. So there was no way of knowing whether the re-entry vehicle survived the experience. Predictions by the U.S. intelligence community that North Korea would test the system again have not yet been borne out. Still, the Rumsfeld Commission report would have had far less impact if North Korea had not tested. The State Department's intelligence people dissented from the assessment of the threat from North Korea as constituting a danger to the United States. They felt similarly about Iran, which would have little, if any, reason to develop an outright strategic threat to the United States. The obvious targets for Iran's missile systems are Iraq, Israel, and U.S. forces in the region. Its missile systems are being designed and tested accordingly. Most of Clinton's national security apparatus feared a more imminent danger: that posed by nuclear weapons carried by terrorists or fired from ships. Once committed, Clinton should have adopted a different and broader approach to missile defense. Both the Rumsfeld Commission report and the unclassified version of a National Intelligence Estimate (NIE) that followed it were very Similar. (Members of the commission served as outside reviewers of the NIE.) Both documents showed a range of threat, of which the most imminent, credible, and dangerous involved not unfriendly ICBMs, but short- or medium-range missiles launched from sea-based platforms deployed not far from the U.S. coastline. These systems were reported to be less expensive to develop, easier to produce covertly, and probably more accurate, at least for15 or so years, than longer-range ones. The NI E went on to identify a gamut of non-missile threats, which, taken together, were described as more immediate and less expensive than developing and producing ICBMs, more easily disguised, and probably more reliable than first-generation ICBM. Language in the documents about an ICBM threat from so-called rogue states was considered by some of those involved in preparing the NIE as "red meat thrown to right wingers on the Hill." Overcoming decoys is an intractable, perhaps insuperable problem for missile defense. But the Clinton team could have seized the high ground politically by using language from the two documents to argue for matching each rung on the ladder of threat with an appropriate defensive measure. rung on the ladder of threat with an appropriate defensive measure. Specifically, they could have declared that missile defense merits an approach that is both broad and precise, since the threat is broader and more imminent than the prospect of North Korea's or Iran's developing teams in the near term, if ever. They could also have noted that all advances in technologies designed to counter threats from lesser-range missiles would benefit the development of weapons to neutralize any potential1can threat from rogue states; the technologies are complementary, not disparate. But the tail has been wagging the dog. The emphasis in spending for research and development has been on NMD instead of systems designed to defend against short- and medium-range missiles that threaten U.S. coastlines and American forces stationed abroad. Ten years after Iraq attacked U.S. forces with Scud missiles, America still lacks a so-called theater missile defense. Predictably, Bush's key advisers have taken a much darker view of the threat to the United States from long-range missile systems than did the Clinton people, who, like the president, were being shoved along by domestic politics. The dominant figures around Bush are Vice President Dick Cheney, Rumsfeld, and Deputy Secretary of Defense Paul Wolfowitz. These three are much alike-capable, knowledgeable, resourceful, experienced, well to the right of center, and hard-line on Russia, China, and arms control-strong but wrong, as some have put it. Whether Secretary of State Colin Powell can or will try to influence the direction of policy on missile defense and related issues is somewhere between uncertain and doubtful. Like Clinton, Bush will have to wrestle with cost-determining whether an expansive missile defense system can be reconciled with the administration's other programs, notably its defense budget and tax cut. Whatever approach he takes will also bump up against the tougher issue of technology. Any system would have to work the first time it was used. Overcoming countermeasures designed to defeat it is the intractable, perhaps insuperable problem. Opponents, quoting the NIE and Other authorities, cite a number of uncomplicated decoys that would be effective against an NMD system such as the one put forward by Clinton. Clinton chose not to deploy an NMD System, in part because the testing program created major doubts and the two independent reviews were sobering. "This is the most difficult thing the Department of Defense has ever tried to do," according to Philip E. Coyle, who directed the Pentagon's weapons testing from1994 until January of this year. However, the battle seems to have been joined on arms control issues and relations with other major powers. The chief concern was and should remain the sentiments of Russia, China, and U.S. allies in Europe and northeastern Asia.

**Satellite Interference prevents solvency**

**DalBello 9** (Richard, Vice President of Government Relations at Intelsat General Corporation, "Towards a Norm of No Harmful Interference," 6/15-16/2009, Space Security 2009: Moving Towards a Safer Space Environment, UNIDIR, pg. 7-8, MM)

In addition to the increase in demand for orbital slots, there is also a growing problem with the demand for satellite terminals. Mr. DalBello noted radio frequency interference has become such an issue that the Satellite Operators Radio Frequency Interference action group was started. So far, the group has determined that a combination of decreased slots, increased demand, and operator error have been the primary causes behind most episodes of interference. The satellite operators have started working on technology that would transmit identifying information for each terminal in order to be able to mitigate unintentional interference, and are increasing operator training. Mr. DalBello concluded by saying that the challenges facing satellite operators (not just commercial operators) will only increase in the next decade. The first place to start in addressing these challenges is a common data-sharing tool. Beyond that, there is much work that needs to be done, both technologically and politically. Mr. DalBello emphasized that the commercial sector is more than willing to do its share.

**International confidence and negotiations key to solve, unilateral actions won't.**

**MacDonald 9** (Bruce, Senior Director on the US Congressional Commission on the Strategic Posture of the United States, "Towards a Norm of No Harmful Interference," 6/15-16/2009, Space Security 2009: Moving Towards a Safer Space Environment, UNIDIR, pg. 8, MM)

The second speaker on the panel was Bruce MacDonald, Senior Director on the US Congressional Commission on the Strategic Posture of the United States. His talk took a broader view of space stability, as seen from a primarily US political perspective. By 2035, there will be 10 times the amount of space debris orbiting the Earth. To ensure the benefits of the use of in future decades, space stability is imperative. No stranger to this fact, the United States is increasingly willing to negotiate. The goal of these negotiations should be a stable and secure space regime. To achieve this goal, the international community will need clarity to build confidence and flexibility in negotiations. The international community members-civil, commercial and military-all stand to gain from these discussions. Mr. MacDonald also pointed out that key to these discussions will be military-to-military exchanges, of which there have not been enough so far.

**LEO implementation difficult**

**Grebenshchikov 9** (Andrey, the Third Secretary of the department for Security and Disarmament Affairs in the Russian Ministry of Foreign Affairs, "Towards a Norm of No Harmful Interference," 6/15-16/2009, Space Security 2009: Moving Towards a Safer Space Environment, UNIDIR, pg. 9, MM)

This discussion of ITU coordination with outside organizations transitioned into how the ITU could work with COPUOS. The conclusion was that the partnership would have to start in GEO matters. Collaboration in LEO matters would be difficult because of high orbital speeds, the fact that satellites are replaced frequently, and because the parameters of satellite constellations are constantly changing.

# BP Bad

BP fails- every impact creates enormous debris, killing reliability of the system

Globalsecurity.org 10 (January 11 2010, “Chinese Anti-Satellite [ASAT] Capabilities and ABM Capability” http://www.globalsecurity.org/space/world/china/asat.htm SG)

In that novel study, Westwood showed that space-based 'Brilliant Pebbles' component of the national missile defense system, sponsored by Dr. Lowell Wood (Edward Teller's protégé), of Lawrence Livermore National Laboratory, was a fundamentally flawed concept of operations because (1) it required less than one percent of the total constellation contemplated by the LLNL model to perform effectively and (2) because, like as the PRC anti-satellite event over fifteen years later, every successive, successful, kinetic-kill impact would increase the volume of an orbiting debris cloud, itself ever-more ruinous of the jth "pebble's" reliability .

# AT: Have to be First

**No advantage to being the first to weaponize space – US could catch up, and warning capabilities ensure nobody gets a large head start**

**Grego and Wright, 10** – \*Laura, senior scientist in the Global Security Program of the Union of Concerned Scientists, \*\*David, senior scientist and co-director of the UCS Global Security Program (“Securing the Skies,” Union of Concerned Scientists, Nov. 2010, www.ucsusa.org/securingtheskies)**Red**

The United States would face little risk in making such a declaration, as some other nation’s decision to be **the first to deploy an ASAT or space-based weapon would not confer a significant or lasting military advantage;** **those following the initiator could do the same soon and well enough.** Moreover, **the U**nited **S**tates **has the strongest ability to compensate for, and respond to, other countries’ development of space-related weapons.** In any case, its **advanced monitoring capabilities would allow the U**nited **S**tates **to keep track of the activities of other countries, essentially eliminating the risk that they could secretly develop and test capabilities that would pose a significant threat.** For example, **U.S. early warning satellites could detect launches of any missiles able to carry a ground-launched ASAT weapon; and the tracking of suspicious objects in orbit could be made a priority mission for the SSN, thereby limiting the number and capability of any undetected satellites.**

# SMD Defense

**SBIs are ineffective, vulnerable to ASATs, and easy to overwhelm**

**Grego and Wright, 10** – \*Laura, senior scientist in the Global Security Program of the Union of Concerned Scientists, \*\*David, senior scientist and co-director of the UCS Global Security Program (“Securing the Skies,” Union of Concerned Scientists, Nov. 2010, www.ucsusa.org/securingtheskies)**Red**

If such a large system were built and the technology worked perfectly, it would still not provide a reliable defense, for two reasons. First, **even** if the constellation of **hundreds to thousands of interceptors** described above **were in place, only one or two SBIs would be in position to reach any given launching missile in time to destroy it. Consequently, the defense could be overwhelmed by simultaneously launching multiple missiles from one location.** Second, the system could not protect itself from attacks intended to remove interceptors. Because **SBIs would be in low**-altitude **orbits** they could **easily** be **detected** **and tracked from the ground; an adversary** **would know their** current and future **locations.** **As a result, any SBI would be vulnerable to attack** by inexpensive short- or medium-range missiles. **These missiles would burn out at too low an altitude to be intercepted by the SBI, but they could loft homing ASAT weapons at it.**63 By **destroying relatively few SBIs** in this way, **an attacker** **could create a gap** in the defense **through which it subsequently** **could launch its long-range missiles.** In short, **a defense based on deploying hundreds or thousands of SBIs at enormous cost could be defeated by a handful of enemy missiles.**64

# Bodyguard Satellites Defense

**Bodyguard satellites ineffective – can’t handle multiple ASATs, weapons can avoid them, and can’t be tested**

**Grego and Wright, 10** – \*Laura, senior scientist in the Global Security Program of the Union of Concerned Scientists, \*\*David, senior scientist and co-director of the UCS Global Security Program (“Securing the Skies,” Union of Concerned Scientists, Nov. 2010, www.ucsusa.org/securingtheskies)**Red**

**Space-based “bodyguard” weapons—satellites intended to orbit near a valuable satellite and intercept an approaching ASAT weapon—would not solve the problem of keeping satellites reliably safe.** Their development and deployment could also generate new problems. Bodyguards against Space-Based Threats **Bodyguard weapons are unlikely to be effective** **against** a space-based **ASAT weapon in a “crossing orbit”**—one that crosses (or nearly crosses) the orbit of a target satellite. As the target satellite and ASAT weapon passed near the same point, **the weapon would change its orbit** slightly and attempt **to home on and collide with that satellite. Such a collision would take place at a very high** relative **speed** (roughly 10 kilometers/second) and would destroy the satellite, as **the bodyguard would not likely be able to respond in time** to intercept the crossing-orbit attack. Because the ASAT orbit change would take place shortly before the intended collision, **the U.S. space surveillance system would not have enough time to detect the change, predict the ASAT weapon’s new path, and cue the bodyguard.** Additionally, **the bodyguard’s** own **sensors would be incapable of monitoring all possible directions** an ASAT weapon might come from, **and they could not detect it at a distance great enough for the bodyguard to engage it with any confidence.** **If the bodyguard were indeed able to engage an ASAT weapon** as it approached the target satellite, **this** intercept **would** still **be unlikely to protect the satellite. The ASAT** weapon **would** merely **collide with its target** as a “shotgun blast” instead of a “bullet,” **as a large fraction of the fragmented weapon’s mass would continue orbiting along its original path.** Because **debris fragments**—even those that are one centimeter or smaller—**can cause severe damage to a satellite** at these speeds, **this** shotgun **blast could still destroy the satellite.** Another potential space-based ASAT weapon is one that is placed in the same orbit as the target satellite (called a co-orbital ASAT) or in a nearby orbit. Such a weapon would approach the target satellite relatively slowly, and when it was close enough it would attempt to destroy the satellite by, for example, exploding or shooting a burst of pellets. **While there are some scenarios in which a bodyguard might be able to defeat certain types of ASAT** attacks of this kind, **an intelligent adversary could avoid using such strategies** if it suspected the satellite’s owner might deploy bodyguards. These considerations might also induce the adversary to instead employ an ASAT weapon on a crossing orbit. As a result, **the satellite owner could not rely on bodyguards** for protection. Bodyguards against Ground-Based Threats A bodyguard satellite is also unlikely to defend against a determined adversary using ground-based ASAT weapons. The adversary could attack a target satellite in low Earth orbit (LEO)—as well as any bodyguards there—from the ground by using a missile that lofted a homing weapon to the altitude of the target satellite but did not place the weapon in orbit. Because the launcher would not need to reach the high speeds needed to get the ASAT weapon in orbit, the attacker could use a relatively inexpensive medium-range missile to loft it.56 **If the bodyguard were designed to intercept a ground-based ASAT-weapon launcher in boost phase, it could not do so—the medium-range missile’s boost phase would end too quickly to be targeted** from space. In any event, **because the launcher would be relatively inexpensive**, and the target satellite (if it merited such an attack) would likely be quite valuable, **the attacker could launch multiple ASAT weapons at the same time so as to overwhelm the bodyguards.**57 **Moreover, the limited ability to test bodyguards under diverse real-world scenarios would provide little confidence in their effectiveness.**

# Space Weapons Bad

**Space weapon development escalates international tensions and risks turning space collisions into wars**

**Grego and Wright, 10** – \*Laura, senior scientist in the Global Security Program of the Union of Concerned Scientists, \*\*David, senior scientist and co-director of the UCS Global Security Program (“Securing the Skies,” Union of Concerned Scientists, Nov. 2010, www.ucsusa.org/securingtheskies)**Red**

Second, **the innate vulnerability and growing value of satellites may render them increasingly attractive targets in a conflict.** **Satellites are susceptible to deliberate attack** **because they** follow predictable orbits, have limited protections, are widely visible from the ground, and **represent a long-term loss of capability**—at present, **repair is unlikely and replacement is costly** and time-consuming. And with time, more countries will acquire the technical abilities to attack and interfere with satellites. **This is particularly likely in that** **a number of emerging technologies,** such as hit-to-kill missile defense interceptors and a spacecraft’s ability to rendezvous with another without its cooperation, **are “dual-use”—applicable to peaceful and aggressive uses** alike. While a satellite owner would certainly protest the deliberate or careless interference with its asset, satellites do not currently have clearly elaborated legal protections nor is there a systematic process for addressing grievances.5 Third, **threats to satellites can amplify the risks of other undesirable outcomes, such as the creation or escalation of terrestrial crises.** **The development of ASAT capabilities by one country could create enough suspicion and tension to spur the development of ASAT weapons by others.** Because so much of satellite and space-launch technology is dual-use, **development of space systems would increase the chances of dangerous misinterpretations, especially in the absence of clearly stated policies and meaningful communication between countries.** Moreover, **if ASAT weapons are being developed and tested, the loss of an important satellite during a time of political tension could be interpreted**—rightly or wrongly—**as an attack. Quickly determining the reason for the satellite’s disruption might be difficult or impossible, and this** incomplete information together **with the absence of reliable channels for communication** between countries that are not close allies **could exacerbate the crisis** even further, **possibly leading to its escalation. Recent “war game” conflict simulations confirm that such a satellite loss could have very serious consequences.**6

**Space weapons are ineffective, but their development leads to prolif, and prevents space cooperation by escalating international tensions**

**Grego and Wright, 10** – \*Laura, senior scientist in the Global Security Program of the Union of Concerned Scientists, \*\*David, senior scientist and co-director of the UCS Global Security Program (“Securing the Skies,” Union of Concerned Scientists, Nov. 2010, www.ucsusa.org/securingtheskies)**Red**

**Developing the ability to dominate space** in this way **against a determined adversary is not realistic,** however. **For a host of practical and technical reasons,** the proposed new missions—controlling the use of space via destructive **ASAT** weapons13 and **satellite-defending weapons and** attacking ground targets and **ballistic missiles from space—would be ineffective, unreliable, or cost-ineffective** when compared with other options. (See the Appendix for a summary of this argument; for an extensive discussion, see Gallagher and Steinbruner 2008 and Wright, Grego, and Gronlund 2005.) At the same time, **U.S. pursuit of new space weapons would be counterproductive. Even while understanding the weaknesses of these systems, other countries may still view their development—and the intentions behind their development—as threatening, since even nominally defensive weapons have intrinsic offensive capabilities. Such a U.S. effort could therefore generate tensions and spur some of these countries to pursue space weapons of their own. It also could undermine the cooperation needed to solve some of the most pressing day-to-day risks in space and the diplomatic efforts for best addressing longer-term issues.**

# Defensive Space Weapons Bad

**Defensive space capabilities still generate an arms race and increase the risk of conflict – they are perceived as offensive**

**Grego and Wright, 10** – \*Laura, senior scientist in the Global Security Program of the Union of Concerned Scientists, \*\*David, senior scientist and co-director of the UCS Global Security Program (“Securing the Skies,” Union of Concerned Scientists, Nov. 2010, www.ucsusa.org/securingtheskies)**Red**

**It would be unwise** in any case **for the U**nited **S**tates **to rush into developing satellite defenses, which could have the counterproductive effect of increasing the risks of deliberate attack or inadvertent interference.** An example is the potential deployment of **active defenses** such as “bodyguard” satellites, which, as discussed below, **could have offensive capabilities that might spur the development of similar technologies by other countries.**

**Defensive space weapons are perceived as developing offensive capabilities – that leads to space prolif, undermines international cooperation, and increases the risk of conflict**

**Grego and Wright, 10** – \*Laura, senior scientist in the Global Security Program of the Union of Concerned Scientists, \*\*David, senior scientist and co-director of the UCS Global Security Program (“Securing the Skies,” Union of Concerned Scientists, Nov. 2010, www.ucsusa.org/securingtheskies)**Red**

**Active defenses** have been suggested as another way of protecting satellites from deliberate attacks. These options usually focus on space-based bodyguard weapons that would accompany a high-value satellite and attempt to intercept incoming ASAT weapons. However, such weapons **would not be reliably effective at defending a satellite from a determined adversary, which would likely have many different modes of attack and repeated opportunities to employ them.** (This point is discussed in more detail in the Appendix.) Moreover, **because of the** maneuvering and homing **features that bodyguard weapons would need** in order to attempt interceptions, **they could possess inherent ASAT capabilities. Other countries would find the U.S. pursuit of such capabilities threatening, just as the United States would view these kinds of efforts by other countries.** As a result, **these defenses would be counterproductive.** **While failing to provide an effective response to military threats, they could increase tensions with other countries and create incentives for them to pursue similar weapons.** The **development of active defenses,** if seen as providing an offensive capability, also **could undermine the diplomatic efforts and coordinated actions needed to solve some of the most pressing day-to-day threats in space.**

# ASATs Bad

**US ASAT development leads to proliferation and increases the risk of ASAT use and conflict escalation**

**Grego and Wright, 10** – \*Laura, senior scientist in the Global Security Program of the Union of Concerned Scientists, \*\*David, senior scientist and co-director of the UCS Global Security Program (“Securing the Skies,” Union of Concerned Scientists, Nov. 2010, www.ucsusa.org/securingtheskies)**Red**

**Developing offensive capabilities to damage or destroy an adversary’s satellites, and reserving the right to use such weapons, would be contrary to U.S.** self **interests.** **Because** **targeting satellites is much easier than defending them,** **a world without constraints on interfering with satellites would necessarily be riskier for all countries’ space operations. Satellites are inherently vulnerable** to various kinds of **attack,** both from space and the ground, as they move in predictable and repeated orbits and generally are visible to much of Earth. For example, Earth-monitoring satellites follow low-altitude orbits and circle from pole to pole while the planet turns beneath them, permitting them to view (and be viewed by) each spot on Earth twice a day. **A determined adversary would** thus **have multiple opportunities, as well as a variety of means, to interfere with a given satellite. While the U**nited **S**tates **would likely possess the most sophisticated versions, other countries could also develop ASAT weapons. By developing such weapons and hence legitimizing their use, the U**nited **S**tates **could increase the risk that these kinds of technologies would be used** against its own satellites. Moreover, **pursuing offensive weapons could undermine the efficacy of diplomatic and cooperative initiatives to solve other space issues. The existence of ASAT weapons might lead to the inadvertent escalation of a crisis.** **If a satellite failed, it could be difficult or impossible for a country to quickly determine the reason for the failure. If the event occurred during a time of political tension, it could very well be interpreted as an attack** even if it were due to natural causes, such as an electronic malfunction or a collision with debris.

# SMD Bad

**Space based missile defense is ineffective, but leads to space prolif – it is perceived as US space militarization**

**Grego and Wright, 10** – \*Laura, senior scientist in the Global Security Program of the Union of Concerned Scientists, \*\*David, senior scientist and co-director of the UCS Global Security Program (“Securing the Skies,” Union of Concerned Scientists, Nov. 2010, www.ucsusa.org/securingtheskies)**Red**

**Space basing is a poor choice for many kinds of weapons.** For example, **ground-attack weapons based in space would be 50 to 100 times more costly than ground-based alternatives** with comparable delivery times, as discussed in the Appendix. Similarly, **a system for defending against** only one or two **ballistic missiles** launched from the main geographic regions of concern **would be enormously expensive because hundreds of interceptors** in space **would be required.** E**ven then, the system would fail to provide a reliable defense.** (Space-based missile defenses are discussed in more detail in Step 3.) While there may be other missions that military leaders believe would be better suited to space-based weapons, **the marginal military capability that the U**nited **St**ates **might gain from these missions must be weighed against the substantial costs.** **Pursuing such weapons would legitimize those uses of space and encourage other countries to develop similar capabilities, which could subsequently be used against the U**nited **S**tates. **Even if never used, these capabilities could increase tensions and hinder the coordination and cooperation needed for the international community to solve pressing problems in space. The U**nited **S**tates **would gain much by publicly stating its intent not to deploy space-based weapons. Making such a statement would not lock the U**nited **S**tates **into a position of inferiority, as it would imply the reconsideration of U.S. plans if another country started to place weapons in space. Moreover, the U**nited **S**tates **has the capability to catch up quickly.** In short, **it is not in the U.S. interest** either **to lead in the weaponization of space** or to be encouraging others to do so by a lack of clarity about its position.

**Space-based missile defense leads to space prolif – perceived as an offensive capability and seen as legitimizing space weapons**

**Grego and Wright, 10** – \*Laura, senior scientist in the Global Security Program of the Union of Concerned Scientists, \*\*David, senior scientist and co-director of the UCS Global Security Program (“Securing the Skies,” Union of Concerned Scientists, Nov. 2010, www.ucsusa.org/securingtheskies)**Red**

**A U.S. decision to develop and test space-based interceptors** (SBIs) **would be problematic for space security. A space-based ballistic missile defense system,** even if eventually built, **could not reliably provide such a defense. However, developing the technology for it could spur other countries’ pursuit of similar capabilities** or of systems intended to counter the SBI. **This would pose a risk to U.S. satellites as well as legitimize the development and deployment of space weapons.** Because **a space-based missile defense system requires very large numbers of orbiting interceptors** to defend against even a single ballistic missile, **and** because such a system **has intrinsic vulnerabilities that undermine its effectiveness,** the United States is not likely to attempt to build such a system in the foreseeable future (see the Appendix for a discussion of these issues). However, political pressures may create an incentive for a compromise that would support development and deployment of a handful of interceptors in a “space test bed.” The Missile Defense Agency (MDA) has proposed such a program24 in recent years, and space-based interception continues to be discussed as part of a “layered” missile defense. While Congress has consistently declined to fund the Space Test Bed program and the Obama administration has not requested money for it, no official positions have been articulated that constrain space-based interceptors (SBIs) as an option. **Even fielding a few SBIs under the guise of research and development** in a program such as the Space Test Bed **would be problematic** for at least three reasons. First, **putting an interceptor in space would cross a significant threshold. It would for the first time place a dedicated weapon in orbit,** effectively preempting broader congressional decision making about the wisdom of deploying space-based weapons. Second, **while SBIs may nominally be defensive, they are also suited to offense; by their nature they would have or could be modified to have the ability to intercept satellites.** The large amount of thrust an interceptor needs to perform boost-phase missile defense from space means that the interceptors could reach and attack satellites in geosynchronous orbit in addition to those in lower orbit. Understanding that a full space-based missile defense is unlikely to be built in the foreseeable future and that it would be vulnerable to attack if it were built, **an adversary might reasonably assume that the real purpose of developing SBIs was to attack satellites.** And third, **if a working space-based missile defense system were built, it could be used to target space launchers as well as ballistic missiles. Thus pursuit of such a system would raise questions about U.S. intentions, particularly regarding the United States’ interest in controlling access to space.** Some **countries could certainly see the system’s capability as threatening, not defensive. Their concerns might induce them to preemptively attack the SBI, pursue the means to do so, or develop similar systems for themselves.**

# Bodyguard Satellites Bad

**Bodyguard weapons lead to space militarization – they would lead to countermeasures by other countries**

**Grego and Wright, 10** – \*Laura, senior scientist in the Global Security Program of the Union of Concerned Scientists, \*\*David, senior scientist and co-director of the UCS Global Security Program (“Securing the Skies,” Union of Concerned Scientists, Nov. 2010, www.ucsusa.org/securingtheskies)**Red**

**Despite its inability to provide an effective defense,** **a nominally defensive bodyguard weapon could have intrinsic offensive capability against other satellites as a result of its homing features. Other countries would certainly recognize or assume this. Therefore their reaction, including the development of similar weapons, could result in a more dangerous space—and geopolitical—environment.**

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