St. Mark’s TS Disadvantages (1/23/12)

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DA Politics

## 1NC Shell – Cybersecurity

**Cybersecurity is a top priority – ground work being laid for passage**

**Cedarbaum et. al 1/19** --- partner at WilmerHale (Jonathan Cedarbaum, Benjamin A. Powell, Randolph D. Moss, Steven P. Lehotsky, Jason C. Chipman And J. Beckwith Burr, “United States: Cybersecurity And The Law: What To Expect In 2012,” http://www.utilityproducts.com/news/2012/01/1586561284/united-states-cybersecurity-and-the-law-what-to-expect-in-2012.html)

5. Federal Legislative Proposals

Both the President and congressional leaders have identified enhanced cybersecurity as a top legislative priority for 2012. While cybersecurity bills have been considered in each of the last several sessions of Congress, none has gotten very far. We expect 2012 to be different.

Here are some highlights of the unfolding legislative developments:

In May 2011, President Obama set out a 10-point legislative proposal that collected elements of many earlier bills, including a federal data breach notification requirement; new requirements for companies in "critical infrastructure" sectors, such as energy, telecommunications, and finance; opportunities for greater information-sharing, within the private sector and between the private sector and the federal government about cyber threats; and enhanced authority for the Department of Homeland Security to protect federal systems and assist the private sector.14

In October 2011, a House Republican Cybersecurity Task Force issued a report and set of recommendations. Those included incentives to encourage businesses to improve their cybersecurity precautions, requirements for owners and operators of critical infrastructure, establishment of a non-governmental clearinghouse for information-sharing about cyber threats and responses, and creation of a litigation safe harbor for cybersecurity information-sharing activities.15 That same month, at the Administration's initiative, officials from a number of national security agencies gave a series of classified briefings on the Hill designed to press for prompt action on cybersecurity legislation.

In November 2011, Senate Majority Leader Harry Reid sent an unusual letter to Minority Leader Mitch McConnell declaring publicly that "[g]iven the magnitude of the threat and the gaps in the government's ability to respond, we cannot afford to delay action on this critical legislation. For that reason, it is my intent to bring comprehensive cybersecurity legislation to the Senate floor for consideration for the first Senate work period next year."16 The same day, a number of the leading Republican Senators on the relevant committees sent a letter to President Obama expressing their commitment to move forward on cybersecurity legislation, but cautioning that they favored focusing first on spurring better information-sharing about threats, strengthening protection of the government's own systems, and stiffening penalties for cybercrimes.17 Senators Reid and McConnell have set up a bipartisan cybersecurity working group in an effort to bring together the leaders of the several committees with jurisdiction and avoid the jurisdictional squabbling that has hindered earlier legislative efforts.

The bill that moved forward with the seemingly greatest odds of success near the end of the last session of Congress was one approved by the House Permanent Select Committee on Intelligence on December 1, 2011 by a bipartisan vote of 17-1. Here is a summary:

H.R. 3523, Cyber Intelligence Sharing and Protection ActWould give companies access to data from the National Security Agency and other intelligence agencies to help protect their networks.Would immunize companies using such data and cybersecurity providers who assist them from liability for good faith using or sharing of such information in aid of cybersecurity efforts.Would authorize expedited and temporary security clearances.Includes an express preemption of contrary State laws.18

The House Homeland Security Committee considered its own bill at a hearing on December 6, 2011. Introduced shortly thereafter, the bill would provide:

H.R. 3674, Promoting and Enhancing Cybersecurity and Information Sharing Effectiveness ActWould give the Department of Homeland Security (DHS) the lead role in protecting federal and critical infrastructure systems.Would create non-profit National Information Sharing Organization, with a majority-private board, to serve as a national clearinghouse for information on cyber threats and defenses.Would direct DHS and NIST to develop sector-specific security standards.19

With the start of the new congressional session, it is unclear whether either of these bills, or some composite, will move forward to the House floor. Even if one does, it is not at all clear whether the Senate will wait for a House bill to come over. More likely, the Senate will move ahead on a bill or set of bills of its own.

The bill that has previously received the greatest attention in the Senate comes from the Homeland Security and Government Affairs Committee. Approved by the Committee in 2010, it never reached the floor. A revised version received a hearing in May 2011:

S. 413, Internet Freedom ActWould create an Office of Cyberspace Policy in the Executive Office of the President.Would require owners of "covered critical infrastructure" to report network breaches to National Center for Cybersecurity and Communications (NCCC) within DHS.Would authorize NCCC to establish regulations for "risk-based security performance requirements to secure covered critical infrastructure against cyber risks through the adoption of security measures that satisfy the security performance requirements identified by the Director."Would authorize President to declare national cyber emergency.Upon a declaration, the NCCC would direct owners of affected critical infrastructure to implement response plans.For the duration of the emergency, owners would be required to comply with emergency measures developed by the NCCC.Would limit liability for owners' actions taken to implement measures resulting from a declaration of emergency.20

A collection of draft bills are currently circulating among Senators and their staffs. They include proposals addressing the areas that seem most likely to gain substantial support in the Senate.21 Those are:

New institutions to promote information-sharing about cyber threats and responses, both between the private sector and the federal government, particularly intelligence and law enforcement agencies, and among private companies, along with liability protections for these activities;Additional authorization for sector-specific public-private collaborations, like one already underway with defense contractors;Strengthened and centralized authorities for protecting federal information systems; andEstablishment of federal requirements (or incentives) for cybersecurity plans by businesses in critical infrastructure sectors.

**Political capital is key – ensures movement on legislation**

**Packel 11** (5/15/2011, Eric A., “Will There Finally be a U.S. National Data Breach Law?” www.databreachlegalwatch.com/2011/05/will-there-finally-be-a-u-s-national-data-breach-law/)

While massive data breaches, such as the recent Sony PlayStation breach, continue to make headlines, there is no national data breach law applicable to all U.S. businesses. Rather, businesses in the United States must now navigate a minefield of 46 different state laws. With the Obama Administration flexing some political muscle, this could all change in the near future.

The White House recently unveiled a comprehensive Cybersecurity Proposal (.pdf) that includes rules and regulations for U.S. businesses in the event of a data breach. Although national data breach legislation has been proposed in the past, such bills have typically languished in committee.

The proposed data breach law (.pdf) would apply to businesses that collect sensitive personally identifiable information (“SPII”) on at least 10,000 individuals within a 12-month period. In the event of a breach, notification to affected individuals must be made within 60 days and media notification would be required when the number of affected individuals exceeds 5,000 in any state. The 5,000 threshold also triggers notification to the Department of Homeland Security.

Significantly, the proposal includes a risk-based safe harbor. If an entity determines there is no reasonable risk of harm from the breach, there is no obligation to notify. The national law would supersede any state data breach laws and also carve out businesses that are subject to the HITECH breach notification requirements based on their status as a covered entity or business associate.

In the past, pro-business lobbyists have sought to thwart national data breach legislation. This tactic is puzzling, since many of those businesses are already subject to the 46 different state data breach laws. A national standard that preempts state law would seem to provide more clarity and ease of compliance than dozens of laws, with different notification triggers and different definitions for what is considered a breach.

Perhaps the teeth in proposed national legislation is the real worry to businesses. Many of the state laws lack statutory penalties or enforcement provisions for non-compliance. The Obama Administration proposal (.pdf) not only calls for enforcement by the Federal Trade Commission, but also allows state attorneys general to bring civil actions and seek fines of up to $1,000.00 per day, per affected individual, up to a maximum of $1 Million per violation.

Coming on the heels of both the Epsilon and Sony PlayStation breaches, it would not be surprising if the new proposal finds some traction in Congress. Political winds change quickly though, so the current momentum towards such legislation may not last. We will be watching this closely.

**Outweighs a nuclear holocaust – several independent scenarios**

**McCleskey 11** (3/29/2011, Clayton M., “More questions than answers on cyber security,” http://dallasmorningviewsblog.dallasnews.com/archives/2011/03/worried-that-yo.html)

I knew the threat from cyber warfare was serious, but I didn't put it up there on the same level as a nuclear holocaust. Until today. Speaking this morning in Washington, former national security advisor Brent Scowcroft compared the cyber threat to the danger posed by nuclear weapons during the Cold War. He said, "Cyber has the same capabilities," before adding that actually, "in many ways it's more daunting."

At a conference hosted by Georgetown University and the Atlantic Council, Scowcroft joined with policy makers and defense experts to debate how the U.S. can better handle security in cyberspace.

Texan Congressman Mac Thornberry warned that "our laws, policies and regulations are not keeping up with the challenge" posed by cyber threats, adding, "while we fiddle, our vulnerability continues to grow."

"What is the responsibility of the Department of Defense to defend the private sector?" asked Thornberry. "If we have a fleet of bombers coming to bomb the Houston ship channel, it's pretty clear," he said. But what about WikiLeaks attacking Visa and MasterCard? The answer is less clear.

Lest anyone in the audience failed to grasp just how big - and potentially dangerous - the Internet is, Lieutenant General Charles Croom - former director of the Defense Information Systems Agency - said: "It is the most disruptive thing for our species since European man's discovery of the Western hemisphere."

Move over, Columbus. You've been replaced by Facebook.

Cyber threats come in all shapes in sizes. There are full-blown attacks, mere disruptions and then your standard data nabbing. A full-on attack could be devastating. The Los Angeles Times delivers this account about how easy it was for one hacker to break-in to the system that controls LA's drinking water. The danger is very real:

Terrorist groups such as Al Qaeda don't yet have the capability to mount such attacks, experts say, but potential adversaries such as China and Russia do, as do organized crime and hacker groups that could sell their services to rogue states or terrorists.

U.S. officials say China already has laced the U.S. power grid and other systems with hidden malware that could be activated to devastating effect.

When it comes to countries - like China - going after the American government's data, former National Security Agency and CIA director, General Michael Hayden said we shouldn't be so outraged. "Adult nations steal information from each other," he said. It's up to us to figure out how to secure our secrets.

As if all that wasn't scary enough, the threat is not just that foreigners will e-attack or that homegrown computer-geeks-turned-cyber-warriors will target the American government. Hayden warned that we also have to worry about so-called "cyber patriots," American hackers that take defense policy into their own hands by launching attacks on foreign governments.

The conference came up with more questions than answers. So it was fitting that Hayden wrapped up the panel discussion by calling for a national dialogue on cyber security, privacy and how the U.S. government plans to face this ever-changing challenge.

The general warned, "The game is on."

**OR**

**Cyber-attacks jack U.S. satellites necessary for climate and environmental monitoring**

**Johnson 10/28** (Nicole Blake Johnson, 10/28/2011, “Cyber attacks targeted U.S. satellites,” http://www.federaltimes.com/article/20111028/IT01/110280301/)

Cyber hackers "achieved all steps required to command" a NASA satellite, which put the satellite at risk of being destroyed or damaged, according to a draft report by the U.S.-China Economic and Security Review Commission.

The Terra EOS AM-1 satellite, used to study climate and environmental changes, experienced nine or more minutes of interference in October 2008, according to the draft report, obtained by Federal Times.

The report also notes an earlier incident in June 2008 when the NASA satellite experienced two or more minutes of interference. The report did not say explicitly that the hackers were Chinese, but it said the techniques of the hackers "appear consistent with authoritative Chinese military writings."

A final version of the report will be sent to Congress on Nov. 16.

NASA spokesman Trent Perrotto confirmed that there was a "suspicious event" with the spacecraft in the summer and fall of 2008, but no data was manipulated.

Perrotto said no commands were successfully sent to the satellite, but NASA could not say whether hackers gained command of the satellite. NASA notified the Defense Department of the incidents, he said. DoD is responsible for investigating any attempted interference with satellite operations.

The draft report noted that hackers did not issue commands to the satellite, but the interference "poses numerous potential threats."

For example:

• Access to a satellite‘s controls could allow an attacker to damage or destroy the satellite.

• The attacker could deny or manipulate the satellite‘s transmission.

• An attacker could reveal the satellite‘s capabilities or information, such as imagery, gained through its sensors.

The U.S. Geological Survey was also a victim of cyber attacks, the report said.

**Key to solve warming**

**Lewis et al 10** [James A., Director and Senior Fellow, Technology and Public Policy Program – CSIS, Sarah O. Ladislaw, Senior Fellow, Energy and National Security Program – CSIS, Denise E. Zheng, Congressional Staffer - Salary Data, “Earth Observation for Climate Change,” June, <http://csis.org/files/publication/100608_Lewis_EarthObservation_WEB.pdf>]

Climate change will have pervasive and unavoidable effects on economic and national security. Managing these consequences and mitigating them when possible are new and difficult tasks for governments. Progress in mitigating and adapting to climate change will require the world’s countries to agree to coordinate their actions. Reaching such agreement will be no easy task. That said, climate change offers a unique opportunity for the United States to engage other nations in pursuing common interests and addressing future challenges. Not only is the United States well positioned to lead on this issue because of its significant space and scientific capacity, it also faces global expectations that it should shoulder the leadership burden for climate change. A commitment to building the space and information infrastructure needed to manage climate change could demonstrate the U.S. leadership, based on competence and advancing the global good, that the world respects and admires. Operationalization is the next step for dealing with climate change—to make the data and knowledge generation by satellites and science easier to use in policymaking. Operationalization requires a new approach. Climate change has largely been an issue of science. The existing vehicles for international cooperation and data sharing are aimed at the scientific community. Effective global management of climate requires a new approach with three integrated elements—space, networks, and collaboration. Our belief is that a concerted effort to analyze and share data from the many national efforts could significantly advance our understanding of the risks and causes of climate change, better measure the effects of mitigation policies, and guide planning on how to adapt to changes in the environment. Achieving such a concerted effort will require coordination must occur on several different levels if it is to have a meaningful effect. The first—the collection and measurement of relevant data—depends largely on satellites. Without the proper data, it would be very difficult to develop and aggregate a global picture of climate change and its nature and pace. It would be difficult to measure the effects of mitigation efforts, determine when or whether policies are effective, or predict when and how climate effects will affect local communities. The second level is to expand the analysis and sharing of information. In some ways, we are only in the early stages of developing a global enterprise for assessing climate change. Much of the research and analysis conducted thus far has been focused on understanding the nature and pace of climate change, forecasting future changes in Earth’s natural systems based on changes in different variables, and substantiating theories about how human efforts to reduce the effects of climate change might actually have some effect. More work is needed in each area to improve our understanding and update it as the natural environment continues to change. Finally, data must move from the scientific community to the policy community—to governments and policymakers—if data are to guide change. While the UN’s Intergovernmental Panel on Climate Change tailored analysis to meet policymakers’ needs in the hopes of reaching a global consensus for action, the challenge today is to extend and strengthen connections between the science and policy communities. A coordinated multinational effort to better inform the policy process can change this. Our belief is that a concerted effort to analyze and share data from the many national efforts could significantly advance our understanding of the risks and causes of climate change, better measure the effects of mitigation, and guide planning on adapting to changes in the environment. To this end, our recommendations follow: The U.S. approach to climate change policy needs to inform decisionmakers and planners in both government and the private sector by providing understandable metrics and analyses of the effectiveness of, and compliance with, mitigation programs and adaption plans. The customers for this should include federal agencies, state and local governments, private sector users, and other nations. To better serve the national interest, the United States should increase its Earth observation capabilities—especially space-based sensors for carbon monitoring—to improve our ability to understand the carbon cycle and to inform any future international agreement. This means that until these capabilities are adequate for monitoring climate change, investment in Earth observation satellites should take precedence over other space programs. Increased spending on earth observation satellites specifically designed for climate change should be maintained until the current capability shortfall is eliminated.

**Warming leads to extinction – action now is key**

**Brown 8** [Lester E. Brown, Masters in AE from Maryland and Masters in Econ from Harvard, Director and Founder of the global institute of Environment in the U.S, “Plan B 3.0: Mobilizing to Save Civilization”]

In 2004, Stephen Pacala and Robert Socolow at Princeton Uni¬versity published an article in Science that showed how annual carbon emissions from fossil fuels could be held at 7 billion tons instead of rising to 14 billion tons over the next 50 years, as would occur with business as usual. The goal of Pacala, an ecol¬ogist, and Socolow, an engineer, was to prevent atmospheric CO2 concentrations, then near 375 ppm, from rising above 500 ppm. They described IS ways, all using proven technologies, that by 20S4 could each cut carbon emissions by 1 billion tons per year. Any seven of these options could be used together to pre¬vent an increase in carbon emissions through 2054. Pacala and Socolow further theorize that advancing technology would allow for annual carbon emissions to be cut to 2 billion tons by 2104, a level that can be absorbed by natural carbon sinks in land and oceans. The Pacala/Socolow conceptualization has been extraordi¬narily useful in helping to think about how to cut carbon emis-sions. During the three years since the article was written, the urgency of acting quickly and on a much larger scale has become obvious. We also need now to go beyond the conceptu¬al approach that treats all potential methods of reducing carbon emissions equally and concentrate on those that are most prom¬ising. Researchers such as James Hansen, a leading climate scien¬tist at NASA, believe that global warming is accelerating and may be approaching a tipping point, a point at which climate change acquires a momentum that makes it irreversible. They think we may have a decade to turn the situation around before this threshold is crossed. I agree.?3 We often hear descriptions of what we need to do in the decades ahead or by 2050 to avoid "dangerous climate change," but we are already facing this. Two thirds of the glaciers that feed the Yellow and Yangtze rivers of China will disappear by 2060 if even the current 7 percent annual rate of melting con¬tinues. Glaciologists report that the Gangotri glacier, which supplies 70 percent of the ice melt that feeds the Ganges River during the dry season, could disappear entirely in a matter of decades.74 What could threaten world food security more than the melt¬ing of the glaciers that feed the major rivers of Asia during the dry season, the rivers that irrigate the region's rice and wheat fields? In a region with half the world's people, this potential loss of water during the dry season could lead not just to hunger but to starvation on an unimaginable scale. Asian food security would take a second hit because its rice¬-growing river deltas and floodplains would be under water. The World Bank tells us that a sea level rise of only 1 meter would inundate half of the riceland in Bangladesh. While a 1-meter rise in sea level will not happen overnight, what is worrisome is that if ice melting continues at today's rates, at some point such a rise in sea level will no longer be preventable. The melting that would cause this is not just what may happen if the earth's tem¬perature rises further; this is something that is starting to hap¬pen right now with the current temperature. As summer neared an end in 2007, reports from Greenland indicated that the flow of glaciers into the sea had accelerated beyond anything glaciologists had thought possible. Huge chunks of ice weighing several billion tons each were breaking off and sliding into the sea, causing minor earthquakes as they did so.!6 With melt-water lubricating the surface between the glaciers and the rocks on which they rested, ice flows were accelerating, flowing into the ocean at a pace of 2 meters an hour. This accel¬erated flow, along with the earthquakes, shows the potential for the entire ice sheet to break up and collapse?? Beyond what is already happening, the world faces a risk that some of the feedback mechanisms will begin to kick in, fur¬ther accelerating the warming process. Scientists who once thought that the Arctic Ocean could be free of ice during the summer by 2100 now see it occurring by 2030. Even this could turn out to be a conservative estimate.78 This is of particular concern to scientists because of the albedo effect, where the replacement of highly reflective sea ice with darker open water greatly increases heat absorbed from sunlight. This, of course, has the potential to further accelerate the melting of the Greenland ice sheet. A second feedback loop of concern is the melting of per¬mafrost. This would release billions of tons of carbon, some as methane, a potent greenhouse gas with a global warming effect per ton 25 times that of carbon dioxide.79 The risk facing humanity is that climate change could spiral out of control and it will no longer be possible to arrest trends such as ice melting and rising sea level. At this point, the future of civilization would be at risk. This combination of melting glaciers, rising seas, and their effects on food security and low-lying coastal cities could over¬whelm the capacity of governments to cope. Today it is largely weak states that begin to deteriorate under the pressures of mounting environmental stresses. But the changes just described could overwhelm even the strongest of states. Civilization itself could begin to unravel under these extreme stresses.

**OR**

**Allowing greenhouse gas emissions is a moral choice—the impact is extinction and ethical obligations**

**Nety 11**—writer at Triple Helix, a blog at Cornell University (Suchita, 29 January 2011, “Climate Change: An Ethical Perspective on Mitigating its Impact,” http://triplehelixblog.com/2011/01/climate-change-an-ethical-perspective-on-mitigating-its-impact/, RBatra)

Climate change, the shifting temperature of the earth due to amplified levels of atmospheric greenhouse gases (GHGs) from fossil fuels and deforestation, is currently a topic of heated discussions worldwide. In 2007, the Intergovernmental Panel on Climate Change, a United Nations organization, stated that “warming of the climate system is unequivocal” [1].

GHGs persist in the atmosphere for hundreds of years [2]. Climate change is thus a very unique issue as its effects transcend time and space: GHGs emitted now in any location will affect the whole planet for many generations to come. Therefore, the generation that knowingly creates negative climate change should make every effort to reduce that impact; this represents a moral choice.

The Kyoto Protocol of 1998 was organized to develop limits that would stabilize levels of GHGs [3]. However, the United States decided not to ratify the Kyoto Protocol. The main debate focused on concerns for the economy over climate change. This consideration is still the focus of climate change policy. For example, in response to a proposal to reduce GHGs by the United States Environmental Protection Agency, this statement reflects the sentiment of a large majority of climate change policy opponents:

“The estimated costs [of the proposal] are staggering. So is the sweep of regulations that could severely affect nearly every major energy-using product from cars to lawnmowers, and a million or more businesses [which will be forced to curb emissions] and buildings of all types. And all of this sacrifice is in order to make, at best, a minuscule contribution to an overstated environmental threat” [4].

Two issues are brought up in this statement: first, that the proposed policy was considered on an economic level only, and second, that the consequences of the human role in climate change are overestimated. An ethical perspective renders both of these claims irrelevant.

Climate change has tremendous impact because it is the result of a vast network of interconnected environmental structures: “The whole earth is an interactive system,” states Professor Bill McGuire of University College London [5]. While the effects on a yearly timescale might be small, the effort and time required to change the trends will be enormous. While most of the public attention for climate change has focused on rising average global temperatures, other effects are equally hazardous. These include ocean acidification; ice sheets melting; more frequent and severe weather events like fires, flooding, and storms; drastic changes in rainfall and drought patterns; and highly altered life cycles of species [2, 6].

The largest share of GHG emissions are those of developed nations: since 1850 the United States and Western Europe together have contributed to more than fifty six percent of GHG emissions [7]. However, the developing nations bear the staggering consequences as they are highly populous and therefore suffer a disproportionate impact of the adverse effects. Higher temperatures can lead to an increase in parasites which are especially devastating in areas with large populations highly susceptible to disease. Extreme weather can affect poor countries like Malawi in southeastern Africa that rely disproportionately on agricultural productivity – 40% of economic activity [8].

However, while the consequences that developing nations suffer are indeed harsh, data collected from numerous expeditions illustrates that the most serious victims of climate change are also the most ignored: all the other species of the earth [9]. While humans are highly developed organisms and can adapt to changes in environment relatively easily, this is not true for all other species which have evolved over millions of years in order to precisely adapt to their specific environments [6]. Many species have long life-spans and a change in their reproductive rates can have impacts well beyond the timescales that are familiar to humans. Climate change affects both ecosystems of these organisms as well as the organisms themselves; a delay in implementation of policy only worsens these effects. These result in changes in the environment of an ecosystem and can lead to species extinction, or, more gravely, the extinction of a keystone species which would trigger a chain of extinction [10]. Larry Schweiger, president of the National Wildlife Federation, emphasizes that even small changes in environment can lead to disastrous consequences [11]. Consequently, it is estimated that between two thousand and ten thousand species will go extinct each year due to the adverse effects of climate change [12]. The uncertainty in this figure results from the sheer magnitude of the species which go undiscovered.

Ironically, the most serious victims of climate change are also the ones who do not have a voice in the mitigation of the problem. Therefore, the implementation of policy becomes deeply ethical. Human activity has already resulted in the loss of many thousands of species and the trend will only continue [12]. Going back to the economic arguments, placing an economic value on the existence of a species or an ecosystem is not viable and as such economic arguments fail to be effective. Trying to fix an ethical problem with an economic solution is simply deficient.

On the other hand, the ethical obligations that society should take into consideration can be defined: humans, developed nations especially, are risking the well-being of life on earth, as well as the future generations who will have to deal with the costs of the actions that society takes and puts off. If ethical obligations become a philosophical driving force for the legislation, policymakers will be forced to accept these obligations and deal with them in a just manner.

Throughout the history of the United States, society has benefited by enacting laws that started out as moral movements: the United States Constitution, civil rights movements, child labor laws, and EPA acts such as the Clean Air Act. Therefore, as there is a strong precedent for law with an ethical basis, a list of defined ethical obligations can be used as a standard for climate change action on a federal or global level. Such a documented plan can create debate and lead to a shift in societal thinking that, in turn, can result in better laws for the future. A moral and ethical platform will also allow participants from across the entire planet to see the value of implementing the changes that will be needed. Thus, significant progress in climate change policy can be made.

Climate change is a universal issue, one that affects all life on the planet, and therefore settling the adverse effects is an ethical decision. As a country with strong relations with much of the world, the United States can take the lead in bringing nations together in a collaborative effort to fix the global problem with a global solution.

## 1NC Shell – Payroll Tax Cut

**Payroll tax extension is Obama’s only focus – passage is likely and he sees it as key to his overall political strategy**

**Lee, 12/30** (Carol E., WSJ Online, 12/30/2011, “White House Looks to Shrunken 2012 Legislative Agenda,” Factiva)

HONOLULU—President Barack Obama heads into 2012 with a legislative agenda that essentially consists of just a single item—a long-term extension of a payroll tax holiday—deferring a fight over deficit reduction and the Bush-era tax cuts and all but giving up on the remaining components of his jobs bill as he pivots to an election-year strategy of attacking Congress.

White House spokesman Josh Earnest said extending the payroll tax break through next year, a fight that will consume Congress after lawmakers return to Washington in January, is "the last must-do item of business on the president's congressional agenda."

"There are certainly other things that the president would like to do," Mr. Earnest said, adding that Mr. Obama will continue to prod Congress to pass some of his jobs proposals. "But in terms of essential, must-do items, the payroll-tax-cut extension is the last one."

Mr. Obama will also step up his use of his executive authority in the New Year, Mr. Earnest said, by announcing at least several new economic initiatives each week.

The president's central focus after he returns to Washington next week from a vacation in Hawaii will be on the payroll-tax cut, which has become a catalyst for his 2012 political message.

The tax break for 160 million workers was set to expire at the end of the year before Congress extended it in December for two months. Mr. Obama called for a year-long extension as part of the $447 billion jobs bill he unveiled in September and spent the month before Christmas pressuring congressional Republicans to pass it.

Many conservative House Republicans opposed the extension on policy grounds, but the GOP leadership saw it as inevitable and tried to use the opportunity to force the White House to swallow policy items favored by Republicans, such as the construction of the Keystone XL oil pipeline from Canada to the Gulf Coast. Once the parties could not resolve differences over how to pay for the tax break, the Senate agreed to the two-month extension, catching rank-and-file House members off guard and setting them up to be the obstacle to the tax cut, a politically untenable position for a party that portrays itself as the champions of low taxes.

Seeking to regain their footing, congressional Republicans are adopting their own 2012 strategy. Sen. Johnny Isakson of Georgia said Saturday in the weekly Republican address that GOP lawmakers will push an ambitious economic agenda focused on a tax and regulation overhaul and energy security. He made no mention of the payroll-tax cut.

"As we enter into this New Year, many have predicted that Congress will be too consumed with the fall elections to accomplish anything significant," Mr. Isakson said. "Americans cannot wait until after the November election. They need us to do our job and do it right now to create an economic climate that makes it easier to put people back to work. Republicans stand ready to do that."

The White House believes the December payroll-tax-cut debate afforded Mr. Obama, who initially proposed paying for the extension with a tax increase on millionaires, the political upper hand and momentum heading into 2012.

The president's aides are convinced Congress will ultimately extend to the end of 2012 the current 4.2% payroll tax levied to fund Social Security, rather than allowing it to return to 6.2%, because all sides have now made clear they support the idea, leaving no room for a reversal. But the extension won't happen without a fight between the two parties, and Mr. Obama will try to capitalize on the moment by deploying his now-familiar message of being a champion of the middle class.

Mr. Obama urged Congress on Saturday to "finish the job" on the payroll tax break in his weekly radio and Internet address. "As I've said before, we are at a make-or-break moment for the middle class," Mr. Obama said. "And in many ways, the actions we take in the months ahead will help determine what kind of country we want to be, and what kind of world we want our children and grandchildren to grow up in."

**Obama’s consistent focus on the middle class economy is reinvigorating his political strength --- key to yearlong extension of payroll tax cut,**

**Calmes, 12/24** (Jackie, 12/24/2011, International Herald Tribune, “Big gains in a small victory for Obama; President offers a lesson on how and when to pick the right political battle,” Factiva)

President Barack Obama did not win much substantively with his victory over House Republicans in their showdown over extending payroll tax cuts and unemployment aid for two months. But he got a lot politically: a big start toward retiring the perception — fair or not, and even among Democrats — that in a pinch with the other party he will inevitably surrender.

In less than an hour Friday, the House and Senate dispensed with weeks of partisan bickering, passing a bill to ensure a two-month extension of the tax holiday and unemployment benefits for millions of Americans. Mr. Obama then signed it into law.

The fight over how and whether to pass an extension was settled Thursday afternoon, when the House speaker, Representative John A. Boehner of Ohio, agreed — against the will of many of the chamber’s most conservative members — to a Senate bill to extend the benefits for two months while a longer deal was hammered out.

The perception of weakness had dogged Mr. Obama for much of the year since gains by Republicans in the 2010 midterm elections gave them control of the House and a share of power in Washington. But it became threatening, both to Mr. Obama’s leverage with Congress and to his prospects for re-election, after the epic summer fight over raising the nation’s debt limit.

In September, the White House set out to change the image of Mr. Obama from compromiser in chief to determined voice of economic populism, beginning a push for a job-creation plan that it viewed as a win-win. Either Mr. Obama would pass his plan — which was not likely given Republican opposition both to additional stimulus measures and to the higher taxes on the wealthy that he proposed to offset the package’s cost — or he would get political credit for trying, given the popularity of the plan’s individual provisions.

And he would make it clear that Republicans would obstruct anything he proposed, especially if it meant higher taxes on the rich.

What surprised the administration, and not least Mr. Obama, was how much House Republicans would contribute toward the White House’s goal through their miscalculations in waging this holiday-season showdown over tax cuts for 160 million workers and assistance for several million jobless Americans.

The stand by House Republicans, which openly divided the party and put them in conflict with Senate Republicans, helped Mr. Obama perhaps as much as anything the White House and congressional Democrats did.

Vin Weber, a Republican Party strategist and former congressman, acknowledged that Mr. Obama had won at least ‘‘a nice tactical victory to end the year’’ as well as higher approval ratings in recent polls. Mr. Weber said he learned long ago from a pollster to President Ronald Reagan that ‘‘one of the central ingredients of a president’s approval rating is the public’s sense of his ability to dominate Congress.’’

‘‘The substantive issues,’’ he said, ‘‘are secondary.’’

‘‘What Republicans in the House didn’t understand — and I love these guys by and large — but what they didn’t understand is that you don’t fight every issue,’’ Mr. Weber added. ‘‘And if you’re going to fight an issue like this, you’re going to give him a victory and hurt yourself in the process.’’

As glum and divided as Republicans were at the outcome, Democrats were celebrating that Mr. Obama had stuck by the united front he forged with them this fall.

‘‘The White House must feel pretty good about muscling home a victory for the middle class,’’ said John Podesta, chairman of the liberal Center for American Progress and a former chief of staff to President Bill Clinton. ‘‘And importantly for the fights of 2012, they learned those muscles work.’’

Congressional Democrats have long been suspicious that Mr. Obama was too eager to cut deals with Republicans that would benefit him politically but not his party — by reducing Medicare and Social Security spending, for example, to get a so-called grand budget bargain. But this week they freely credited him with the victory, for his persistence and his refusal in the endgame to negotiate with House Republicans.

An aide to congressional Democratic leaders said, ‘‘The White House just went all in and closed off the House G.O.P.’s hoped-for exit ramp’’— that is, Republicans’ belief that Mr. Obama would ultimately give in rather than risk blame if payroll taxes went up for millions on Jan. 1.

For the White House, which has long chafed at the criticism that Mr. Obama has been a soft touch for Congressional Republicans, the outcome was vindication.

Last December, liberal Democrats were outraged when Mr. Obama agreed to extend the expiring Bush-era tax cuts for the rich by an additional two years, after having campaigned to end them. The White House said that was the price to get Republicans, who were newly emboldened by their election victories, to support a one-year payroll tax cut and extended unemployment aid — without which, the administration and many economists believed, the economy could tip into another recession.

Most galling to the White House, however, has been the lingering criticism from Democratic insiders and grass-roots supporters alike about the August debt-limit deal. In that compromise, Mr. Obama accepted deep spending cuts but Republicans blocked any tax increases.

Mr. Obama had no choice but to compromise then, his aides argued; the nation risked economic calamity if it could no longer borrow to pay its debts, and Mr. Obama’s Republican adversaries professed to be willing to see that happen. Even so, administration officials said, the deal was not only better than the critics suggested but it helped set the trap that House Republicans walked into this month.

The deal increased the debt ceiling through 2012, not to this month as some Republicans had wanted, and thereby removed the threat of default from Republicans’ end-of-the-year bargaining arsenal. With the stakes much lower, after August Mr. Obama was liberated to press a harder bargain. Starting in September with his jobs package, he did.

‘‘For the first time I think you see a kind of consistency and coherency in terms of an economic message,’’ Geoff Garin, a Democratic pollster, said of Mr. Obama. ‘‘The pivot point was the jobs speech, and the jobs speech occurred after he had dealt with the extension of the tax cuts and dealt with the debt ceiling. Those two things freed him up to do what he’s been doing.’’

Also a factor was the hard lesson Mr. Obama learned from his past negotiations with Mr. Boehner, first in the spring talks over this year’s domestic spending and then in their summer effort for the grand bargain to reduce long-term debt: Mr. Boehner cannot deliver his defiantly anti-government and Tea Party-inspired majority in the House.

When that proved true yet again, Mr. Obama was bolstered just as Mr. Boehner was further undermined. Whether Mr. Obama continues to play a strong hand will be tested soon — when Congress reconvenes in January to resume the fight over a full-year extension.

**Full extension key to prevent a double dip recession**

**Stewart, 12/28** --- Observer's economics editor (Heather,12/28/2011, “Extending Obama's tax cuts should be new year's resolution for Republicans,” http://www.guardian.co.uk/business/economics-blog/2011/dec/28/obama-tax-cuts-new-year-resolution?newsfeed=true)

Republicans caved in at the last minute last week and agreed to a two-month extension of the tax cut package that had become the latest focus of toxic partisan wrangling on Capitol Hill.

In signing up to the deal – under which a bipartisan committee will now try to draft legislation extending the tax-cuts through 2012 – Republicans were thinking about their electoral prospects, as well as their chances of a Christmas break. Fiscal prudence is all very well, but being dubbed the party that stood between cash-strapped families and a tax-break is unlikely to be a winning formula in an election year.

However, research from the non-partisan Council on Foreign Relations reveals that extending the tax cuts is not just a political debating point, but one of the few factors preventing the US sliding into a double-dip downturn in the new year.

Personal consumption – spending, in other words – accounted for 91% of the 1.2% GDP growth the US economy achieved in the year to September, as Washington cut back and exports were weak.

Using official figures, the CFR shows that less than half of that crucial increase in consumption resulted from rising incomes, with the rest coming from what they call "unsustainable items". More than a third – 36% – came from reduced savings, as Americans dipped into their rainy-day funds to cope with unemployment and lacklustre wage growth. And another 20% came from the payroll tax.

That shows that the emergency tax-cut package, which included a 2% cut in the payroll tax (similar to national insurance contributions in Britain) was doing its job, helping to prevent the economy sliding into a renewed recession in 2011. But when they were introduced a year ago, the cuts were meant to be a short-term boost to consumption, helping to prop up the economy until the good times returned.

Recent data from the US has been relatively upbeat, including news that American firms created 120,000 jobs in November.

But unemployment remains well above normal, at 8.6%; the housing market is still in the doldrums; and with America's trading partners in Asia and Europe heading for hard times in 2012, the economic climate is about to get tougher. Reversing the tax cut in two months' time could reduce workers' take-home pay at the worst possible time.

Like the so-called "super-committee" that was meant to secure a cross-party agreement on crucial public spending cuts and ended instead in a rancourous stand-off, the new committee meant to decide the future of the tax-cuts may fail; if so, it won't just be the Republicans' reputation that suffers.

**This will trigger a depression**

**Isidore, 8/10** (Chris, 8/10/2011, “Recession 2.0 would hurt worse,” http://money.cnn.com/2011/08/10/news/economy/double\_dip\_recession\_economy/index.htm)

And while economists disagree on just how likely the U.S. economy is to fall into another downturn, they generally agree on one thing -- a new recession would be worse than the last and very difficult to pull out of.

"Going back into recession now would be scary, because we don't have the resources or the will to respond, and our initial starting point is such a point of weakness," said Mark Zandi, chief economist at Moody's Analytics. "It won't feel like a new recession. It would likely feel like a depression."

Zandi said the recent sell-off in stocks have caused him to raise the odds of a new recession to 33% from 25% only 10 days ago.

Other economists surveyed by CNNMoney are also raising their recession risk estimates. The survey found an average chance of a new recession to be about 25%, up from a 15% chance only three months ago.

Of the 21 economists who responded to the survey, six have joined Zandi in increasing their estimates in just the last few days. The main reason: the huge slide in stocks. Standard & Poor's downgrade of the U.S. credit rating is another concern.

"The correction in equity markets raises the risk of recession due to the negative hit to wealth and confidence," said Sal Guatieri, senior economist for BMO Capital Markets.

Even with a 430-point rebound in the Dow Jones industrial average Tuesday following the Federal Reserve meeting, major U.S. stock indexes have lost more than 11% of their value over the last 12 trading days.

Recovery at risk

A plunge in stocks doesn't necessarily mean a new recession. The economy avoided a recession after the stock market crash of 1987.

"Stock price declines are often misleading indicators of future recessions," said David Berson, chief economist of BMI Group.

But with the economy already so fragile, the shock of another stock market drop and resulting loss of wealth could be the tipping point.

"It really does matter where the economy is when it gets hit by these shocks," said Zandi. "If we all pull back on spending, that's a prescription for a long, painful recession," he said.

Most economists say they aren't worried that S&P's downgrade makes recession more likely, although a few said any bad news at this point increases the risk.

"The downgrade has a psychological impact in terms of hurting consumer confidence," said Lawrence Yun, chief economist with the National Association of Realtors.

On shakier ground

Another recession could be even worse than the last one for a few reasons.

For starters, the economy is more vulnerable than it was in 2007 when the Great Recession began. In fact, the economy would enter the new recession much weaker than the start of any other downturn since the end of World War II.

Unemployment currently stands at 9.1%. In November 2007, the month before the start of the Great Recession, it was just 4.7%.

And the large number of Americans who have stopped looking for work in the last few years has left the percentage of the population with a job at a 28-year low.\

Various parts of the economy also have yet to recover from the last recession and would be at serious risk of lasting damage in a new downturn.

Home values continue to lose ground and are projected to continue their fall. While manufacturing has had a nice rebound in the last two years, industrial production is still 18% below pre-recession levels.

There are nearly 900 banks on the FDIC's list of troubled institutions, the highest number since 1993. Only 76 banks were at risk as the Great Recession took hold.

But what has economists particularly worried is that the tools generally used to try to jumpstart an economy teetering on the edge of recession aren't available this time around.

"The reason we didn't go into a depression three years ago is the policy response by Congress and the Fed," said Dan Seiver, a finance professor at San Diego State University. "We won't see that this time."

Three times between 2008 and 2010, Congress approved massive spending or temporary tax cuts to try to stimulate the economy. But fresh from the bruising debt ceiling battle and credit rating downgrade, and with elections looming, the federal government has shown little inclination to move in that direction.

So this new recession would likely have virtually no policy effort to counteract it.

**Broad statistical models prove – unmanaged economic declines lead to global conflict**

**Royal, Director of cooperative threat reduction, ‘10** [Jedediah, Director of Cooperative Threat Reduction – U.S. Department of Defense, “Economic Integration, Economic Signaling and the Problem of Economic Crises”, Economics of War and Peace: Economic, Legal and Political Perspectives, Ed. Goldsmith and Brauer, p. 213-215]

Less intuitive is how periods of economic decline may increase the likelihood of external conflict. Political science literature has contributed a moderate degree of attention to the impact of economic decline and the security and defence behaviour of interdependent states. Research in this vein has been considered at systemic, dyadic and national levels. Several notable contributions follow. First, on the systemic level, Pollins (2008) advances Modelski and Thompson's (1996) work on leadership cycle theory, finding that rhythms in the global economy are associated with the rise and fall of a pre-eminent power and the often bloody transition from one pre-eminent leader to the next. As such, exogenous shocks such as economic crises could usher in a redistribution of relative power (see also Gilpin. 1981) that leads to uncertainty about power balances, increasing the risk of miscalculation (Feaver, 1995). Alternatively, even a relatively certain redistribution of power could lead to a permissive environment for conflict as a rising power may seek to challenge a declining power (Werner. 1999). Separately, Pollins (1996) also shows that global economic cycles combined with parallel leadership cycles impact the likelihood of conflict among major, medium and small powers, although he suggests that the causes and connections between global economic conditions and security conditions remain unknown. Second, on a dyadic level, Copeland's (1996, 2000) theory of trade expectations suggests that 'future expectation of trade' is a significant variable in understanding economic conditions and security behaviour of states. He argues that interdependent states are likely to gain pacific benefits from trade so long as they have an optimistic view of future trade relations. However, if the expectations of future trade decline, particularly for difficult to replace items such as energy resources, the likelihood for conflict increases, as states will be inclined to use force to gain access to those resources. Crises could potentially be the trigger for decreased trade expectations either on its own or because it triggers protectionist moves by interdependent states.4 Third, others have considered the link between economic decline and external armed conflict at a national level. Blomberg and Hess (2002) find a strong correlation between internal conflict and external conflict, particularly during periods of economic downturn. They write: The linkages between internal and external conflict and prosperity are strong and mutually reinforcing. Economic conflict tends to spawn internal conflict, which in turn returns the favour. Moreover, the presence of a recession tends to amplify the extent to which international and external conflicts self-reinforce each other. (Blomberg & Hess, 2002. p. 89) Economic decline has also been linked with an increase in the likelihood of terrorism (Blomberg, Hess, & Weerapana, 2004), which has the capacity to spill across borders and lead to external tensions. Furthermore, crises generally reduce the popularity of a sitting government. "Diversionary theory" suggests that, when facing unpopularity arising from economic decline, sitting governments have increased incentives to fabricate external military conflicts to create a 'rally around the flag' effect. Wang (1996), DeRouen (1995). and Blomberg, Hess, and Thacker (2006) find supporting evidence showing that economic decline and use of force are at least indirectly correlated. Gelpi (1997), Miller (1999), and Kisangani and Pickering (2009) suggest that the tendency towards diversionary tactics are greater for democratic states than autocratic states, due to the fact that democratic leaders are generally more susceptible to being removed from office due to lack of domestic support. DeRouen (2000) has provided evidence showing that periods of weak economic performance in the United States, and thus weak Presidential popularity, are statistically linked to an increase in the use of force. In summary, recent economic scholarship positively correlates economic integration with an increase in the frequency of economic crises, whereas political science scholarship links economic decline with external conflict at systemic, dyadic and national levels.5 This implied connection between integration, crises and armed conflict has not featured prominently in the economic-security debate and deserves more attention.

## Link – Generic

**Plan costs political capital – Obama will push through congressional opposition**

**Powell 9** (Stewart M., Washington Bureau – Houston Chronicle, “Potential Uphill Battle for NASA”, Houston Chronicle, 9-13, http://www.chron.com/disp/story.mpl/nation/6615751.html)

NASA supporters are bracing for an uphill battle to get the extra funding needed to take on missions more ambitious than visits to the international space station. A high-level panel told President Barack Obama last week that the space program needs an infusion of about $3 billion more a year by 2014. That may be a tough sell, even though the amount could be considered spare change in a fast-spending capital where the White House and Congress are on track to dole out nearly $4 trillion this year to finance federal operations, including bailouts for Wall Street firms, banks and automakers. “The congressional agenda over the next year is going to be focused on cutting programs, not adding to them,” said Scott Lilly, a scholar at the Center for American Progress. Adding resources to the nation's $18.7 billion-a-year space program would require cuts in other areas, said Lilly, who doesn't think lawmakers are willing to make those trades. Rep. Pete Olson, R-Sugar Land, the ranking Republican on the House subcommittee that has jurisdiction over NASA, said wrangling the additional $3 billion a year would be “an enormous challenge — but one I am prepared to win.” Added Olson, whose district includes Johnson Space Center: “NASA doesn't require bailout funds — it needs the promised level of investment that previous Congresses have endorsed.” The 10-member panel of space experts led by retired aerospace executive Norman Augustine suggested extending U.S. participation in the $100 billion space station for five years, extending budgeting for the retiring shuttle fleet by six months, delaying plans for a 2020 return to the moon and extending the timeline for the next generation of manned spacecraft by two years at least until 2017. But the experts warned in their 12-page preliminary report to Obama on Tuesday that “meaningful human exploration” would be possible only under “a less constrained budget ramping (up) to approximately $3 billion per year” in additional spending by 2014. Former astronaut Sally Ride, a member of the committee, forecast $27.1 billion in additional funds would be needed over the next decade — a 27 percent increase over the $99.1 billion currently planned. Even before Obama publicly reacts to Augustine's report to map the next steps in the nation's manned space exploration, members of Congress are scrambling. “The immediate challenge goes beyond money to just getting NASA on the radar screen when everyone is focused on health care reform,” said a key congressional staffer involved in NASA issues. Finding support NASA supporters initially are targeting the Democratic leadership of appropriations subcommittees in the House and Senate with jurisdiction over NASA. Space advocates have an ally in Sen. Barbara Mikulski, D-Md., chairwoman of the Senate Appropriations Committee panel that handles space agency spending. But in the House, pro-NASA lawmakers expect a fight with Rep. Alan Mollohan, D-W.Va., chairman of the House Appropriations Committee panel that cut next year's NASA spending nearly $500 million below what Obama requested. Lawmakers are looking for a House-Senate conference committee to restore the funds that Mollohan cut before the Augustine panel completed its work. Aides to Sen. Bill Nelson, D-Fla., chairman of a Senate subcommittee that oversees NASA, said they have already identified six potential sources of additional NASA funding within the federal budget, including some of the $8 billion promised over the next decade to private energy firms to research fossil fuels and deep drilling for oil and gas. Lawmakers also are exploring the possibility of redirecting some of the two-year, $787 billion economic stimulus package from shovel-ready transportation construction projects and other federally subsidized programs into the NASA budget. The administration so far has only paid out $160 billion of the total, according to Vice President Joe Biden. “A lot of stimulus money has not been spent,” said Sen. John Cornyn, R-San Antonio. “We should redirect some of those stimulus funds to pay for enhancements to the NASA budget because I believe human space flight is so important.” Aerospace executives and veteran space experts are hoping for reliable year-to-year funding. “These are challenging economic times, but this is not the moment to turn away from leading a global space exploration effort,” said Dean Acosta, head of the Houston-based Coalition for Space Exploration. President's influence Presidential leadership will be essential to gaining an increase, emphasized John Logsdon, a space policy expert who served on the Shuttle Columbia Accident Investigation Board. “The president has to use some portion of his political capital to put forward an Obama space program.”

## Link – Vision for Space Exploration

**Expanding VSE is perceived as controversial new spending**

**Handberg, 11** - Professor and Chair of the Department of Political Science at the University of Central Florida (Rodger, “Small ball or home runs: the changing ethos of US human spaceflight policy,” The Space Review, 1/17, http://www.thespacereview.com/article/1759/1)

The US space program remained focused, not on duplicating Apollo, but on achieving another difficult goal such as going to Mars, a logical extension truly of the Apollo effort. Twice, the presidents Bush provided the presidential rationale, if not support, for achieving great things. The Space Exploration Initiative (SEI) in 1989 and the Vision for Space Exploration (VSE) in 2004 were announced with great fanfare but neither survived the realities of congressional and presidential budgeting. The VSE appeared on paper more realistic about funding, but its choices were draconian: the ISS and space shuttle were both to be sacrificed on the altar of the new program. The earlier SEI died quickly, so hard choices were not required, while the VSE in the form of the Constellation Program lingers on although its effective demise appears certain. The Obama Administration prefers another approach while the new Congress is likely more hostile to big ticket discretionary spending. If the Tea Party faction in the Republican House caucus means what it says, the future for Constellation or any other similar program is a dim one.

The reality is that the Apollo program, the SEI, and the VSE are examples in space terms of the home run approach. Such efforts confront the cruel but obvious reality that the human spaceflight program is considered by the public and most of Congress to be a “nice to have,” but not a necessity when compared to other programs or national priorities. Congressional support is narrow and constituency-driven (i.e. protect local jobs), which means most in Congress only support the space program in the abstract. Big ticket items or programs are not a priority for most, given other priorities. What happens is what can be loosely termed normal politics: a situation where human spaceflight remains a low priority on the national agenda. Funding for bold new initiatives is going to be hard to come by even when the economy recovers and deficits are under control. The home run approach has run its course at least for a time; now the small ball approach becomes your mantra.

## Link – Space Based Solar Power

**The plan is a political firestorm**

**Preble 6** - President of the Space Solar Power Institute (Darel, “Introduction to the motion to the National Space Society Board of Directors,” 12/15, http://www.sspi.gatech.edu/sunsatcorpfaq.pdf)

Changing our nation and our world’s baseload energy generation sources to introduce SSP is a massive battle. The current oil, coal, and gas energy providers, nuclear as well, are not eager to see their baseload investments face competition from SSP, which has zero fuel costs and zero emissions and a billion years of steady supply projected. This is why SSP has been unfunded since it was invented in 1968. Carter pushed through the SSP reference study in 1979-1980, but space transportation costs were far too high, and they were forced to plan to use astronauts to bolt it together. This is too dangerous for astronauts outside the protection of the Van Allen Radiation Belts. (The Space Station is inside the Van Allen Belts) People are also too expensive to use for SSP construction. Telerobotics, the real way to assemble SSP, did not exist in 1979. Now it is used in heart surgery every day worldwide and for a thousand other uses. (The fossil fuel industry has battled environmentalists every inch during our struggle to understand climate change effects. That is their right. Perhaps half the studies are wrong. But half are right.) Most crucially, space transportation costs have stayed too high because there is no market large enough to support a Reusable Launch Vehicle fleet. SSP IS just such a massive market. Robert Zubrin mentions this battle and perspective in “Entering Space”, page 51. He quit space transportation and decided to work on Mars, which has no possibility of commercialization this century. This is detailed in the Space Transportation chapter on the SSPW website also. You can’t make an omelet without breaking a few eggs.

**Zero Congressional support for SPS --- its too expensive and tied to unpopular military space programs**

**Day 8** (Dwayne A., Program Officer – Space Studies Board of the National Research Council, “Knights in Shining Armor”, The Space Review, 6-9, http://www.thespacereview.com/article/1147/1)

If all this is true, why is the space activist community so excited about the NSSO study? That is not hard to understand. They all know that the economic case for space solar power is abysmal. The best estimates are that SSP will cost at least three times the cost per kilowatt hour of even relatively expensive nuclear power. But the military wants to dramatically lower the cost of delivering fuel to distant locations, which could possibly change the cost-benefit ratio. The military savior also theoretically solves some other problems for SSP advocates. One is the need for deep pockets to foot the immense development costs. The other is an institutional avatar—one of the persistent policy challenges for SSP has been the fact that responsibility for it supposedly “falls through the cracks” because neither NASA nor the Department of Energy wants responsibility. If the military takes on the SSP challenge, the mission will finally have a home.

But there’s also another factor at work: naïveté. Space activists tend to have little understanding of military space, coupled with an idealistic impression of its management compared to NASA, whom many space activists have come to despise. For instance, they fail to realize that the military space program is currently in no better shape, and in many cases worse shape, than NASA. The majority of large military space acquisition programs have experienced major problems, in many cases cost growth in excess of 100%. Although NASA has a bad public record for cost overruns, the DoD’s less-public record is far worse, and military space has a bad reputation in Congress, which would never allow such a big, expensive new program to be started.

Again, this is not to insult the fine work conducted by those who produced the NSSO space solar power study. They accomplished an impressive amount of work without any actual resources. But it is nonsensical for members of the space activist community to claim that “the military supports space solar power” based solely on a study that had no money, produced by an organization that has no clout.

DA Tradeoff

## 1NC Shell

**Funding for a new long-range bomber depends on current savings in the Air Force budget – new programs kill it**

**National Defense 10/20** (National Defense Magazine is part of NDIA—The association’s membership base consists of nearly 900 companies and 26,000 individuals from the entire spectrum of the defense and national industrial bases, from government and from foreign nations with whom the United States, through DoD, has a Memorandum of Understanding. 10/20/11, “Air Force Focuses on Turning 'Tail to Tooth' in Face of Budget Crunch”, http://www.nationaldefensemagazine.org/blog/Lists/Posts/Post.aspx?ID=565, nkj)

The Air Force will focus on modernizing its aging fleet, even as budgets decline, said the service's top civilian leader.

Since 9/11, at least 400 aircraft have been retired for the Air Force inventory, and the service has “begun to put the squeeze internally on many different support functions,” Air Force Secretary Michael B. Donley said Oct. 20 at a breakfast hosted by the National Defense University Foundation and the National Defense Industrial Association.

"Over the last 10 years or so, we have become a smaller Air Force with increasing requirements for modernization,” Donley said. “We are now the smallest Air Force since 1947.”

Donley said the Air Force will be challenged to absorb its share of DoD budget cuts — in the range of $450 billion over the next 10 years. It is "hard, but doable," he said.

The Air Force so far has shifted $33 billion “from support tail to war fighting tooth,” he said.

But Donley warned that going forward the low hanging fruit has been picked, and “there’s not much more to do.” Further savings could come from a planned audit of compensation and benefits, which total about 40 percent of defense spending.

Mainly from support and administrative pools, the Air Force’s active duty strength has been reduced since 9/11 by about 25,000, Donley said. It’s a trend that will likely continue as budget constraints are balanced against the need to upgrade weapon systems and acquire new technology.

Donley countered that the Air Force has also “made some important improvements and in many respects is more combat capable” than at any time in its history. Wartime experience and “key investments” like buying F-22 Raptors and C-17 Globemasters have offset the downsizing, he said. The force has also fielded more than 200 unmanned aircraft that fly missions in Iraq and Afghanistan.

But the Air Force’s fleet continues to age and as it becomes smaller, modernization will become more important, he said. The average age of an Air Force fighter jet is now 22 years, he said. Its bombers are on average 35 years old. Tankers average 47 years apiece, he said.

Donley declared his commitment to continued focus on buying the F-35 Joint Strike Fighter, a program that has been plagued by cost overruns and delays.

“This (aircraft) will be the backbone of the U.S. Air Force 10, 20, even 30 years from now,” he said.

Other programs on the Air Force's wish list include long-range strike capabilities, replacement of tanker aircraft and nuclear capabilities. If the nation’s nuclear arsenal is forced to downsize, preserving the triad of delivery options would “become more important,” he said.

If Congress cuts more than $450 billion from the defense budget, drastic strategic decisions will be needed, Donley said. Less funding would mean the Air Force “would have to cancel some programs and delay or defer others. But we are working through these issues and we will come out of this with the finest military in the world.”

**ALL large spending will trade off with defense spending—even if it’s not a military program**

**Knusden 11/14** (Patrick Louis Knudsen, the senior budget expert at The Heritage Foundation, learned the ins and outs of federal spending in 20 years on the staff of the Budget Committee of the U.S. House of Representatives. Knudsen holds a bachelor’s degree in English from the University of Wisconsin-Milwaukee, and earned 27 credits in the master’s program there. 11/14/11, “Spending Bills Setting Up Reckless Defense Cuts” http://blog.heritage.org/2011/11/14/spending-bills-setting-up-reckless-defense-cuts/, nkj)

Cracks in the Budget Control Act’s (BCA) spending caps are growing more visible as negotiators near completion of the first three appropriations bills for fiscal year (FY) 2012.

Unless the House changes course, appropriations could be sailing toward a breach of the BCA limits and a debilitating freeze on defense spending while still gushing “disaster” and “emergency” funds that escape the BCA boundaries entirely.

Under the agreement taking shape, House negotiators have essentially conceded to higher spending levels than those in the House-passed versions of the three spending bills—Agriculture, Commerce–Justice–Science, and Transportation–Housing and Urban Development—which are packaged together in a so-called “minibus.”

The deal would put the final total for the minibus at $127.8 billion in budget authority—roughly identical to the Senate’s recommended total for the three measures and about $5.1 billion more than the House originally proposed. In addition, the Senate bills include $3.2 billion in “disaster relief” funds that are totally exempt from the spending caps, i.e., the money spent in excess of the BCA limits.

This is because the BCA allows a formula-based amount of additional spending above the “official” BCA cap of $1.043 trillion to help remedy the effects of past weather “disasters” declared by the President. According to Administration calculations, the total of disaster funds could run as high as $11.3 billion if all the authority is used, and not a dime of it would count under the BCA limits.

The BCA also allows unlimited additional spending for future events designated as “emergencies” by Congress and the President. When coupled with the disaster loophole, this makes the BCA caps almost meaningless.

The Senate has larded its 12 appropriations bills with a total of $8.6 billion in “disaster relief” funds. House appropriators, to their credit, proposed no disaster spending. (See the Heritage Foundation Appropriations Tracker.) Nevertheless, on November 3, the House passed a procedural motion, with the support of 79 Republicans, urging minibus negotiators to insist on “the highest level of funding” for Federal Highway Administration disaster relief funding, which represents $1.9 billion of the disaster funds in the Senate bills.

The motion is not binding, but it is likely to influence House appropriators to accept at least some of the Senate’s added spending. That would be the first opening of the disaster spigot, which would then likely widen with subsequent spending measures.

Even more problematic, however, is how the path set by these first three appropriations bills could further risk military readiness with an irresponsible freeze in the defense spending bill.

House versions of the 12 regular appropriations bills total $1.04 trillion, about $3 billion below the official BCA budget authority cap for FY 2012. The distribution of funds in the House measures includes $530 billion for the defense bill, an increase of 3.3 percent over FY 2011. The Senate provides a higher total for its non-defense spending but freezes the defense bill at the 2011 level of $513 billion.

Therefore, depending on the sequence in which the appropriations are considered, each non-defense budget measure that passes at or near the higher Senate level increases the pressure on subsequent bills, including defense, to absorb deeper cuts to stay under the total BCA cap.

Negotiations on a House-Senate version of the defense budget bill have not yet been scheduled.

A defense freeze would be especially reckless now. Base defense spending has already sustained deep reductions in recent years and could face additional cuts ranging from $445 billion to $825 billion through 2021 under the existing BCA limits.

The 112th Congress did succeed earlier this year in reducing discretionary spending by 3.8 percent, but its commitment to spending restraint has started flagging. Members gave up early on aiming for the pre-stimulus 2008 spending levels, as once promised. After the House budget resolution passed, House appropriators set their spending levels to meet its total of $1.019 trillion in discretionary spending. But as soon as the BCA was agreed to, with its higher $1.043 trillion ceiling, they added on extra spending, mostly in the Labor–Health and Human Services–Education bill.

For all its faults, one virtue of the BCA is that it does call for a real spending cut of $7 billion in FY 2012 compared with 2011. The ceiling is riddled with loopholes, but appropriators do not have to exploit them. Instead, if they insist on this extra spending, they should offset any and all disaster or emergency spending with reductions elsewhere and stay under the official BCA cap.

The unacceptable alternative, which appears to be taking shape, is to keep punching holes in the BCA cap—further eroding any credibility of the debt ceiling deal—and allow irresponsible cuts in defense spending. The vote on the first minibus bill will go a long way to determining which course Congress chooses.

**Bomber solve three unique scenarios for nuclear war – allied proliferation, hostile aggression, and crisis escalation**

**Williams ‘10** (David E. Williams, Jr., Major, U.S. Air Force, career Security Forces Officer currently serving as the Chief of Nuclear Security Inspections, Defense Threat Reduction Agency, former Squadron Commander, Staff Officer, Operations Officer, Flight Commander, and Convoy Commander within the Air Force nuclear community, also a certified SWAT Team Leader, Trainer, Designated Marksman, and Crisis Negotiator, M.A. Security Studies, M.A. Counseling & Human Behavior, B.A. Psychology, “A Review of U.S. First-Strike Ambiguity and the Triad Nuclear Force,” Defense Threat Reduction University Journal, 1(2), October 2010, http://www.dtra.mil/dtru/documents/V1\_2/US%20First%20Strike%20Ambiguity%20-%20Williams.pdf)

The Case for Continuity The case for the continuity of current U.S. nuclear policies and structure involves consideration of their benefits in terms of security, international prestige, domestic politics, and technology. 8 From a security perspective, nuclear weapons ensure security because the potential usage of nuclear weapons during a conflict raises the cost of war to an unacceptable level. 9 Scott Sagan notes that: Nuclear declaratory policy is meant to enhance deterrence of potential adversaries by providing a signal of the intentions, options and proclivities of the U.S. government in different crisis and war-time scenarios. 10 I would argue, however, that an ambiguous U.S. first use policy of nuclear weapons creates valuable uncertainty on the part of potential adversaries. This uncertainty, coupled with U.S. nuclear and conventional superiority, makes overt state aggression against the U.S. or its’ allies a very uncertain and potentially disastrous proposition, thus not likely to happen. After all, no state has started a war with the U.S. since it acquired nuclear weapons. No part of the U.S. nuclear triad can be eliminated without creating an adverse impact on deterrence. This is the case because each element of the triad fills a unique role that makes U.S. nuclear forces lethal, survivable, and visible. Submarines offer the greatest degree of survivability, but the lowest degree of accuracy and become vulnerable upon surfacing. Bombers are the most accurate and only recallable option, but they are vulnerable to defensive counter-air missions and groundbased anti-aircraft fire. ICBMs are the most reliable means of delivery and the only sovereignlaunched option, yet are all located at known, stationary sites that are easily targeted by enemy ICBM forces, special operations teams, or terrorist surrogates. One may not consider the visibility of nuclear forces to be desirable, but the visibility of bombers and ICBMs allows for clear signaling to potential adversaries about U.S. intentions during a crisis. Take the Cuban Missile Crisis for example: President Kennedy used naval and air forces in order to signal his intent toward Premier Khrushchev. This signaling ensured there were no doubts about U.S. willingness to go to war to prevent Soviet missiles from being placed in Cuba. Future conflicts may require signaling of a similar nature to prevent deadly exchanges. For example, if Kim Jong Il were notified that the U.S. was uploading nuclear-armed bombers in response to North Korean deployments of nuclear-armed missiles, he might reconsider his actions. From the perspective of international prestige, other powers are retaining and in some cases enhancing their nuclear capability, yet as Younger points out, the U.S. is not modernizing any aspect of its inventory. 11 Instead, the U.S. is relying on mathematical projections and estimations regarding the reliability of its systems and deploying them well beyond what most states would consider a reasonable service-life. Further reductions in strategic nuclear forces could be seen as evidence of retrenchment on the part of the U.S. by ambitious rising or reemerging powers, thus increasing the risk of war. The U.S. could be characterized as a declining power by rising powers who are seeking either initial or enhanced nuclear technology. Rising powers, after all, will work to realign the international balance of power in their favor: one way of doing so is through countering U.S. military capabilities. If the U.S. were to reduce its capability by eliminating portions of the triad, then it would essentially be making it easier for other powers to challenge the current U.S. position. Further, without the potential threat of a nuclear first strike, U.S. allies might feel less secure about U.S. security commitments, especially in light of current troop commitments in Iraq and Afghanistan. Such insecurity has the potential to lead these allies to pursue nuclear capabilities of their own, as well as embolden hostile states to gamble on a lack of U.S. retaliation for WMD usage or conventional aggression. For example, when the U.S. considered reducing troop levels in South Korea, the government in Seoul signaled a potential shift in policy toward a nuclear capability to protect itself from possible North Korean aggression. 12 This threat resulted in very quick U.S. reassurances about troop levels and its commitment to defending South Korea

Other DAs

## DA Debris

**Space Debris managed now, increased Space Exploration and development pushes us past the point of no return.**

**Wright 7** (David, Co director and senior scientist with the global security program of the Union of Concerned Scientists in Cambridge, Massachusetts, “Space Debris,” Physics Today, http://physicstoday.org/journals/doc/PHTOAD-ft/vol\_60/iss\_10/35\_1.shtml?bypassSSO=1, October, CDG)

The threat to satellites The debris threat to satellites has two aspects. The first is the near-term threat due to the current or near-term debris population. The second is the long-term evolution of the space environment as the debris population increases over the next few centuries due to the continuing release of debris from ongoing space activities and to breakups of large objects that are already in space. In the near term, the density of debris large enough to cause serious damage to satellites is sufficiently low that the risk of a damaging collision over the operational lifetime of a satellite is small. However, at some altitudes the risk is approaching the level of risk from other problems that may affect the operation of a satellite. If the debris density increases significantly, the probability of damage from debris could become the primary threat to satellites in some parts of space. Although the debris risk to satellites is relatively low, such collisions have taken place. In 1996 the French military satellite Cerise had its stabilization arm severed by a briefcase-sized piece of an Ariane rocket. Debris collisions with inactive satellites have also been seen. In 1991 the defunct Russian Cosmos 1934 satellite was hit by a piece of debris from the Cosmos 926 satellite.7 Orbital changes of the NOAA 7 satellite in 1997 and the Cosmos 539 satellite in 2002, accompanied by the release of small amounts of debris, are believed to have been caused by collisions with debris in the 1- to 10-cm range.8 And in January 2005 a fragment from a Chinese rocket body that exploded in March 2000 struck a 31-year-old US rocket body. A number of additional events, including satellite breakups and malfunctions of unknown cause, may have been due to debris that was too small to be tracked. With the current number of satellites and debris, hundreds of close approaches, in which the objects pass within less than one kilometer of each other, occur every day between cataloged objects.9 Since the distribution of debris is not uniform in space, the threat to a satellite depends on its orbit. And the regions most heavily used by satellites are also the most heavily populated with debris. Before China's ASAT test in January 2007, the average time between collisions of two large, cataloged objects in LEO was estimated to be 11–12 years.10 As noted above, three such events have been identified historically—in 1991, 1996, and 2005—a rate that is roughly consistent with that average. (The collision rate was much lower in the first few decades of the space age.) A "catastrophic" collision—one that causes the objects to completely fragment into debris—was estimated to take place every 19 years. For the coming decades, the debris from the Chinese test is expected to increase the collision rate to one roughly every 7–8 years, with a catastrophic collision every 12–14 years. A more relevant measure of risk is that before the Chinese test, a piece of debris larger than 1 cm was estimated to collide with one of the active satellites in LEO every 5–6 years. Such collisions can cause significant damage to a satellite but may not cause it to malfunction. And attributing a satellite malfunction to debris may be difficult because much of the debris is too small to be observed by the SSN. The debris from the Chinese test is expected to increase the malfunction probability by more than 50%, so a collision of this kind would be expected roughly every 3–4 years during the next decade. Another measure of the current debris risk is that in the heavily used altitude band around 800–900 km, the chance that any given satellite will be hit by debris larger than 1 cm is approaching 1% over the satellite's 5- to 10-year lifetime. Since debris from the Chinese test is concentrated near that altitude band, it will roughly double the threat for the next 5–10 years. Long-term evolution If the debris density becomes large enough at some altitudes, those regions of space can become "supercritical," meaning that collisions between objects are frequent enough that they produce additional debris faster than atmospheric drag removes debris from the region. The additional particles further increase the collision probability in the region, which leads to a slow-motion chain reaction or cascade as the large objects in orbit are ground into smaller fragments. That situation is sometimes called the Kessler syndrome after Donald Kessler, who studied the possibility.11 A study released by NASA's Orbital Debris Program Office in 2006, before the Chinese test, showed that parts of space have already reached supercritical debris densities.12 In particular, the study shows that in the heavily used altitude band from 900 to 1000 km, the number of debris fragments larger than 10 cm is expected to more than triple over the next 200 years, even assuming no additional objects are launched into the band. The study estimates that the total population of large debris in LEO will increase by nearly 40% during that time, still under the assumption of no additional launches. The debris from the Chinese test will make matters worse. An important implication of the study is that while mitigation efforts are important for slowing the increases, only debris-remediation measures such as removing large, massive objects already in orbit can hope to prevent their consequences. Remediation efforts such as robotic missions to remove defunct satellites and rocket stages are very expensive, but are being studied.

**We are at critical mass – continued increases in space debris eliminate the possibility of future space exploration and development**

**SENECHAL 07** (Thierry, Policy Manager of the Commission on Banking Technique and Practice at the International Chamber of Commerce and holds degrees in economics and finance from Harvard University, London Business School, and Columbia University, Space Debris Pollution: A conventional proposal, 2007, <http://www.pon.org/downloads/ien16.2.Senechal.pdf>)

The time is right for addressing the problem posed by orbital debris and realizing that, if we fail to do so, there will be an increasing risk to continued reliable use of space-based services and operations as well as to the safety of persons and property in space. We have reached a critical threshold at which the density of debris at certain altitudes is high enough to guarantee collisions, thus resulting in increased fragments. In a scenario in which space launches are more frequent, it is likely that we will create a self-sustaining, semi-permanent cloud of orbital ―pollution‖ that threatens all future commercial and exploration activities within certain altitude ranges. The debris and the liability it may cause may also poison relations between major powers.

**Space debris increases the risk of strikes on Russian early-warning satellites, resulting in an accidental global nuclear war**

**Lewis ‘04** (Jeffrey, Postdoctoral Fellow in the Advanced Methods of Cooperative Study Program, Worked In the Office of the Undersecretary of Defense for Policy, Center for Defense Information, What if Space Were Weaponized? July, <http://www.cdi.org/PDFs/scenarios.pdf>)

This is the second of two scenarios that consider how U.S. space weapons might create incentives for America’s opponents to behave in dangerous ways. The previous scenario looked at the systemic risk of accidents that could arise from keeping nuclear weapons on high alert to guard against a space weapons attack. This section focuses on the risk that a single accident in space, such as a piece of space debris striking a Russian early-warning satellite, might be the catalyst for an accidental nuclear war. As we have noted in an earlier section, the United States canceled its own ASAT program in the 1980s over concerns that the deployment of these weapons might be deeply destabilizing. For all the talk about a “new relationship” between the United States and Russia, both sides retain thousands of nuclear forces on alert and configured to fight a nuclear war. When briefed about the size and status of U.S. nuclear forces, President George W. Bush reportedly asked “What do we need all these weapons for?”43 The answer, as it was during the Cold War, is that the forces remain on alert to conduct a number of possible contingencies, including a nuclear strike against Russia. This fact, of course, is not lost on the Russian leadership, which has been increasing its reliance on nuclear weapons to compensate for the country’s declining military might. In the mid-1990s, Russia dropped its pledge to refrain from the “first use” of nuclear weapons and conducted a series of exercises in which Russian nuclear forces prepared to use nuclear weapons to repel a NATO invasion. In October 2003, Russian Defense Minister Sergei Ivanov reiter- ated that Moscow might use nuclear weapons “preemptively” in any number of contingencies, including a NATO attack.44 So, it remains business as usual with U.S. and Russian nuclear forces. And business as usual includes the occasional false alarm of a nuclear attack. There have been several of these incidents over the years. In September 1983, as a relatively new Soviet early-warning satellite moved into position to monitor U.S. missile fields in North Dakota, the sun lined up in just such a way as to fool the Russian satellite into reporting that half a dozen U.S. missiles had been launched at the Soviet Union. Perhaps mindful that a brand new satellite might malfunction, the officer in charge of the command center that monitored data from the early-warning satellites refused to pass the alert to his superiors. He reportedly explained his caution by saying: “When people start a war, they don’t start it with only five missiles. You can do little damage with just five missiles.”45 In January 1995, Norwegian scientists launched a sounding rocket on a trajectory similar to one that a U.S. Trident missile might take if it were launched to blind Russian radars with a high26 What if Space Were Weaponized? altitude nuclear detonation. The incident was apparently serious enough that, the next day, Russian President Boris Yeltsin stated that he had activated his “nuclear football” a device that allows the Russian president to communicate with his military advisors and review his options for launching his arsenal. In this case, the Russian early-warning satellites could clearly see that no attack was under way and the crisis passed without incident.46 In both cases, Russian observers were confident that what appeared to be a “small” attack was not a fragmentary picture of a much larger one. In the case of the Norwegian sounding rocket, space-based sensors played a crucial role in assuring the Russian leadership that it was not under attack. The Russian command system, however, is no longer able to provide such reliable, early warning. The dissolution of the Soviet Union cost Moscow several radar stations in newly independent states, creating “attack corridors” through which Moscow could not see an attack launched by U.S. nuclear submarines.47 Further, Russia’s constellation of early-warning satellites has been allowed to decline only one or two of the six satellites remain operational, leaving Russia with early warning for only six hours a day. Russia is attempting to reconstitute its constellation of early-warning satellites, with several launches planned in the next few years. But Russia will still have limited warning and will depend heavily on its space-based systems to provide warning of an American attack.48 As the previous section explained, the Pentagon is contemplating military missions in space that will improve U.S. ability to cripple Russian nuclear forces in a crisis before they can execute an attack on the United States. Anti-satellite weapons, in this scenario, would blind Russian reconnaissance and warning satellites and knock out communications satellites. Such strikes might be the prelude to a full-scale attack, or a limited effort, as attempted in a war game at Schriever Air Force Base, to conduct “early deterrence strikes” to signal U.S. resolve and control escalation.49 By 2010, the United States may, in fact, have an arsenal of ASATs (perhaps even on orbit 24/7) ready to conduct these kinds of missions – to coerce opponents and, if necessary, support preemptive attacks. Moscow would certainly have to worry that these ASATs could be used in conjunction with other space-enabled systems – for example, long-range strike systems that could attack targets in less than 90 minutes – to disable Russia’s nuclear deterrent before the Rus- sian leadership understood what was going on. What would happen if a piece of space debris were to disable a Russian early-warning satellite under these conditions? Could the Russian military distinguish between an accident in space and the first phase of a U.S. attack? Most Russian early-warning satellites are in elliptical Molniya orbits (a few are in GEO) and thus difficult to attack from the ground or air. At a minimum, Moscow would probably have some tactical warning of such a suspicious launch, but given the sorry state of Russia’s warning, optical imaging and signals intelligence satellites there is reason to ask the question. Further, the advent of U.S. on-orbit ASATs, as now envisioned could make both the more difficult orbital plane and any warning systems moot. The unpleasant truth is that the Russians likely would have to make a judgment call. No state has the ability to definitively deter- mine the cause of the satellite’s failure. Even the United States does not maintain (nor is it likely to have in place by 2010) a sophisticated space surveillance system that would allow it to distinguish between a satellite malfunction, a debris strike or a deliberate attack – and Russian space surveillance capabilities are much more limited by comparison. Even the risk assessments for collision with debris are speculative, particularly for the unique orbits in which Russian early-warning satellites operate. During peacetime, it is easy to imagine that the Russians would conclude that the loss of a satellite was either a malfunction or a debris strike. But how confident could U.S. planners be that the Russians would be so calm if the accident in space occurred in tandem with a second false alarm, or occurred during the middle of a crisis? What might happen if the debris strike occurred shortly after a false alarm showing a missile launch? False alarms are appallingly common – according to information obtained under the Freedom of Information Act, the U.S.-Canadian North American Aerospace Defense Command (NORAD) experienced 1,172 “moderately serious” false alarms between 1977 and 1983 – an average of almost three false alarms per week. Comparable information is not available about the Russian system, but there is no reason to believe that it is any more reliable.51 Assessing the likelihood of these sorts of co- incidences is difficult because Russia has never provided data about the frequency or duration of false alarms; nor indicated how seriously early- warning data is taken by Russian leaders. More- over, there is no reliable estimate of the debris risk for Russian satellites in highly elliptical orbits.52 The important point, however, is that such a coincidence would only appear suspicious if the United States were in the business of disabling satellites – in other words, there is much less risk if Washington does not develop ASATs. The loss of an early-warning satellite could look rather ominous if it occurred during a period of major tension in the relationship. While NATO no longer sees Russia as much of a threat, the same cannot be said of the converse. Despite the warm talk, Russian leaders remain wary of NATO expansion, particularly the effect expansion may have on the Baltic port of Kaliningrad. Although part of Russia, Kaliningrad is separated from the rest of Russia by Lithuania and Poland. Russia has already complained about its decreasing lack of access to the port, particularly the uncooperative attitude of the Lithuanian govern- ment.53 News reports suggest that an edgy Russia may have moved tactical nuclear weapons into the enclave.54 If the Lithuanian government were to close access to Kaliningrad in a fit of pique, this would trigger a major crisis between NATO and Russia. Under these circumstances, the loss of an early-warning satellite would be extremely suspicious. It is any military’s nature during a crisis to interpret events in their worst-case light. For ex- ample, consider the coincidences that occurred in early September 1956, during the extraordinarily tense period in international relations marked by the Suez Crisis and Hungarian uprising.55 On one evening the White House received messages indicating: 1. the Turkish Air Force had gone on alert in response to unidentified aircraft penetrating its airspace; 2. one hundred Soviet MiG-15s were flying over Syria; 3. a British Canberra bomber had been shot down over Syria, most likely by a MiG; and 4. The Russian fleet was moving through the Dardanelles. Gen. Andrew Accidental Nuclear War Scenarios 27 28 What if Space Were Weaponized? Goodpaster was reported to have worried that the confluence of events “might trigger off ... the NATO operations plan” that called for a nuclear strike on the Soviet Union. Yet, all of these reports were false. The “jets” over Turkey were a flock of swans; the Soviet MiGs over Syria were a smaller, routine escort returning the president from a state visit to Moscow; the bomber crashed due to mechanical difficulties; and the Soviet fleet was beginning long-scheduled exercises. In an important sense, these were not “coincidences” but rather different manifestations of a common failure – human error resulting from extreme tension of an international crisis. As one author noted, “The detection and misinterpretation of these events, against the context of world tensions from Hungary and Suez, was the first major example of how the size and complexity of worldwide electronic warning systems could, at certain critical times, create momentum of its own.” Perhaps most worrisome, the United States might be blithely unaware of the degree to which the Russians were concerned about its actions and inadvertently escalate a crisis. During the early 1980s, the Soviet Union suffered a major “war scare” during which time its leadership concluded that bilateral relations were rapidly declining. This war scare was driven in part by the rhetoric of the Reagan administration, fortified by the selective reading of intelligence. During this period, NATO conducted a major command post exercise, Able Archer, that caused some elements of the Soviet military to raise their alert status. American officials were stunned to learn, after the fact, that the Kremlin had been acutely nervous about an American first strike during this period.56 All of these incidents have a common theme – that confidence is often the difference between war and peace. In times of crisis, false alarms can have a momentum of their own. As in the second scenario in this monograph, the lesson is that commanders rely on the steady flow of reliable information. When that information flow is disrupted – whether by a deliberate attack or an accident – confidence collapses and the result is panic and escalation. Introducing ASAT weapons into this mix is all the more dangerous, because such weapons target the elements of the command system that keep leaders aware, informed and in control. As a result, the mere presence of such weapons is corrosive to the confidence that allows national nuclear forces to operate safely.

## DA GEO – SPS Specific

**Solar power satellites will be placed in geosynchronous orbit**

**Mankins 8**—President of Artemis Innovation Management Solutions LLC, degrees in physics and public policy (John, Spring 2008, Ad Astra, “Space-Based Solar Power,” http://www.nss.org/adastra/AdAstra-SBSP-2008.pdf, RBatra)

Enter the four-decade-old concept of space solar power (SSP). Originally invented in 1968 by Dr. Peter Glaser of Arthur D. Little, and last validated in 2003 by the National Academy of Sciences' National Research Council (NRC), SSP is a simple concept analogous to the hydroelectric dam as an energy-collection device. The traditional SSP architecture utilizes very large (kilometer-scale) photovoltaic arrays in geosynchronous Earth orbit (GEO) to convert a continuous stream of intense solar radiation into carbon-neutral electrical energy, which is then transmitted 24/7 through night and weather via microwave beams to collection rectennas on Earth's surface. In honor of its inventor, these space solar power satellites are sometimes fondly called, "Glasers." Total calculated end-to-end system efficiency for base-load power approaches 10 percent--remarkably high for any known natural or artificial energy production scheme. Variations on the basic concept include using solar dynamic versus photovoltaic collection systems, optical wavelength versus microwave power transmission, lunar versus orbital basing, and low-Earth orbit versus GEO architectures. Despite their differences, all systems share a common philosophy with the hydroelectric power model: invest in a high-capital infrastructure expense up front to then enable decades of clean, reliable, low-maintenance and low unit-cost energy collection, free from the volatile fuel expenses and vulnerabilities of conventional energy systems.

**SPS would occupy a lot of the available GEO space**

**NRC 81**—National Research Council (1981, National Academy Press, “Electric Power from Orbit: A Critique of a Satellite Power System,” http://www.nss.org/settlement/ssp/library/1981NRC-ElectricPowerFromOrbit-1.Report.pdf)

There are at least six reasons to believe that an SPS would be a uniquely large user of both the electromagnetic spectrum and orbital space, and would therefore produce severe problems of compatibility with other types of satellite system. The number (60) of reference SPS satellites postulated for U.S. use is considerably more than the number now used in GEO for any other single service. Sixty SPS satellites would at least double the number of geosynchronous satellites of all types currently active or planned for the longitude sector appropriate the United States. The power radiated by each reference system satellite would be some 30 million times larger than that now radiated from any other single geosynchronous satellite. The directivity of each reference system transmitting antenna would be some 10,000 times greater than that of any other geosynchronous satellite now operating at frequencies of 1000 MHz to 5000 MHz. The combination of high radiated power and high antenna directivity would mean that the intensity of the main beam would be more than a hundred billion times greater for a single SPS satellite than for any other geosynchronous satellite operating near this frequency. Each reference SPS satellite would be more than 100,000 times larger in cross-sectional area than any other current or envisioned geosynchronous satellite. It would therefore be a much greater potential source of scattered electromagnetic radiation (including sunlight)and a much larger radiator of thermal radio waves than other satellites. An SPS might also become a major source of interference outside of its own frequency band (produced by the nonlinear mixing of the SPS carrier frequency with other electromagnetic signals) because of the large amount of power radiated, the variety of materials used, and the huge size of the SPS satellite and rectennas we therefore conclude that: An SPS is likely to preclude use by other satellites of a significant fraction of the limited geosynchronous orbit and associated electromagnetic spectrum resources. Hence, obtaining international acceptance of a purely U.S. SPS is likely to be difficult not only in the administrative sense but also in the broader context of political decisions.

**That causes space miscalculation**

**Klotz 99** - Commander, Air Force Global Strike Command Frank G. Klotz, Jan 1999, Space, Commerce, and National Security, Council on Foreign Relations, p.23-4

The scramble for geosynchronous slots and frequency allocations may in fact intensify as even more telecommunications satellites are launched and space becomes even more "crowded." For the most part, the ITU has resolved most conflicts. Nevertheless, the occasional breakdowns in the process for managing and regulating this competition give pause for concern. Interference--inadvertent or deliberate--could in fact pose a more immediate threat to U.S. military and commercial interests than any nascent capability on the part of potential adversaries to deliberately attack American space systems in crisis or conflict. The possible interruption of the GPS signal by commercial communications satellites-with all its implications for military operations and the global information infrastructure-is a case in point.

**Space war causes extinction**

**Mitchell et al. 1** -Associate Professor of Communication and Director of Debate at the University of Pittsburgh (Dr. Gordon, ISIS Briefing on Ballistic Missile Defence, “Missile Defence: Trans-Atlantic Diplomacy at a Crossroads”, No. 6 July, http://www.isisuk.demon.co.uk/0811/isis/uk/bmd/no6.html)

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

## DA Signals – SPS Specific

**SPS signals interfere with astronomical detection**

**Hatsuda et al. 2**—Hatsuda is an experimental researcher for the Hokkaido Institute of Technology, Ueno is a Professor of Network Engineering at the Hokkaido Institute of Technology, and Inoue, Professor of Forest Environmental Studies at the University of Tokyo, Japan, based on the expertise of sociology and anthropology as well as forest policy science

(Takeshi, Kenji, and Makoto, “Solar Power Satellite Interference Assessment,” http://ieeexplore.ieee.org/xpl/freeabs\_all.jsp?arnumber=1145677)

The second harmonics fall in the frequency band used by radio astronomy (RA). The interference level of this band is defined in ITU-R RA.769-1 as −207 dBW. Although the allocated frequency to RA is slightly different from the second harmonic frequency, spurious emission to the RA band would still be harmful. Although it is not clear for the spurious level, in Table 5 we estimate the interference level, neglecting the frequency difference or assuming the second harmonic is in the RA band—this is the worst case. However, the interference level is very serious, and all mitigation techniques should be applied to reduce possible interference. Further, the spurious and out-of-band (OOB) noise emission from the high-power transmitter is likely to interfere with adjacent RA bands. In addition, energy-dispersal techniques of the SPS spectrum might increase OOB emissions if effective mitigation techniques are not adopted. Frequency selection of the SPS should avoid giving such a detrimental interference to RA services that operate very sensitive passive systems. Even so, the spurious emission must be suppressed as low as possible, and the location of the rectenna needs to be set far from RA observing sites. Since RA is fully passive, and celestial objects have no lower limit in intensity of emission, the observing system has been improved to become extremely sensitive. In fact, the GSO area was surveyed to detect some GSO satellites, as shown in Figure 5. Arrows indicate GSO satellites, probably for broadcasting at Ku band (12-GHz bands). In addition to point-like celestial radio sources and diffuse emission, mainly from our Milky Way Galaxy, spurious emissions from GSO satellites are strongly received. This causes serious interference when RA observations are conducted in these areas. If GSO satellites radiate spurious emission like that in Figure 5, the celestial equator is sufficiently infected to make RA observations impossible along it. The GSO area extends widely in the sky. The reference system postulated by NASA in 1977 consisted of 60 SPSs, each generating 6.7 GW. It should be noted that for the 60-satellite system, the black-body, thermal radiation from the GSO satellites would be a problem, even with the system totally deactivated in RA and infrared astronomy [12]. Optical astronomy could be affected by the reflection of sunlight from the enormous solar-paddle area. The need to keep the area clear for RA and astronomy of other frequency regimes cannot be overstated. Otherwise, we might effectively render useless an irreplaceable tool to investigate our universe.

**The impact is extinction**

**Jones 8**—scientist, author, pilot, and former NASA astronaut, he holds a doctorate in planetary sciences, and in more than eleven years with NASA, flew on four space shuttle missions to Earth orbit (Thomas, “Asteroid detection: Planning for the inevitable,” October, Lexis Nexis)

At least we are looking: New wide-field telescopes with advanced instrumentation, capable of searching large swaths of the sky for faint objects, promise large improvements in our near-Earth object detection capabilities. One of these new systems is Pan-STARRS (Panoramic Survey Telescope and Rapid Response System), whose prototype element is now operating on Haleakala in Hawaii. When complete, Pan-STARRS will have 3-16 times the collecting power of current NEO survey telescopes. Using a massive array of state-of-the-art CCD detectors in the focal plane, it will detect objects 100 times fainter than those currently found by NEO surveys. Pan-STARRS should quickly complete a search, as directed by Congress in 1998, for 1-km (and larger) NEOs and will be able to find 99% of those objects bigger than 300 m across. Another planned system is LSST, the Large Synoptic Survey Telescope, to be sited in northern Chile. Beginning in 2014, the 8.4-m telescope will scan the entire visible sky every three nights using a 3.2-billion-pixel CCD camera the size of a small car. The LSST will be able to find 90% of the near-Earth asteroid population 140 m and larger within about a dozen years--close to what Congress directed NASA to do in 2005 (a search program still unfunded). The Gates Foundation earlier this year put $30 million toward the telescope's construction, and the University of Arizona has just completed casting the main mirror. Over the next 15 years, these NEO search systems will lead to the discovery of over 500,000 asteroids, large and small, in the inner solar system. Of these, several thousand will be categorized as potentially hazardous asteroids, or PHAs, defined as objects that come within 0.05 astronomical units of the Earth (about 7.48 million km) and measure at least 150 m in diameter. As of August, there were 211 known PHAs, and 140 of those were larger than 1 km--capable of causing global devastation. By 2020, we may be staring at a PHA catalog that numbers more than 5,000!

## DA Space Weaponization – BMD Version

**New multilateral engagement is creating a framework against weaponization**

**Huntley 11** - senior lecturer in the National Security Affairs department at the Naval Postgraduate School in Monterey, California (Wade, “The 2011 U.S. National Space Security Policy: Engagement as a Work in Progress”, Disarmament Times, Spring, http://disarm.igc.org/index.php?option=com\_content&view=article&id=429:the-2011-us-national-space-security-policy-engagement-as-a-work-in-progress&catid=154:disarmament-times-spring-2011&Itemid=2)

As is well understood, the space policies of the Bush administration were decidedly oriented toward military security concerns and independent action. The 2006 National Space Policy unabashedly proclaimed the U.S. intention to maintain a dominant position in space indefinitely. This policy orientation dismissed multilateral cooperation as impinging on U.S. “freedom of action,” throwing weight instead behind a wide range of technology development initiatives founded on the assumption that deployment of weapons in space was, if not already factual, certainly inevitable.2 U.S. commercial and civil engagement was overshadowed by these security concerns, expressed through the tightening of export control restrictions inhibiting a broad range of technology sharing. Once again, U.S. space policy was subsumed by other national priorities, in this case dominated by military security concerns.

This background is essential for appreciating how the space policies of the Obama administration are beginning to genuinely break new trails. The U.S. National Space Policy issued in June 2010 has been widely recognized for its cooperative and multilateral tone, including as explicit near-term goals the expansion of international cooperation on all activities and pursuing international as well as national measures to enhance space stability. Particularly notable are the document’s emphasis on orienting U.S. “leadership” toward fostering international cooperation, and its references, in its concluding section, to cooperation with other states and non-state actors in the pursuit of national security space objectives.3

Less broadly noticed was this policy’s clarity and coherence in articulating a vision for U.S. space activities on its own terms. The document is organized around core principles, subsidiary goals and implementing guidelines that exceed its predecessors in delineating a longer-term direction for U.S. space policy that is integrated with, rather than derivative of, broader U.S. global aims.4 The policy also was generated and issued far earlier in the tenure of the administration than either of its predecessors, indicating an increased prioritization of attention to space policy at higher levels of policy-making.

To some degree, a turn toward multilateral cooperation in U.S. space policy was to be expected. China’s 2007 anti-satellite weapon (ASAT) test and the 2009 Iridium-Cosmos collision increased awareness of the challenge of space debris and the need for better global information sharing on space situational awareness (SSA).5 Also, new budget realities and unpromising technological developments have scaled back ambitions in some quarters for solving U.S. space security concerns with new independent capabilities. Finally, the Obama administration has pursued a more cooperative disposition across a wide range of global policy challenges, from Iranian nuclear ambitions to global climate change. But the improved clarity of vision in the 2010 Space Policy suggests that the emphasis on fostering global cooperation on space-related activities is more grounded in deliberate foresight than sailing the prevailing political winds.

The 2011 National Security Space Strategy, released February 4, is best interpreted against this background of the Obama administration’s turn toward both greater international space cooperation and greater attention to space policy in general. This first-of-its-kind strategic statement culminates a congressionally mandated space posture review.6 The initial section portraying the strategic environment to which U.S. security policy must be responsive highlights the growing problems of space debris, orbital congestion and coordination among a growing number of space actors — not state-based security threats per se. The Security Space Strategy features the objective of a “stable space environment in which nations exercise shared responsibility.”7 Specific provisions intended to implement this strategy, relevant to the preceding observations, include:8

• The strategy presents a full section on “Partnering with Responsible Nations, International Organizations, and Commercial Firms.” This category is not wholly multilateral in the traditional sense, displaying a symbiosis of alliance-building and collective cooperation not always carefully distinguished; i.e., “The United States will lead in building coalitions of like-minded space-faring nations and, where appropriate, work with international institutions to do so.”

• The strategy intends to “encourage responsible behavior in space and lead by the power of example,” a significant observation given the tendency of U.S. policy-makers (as noted above) not to expect quid pro quo responses to cooperative gestures. Also, the strategy states the U.S. “will support development of data standards, best practices, transparency and confidence-building measures, and norms of behavior for responsible space operations.” [italics added] In the context of the section on “Preventing and Deterring Aggression,” the strategy similarly intends to “support diplomatic efforts to promote norms of responsible behavior in space” as well as “pursue international partnerships that encourage potential adversary restraint,” along with other measures. This emphasis on norm-building and the role of example suggests a near-term endorsement of the development of “codes of conduct” for space activities (such as the recently revised European Union Code of Conduct, discussed below), whether or not such concord leads to more formal arms control arrangements in the longer-term.

• The Department of Defense is directed to “foster cooperative SSA relationships,” and to “expand provision of safety of flight services to U.S. Government agencies, other nations, and commercial firms.” Greater SSA information sharing has been a key suggestion for fostering international cooperation; the U.S. possesses globally superior SSA capabilities, but restricts the sharing of this information on the basis of national security concerns.9 Hence, this nominal commitment is significant in its own right.

• The strategy commits to reforming export controls. “In particular, as new opportunities arise for international collaboration, a revised export control system will better enable the domestic firms competing for these contracts.” As noted above, the oppressive impact of current U.S. export controls not only impinges on U.S. commercial space actors but also epitomizes the high degree to which U.S. policy has subsumed commercial and civil interests to national security concerns. The strategy appears to acknowledge this connection and commit to remedy it.

• The most assertive passages of the statement are moderated with community-building intent. For example, the strategy’s section on “Preventing and Deterring Aggression” concludes that the U.S. “will retain the right and capabilities to respond in self-defense, should deterrence fail,” but immediately adds that the U.S. “will use force in a manner that is consistent with longstanding principles of international law, treaties to which the United States is a party, and the inherent right of self defense.”

• The concluding and most conflict-oriented section of the strategy opens by noting that “some actors may still believe counterspace actions could provide military advantage.” Counterspace capabilities, unarticulated in the document, include ASATs, ground-based directed energy weapons and satellite transmission jamming. Deputy Assistant Secretary of Defense for Space Policy Gregory Schulte explained at the strategy’s rollout that China is a principal concern in this regard, but so is the proliferation of these technologies: “If Ethiopia can jam a commercial satellite, you have to worry what others can do.”10 This section of the strategy does not, however, call for maintaining options to develop complementary space conflict capabilities.

Rather, the strategy asserts that the U.S. “must be prepared to ‘fight through’ a degraded environment,” and identifies “resilience” and “space protection” as the key criteria.

The preceding survey of elements of the 2011 National Security Space Strategy is deliberately selective, highlighting those elements expressing consistency with the 2010 National Space Policy’s bend toward fostering greater international collaboration. Perhaps as striking as the prevalence of such passages, however, is the absence of expressed intention — even couched in hedging language — to sustain or expand the kind of independent space-based military capabilities that were the centerpiece of the prior administration’s aims (if not its accomplishments). Again, to some extent this turn in tone is overdetermined by extenuating global circumstances. But one must still be struck by the degree to which developments such as the Chinese ASAT test have not ignited the kind of response one might have anticipated only a few short years after Donald Rumsfeld’s notorious warning of a “space Pearl Harbor.”11

The most immediate significance of the National Security Space Strategy is likely the signals its sends concerning U.S. policy toward the recently revised European Union Code of Conduct.12 The strategy did not explicitly endorse this EU initiative, but Mr. Schulte, at the February 4 presentation of the strategy, highlighted the initiative “as a potential way” to promote “transparency and confidence-building measures, which tend to be voluntary as opposed to legally binding.” A week earlier, Rose Gottemoeller, Assistant Secretary of State for Arms Control, Verification and Compliance, stated at the Conference on Disarmament that the administration was nearing a decision on whether the U.S. would sign on to the code, and what modifications might be required in order to do so.13 As U.S. interest in the Code of Conduct has increased, debates over its provisions and its relationship to the Outer Space Treaty have intensified.

These policy movements toward multilateral engagement and commitment to behavioral standards (even if non-binding) mark a sharp departure from the stiff resistance to curtailing U.S. “freedom of action” in the previous administration, and have accordingly generated resistance from congressional opponents on just those terms. Prior to the release of the National Security Space Strategy, a group of 37 Republican senators led by Arizona Senator Jon Kyl issued a letter to Secretary of State Hillary Rodham Clinton expressing concern over a potential multilateral commitment that might limit development and/or deployment of space-based missile defense interceptors and ASAT-defeating systems.14 Critics also decried the strategy’s emphasis on “the old fallacious assumption that the power of example will prevent adversaries from doing the United States harm,” and endorsed maintaining the goal of U.S. retention of a “dominant position in military and intelligence space capabilities.”15 In fact, the administration’s warming toward normative commitments in general — and the EU Code of Conduct in particular — are in part intended to forestall pressure for more formal and binding measures that would definitively cut off the “hedge” of unilateral U.S. weapons development options.16 The balance of U.S. debate may have shifted toward greater international cooperation, but the terms of the debate remain the same.

In sum, the National Security Space Strategy appears to mark not only a swing in U.S. policy toward greater global engagement but also, and more importantly, a step toward greater long-term coherence in thinking concerning the core goals of U.S. space activities. Even supporters of the general directions of the strategy noted its more-than-expected breadth of thought.17 But if this reading is sound, the strategy is still but one step on a long road, and ongoing debates over the role of U.S. space policy vis-à-vis broader national security interests will insure that road is bumpy. Suggesting such limitations, Mr. Schulte acknowledged that the classified version of the strategy is only four pages longer than the released version, indicating that more specific guidelines for military implementation of the strategy remain to be developed.18 Many devils may lurk in these details.

**BMD will create nuclear preemption before deployment can be completed**

**Englehart, 8** – patent litigation attorney (Alex, “COMMON GROUND IN THE SKY: EXTENDING THE 1967 OUTER SPACE TREATY TO RECONCILE U.S. AND CHINESE SECURITY INTERESTS,” 17 Pac. Rim L. & Pol'y J. 133, lexis)

D. An Effective U.S. Space Weapons Deployment Would Neutralize the Effectiveness of ICBMs and Create a Powerful Incentive for Nuclear Preemptive Strikes

In addition to the strategic interplay between space-based weapons and ASATs discussed above, n54 space-based weapons would have a major impact on the effectiveness of ICBMs, n55 the mainstay weapons of the second half of the twentieth century. ICBMs armed with nuclear warheads have been the primary guarantor of mutually assured destruction since their inception in the 1960s--any use of ICBMs against another country also equipped with them would lead to massive retaliation in kind. n56 The threat of mutual annihilation kept the peace between the superpowers during the Cold War and has continued to preserve stability among powerful nations up to the present day. n57 Even in today's so-called "uni-polar" world, Russia and China maintain vast quantities of weapons of mass destruction that serve as [\*140] a strong deterrent to any potential adversary considering an attack. n58 Unfortunately, with the development of space-based weapons, especially missile interceptors, this stability would be eviscerated. n59Space-based interceptors would be accurate and fast enough to reliably shoot down ICBMs in flight. n60 If one country possessed space-based interceptors, it would effectively neutralize the ICBMs of all other countries, allowing it to use its own ICBMs with relative impunity. n61

If the United States starts to deploy space-based interceptors that can shoot down ICBMs, China will face enormous internal pressure to at least consider the idea of launching a massive nuclear first strike. n62This is because once a robust space-based interceptor system is deployed, the United States would have essentially unlimited power to dictate terms to China on any matter it chooses--China would be at the absolute mercy of the United States. n63 China would have a limited window of time in which to use its ICBMs before they became worthless in the face of orbiting interceptors, and it could very well feel compelled to do so in order to avoid the total collapse of its strategic nuclear deterrent. n64

E. Beyond the Inevitable Direct Harm to Sino-American Relations, the Deployment of Space Weapons Would Inflame Russia and Drive It into a Closer Relationship with China

Even though Russia is now much weaker than the Soviet Union of the Cold War era, n65 it still has thousands of ICBMs, n66 and the United States should carefully consider the ramifications of its planned space weapons deployment in light of that reality. n67 Russia's opinion cannot be ignored. n68 While it may not be capable of effectively deploying space-based weapons in the near to mid-term, it may well have an operational ASAT capability n69 and, in any case, its ICBMs demand respect. n70 Like China, Russia depends [\*141] on its ICBM capability to maintain its international respect. By being able to threaten any potential adversary with nuclear annihilation, Russia maintains its strength and independence in a changing world. n71 Also like China, Russia is understandably worried about the American pursuit of space weapons, which have the potential to undermine the effectiveness of ICBMs. n72

Russia has long been a strategic player in the space weapons arena. In the late 1970s, the United States and the Soviet Union entered into negotiations on an ASAT ban, but the discussions fell apart before any agreement was reached. n73 Ever since, the Soviet Union (later Russia) has been wary of American plans to deploy any kind of weapon in space or further pursue ASAT capabilities. n74 The Strategic Defense Initiative under the Reagan administration--a predecessor to twenty-first century American space weapons programs--arguably hastened the collapse of the Iron Curtain. n75 The actual deployment of satellite-based weapons in the coming decades is sure to inflame Russia and drive it further away from the United States.

## DA Unilateralism – For Develop Not Deploy CP

**Unilateral weaponization will cause arms races and nuclear war—cooperation solves**

**Blank, Army prof, et al. 8** (Stephen Blank – Prof. at the US Army War College, Ethan Burger – adjunct prof at the Georgetown Law Center, Eugene Kolesnikov – Netherland Consultant, “Russia Profile Weekly Experts Panel: A New Arms Race?” http://www.russiaprofile.org/page.php?pageid=Experts'+Panel&articleid=a1221842130#1)

What is Russia’s leadership up to? Is Moscow indicating its readiness to engage the West in a new arms race or in a new round of cooperation? Are there any preconditions for a new arms race? Or is Moscow signaling that it is prepared to work with the West constructively, provided that Russia’s interests are respected? How will the West read these seemingly conflicting signals from Russia? Eugene Kolesnikov, Private Consultant, the Netherlands: The arms race during the Cold War was about maintaining full parity between two irreconcilable ideologies and socio-economic systems. The arrangement of the world governance system and related military potentials during that era was quite simple: it consisted of two competing camps and a collection of non-aligned countries that were either too big to swallow or too unimportant to worry about. The military forces of the non-aligned block were not threatening the status quo between the big players. After the peaceful disbanding of the Soviet empire, a very short period of disarmament ensued. The United States and Western Europe started to reduce their armies and arsenals on the premise that a new benign world order was in the offing, while Russia largely neglected its military, being completely preoccupied with the economic, social and political devastation. Only parity in the nuclear “mutually assured destruction” was maintained. This brief interlude, having excited the pacifists and believers in the post-modern world order based on supranational interests, ended as abruptly as it started. The United States single-mindedly embarked on a new mission of imposing a U.S.-centric democratic world hegemony, underpinned, not surprisingly, by military force. The ABM treaty was scrapped, the “star wars” concept was dusted off, space military predominance was declared a vital U.S. interest, NATO rushed to the countries around Russia, Iraq was invaded, the EU countries were continuously pressured into increasing their NATO military budgets, and Japan was encouraged to graduate from its anti-war policies and increase its offensive military capability. This “unipolar” moment, however, did not last long. Four major factors started to determine the course of militarization around the world, while U.S. policymakers were still congratulating each other on the great opportunities that the unipolar moment offered for the planet. These four major factors were the rise of China, the revival of Russia, fast economic growth in Asia and South America and a sense of insecurity setting in everywhere as a result of the collapse of the bi-polar world, as well as the United States’ inability to be the world policeman and security guarantor—made abundantly clear by the U.S. failures in Afghanistan and Iraq. The world as a whole has taken to arms. This time, however, the race is fueled by different goals. America wants to maintain its military predominance. China and Russia are re-arming as fast as they can without hurting economic growth, to be able to defend their sovereign status. Enriched Asian countries are snapping up arms to secure their positions vis-?-vis each other and the rising China. South American regimes are doing a similar thing. And now the EU is seriously thinking about creating its own military capability. The world has become more insecure and arguably much more dangerous than it was during the second half of the 20th century. In this context, Russia is undeniably in the arms race, but the race is not about achieving full parity with the United States. It is about catching up with the advances in military technology and re-building military forces for the purposes of securing Russia's independence, particularly vis-?-vis the United States and China. The unfortunate aspect of modern militarization is that it is likely to transform into a truly Cold-War-type mode as far as anti-ballistic defense systems and space militarization are concerned. Despite the sense of superiority that overwhelmed the U.S. establishment, it must realize that a country with only three percent of the world’s population and 25 percent of the world’s GDP cannot maintain a 50 percent share of the world’s military spending forever. This realization is the true reason behind the American plans for global anti-ballistic missile defense and space militarization. The United States believes that over the next two to three decades, it can beat the others (Russia and China) in these spheres and gain a decisive strategic military advantage. Both Russia and China will do everything possible to thwart this vital threat. A frightening Cold-War-type arms race to counter the U.S. missile defense systems and militarization of space is about to take off in earnest, unless the United States gives in to the Russian and Chinese demands to leave the nuclear and space parity alone. This arms race is perhaps as dangerous as the Cold War one. This time, however, the trigger is in the hands of only one party –the U.S. establishment. Unfortunately, the signs are that the United States is already pulling the trigger. With the price for a barrel of oil dropping to about $100, foreign direct and portfolio investment in the country plummeting, and the Russian infrastructure deteriorating, the Russian government can ill-afford a new arms race. Similarly, given the size of the U.S. budgetary and trade deficits, adding more defense spending to an already huge defense budget would create major funding problems for key domestic programs, and would be difficult to justify politically.

**Counterplan regains US soft power and solves deterrence—plan kills soft power—perception is key**

**Brown, Ph.D candidate, 9** (March 1, 2009, Trevor Brown is a Ph.D. candidate at Auburn University with a focus on political, economic, and military strategy for the medium of space. He has previously written for the Air and Space Power Journal and The Space Review. “Soft Power and Space Weaponization” http://www.airpower.au.af.mil/airchronicles/apj/apj09/spr09/brown.html#brown, nkj)

Official rhetoric clearly has a significant role to play in the skillful execution of US space policy—take for example the US National Space Policy paper of 2006. Other nations believed that the document contained uncompromising language and that the United States had taken a “proprietorial attitude” toward space.21 Whether or not the document’s actual language is proprietorial may be open to dispute, but it nevertheless appeared that way to an international audience. In the political arena, perceptions are often more important than reality, and it is likely that the manner in which the Bush administration conducted foreign policy at the time led other nations to believe that the United States sought to impose an onerous domination of space on the rest of the world.

Analysts have argued that the rest of the world accepts US space supremacy, but the Bush administration was claiming space dominance—a condition that other countries will not accept.22 Evidently the world can tolerate the notion that the United States will possess space supremacy, which implies the ability to dominate, yet finds insufferable the idea that America could actually exercise this dominance. Perhaps the world believes that “dominance” connotes an oppressive, unilateral, or dictatorial position, while “supremacy” suggests merely a position of leadership.

What, then, do nations believe that future US space dominance would mean? Retired Chinese military officer Bao Shixiu, a research fellow at the Academy of Military Sciences in Beijing, has stated that “the monopolization of space by a single country . . . cannot be accepted.”23 Maybe the rest of the world is inclined to share this conception of a “monopoly” due to analysts’ concern “that the U.S. government might pursue a strategy that would aim to maintain a veto over other countries’ ability to access space.”24

The fact is that space is now a great “commons” for space powers, much as the sea was for sea powers centuries ago, not because of any international law or treaty but because of the nature of the space medium. Similar to maritime communications long ago, space assets must conduct all of the surveillance and reconnaissance, attack warning and assessment, communications, signals interception, navigation, munitions guidance, meteorology, and so forth, in a neutral or “common” zone. According to Sir Julian S. Corbett, “You cannot conquer sea because it is not susceptible of ownership, at least outside territorial waters. You cannot, as lawyers say, ‘reduce it into possession,’ because you cannot exclude neutrals from it as you can from territory you conquer. In the second place, you cannot subsist your armed force upon it as you can upon enemy’s territory.”25

Space forces allow the United States to act with unprecedented speed and thoroughness around the world in much the same way that England’s sea power “allowed her forces to act on distant points, widely apart as Cuba, Portugal, India, and the Philippines, without a fear of serious break in their communications.”26 However, assets and information in space, as on the sea, must pass along lines of communications not only shared by other participants but also open to dispute. It follows that since space has inherent value as a means of obtaining and communicating information, a critical objective in space must always concern the securing of celestial lines of communications. Corbett notes that command of the sea, therefore, means nothing but the control of maritime communications, whether for commercial or military purposes. The object of naval warfare is the control of communications, and not, as in land warfare, the conquest of territory. The difference is fundamental. True, it is rightly said that strategy ashore is mainly a question of communications, but they are communications in another sense. The phrase refers to the communications of the army alone, and not to the wider communications which are part of the life of the nation.27

A recent analysis contends that “key to understanding Corbett’s thinking is that command of the sea actually exists only in a state of war. For if one claims command of the sea during times of peace, it is done rhetorically and only means one state has adequate naval positions and a sizable fleet to secure command once hostilities are commenced.”28

Corbett goes further: “To aim at a standard of naval strength or a strategical distribution which would make our trade absolutely invulnerable is to march to economic ruin. It is to cripple our power of sustaining war to a successful issue, and to seek a position of maritime despotism which, even if it were attainable, would set every man’s hand against us. All these evils would be upon us, and our goal would still be in the far distance.”29

For this reason, the United States should seek a position of space supremacy whereby it can exercise control and effectively dominate the medium in the event of war. At the same time, it should maintain a stance in peace that is politically acceptable to all other participants by refraining from overextended and unnecessary exercises in domination. The United States should especially avoid creating the perception that it has grandiose desires for imposing a domination that smacks of orbital tyranny.

Evidently, rhetoric emanating from the United States regarding space has made members of the international community suspicious that America could bar them from the medium on nothing more than a whim. Such apprehensions unnecessarily contribute to further reductions in soft power. The United States should take care to ensure that other nations receive the impression that it has no intention of hindering their peaceful use of space. If those countries find current US space supremacy tolerable, then perhaps in time they could endure the United States’ possession of weapons if this were a significant aspect of US primacy in space and maintenance of the status quo. But if US rhetoric and posturing leave other nations with the belief that the United States has stratagems for orbital despotism, then the international system will hesitate to look to it for leadership. Furthermore, even if most nations cannot compete in space, they will nevertheless do whatever they can to oppose the United States.

**Soft power is the best way to solve global problems—it builds coalitions for leadership and prevents terrorism, disease, environmental destruction, and wars**

**Stanley, security prof, 7** (Elizabeth Stanley, Ph.D. is an Assistant Professor of Security Studies in the Edmund A. Walsh School of Foreign Service and the Department of Government, 7 “International Perceptions of US Nuclear Policy” Sandia Report, http://www.prod.sandia.gov/cgi-bin/techlib/access-control.pl/2007/070903.pdf)

How important is soft power, anyway? Given its vast conventional military power, does the United States even need soft power? Some analysts argue that US military predominance is both possible and desirable over the long term, and thus soft power is not important. But a growing consensus disagrees. These analysts argue that soft power is critical for four reasons. First, soft power is invaluable for keeping potential adversaries from gaining international support, for “winning the peace” in Afghanistan and Iraq, and for convincing moderates to refrain from supporting extremist terrorist groups. Second, soft power helps influence neutral and developing states to support US global leadership. Third, soft power is also important for convincing allies and partners to share the international security burden.14 Finally, and perhaps most importantly, given the increasing interdependence and globalization of the world system, soft power is critical for addressing most security threats the United States faces today. Most global security threats are impossible to be countered by a single state alone. Terrorism, weapons of mass destruction (WMD) proliferation, failed and failing states, conflicts over access to resources, are not confined to any one state. In addition, disease, demographic shifts, environmental degradation and global warming will have negative security implications as well.15 All of these potential threats share four traits: (1) they are best addressed proactively, rather than after they develop into full-blown crises; (2) they require multi-lateral approaches, often under the umbrella of an international institution; (3) they are not candidates for a quick fix, but rather require multi-year, or multi-decade solutions; and, (4) they are “wicked” problems. Given these four traits, soft power is critical for helping to secure the international, multi-lateral cooperation that will be necessary to address such threats effectively.

**Disease causes extinction**

**Ryan, MD, 97**—Doctor of Medicine (Frank, Virus X: Tracking the New Killer Plagues, 1997, page 366)

How might the human race appear to such an aggressively emerging virus? That teeming, globally intrusive species, with its transcontinental air travel, massively congested cities, sexual promiscuity, and in the less affluent regions — where the virus is most likely to first emerge — a vulnerable lack of hygiene with regard to food and water supplies and hospitality to biting insects' The virus is best seen, in John Hollands excellent analogy, as a swarm of competing mutations, with each individual strain subjected to furious forces of natural selection for the strain, or strains, most likely to amplify and evolve in the new ecological habitat.3 With such a promising new opportunity in the invaded species, natural selection must eventually come to dominate viral behavior. In time the dynamics of infection will select for a more resistant human population. Such a coevolution takes rather longer in "human" time — too long, given the ease of spread within the global village. A rapidly lethal and quickly spreading virus simply would not have time to switch from aggression to coevolution. And there lies the danger. Joshua Lederbergs prediction can now be seen to be an altogether logical one. Pandemics are inevitable. Our incredibly rapid human evolution, our overwhelming global needs, the advances of our complex industrial society, all have moved the natural goalposts. The advance of society, the very science of change, has greatly augmented the potential for the emergence of a pandemic strain. It is hardly surprising that Avrion Mitchison, scientific director of Deutsches Rheuma Forschungszentrum in Berlin, asks the question: "Will we survive!” We have invaded every biome on earth and we continue to destroy other species so very rapidly that one eminent scientist foresees the day when no life exists on earth apart from the human monoculture and the small volume of species useful to it. An increasing multitude of disturbed viral-host symbiotic cycles are provoked into self-protective counterattacks. This is a dangerous situation. And we have seen in the previous chapter how ill-prepared the world is to cope with it. It begs the most frightening question of all: could such a pandemic virus cause the extinction of the human species

**Ecosystems are crucial to human survival and economic growth—tipping points are coming now**

**Hasegawa 10** (Kyoko, 18 October 2010, UN meet to curb species loss opens in Japan, http://www.google.com/hostednews/afp/article/ALeqM5iII72JZyeYus7g5NkM8bIaNp8MMw?docId=CNG.e52a0d2eee918a18c492302fd778f8c4.411, RBatra)

Scientists say worldwide human population pressures are wiping out ecosystems such as tropical forests and coral reefs, killing off animal and plant species that form the web of life which humanity depends on.

"Our prosperity and indeed our survival depend on healthy ecosystems," said Jim Leape, the chief of the Worldwide Fund for Nature (WWF). "The Earth’s forests, oceans and rivers are the very foundation of our society and economy.

"Even in purely economic terms, it is far, far more cost effective to conserve or restore healthy ecosystems than to artificially provide natural services that we currently take for granted."

Delegates will have to acknowledge that they have failed so far to meet past pedges to stem biodiversity loss, first made when the UN biodiversity convention was adopted in 1992.

At the start of the decade, UN members pledged under the Millennium Development Goals to achieve "a significant reduction" in the rate of wildlife loss by 2010, which marks the International Year of Biodiversity.

Instead, habitat destruction has continued unabated.

Nearly a quarter of mammals, one third of amphibians, more than one in eight birds, and more than a fifth of plant species now face the threat of extinction, says the International Union for Conservation of Nature (IUCN).

In May, a UN report warned of looming "tipping points" that could irreversibly damage ecosystems such as the Amazon rainforest, through logging and land clearance, and coral reefs through global warming and overfishing.