# Politics Links File

# \*\*\*Cooperation Links

# Coop Unpopular – China

**The Bill is unpopular – China cooperation is rejected by multiple scenarios**

**Pennington, 7/16** [ Associated Press, “ US lawmaker wields budget ax over China space ties” article for associated press

http://www.ajc.com/news/nation-world/us-lawmaker-wields-budget-1019535.html]

WASHINGTON — A Republican lawmaker is looking to make the Obama administration pay a price for what he sees as its defiance of Congress in pursuing cooperation with China in science and space technology. A proposal by Rep. Frank Wolf, a fierce critic of Beijing, would slash by 55 percent the $6.6 million budget of the White House's science policy office. The measure was endorsed by a congressional committee this week, but faces more legislative hurdles, and its prospects are unclear. President Barack Obama has sought to deepen ties with China, which underwrites a major chunk of the vast U.S. national debt and is emerging a challenge to American military dominance in the Asia-Pacific region. Among the seemingly benign forms of cooperation he has supported is in science and technology. Last year NASA's administrator visited China, and during a high-profile state visit to Washington by China's President Hu Jintao in January, the U.S. and China resolved to "deepen dialogue and exchanges in the field of space." Wolf, R-Va., argues that cooperation in space would give technological assistance to a country that steals U.S. industrial secrets and launches cyberattacks against the United States. He says Obama's chief science adviser, John Holdren, violated a clause tucked into budget legislation passed this year that bars the White House Office of Science and Technology Policy and NASA from technological cooperation with China. He says Holdren did so by meeting twice with China's science minister in Washington during May. "I believe the Office of Science and Technology Policy is in violation of the law," Wolf told The Associated Press, adding that cutting its budget is the only response available to him. Wolf chairs a House subcommittee that oversees the office's budget. The punishment he proposes reflects his deep antipathy toward China, which he accuses of persecuting religious minorities, plundering Tibet and supporting genocide in the Darfur region of Sudan by backing Sudanese President Omar al-Bashir. He described the Obama administration's policy toward the Asian power as a failure and railed against the president for hosting Hu at the White House. Caught at the sharp end is Holdren's office, whose mandate is to develop sound science and technology policies by the U.S. government and pursue them with the public and private sectors and other nations. Holdren told a Congressional hearing chaired by Wolf days before his May meetings with Chinese Science Minister Wan Gang that he would abide by the prohibition on such cooperation with China, but then spelled out a rather large loophole: that it did not apply in instances where it affected the president's ability to conduct foreign policy. At another Congressional hearing shortly afterward, Wolf's annoyance was clear. He threatened to "zero out" Holdren's office. Space cooperation between the two world powers like the U.S. and the Soviet Union pursued in the Cold War still seems a long way off. NASA Administrator Charles Bolden Jr. visited China in a little-publicized trip in October and discussed "underlying principles of any future interaction between our two nations in the area of human space flight," but no specific proposals. China sent an astronaut into space in 2003, and plans to send the first building block of a space station into orbit this year, but it still has comparatively limited experience. Another constraint on cooperation is that its manned space program is dominated by its military, whose other capabilities — most clearly demonstrated by a 2007 test that destroyed an orbiting satellite — have alarmed American officials. But one benefit of basic forms of cooperation, such as sharing data and basic design criteria, could be to learn a little more about China's opaque space program. Since 1999, the U.S. effectively banned use of its space technology by China. That also has a commercial downside for American producers in an increasingly globalized marketplace. "Renewing civil and commercial space cooperation with China ... is not a blank check and need not provide China with sensitive technologies," wrote James Clay Moltz of the Naval Postgraduate School in testimony at a congressional hearing on China's civilian and military space programs in May. Wolf has included the prohibition on cooperation with China by NASA and the White House science policy office in the bill approved Wednesday by the House Appropriations Committee. The bill budgets $50.2 billion for a raft of federal agencies involved in law enforcement, trade promotion, space and science for the fiscal year starting in October. The 55 percent reduction faced by the science policy's office far exceeds the overall 6 percent cut in spending across all government agencies covered by the bill. Holdren's office could not be reached for comment Friday. The bill now goes to the Republican-led House of Representatives for approval. A version also must pass the Democrat-led Senate, and the two bills would have to be reconciled before legislation can be sent to Obama to be signed into law.

# Coop Unpopular – China

**Foreign cooperation is unpopular – Wolf clause proves**

**Young 7/11** [Connie, writing for the CBS news service 7/7/11 “Can U.S. afford to snub China in space quest?”

<http://www.cbsnews.com/8301-503543_162-20077462-503543.html>

Beijing was deeply offended when two journalists from China's state-run Xinhua news agency were barred from covering the historic launch of the shuttle Endeavour in May, the second-to-last mission for the U.S. shuttle program. Endeavour blasted off from Florida's Kennedy Space Center on May 16, carrying an Alpha Magnetic Spectrometer-2 particle detector - a $1.5 billion apparatus developed, in part, by Chinese scientists. It became a source of national pride in China. Banned from covering the launch, the government mouthpiece lashed out in a report two days blasting "discriminative" new U.S. legislation which bans any of NASA's government-apportioned funding being used in partnership with, to support or host any entity of the Chinese government. The Xinhua article refers to a clause added by Rep. Frank Wolf (R-Va.), chairman of the House committee which oversees NASA's budget - and a fierce critic of China's human rights record, to an emergency national budget bill passed in April to keep the U.S. government running for six months. Xinhua's article claimed "even Americans themselves" viewed the so-called "Wolf Clause" as discriminatory. The emergency budget averted a government-wide shutdown, and it was passed in spite of vocal objections by members of both parties to many of the restrictions included. However, there has been little talk in Washington specifically about the clause on space cooperation with China, and no U.S. lawmakers have publicly labeled it "discriminative," as Xinhua suggested. "Obviously, the 'Wolf Clause' runs counter to the trend that both China and the United States are trying to push ahead their exchanges and cooperation in science and technology," said the Xinhua article. In remarks to the House Appropriations subcommittee explaining his stance, Wolf made it clear China's dismal record on human rights was behind the legislation blocking any NASA interaction with China's military-run space program. "Consider our differing worldviews," said Wolf. "The U.S. was founded on the premise that liberty is a birthright, that individual human life is sacred, that the freedom to worship according to the dictates of your conscience is paramount. The Chinese government operates antithetically to these beliefs." "There is no clearer indication of the gulf that exists between our two countries than the Chinese government's treatment of its own people." But experts in U.S.-China relations accuse Wolf of seeking to "ram through a potentially unconstitutional assault on the president's ability to conduct scientific diplomacy." Gregory Kulacki, a Beijing-based global security analyst and member of the Union of Concerned Scientists wrote in the journal "Nature" that the restrictions placed on NASA may, in part, be partisan U.S. politics threatening to further exacerbate a relationship already fraught with distrust. The scientist tells CBS News that Wolf's amendment was "prompted by efforts by the Obama administration to reach out to the Chinese (on space cooperation) even though the Bush Administration had been doing the same thing for years." "The ban should be lifted," wrote Kulacki bluntly. "The progress of Chinese space activity during the previous US administration suggests that the prohibitions that have stifled Sino-American scientific cooperation for decades have not achieved their aims, and have arguably been counterproductive. China has shown that it has the talent and resources to go it alone. The sanctions have only severed links between the countries and made a new generation of Chinese intellectuals resentful and suspicious of the United States. And they stand in contrast to the tradition of scientists strengthening diplomatic relations."

# Coop Popular – International

**Cooperation is accepted as a necessity by the government**

**Albrecht 7/6** [ Mark J. G“Americas space program is crashing” PhD from the Rand Graduate School <http://www.washingtontimes.com/news/2011/jul/6/americas-space-program-is-crashing/>]

The system has become adept at resisting reprioritization and powerful in protecting itself and the status quo. The only successful initiatives to alter the direction of our space efforts at the national level since the end of the Cold War have been negative. Cuts count; they force change. President Clinton dramatically reoriented and redefined the space station by cutting its budget in half and threatening to cancel it outright. President Obama has changed the human spaceflight program by letting the shuttle fly out, commercializing operations of the space station and canceling the Constellation program. His intention, properly, is to use the savings to underwrite new developments. Even in **the best of times this would be difficult, but current fiscal realities are likely to push Congress to harvest much of the savings for deficit reduction**. Worse, the president’s space team is sending conflicting signals about its commitment to his plan. For decades, America introduced inventions to the world, such as high-speed and personal computers, robotics, satellite telecommunications, lasers, solar panels, laparoscopic surgery, nanomachines and nuclear medicine, and built industries and high-tech jobs around each of them in a seemingly unending cavalcade of spinoff technologies developed by our space programs. Will space remain an economic and technological catalyst for America in the coming decades, or is our future in innovations like Facebook and Twitter? The conventional wisdom in the federal bureaucracy is that you can reduce spending or you can restructure, reprioritize and reorganize. You can cut programs or start new programs. But you can’t do both. Now, our backs are to the wall. To re-establish our leadership in space, we must defy conventional wisdom and cut spending, start new initiatives and radically restructure a mature agency - all at the same time. It won’t be pleasant, and it won’t be easy, but neither was putting a man on the moon.

# \*\*\*NMD Links

# NMD Unpopular - Congress

**Missile Defense being cut in the Status Quo – congressional scrutiny magnifies the link**

**Dimascio 6/10** [Joe, reporter for politico, “Defense Bill Boosts Missile Defense Scrutiny” <http://www.politico.com/news/stories/0610/38334.html>]

As Congress, prodded by Defense Secretary Robert Gates, casts a more watchful eye on Pentagon spending and contracting procedures, even missile defense programs may no longer get a free pass. In fact, come next year, Congress may boost scrutiny of the Pentagon’s missile defense initiatives in a way both political parties can support. In the defense authorization bill, the Senate Armed Services Committee has included two new provisions — one to increase oversight of the entire agency and another focused on a key program that Republicans want to ensure remains viable. The first requires the Missile Defense Agency to start laying down a “baseline,” or an initial figure, for how much each of its programs should cost. It’s something lawmakers and the Government Accountability Office have sought for years — and that taxpayers might be surprised doesn’t already exist. “Creating objective assessments of the costs and progress of the missile defense program brings MDA closer in line with other defense acquisition programs,” said Sen. Ben Nelson (D-Neb.), who leads the Strategic Forces Subcommittee. “It adds accountability [and] transparency and improves efficiency, which is good for the missile defense program and good for taxpayers.” The agency is no small backwater. The MDA manages the research, development and testing of all the nation’s missile defense systems, commanding an annual budget of roughly $10 billion. The agency asked for $8.4 billion next year, up several hundred million dollars over 2010, but it may have even more to spend. The Senate Armed Services Committee passed a defense authorization bill that will allow the agency to spend $10.2 billion, and the House voted for $10.3 billion. The agency oversees everything from the colossal Ground-based Midcourse Defense System — giant interceptors buried in Alaska and California designed to pick off enemy intercontinental ballistic missiles — to the administration’s new phased, adaptive approach to defending Europe, first from sea-based interceptors and later from land and high-tech projects that remain the subject of research. The agency, created by Defense Secretary Donald Rumsfeld in 2002 as a successor to the Reagan-era Strategic Defense Initiative and the Ballistic Missile Defense Organization, was initially a research and development entity, a move that shielded it from the acquisition rules that apply to most defense weapons programs. And for most of the Bush administration, the MDA enjoyed a light touch when it came to oversight. When a program’s cost grew, for example, the agency just asked for more money for the program the next year, said one congressional aide. Sen. Carl Levin (D-Mich.), chairman of the Armed Services Committee, described the problem during a 2009 speech at a missile defense conference — at a time when the administration was focused on reining in Pentagon programs in which cost growth had escalated by nearly $300 billion. “For the last eight years, MDA programs have been exempt from many of the most basic requirements of the DoD acquisition system,” Levin said. “MDA programs have suffered from extensive schedule delays and from billions of dollars of added costs. Unfortunately, we have not been in a position to say how bad these problems are because, unlike other acquisition programs, MDA programs are not required to establish firm baselines for cost and schedule, not required to measure their performance against those baselines and not subject to Nunn-McCurdy requirements to identify and address troubled programs.”

# NMD Unpopular – Obama

**Obama doesn’t want the plan – other missile defense programs come first**

**Spring 09** [Baker, Research Fellow in National Security Policy at The Heritage Foundation, <http://www.heritage.org/Research/Reports/2009/08/Obama-Missile-Defense-Proposal-Numbers-Matter>]

Space-Based Interceptors It is assumed that the Obama Administration is going to fill any gaps in U.S. and allied vulnerability to long-range missile strikes with follow-on systems to the GMD interceptors. This is a dangerous assumption. While future sea-based interceptors derived from the Navy's Standard Missile-3 missile defense interceptors could be given the capability to intercept long-rang missiles, it is far from certain that the Obama Administration will take this step.[6] What is certain, however, is that the Obama Administration is not going to support the development of even more effective space-based interceptors. The Obama Administration has requested a $577 million increase in research and development funding for sea-based missile defense, which it claims is in part for countering long-range missiles.[7] The sea-based program is to field roughly 220 anti-missile interceptors through 2015, but it is unclear what number of those will be capable of countering long-range missiles.[8] On the other hand, the Administration has mounted no visible opposition to a provision in the House Defense Appropriations Bill to cut $50 million out of the program. Further, the Obama Administration has moved to end the Multiple Kill Vehicle program. This program was slated to assist in the fielding of new generations of Standard Missile-3 interceptors. The termination of the program could both delay and make more expensive the effort to give the sea-based missile defense system the ability to counter long-range missiles. The logical alternative for follow-on systems to counter long-range missiles is space-based interceptors.[9] In this case, 1,000 interceptors located in orbit would provide a robust defense against rogue state missile attack. Yet the Obama Administration's missile defense program provides no funding for the development of space-based interceptors.

# NMD Unpopular – Flip Flop

**Obama is focused on land missile defense and missile defense cuts**

**Eaglen 10** [Mackenzie, Research Fellow for National Security Studies at the heritage foundation, “Why Missile Defense” for the Heritage foundation <http://www.heritage.org/research/commentary/2010/08/why-missile-defense>]

President Obama’s “phased adaptive approach” for missile defense has some merits but also has unnecessarily slowed the program while the threat has remained the same. Iran may be capable of launching a long-range missile by 2015, yet the U.S. missile defense program will not be capable of defeating this type of threat until 2020. The Department of Defense has requested $9.9 billion in the fiscal year 2011 budget for the missile defense program, with $8.4 billion of that going to the Missile Defense Agency (MDA). One notable improvement is the $2.2 billion request for the sea-based Aegis ballistic missile defense system – an 11 percent increase over the previous year. While the MDA budget shows an increase over the previous year’s request, it still falls nearly $1 billion short of President Bush’s final request in fiscal year 2009. The administration’s plan for missile defense has four stages that continue through 2020. The program includes both land and sea-based interceptors. Ultimately, the fourth phase would move the system beyond regional defense and protect the entire U.S. homeland against an ICBM attack. Unfortunately, the administration has cut back on other integral parts of the comprehensive program. The number of ground-based interceptors in Alaska and California has been cut from 44 to 30, the planned “third site” for missile defense in Poland and the Czech Republic was cancelled, and funding has been eliminated for space-based interceptors. For a truly effective and comprehensive system, the land, sea and air components must be strengthened. First, the administration should reinstate the original plan to field 44 ground-based midcourse defense interceptors in Alaska and California. As the number of countries that possess ballistic missiles grows alongside the size of many arsenals, additional interceptors are necessary. Congress should add $200 million to the missile defense budget to begin restoring the planned interceptors here in the U.S. Iran may be capable of launching a long-range missile by 2015, yet the U.S. missile defense program will not be capable of defeating this type of threat until 2020.

# NMD Unpopular – international

**International deployment is contentious – key senators and Russia**

**VOA 09** [ Voice of America, prominent news organization “Congress Continues Criticism of US Missile Defense System in Europe” <http://www.voanews.com/english/news/a-13-2009-03-23-voa66-68797992.html>]

Two key members of Congress raised questions on Monday about the U.S. missile defense plan for Europe, saying that the system is untested and would not protect key American interests from an attack by Iran. And a leading Senator called for more cooperation with Russia. The most controversial part of the U.S. missile defense system involves putting a sophisticated tracking radar in the Czech Republic and anti-missile missiles in Poland to intercept any Iranian launch aimed at Europe. While some missile defense technologies have had numerous successful tests, including sea-based interceptors and warheads designed to destroy long-range missiles over the ocean, the medium-range system planned for Europe has not been tested and is the subject of much criticism. At the same time, Russia claims the Poland-based missiles would threatened its defenses. U.S. officials deny that. But Russia has made the issue a central obstacle to the kind of improvement in relations the Obama administration says it wants. The Chairman of the Senate Armed Services Committee, Carl Levin, indicated Monday he believes the European part of the missile defense system should be dropped in favor of a new approach that would not antagonize Moscow. "It appears that the door to cooperation between the United States and Russia is gradually opening, and missile defense could become a tool for positive change rather than an impediment to better relations," he said. Levin said although cooperation with Russia on missile defense seems unlikely in the current environment, it is "worth a try" because it could be what he called "a geopolitical game changer." "U.S.-Russian cooperation on missile defense against Iranian missiles, even if we were just to begin serious discussions on the subject, would send a powerful signal to Iran," he said. "Iran would face in a dramatic way a growing unity against her pursuit of dangerous nuclear technology." The senator says the downside of such an approach would be minimal, although some experts express concern about the United States backing out of plans it has pressed Poland and the Czech Republic to accept. Experts also point out that the Bush administration tried to work with Russia on missile defense, but concluded that it was not a realistic possibility. At the same conference for missile defense officials and contractors, another member of Congress pointed out a different shortcoming of the European missile defense plan. Representative Ellen Tauscher said that even if the system can work, it would not protect U.S. allies in the Middle East or U.S. troops deployed there against Iran's large arsenal of shorter-range missiles. "These systems are currently capable of targeting U.S. forces and our allies throughout the region," she said. "And guess what? The proposed interceptor in Poland would have little, if any, capability to counter the existing threat from Iran's short- and medium-range ballistic missiles." Tauscher, who announced last week she will leave Congress to take the top arms control post at the State Department, also chided the Pentagon for not yet proving the system planned for Europe works. "The world is a very dangerous place. Non-state actors and rogue nations are working to develop missile technology to do harm to America, American interests and our forward-deployed troops," she said. "That is why we need missile defense systems that work." Speaking on a computer link from his headquarters in Colorado, the head of U.S. Northern Command, Air Force General Gene Renuart, who is responsible for defending the United States, told the meeting he has confidence in the missile defense system, but acknowledged there is still much work to do. "I am a strong supporter of the system and the program and the current regimen on," he said. "However, we do have to continue to stay focused on those key elements of both operational test and operational employment." The Obama administration has not said what it will do with the controversial European missile defense system, but it has said it wants to "reset" U.S. relations with Russia. The issues are under review, and the results are expected soon.

# NMD Popular – Kyl

**SBMD Popular – 5 million for study, senator kyl, and the pentagon**

**Gertz 08** [Bill, National security editor at Washington times, CIA, FBI, and brookings lecturer, for the Washington times “Space Based Defense” <http://www.washingtontimes.com/news/2008/oct/16/inside-the-ring/?page=1>

Congress voted recently to approve $5 million for a study of space-based missile defenses, the first time the development of space weapons will be considered since similar work was canceled in the 1990s. Appropriation of the money for the study was tucked away in a little-noticed provision of the Continuing Resolution passed recently by Congress and followed two years in which Congress rejected $10 million sought for the study. < Sen. Jon Kyl, Arizona Republican and a key supporter of missile defenses, said approval of the study highlights the need to provide comprehensive protection from the growing threat of missile attack and to limit the vulnerability of vital satellites to attack. “We have the potential to expand our space-based capabilities from mere space situational awareness to space protection,” Mr. Kyl said in a Senate floor speech. “In the past 15 years, the ballistic missile threat has substantially increased and is now undeniable,” he said on Sept. 29. A total of 27 nations now have missile defenses, and last year, over 120 foreign nations fired ballistic missiles, he said. North Korea and Iran both are developing missiles and selling the technology for them, he added. Mr. Kyl also said the Pentagon’s annual report expressed concerns about accidental or unauthorized launches of long-range missiles from China and about the growing vulnerability of vital satellite systems to attack by anti-satellite weapons, as shown by China’s 2007 anti-satellite weapons test. Mr. Kyl said he hopes Defense Secretary Robert M. Gates, who will choose what government or private-sector agency will conduct the study, will choose the Institute for Defense Analyses, a federally funded research center, to carry out the study. A Senate report on the study stated that independent groups that could produce it include Energy Department national laboratories, or scientific and technical organizations. A defense official said space-based missile defenses were last considered during the first Bush administration as part of its Global Protection Against Limited Strike, or GPALS, a missile-defense plan focused on then-Soviet missiles using a combination of ground-based interceptors, sea-based missiles and space-based interceptors. The Clinton administration canceled all work on space-based missile defense and focused instead on tactical defenses against short-range missiles. The current Bush administration’s missile-defense program is limited to the deployed ground-based interceptors in Alaska and California and ship-based interceptor missile defense. The defense official, who spoke on the condition of anonymity, said space-based defenses are needed for global, rapid defense against missiles. “It’s really the only way to defend the U.S. and its allies from anywhere on the planet,” the official said.

# NMD Popular – Republicans

**NMD is popular – Republicans empirically approve**

**Spring 07** [Baker, Research Fellow in National Security Policy at The Heritage Foundation “ Measuring the Candidates on Missile Defense” <http://www.heritage.org/Research/Commentary/2007/05/Measuring-the-Candidates-on-Missile-Defense>]

Russia's test of a new long-range missile -- one that a Kremlin official insisted can penetrate any American shield -- ought to wake up anybody who believes missile defense is an issue that went out with the Cold War. If anything, missile defense is more important now, in an age of terrorism, than it was during our legendary rivalry with the Soviet Union. Although the U.S. is committed to building a missile defense, progress takes time. And, let's not forget, the project was needlessly delayed for years by politicians who falsely asserted that it would spark an arms race. As the 2008 presidential race heats up, voters ought to use missile defense as one yardstick to gauge how serious the candidates are about protecting the United States from attack. Mere rhetoric isn't enough, though. A better way is to consider if the candidates support the principles behind three key amendments, all related to missile defense, that came up during the recent debate over military spending. Any presidential candidate who truly favors fielding effective missile defenses for the U.S. should unequivocally support what the following amendments are designed to achieve: 1. Missile-defense funding. Rep. Trent Franks (R-Ariz.) offered an amendment to restore $764 million that the House Armed Services Committee cut from the missile-defense program. The most severe cuts came in the programs meant to intercept ballistic missiles in their "boost phase," shortly after they're launched. The most problematic cut this amendment would have restored was $10 million needed to conduct conceptual studies for a space-based defense against ballistic missiles. Space-based defenses, including missile interceptors, would be the most effective element of an overall missile-defense system. The Franks amendment lost narrowly, but any presidential candidate who supports restoring these needed funds understands the need for robust missile-defense funding, and space-based defenses in particular. 2. Missile-defense cooperation with our allies. Rep. Duncan Hunter (R-Calif.) offered an amendment to strengthen the U.S.-Israel cooperative missile-defense program. Israel and the U.S. have collaborated on missile defense for quite a while now. Indeed, it has long been U.S. policy to field missile defenses to protect U.S. forces deployed abroad and U.S. friends and allies, as well as U.S. territory. Such cooperation isn't limited to Israel. We have cooperative programs in place with Australia, Denmark, Germany, Italy, Japan and the United Kingdom, among others. A new arrangement is being negotiated with the Czech Republic and Poland. The Hunter amendment was passed by an overwhelming majority in the House. Any candidate who tries to facilitate cooperation with our allies on this issue can fairly be described as a genuine supporter of missile defense. 3. Operational status for missile defenses. Finally, Rep. Pete Sessions (R-Texas) offered an amendment clarifying a provision in the defense-funding bill that could have prevented the president from putting still-developing missile-defense systems on operational alert. As the Russian missile test makes clear, the effort to develop and deploy effective defenses lags well behind the threat. It's important, as our missile defenses develop, that the president be able to put elements of the system on-line as they're completed. No genuine supporter of missile defense would deprive a future president of the option of putting the system on alert, a step President Bush took when North Korea launched a salvo of missiles in July 2006. The Sessions amendment passed, ensuring that future presidents won't find their hands tied when deciding how best to protect the American people. These three amendments provide important guideposts for judging presidential candidates when it comes to missile defense. True supporters of missile defense will seek to include space-based systems in the overall defense, will seek widespread missile-defense cooperation with the friends and allies of the U.S., and will preserve the option of putting developmental missile-defense systems on operational alert. When weighing the merits of the candidates on missile defense, don't just take into account what they say. When crucial votes come up, consider what they do.

# NMD Popular – Republicans

**SBMD is a key republican issue – 37 confirmed support**

**Grego 11** [ Laura scientist in the Union of Concerned Scientists’ Global Security Program, is an expert on space security issues, writing for “TheHill” on 2/16/11 <http://thehill.com/blogs/congress-blog/homeland-security/144607-space-code-of-conduct-a-good-start>]

Currently, the leading diplomatic effort to establish such norms is the Code of Conduct for Outer Space Activities, an effort shepherded by the European Union and being considered by a number of spacefaring nations, including the United States, whose final decision is expected soon. However, pushback from missile defense partisans may threaten to derail that step. On February 2, a group of 37 Republican senators wrote a letter to Secretary of State Hillary Clinton expressing concerns about how such norms might impact US activities, most notably missile defense. The senators have asked Secretary Clinton to brief the relevant Senate committees and for her "personal response" to their questions. They want to know what impact signing the Code might have on a U.S. decision to deploy missile defense interceptors in space; whether it would affect the development, test or deployment of an anti-satellite weapon; or if it would affect the possibility of putting weapons in space meant to counter anti-satellite weapons. In fact, the voluntary Code does not mention space weapons of any kind, nor would it meaningfully limit their development. It reaffirms what is already agreed in the Outer Space Treaty; declares that subscribing states will refrain from damaging outer space objects unless for debris mitigation, self-defense, or public safety reasons (the nominal motivation of the U.S. destruction of a failed spy satellite); and will promote efforts toward “the prevention of an arms race in outer space.” While the senators are exercising their duty and right to be asking questions, inhibiting these initial efforts to establish norms is shortsighted and counterproductive. We should be seeking more, not less.

# NMD Popular – Congress

**Missile Defense is popular – congress funding increases prove**

**Spring 07** [Baker, Research Fellow in National Security Policy at The Heritage Foundation “Is congress turning the corner on missile defense” http://blog.heritage.org/2010/05/14/is-congress-turning-the-corner-on-missile-defense/]

Congress may be turning the corner on missile defense. It is reported that the House Subcommittee on Strategic Forces added $361.6 million to the Obama Administration’s inadequate $9.9 billion request for the overall missile defense program in fiscal year 2011. This is a significant departure from last year, where Congress, with the notable exception of the valiant effort by House Republicans to oppose it, acquiesced in the Obama Administration’s $1.6 billion reduction in the broader program. The increase in funding is to go to the following components of the broader missile defense program: 1) the Patriot PAC-3 interceptor; 2) the AN/TPY-2 missile defense radar; 4) the Standard Missile-3 interceptors; 5) the Airborne Laser; and 6) the U.S.-Israeli missile defense cooperation program. The increases, in large measure, were paid for by reductions in funding for a number of satellite programs. While the increase in funding for missile defense in fiscal 2011 from the President’s request may mark in change in Congress’ views on the program, the overall program will remain inadequate. A robust commitment to defending the U.S. homeland against long-range missile attack is not to be found. The additional funding for the Airborne Laser is welcome, but it will not provide a stand-by operational capability for the system. Most importantly, the missile defense program, even with the increases approved by the House Strategic Force Subcommittee, does not include a program for placing missile defense interceptors in the location where they can be most effective. This is in space. All told, a truly robust missile defense program in fiscal 2011 would include roughly $1 billion more than what the House Subcommittee approved.

# \*\*\*SPS Links

# SPS Unpopular – Capital

SBSP takes political capital

 (Leonard **DAVID 2008**, Research Associate – Secure World Foundation and Senior Space Writer – Space.com, “Space-Based Solar Power - Harvesting Energy from Space”, CleanTech, 5-15, [http://www.azocleantech.com/article.aspx? ArticleId=69](http://www.azocleantech.com/article.aspx?%20ArticleId=69))(jimmy)

*Space Based Solar Power: Science and Technology Challenges*Overall, pushing forward on SBSP "is a complex problem and one that lends itself to a wide variety of competing solutions," said John Mankins, President of Artemis Innovation Management Solutions, LLC, in Ashburn, Virginia. "There's a whole range of science and technology challenges to be pursued. New knowledge and new systems concepts are needed in order to enable space based solar power. But there does not appear, at least at present, that there are any fundamental physical barriers," Mankins explained. Peter Teets, Distinguished Chair of the Eisenhower Center for Space and Defense Studies, said that SBSP must be economically viable with those economics probably not there today. "But if we can find a way with continued technology development ... and smart moves in terms of development cycles to bring clean energy from space to the Earth, it's a home run kind of situation," he told attendees of the meeting. "It's a noble effort," Teets told Space News. There remain uncertainties in SBSP, including closure on a business case for the idea, he added. "I think the Air Force has a legitimate stake in starting it. But the scale of this project is going to be enormous. This could create a new agency ... who knows? It's going to take the President and a lot of political will to go forward with this," Teets said.

**Support is crucial- Politicians don’t want SPS**

**(Eva-Jane Lark**; September 20**09**; Vice-President and Investment Advisor with BMO Nesbitt Burns; POLICY AND FINANCIAL CONSIDERATIONS AND PROSPECTS FOR SPACE SOLAR POWER; [https://sites.google.com/site/siliconvalleyspaceclubsite/space-solar-power/policy-and-financial-considerations-and-prospects-for-space-solar-power)(jimmy)](https://sites.google.com/site/siliconvalleyspaceclubsite/space-solar-power/policy-and-financial-considerations-and-prospects-for-space-solar-power%29%28jimmy%29)

Some SSP proponents feel the only way for an SSP system to be built is for the government to take the initiative and build it. The costs and complexity are enormous, and are considered to be on the scale of the Apollo Program,60 Manhattan Project61 or construction of the transcontinental highway or railroad systems. Since the government was responsible for these accomplishments, a government project model is most frequently cited, expected and lobbied for by SSP advocates. Such a project may be conducted by a government outright or a new agency may be created for that sole purpose. This model will likely be the model of choice for those countries without extensive capital markets where costs could be shared, or funded exclusively by the private sector. Political support is crucial. For SSP to become a successful reality, support must be widespread and lasting or the effects of election cycles would kill it in the midst of its development. At this time, there does not appear to be the overwhelming need or desire from any government to spend the substantial resources necessary for Space Solar Power when other issues are more critical.

# SPS Unpopular – Congress

No Congressional support

 (Dwayne A. **DAY 2008** , 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)(jimmy)](http://www.thespacereview.com/article/1147/1%29%28jimmy%29)

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 thatthe 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](http://www.aviationnow.com/aw/generic/story_generic.jsp?channel=space&id=news/milspace031008.xml&headline=GAO%20IDs%20Space%20Acquisitions%20Woes), 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, andmilitary 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.

# SPS Unpopular – Budget

**Politicians wont be on board- Budget constraints prove**

**(Eva-Jane Lark**; September 20**09**; Vice-President and Investment Advisor with BMO Nesbitt Burns; POLICY AND FINANCIAL CONSIDERATIONS AND PROSPECTS FOR SPACE SOLAR POWER; [https://sites.google.com/site/siliconvalleyspaceclubsite/space-solar-power/policy-and-financial-considerations-and-prospects-for-space-solar-power)(jimmy)](https://sites.google.com/site/siliconvalleyspaceclubsite/space-solar-power/policy-and-financial-considerations-and-prospects-for-space-solar-power%29%28jimmy%29)

There are a variety of models proposed for the organizational structure of an SSP endeavor. While these will be explored in greater depth later in this paper, policy, funding and the model to be used in SSP development are significantly related. In the case of a fully government funded project or a public/private partnership, support from policymakers and politicians is crucial. The financial considerations and upfront costs of such a project are substantial. Regardless of department or policy area, aligning goals and priorities within budget constraints is often a problem. When those goals and priorities bridge several departments and are not the exclusive domain of one, it can be an even greater problem. When programs involve risk, few policymakers are willing to take those risks and make decisions. Space Solar Power involves all of these. One of the challenges for Space Solar Power is that it can fit into the mandates of many government departments yet it is exclusive to none. While any nation may explore the idea of building solar power satellites to harvest solar energy from space, it is most likely to be accomplished by those nations who are already spacefaring. However any country or nation could be a customer and be indirectly responsible for the creation of such a system without already having a presence in space, or space launch capability.

**Even if they prove they prove no health issues to Waves- still links to politics- its controversial and costs tons**

(DEPT. OF **ECE; 2011;** SOLAR POWER SATELLITES & MICROWAVE TRANSMISSION <http://www.scribd.com/doc/54368555/Solar-Power-Satellites-Ieee>)(jimmy)

The amount of power available to the consumers from one SPS is 5 GW. the peak intensity of microwave beam would be 23 m W/cm². So far, no non thermal health effects of low level microwave exposure have been proved, although the issue remains controversial. SPS has all the advantage of ground solar, plus an additional advantage; it generates power during cloudy weather and at night. In other words SPS receiver operates just like a solar array. Like a solar array, it receives power from space and converts it into electricity. If the satellite position is selected such that the Earth and the Sun are in the same location in the sky, when viewed from the satellite, same dish could be used both as solar power collector and the microwave antenna. This reduces the size and complexity of satellite. However, the main barrier to the development of SPS is social, not technological. The initial development cost for SPS is enormous and the construction time required is very long. Possible risks for such a large project are very large, pay-off is uncertain. Lower cost technology may be developed during the time required to construct the system. So such a large program requires a step by step path with immediate pay-off at each step and the experience gained at each step refine and improve the risk in evolutionary steps.

# SPS Unpopular – Health

**SPS controversial in politics- microwave exposure proves**

(DEPT. OF **ECE; 2011;** SOLAR POWER SATELLITES & MICROWAVE TRANSMISSION <http://www.scribd.com/doc/54368555/Solar-Power-Satellites-Ieee>)(jimmy)

The price of implementing a SPS includes the acceptance of microwave beams as thelink of that energy between space and earth. Because of their large size, SPS would appear as avery bright star in the relatively dark night sky. SPS in GEO would show more light than Venusat its brightest. Thus, the SPS would be quite visible and might be objectionable. SPS posses many environmental questions such as microwave exposure, optical pollution that could hinder astronomers , the health and safety of space workers in a heavy-radiation (ionizing) environment, the potential disturbance of the ionosphere etc. The atmospheric studies indicate that these problems are not significant , at least for the chosen microwave frequency

# A2 SPS Unpopular - Health

**Microwave transitions don’t link to politics- no backlash**

(DEPT. OF **ECE; 2011;** SOLAR POWER SATELLITES & MICROWAVE TRANSMISSION <http://www.scribd.com/doc/54368555/Solar-Power-Satellites-Ieee>)(jimmy)

The use of microwave transmission of power has been the most controversial issue in considering any SPS design, but any thought that anything which strays into the beam's path will be incinerated is an extreme misconception. Consider that quite similar microwave relay beams have long been in use by telecommunications companies world wide without such problems. At the earth's surface, a suggested microwave beam would have a maximum intensity, at its center, of 23 mW/cm 2 (less than 1/4 the solar irradiation constant), and an intensity of less than 1 mW/cm 2 outside of the rectenna fenceline (10 mW/cm 2 is the current United States maximum microwave exposure standard). In the United States, the workplace exposure limit (10 mW/cm 2 ) is at present, per the Occupational Safety and Health Act (OSHA) [50] , expressed in voluntary language and has been ruled unenforceable for Federal OSHA enforcement.

# SPS Popular – Congress

**Congress encouraging NASA to work on SPS**

**Dinerman 8** (Taylor, 5/8/8, Space Review, “NASA and space solar power” <http://www.thespacereview.com/article/1130/1>)

NASA has good reason to be afraid that the Congress or maybe even the White House will give them a mandate to work on space solar power at a time when the agency’s budget is even tighter than usual and when everything that can be safely cut has been cut. This includes almost all technology development programs that are not directly tied to the Exploration Missions System Directorate’s Project Constellation. Not only that, the management talent inside the organization is similarly under stress. Adding a new program might bring down the US civil space program like a house of cards.

# \*\*\*Mining

# Mining Unpopular – Budget

**Asteroid mining is unpopular: is not a budgetary priority**

 (**Jones 95** Eric M. Jones , 1995, “Epilogue: When might we go back to the Moon?”, Apollo Lunar Surface Journal, <http://www.solarviews.com/eng/apoepi.htm>, ldg, Date of Access 6/25/11, JK)(jimmy)

The space program and its supporters have been on a financial and emotional roller coaster virtually from the beginning. The debate over funding is sure to continue until the time comes that most of our activities in space are self-supporting and public funding is no longer required. The issue at the center of the debate is, of course, the relative value of the space program and, as we have discussed, the perception of space as a technology driver - coupled with the fact that plenty of people still want to rub elbows with astronauts and plenty of kids still want to grow up to be one - generates funding at a level of about one quarter of one percent of the GDP. If the rules of the game were to change, of course, then increased levels of funding might well be in the cards. If, for example, people began to think that there was a real possibility of a substantial, near-term economic return, then new funding might well become available. The space community talks hopefully about asteroid mining, about solar power satellites, and about Helium-3 mining on the Moon but, unfortunately, they been unable to convince anyone but the faithful that the technological risks are low enough - and the potential payoffs large enough and soon enough - to warrant spending large sums of public or private money. Alternatively, the development of significantly cheaper transportation systems would make it possible to do more at the current levels of funding and, at the same time, would make a broader array of space activities attractive. However, technical innovation is only part of the answer to cheaper transportation. Of even great importance is the ability to build many copies of a new vehicle and to fly them frequently and efficiently. That is, economies of scale are crucial and, to achieve them, we will probably have to rely on increases in space activities to produce increases in demand and, therefore, decreases in unit costs.

**Obama change in direction- ticks off congress**

(**Watson** 6/28/**10**, USA Today, “Landing on an asteroid: Not quite like in the movies” [http://www.physorg.com/news196920110.html)(jimmy)](http://www.physorg.com/news196920110.html%29%28jimmy%29)

 In February, Obama took steps toward killing Bush's moon program, which was beset by technical troubles and money woes. Two months later, in a speech at Cape Canaveral, Fla., Obama announced that the astronauts' next stop is an asteroid.

So far, the Obama administration has been quiet on the need for a major sum of money to accomplish his goal. And unlike Kennedy, who used Russian spacecraft missions known as Sputnik to promote the moon mission, Obama doesn't have a geopolitical imperative to justify the scheme. Congress is resisting Obama's change of direction, which could delay investment in the program.

# Mining Unpopular - Mars

**Plan makes congress mad- they want Mars centerpiece**

Thompson 11 (Loren, Chief Financial Officer – Lexington Institute, “Human Spaceflight”, April, <http://www.lexingtoninstitute.org/library/resources/documents/Defense/HumanSpaceflight-Mars.pdf>)

The two most important elements in any human spaceflight program that proposes to go beyond low-Earth orbit are an evolvable heavy-lift launch vehicle and a multi-purpose crew vehicle. Congress has directed that NASA’s future work on both systems should focus to the maximum degree possible on technologies already under development for the Constellation program. By applying those technologies to a human spaceflight agenda focused on the ultimate destination of Mars, NASA can preserve its investment in a highly skilled space workforce and related infrastructure. Failure to make Mars the centerpiece of future exploration efforts will probably doom the human spaceflight program to a further erosion of political support at a time when its survival is already in question

# Mining Unpopular – Capital

**Plan passage tanks support- Mining won’t sustain political support**

Thompson 11 (Loren, Chief Financial Officer – Lexington Institute, “Human Spaceflight”, April, <http://www.lexingtoninstitute.org/library/resources/documents/Defense/HumanSpaceflight-Mars.pdf>)

This all makes sense from a budgetary and scientific perspective. What’s missing is a grasp of the rationale required to sustain political support across multiple administrations. While exploration of the Moon’s far side or nearby asteroids may have major scientific benefits, those benefits are unlikely to be appreciated by politicians struggling to reconcile record deficits. NASA’s current research plans do not connect well with the policy agendas of either major political party, and the flexible path will not change that. To justify investments of hundreds of billions of dollars in human spaceflight over the next 20 years while entitlements are being pared and taxes are increasing, NASA must offer a justification for its efforts commensurate with the sacrifices required. Mars is the only objective of sufficient interest or importance that can fill that role. Thus, the framework of missions undertaken pursuant to the flexible-path approach must always be linked to the ultimate goal of putting human beings on the Martian surface, and the investments made must be justified mainly on that basis. The American public can be convinced to support a costly series of steps leading to a worthwhile objective, but trips to the Moon and near-Earth objects aren’t likely to generate sustained political support during a period of severe fiscal stress

# Mining Popular – Obama

**Obama likes plan- in his path of space exploration**

(John **Matson** | Jan 29, 20**10**; Speculation about NASA's future swirls in advance of Obama's budget request; Sceintific American; <http://www.scientificamerican.com/blog/post.cfm?id=speculation-about-nasas-future-swir-2010-01-29>)

But what's the rush to get back to the moon, anyhow? The U.S. won that race and won it decisively—whatever nation reaches the moon next, whether Russia, China or some other contender, it likely won't do so within 50 years of Apollo 11. Many have argued that Constellation's moon deadline was a misguided goal from the start and that a more forward-thinking blueprint for space exploration would involve unprecedented feats, such as a manned mission to a near-Earth asteroid. Obama is said to favor this "flexible path" to space exploration.