# 1AC

## 1AC – Fullerton Round 1

### 1AC – Heg Advantage

#### CONTENTION 1: HEG

#### Grid collapse inevitable---it’s fragile, vulnerable and next blackout will be more severe---wrecks mission effectiveness

Lovins 10 Amory B, Chairman and Chief Scientist of Rocky Mountain Institute, "DOD's Energy Challenge as Strategic Opportunity", Issue 57, 2nd Quarter 2010, www.ndu.edu/press/lib/images/jfq-57/lovins.pdf

The Resilience Capability¶ Resilience “combines efficient energy use with more diverse, dispersed, renewable supply—turning the loss of critical missions from energy supply failures (by accident or malice) from inevitable to near-impossible.”37¶ This capability is vital because the: [a]lmost complete dependence of military installations on a fragile and vulnerable commercial power grid and other critical national infrastructure places critical military and Homeland defense missions at an unacceptably high risk of extended disruption. . . . [Backup generators and their fuel supplies at military installations are generally sized] for only shortterm commercial outages and seldom properly prioritized to critical loads because those are often not wired separately from non-essential loads. DOD’s approach to providing power to installations is based on assumptions that commercial power is highly reliable, subject to infrequent and short term outages, and backups can meet demands. [These assumptions are] . . . no longer valid and DOD must take a more rigorous risk-based approach to assuring adequate power to its critical missions. 38¶ The 2008 DSB Task Force found that the confluence of many risks to electric supply— grid overloads, natural disasters, sabotage or terrorism via physical or cyberattacks on the electric grid, and many kinds of interruptions to generating plants—hazards electricity dependent hydrocarbon delivery, the national economy, social stability, and DOD’s mission continuity.¶ The U.S. electric grid was named by the National Academy of Engineering as the top engineering achievement of the 20th century. It is very capital-intensive, complex, technologically unforgiving, usually reliable, but inherently brittle. It is responsible for ~98–99 percent of U.S. power failures, and occasionally blacking out large areas within seconds—because the grid requires exact synchrony across subcontinental areas and relies on components taking years to build in just a few factories or one (often abroad), and can be interrupted by a lightning bolt, rifle bullet, malicious computer program, untrimmed branch, or errant squirrel. Grid vulnerabilities are serious, inherent, and not amenable to quick fixes; current Federal investments in the “smart grid” do not even require simple mitigations. Indeed, the policy reflex to add more and bigger power plants and power lines after each regional blackout may make the next blackout more likely and severe, much as suppressing forest fires can accumulate fuel loadings that turn the next unsuppressed fire into an uncontrollable conflagration.¶ Power-system vulnerabilities are even worse in-theater, where infrastructure and the capacity to repair it are often marginal: “attacks on the grid are one of the most common and effective tactics of insurgents in Iraq, and are increasingly seen in Afghanistan.” 39 Thus electric, not oil, vulnerabilities now hazard national and theater energy security. Simple exploitation of domestic electric vulnerabilities could take down DOD’s basic operating ability and the whole economy, while oil supply is only a gathering storm.

**Cyber-attack is coming ---actors are probing grid weaknesses**

**Reed 12** John, Reports on the frontiers of cyber war and the latest in military technology for Killer Apps at Foreign Policy, "U.S. energy companies victims of potentially destructive cyber intrusions", 10/11, killerapps.foreignpolicy.com/posts/2012/10/11/us\_energy\_companies\_victims\_of\_potentially\_destructive\_cyber\_attacks

Foreign actors are probing the networks of key American companies in an attempt to gain control of industrial facilities and transportation systems, Defense Secretary Leon Panetta revealed tonight.¶ "We know that foreign **cyber actors are probing America's critical infrastructure networks**," said Panetta, disclosing previously classified information during a speech in New York laying out the Pentagon's role in protecting the U.S. from cyber attacks. "They are targeting the computer control systems that operate chemical, **electricity** and water plants, and those that guide transportation thorough the country."¶ He went on to say that the U.S. government knows of "specific instances where intruders have gained access" to these systems -- frequently known as Supervisory Control and Data Acquisition (or SCADA) systems -- and that "they are seeking to create advanced tools to attack these systems and cause panic, destruction and even the loss of life," according to an advance copy of his prepared remarks.¶ The secretary said that **a coordinated attack on enough critical infrastructure could be a "cyber Pearl Harbor" that would "cause physical destruction and loss of life, paralyze and shock the nation, and create a profound new sense of vulnerability.**"¶ While there have been reports of criminals using 'spear phishing' email attacks aimed at stealing information about American utilties, Panetta's remarks seemed to suggest more sophisticated, nation-state backed attempts to actually gain control of and damage power-generating equipment. ¶ Panetta's comments regarding the penetration of American utilities echo those of a private sector cyber security expert Killer Apps spoke with last week **who said that the networks of American electric companies were penetrated, perhaps in preparation for a Stuxnet-style attack**.¶ Stuxnet is the famous cyber weapon that infected Iran's uranium-enrichment centrifuges in 2009 and 2010. Stuxnet is believed to have caused some of the machines to spin erratically, thereby destroying them.¶ "**There is hard evidence** that there has been penetration of our power companies, and given Stuxnet, that is a staging step before destruction" of electricity-generating equipment, the expert told Killer Apps. Because uranium centrifuges and power turbines are both spinning machines, "**the attack is identical -- the one to take out the centrifuges and the one to take out our power systems is the same attack**."¶ "If a centrifuge running at the wrong speed can blow apart" so can a power generator, said the expert. "If you do, in fact, spin them at the wrong speeds, you can blow up any rotating device."¶ Cyber security expert Eugene Kaspersky said two weeks ago that one of his greatest fears is someone reverse-engineering a sophisticated cyber weapon like Stuxnet **-- a relatively easy task** -- and he noted that Stuxnet itself passed through power plants on its way to Iran. "Stuxnet infected thousands of computer systems all around the globe, I know there were power plants infected by Stuxnet very far away from Iran," Kaspersky said.

**Grid attacks take out C and C---causes retaliation and nuclear war**

**Tilford 12** Robert, Graduate US Army Airborne School, Ft. Benning, Georgia, “Cyber attackers could shut down the electric grid for the entire east coast” 2012, <http://www.examiner.com/article/cyber-attackers-could-easily-shut-down-the-electric-grid-for-the-entire-east-coa>

To make matters worse a cyber attack that can take out a civilian power grid, for example could also cripple the U.S. military.¶ The senator notes that is that the same power grids that supply cities and towns, stores and gas stations, cell towers and heart monitors also power “every military base in our country.”¶ “Although bases would be prepared to weather a short power outage with backup diesel generators, within hours, not days, fuel supplies would run out”, he said.¶ Which means military **command and control centers could go dark**.¶ Radar systems that detect air threats to our country **would shut Down completely**.¶ “Communication between commanders and their troops would also go silent. And many weapons systems would be left without either fuel or electric power”, said Senator Grassley.¶ “So in a few short hours or days, the mightiest military in the world would be left scrambling to maintain base functions”, he said.¶ We contacted the Pentagon and officials confirmed the threat of a cyber attack is something very real.¶ Top national security officials—including the Chairman of the Joint Chiefs, the Director of the National Security Agency, the Secretary of Defense, and the CIA Director— have said, “preventing a cyber attack and improving the nation’s electric grids is among the most urgent priorities of our country” (source: Congressional Record).¶ So how serious is the Pentagon taking all this?¶ Enough to start, or end a war over it, for sure (see video: Pentagon declares war on cyber attacks http://www.youtube.com/watch?v=\_kVQrp\_D0kY&feature=relmfu ).¶ A cyber attack today against the US could very well be seen as an “Act of War” and could be met with a “full scale” US military response.¶ That could include the use **of “nuclear weapons**”, if authorized by the President.

**Plan solves grid collapse---SMRs make bases resilient and deters attack**

**Andres and Breetz 11** Richard B, Professor of National Security Strategy at the National War College and a Senior Fellow and Energy and Environmental Security and Policy Chair in the Center for Strategic Research, Institute for National Strategic Studies, at the National Defense University and Hanna L, doctoral candidate in the Department of Political Science at The Massachusetts Institute of Technology, February, "Small Nuclear Reactors for Military Installations: Capabilities, Costs, and Technological Implications", www.ndu.edu/press/lib/pdf/StrForum/SF-262.pdf

Small Reactors and Energy Security¶ The DOD interest in small reactors derives largely from problems with base and logistics vulnerability. Over the last few years, the Services have begun to reexamine virtually every aspect of how they generate and use energy with an eye toward cutting costs, decreasing carbon emissions, and reducing energy-related vulnerabilities. These actions have resulted in programs that have significantly reduced DOD energy consumption and greenhouse gas emissions at domestic bases. Despite strong efforts, however, two critical security issues have thus far **proven resistant to existing solutions**: bases’ vulnerability to civilian power outages, and the need to transport large quantities of fuel via convoys through hostile territory to forward locations. Each of these is explored below.¶ Grid Vulnerability. DOD is unable to provide its bases with electricity when the civilian electrical grid is offline for an extended period of time. **Currently, domestic military installations receive 99 percent of their electricity from the civilian power grid.** As explained in a recent study from the Defense Science Board:¶ DOD’s key problem with electricity is that critical missions, such as national strategic awareness and national command authorities, are almost entirely dependent on the national transmission grid . . . [**which] is fragile, vulnerable, near its capacity limit, and outside of DOD control**. In most cases, neither the grid nor on-base backup power provides sufficient reliability to ensure continuity of critical national priority functions and oversight of strategic missions in the face of a long term (several months) outage.7¶ The grid’s fragility was demonstrated during the 2003 Northeast blackout in which 50 million people in the United States and Canada lost power, some for up to a week, when one Ohio utility failed to properly trim trees. The blackout created cascading disruptions in sewage systems, gas station pumping, cellular communications, border check systems, and so forth, and demonstrated the interdependence of modern infrastructural systems.8¶ More recently, awareness has been growing that the grid is also vulnerable to purposive attacks. A report sponsored by the Department of Homeland Security suggests that a coordinated cyberattack on the grid could result in a third of the country losing power for a period of weeks or months.9 Cyberattacks on critical infrastructure are not well understood. It is not clear, for instance, whether existing terrorist groups might be able to develop the capability to conduct this type of attack. It is likely, however, that some nation-states either have or are working on developing the ability to take down the U.S. grid. In the event of a war with one of these states, it is possible, if not likely, that parts of the civilian grid would cease to function, taking with them military bases located in affected regions.¶ **Government and private organizations are currently working to secure the grid against attacks; however, it is not clear that they will be successful**. Most military bases currently have backup power that allows them to function for a period of hours or, at most, a few days on their own. **If power were not restored after this amount of time, the results could be disastrous**. First, military assets taken offline by the crisis would not be available to help with disaster relief. Second, during an extended blackout, **global military operations could be seriously compromised**; this disruption would be particularly serious if the blackout was induced during major combat operations. During the Cold War, this type of event was far less likely because the United States and Soviet Union shared the common understanding that blinding an opponent with **a grid blackout could escalate to nuclear war**. America’s current opponents, however, may not share this fear or be deterred by this possibility.¶ In 2008, the Defense Science Board stressed that DOD should mitigate the electrical grid’s vulnerabilities by turning military installations into “islands” of energy self-sufficiency.10 The department has made efforts to do so by promoting efficiency programs that lower power consumption on bases and by constructing renewable power generation facilities on selected bases. Unfortunately, these programs will not come close to reaching the goal of islanding the vast majority of bases. **Even with massive investment in efficiency and renewables, most bases would not be able to function for more than a few days after the civilian grid went offline**.¶ **Unlike other alternative sources of energy, small reactors have the potential to solve DOD’s vulnerability to grid outages**. Most bases have relatively light power demands when compared to civilian towns or cities. Small reactors could easily support bases’ power demands separate from the civilian grid during crises. In some cases, the reactors could be designed to produce enough power not only to supply the base, but also to provide critical services in surrounding towns during long-term outages.¶ Strategically, islanding bases with small reactors has another benefit. One of the main reasons an enemy might be willing to risk reprisals by taking down the U.S. grid during a period of military hostilities would be to affect ongoing military operations. Without the lifeline of intelligence, communication, and logistics provided by U.S. domestic bases, American military operations would be compromised in almost any conceivable contingency**. Making bases more resilient to civilian power outages would reduce the incentive for an opponent to attack the grid**. An opponent might still attempt to take down the grid for the sake of disrupting civilian systems, but the powerful incentive to do so in order to win an ongoing battle or war would be greatly reduced.

**Grid failure wrecks US critical mission operations**

**Stockton 11** Paul, assistant secretary of defense for Homeland Defense and Americas’ Security Affairs, “Ten Years After 9/11: Challenges for the Decade to Come”, <http://www.hsaj.org/?fullarticle=7.2.11>

The cyber threat to the DIB is only part of a much larger challenge to DoD. Potential adversaries are seeking asymmetric means to cripple our force projection, warfighting, and sustainment capabilities, by targeting the critical civilian and defense supporting assets (within the United States and abroad) on which our forces depend. This challenge is not limited to man-made threats; DoD must also execute its mission-essential functions in the face of disruptions caused by naturally occurring hazards.20 Threats and hazards to DoD mission execution include incidents such as earthquakes, naturally occurring pandemics, solar weather events, and industrial accidents, as well as kinetic or virtual attacks by state or non-state actors. Threats can also emanate from insiders with ties to foreign counterintelligence organizations, homegrown terrorists, or individuals with a malicious agenda. From a DoD perspective, this global convergence of unprecedented threats and hazards, and vulnerabilities and consequences, is a particularly problematic reality of the post-Cold War world. Successfully deploying and sustaining our military forces are increasingly a function of interdependent supply chains and privately owned infrastructure within the United States and abroad, including transportation networks, cyber systems, commercial corridors, communications pathways, and energy grids. This infrastructure largely falls outside DoD direct control. Adversary actions to destroy, disrupt, or manipulate this highly vulnerable homeland- and foreign-based infrastructure may be relatively easy to achieve and extremely tough to counter. Attacking such “soft,” diffuse infrastructure systems could significantly affect our military forces globally – potentially blinding them, neutering their command and control, degrading their mobility, and isolating them from their principal sources of logistics support. The Defense Critical Infrastructure Program (DCIP) under Mission Assurance seeks to improve execution of DoD assigned missions to make them more resilient. This is accomplished through the assessment of the supporting commercial infrastructure relied upon by key nodes during execution. By building resilience into the system and ensuring this support is well maintained, DoD aims to ensure it can "take a punch as well as deliver one."21 It also provides the department the means to prioritize investments across all DoD components and assigned missions to the most critical issues faced by the department through the use of risk decision packages (RDP).22 The commercial power supply on which DoD depends exemplifies both the novel challenges we face and the great progress we are making with other federal agencies and the private sector. Today’s commercial electric power grid has a great deal of resilience against the sort of disruptive events that have traditionally been factored into the grid’s design. Yet, the grid will increasingly confront threats beyond that traditional design basis. This complex risk environment includes: disruptive or deliberate attacks, either physical or cyber in nature; severe natural hazards such as geomagnetic storms and natural disasters with cascading regional and national impacts (as in NLE 11); long supply chain lead times for key replacement electric power equipment; transition to automated control systems and other smart grid technologies without robust security; and more frequent interruptions in fuel supplies to electricity-generating plants. These risks are magnified by globalization, urbanization, and the highly interconnected nature of people, economies, information, and infrastructure systems. The department is highly dependent on commercial power grids and energy sources. As the largest consumer of energy in the United States, DoD is dependent on commercial electricity sources outside its ownership and control for secure, uninterrupted power to support critical missions. In fact, approximately 99 percent of the electricity consumed by DoD facilities originates offsite, while approximately 85 percent of critical electricity infrastructure itself is commercially owned. This situation only underscores the importance of our partnership with DHS and its work to protect the nation’s critical infrastructure – a mission that serves not only the national defense but also the larger national purpose of sustaining our economic health and competitiveness. DoD has traditionally assumed that the commercial grid will be subject only to infrequent, weather-related, and short-term disruptions, and that available backup power is sufficient to meet critical mission needs. As noted in the February 2008 Report of the Defense Science Board Task Force on DoD Energy Strategy, “In most cases, neither the grid nor on-base backup power provides sufficient reliability to ensure continuity of critical national priority functions and oversight of strategic missions in the face of a long term (several months) outage.”23 Similarly, a 2009 GAO Report on Actions Needed to Improve the Identification and Management of Electrical Power Risks and Vulnerabilities to DoD Critical Assets stated that DoD mission-critical assets rely primarily on commercial electric power and are vulnerable to disruptions in electric power supplies.24 Moreover, these vulnerabilities may cascade into other critical infrastructure that uses the grid – communications, water, transportation, and pipelines – that, in turn, is needed for the normal operation of the grid, as well as its quick recovery in emergency situations. To remedy this situation, the Defense Science Board (DSB) Task Force recommended that DoD take a broad-based approach, including a focused analysis of critical functions and supporting assets, a more realistic assessment of electricity outage cause and duration, and an integrated approach to risk management that includes greater efficiency, renewable resources, distributed generation, and increased reliability. DoD Mission Assurance is designed to carry forward the DSB recommendations. Yet, for a variety of reasons – technical, financial, regulatory, and legal – DoD has limited ability to manage electrical power demand and supply on its installations. As noted above, DHS is the lead agency for critical infrastructure protection by law and pursuant to Homeland Security Presidential Directive 7. The Department of Energy (DOE) is the lead agency on energy matters. And within DoD, energy and energy security roles and responsibilities are distributed and shared, with different entities managing security against physical, nuclear, and cyber threats; cost and regulatory compliance; and the response to natural disasters. And of course, production and delivery of electric power to most DoD installations are controlled by commercial entities that are regulated by state and local utility commissions. The resulting paradox: DoD is dependent on a commercial power system over which it does not – and never will – exercise control.

**Loss of mission effectiveness causes nuclear war in every hotspot --- specifically Korea**

**Kagan and O’Hanlon 7** Frederick, resident scholar at AEI and Michael, senior fellow in foreign policy at Brookings, “The Case for Larger Ground Forces”, April 2007, http://www.aei.org/files/2007/04/24/20070424\_Kagan20070424.pdf

We live at a time when wars not only rage in nearly every region but threaten to erupt in many places where the current relative calm is tenuous. To view this as a strategic military challenge for the United States is not to espouse a specific theory of America’s role in the world or a certain political philosophy. Such an assessment flows directly from the basic bipartisan view of American foreign policy makers since World War II that overseas threats must be countered before they can directly threaten this country’s shores, that the basic stability of the international system is essential to American peace and prosperity, and that no country besides the United States is in a position to lead the way in countering major challenges to the global order. Let us highlight the threats and their consequences with a few concrete examples, emphasizing those that involve key strategic regions of the world such as the Persian Gulf and East Asia, or key potential threats to American security, such as the spread of nuclear weapons and the strengthening of the global Al Qaeda/jihadist movement. The Iranian government has rejected a series of international demands to halt its efforts at enriching uranium and submit to international inspections. What will happen if the US—or Israeli—government becomes convinced that Tehran is on the verge of fielding a nuclear weapon? North Korea, of course, has already done so, and the ripple effects are beginning to spread. Japan’s recent election to supreme power of a leader who has promised to rewrite that country’s constitution to support increased armed forces—and, possibly, even nuclear weapons— may well alter the delicate balance of fear in Northeast Asia fundamentally and rapidly. Also, in the background, at least for now, Sino Taiwanese tensions continue to flare, as do tensions between India and Pakistan, Pakistan and Afghanistan, Venezuela and the United States, and so on. Meanwhile, the world’s nonintervention in Darfur troubles consciences from Europe to America’s Bible Belt to its bastions of liberalism, yet with no serious international forces on offer, the bloodletting will probably, tragically, continue unabated. And as bad as things are in Iraq today, they could get worse. What would happen if the key Shiite figure, Ali al Sistani, were to die? If another major attack on the scale of the Golden Mosque bombing hit either side (or, perhaps, both sides at the same time)? Such deterioration might convince many Americans that the war there truly was lost—but the costs of reaching such a conclusion would be enormous. Afghanistan is somewhat more stable for the moment, although a major Taliban offensive appears to be in the offing. Sound US grand strategy must proceed from the recognition that, over the next few years and decades, the world is going to be a very unsettled and quite dangerous place, with Al Qaeda and its associated groups as a subset of a much larger set of worries. The only serious response to this international environment is to develop armed forces capable of protecting America’s vital interests throughout this dangerous time**. Doing so requires a military capable of a wide range of missions**—including not only deterrence of great power conflict in dealing with potential hotspots in Korea, the Taiwan Strait, and the Persian Gulf but also associated with a variety of Special Forces activities and stabilization operations. For today’s US military, which already excels at high technology and is increasingly focused on re-learning the lost art of counterinsurgency, this is first and foremost a question of finding the resources to field a large-enough standing Army and Marine Corps to handle personnel intensive missions such as the ones now under way in Iraq and Afghanistan. Let us hope there will be no such large-scale missions for a while. But preparing for the possibility, while doing whatever we can at this late hour to relieve the pressure on our soldiers and Marines in ongoing operations, is prudent. At worst, the only potential downside to a major program to strengthen the military is the possibility of spending a bit too much money. **Recent history shows no link between having a larger military and its overuse**; indeed, Ronald Reagan’s time in office was characterized by higher defense budgets and yet much less use of the military, an outcome for which we can hope in the coming years, but hardly guarantee. While the authors disagree between ourselves about proper increases in the size and cost of the military (with O’Hanlon preferring to hold defense to roughly 4 percent of GDP and seeing ground forces increase by a total of perhaps 100,000, and Kagan willing to devote at least 5 percent of GDP to defense as in the Reagan years and increase the Army by at least 250,000), we agree on the need to start expanding ground force capabilities by at least 25,000 a year immediately. Such a measure is not only prudent, it is also badly overdue.

#### Korean war causes extinction

Chol 11 Kim Myong Chol is author of a number of books and papers in Korean, Japanese and English on North Korea, including Kim Jong-il's Strategy for Reunification. He has a PhD from the Democratic People's Republic of Korea's Academy of Social Sciences "Dangerous games" Aug 20 www.atimes.com/atimes/Korea/MH20Dg01.html

The divided and heavily armed Korean Peninsula remains the most inflammable global flashpoint, with any conflict sparked there likely to become a full-blown thermonuclear war involving the world's fourth-most powerful nuclear weapons state and its most powerful. ¶ Any incident in Korea by design, accident, or miscalculation could erupt into a devastating DPRK-US war, with the Metropolitan US serving as a main war theater. ¶ Rodong Sinmun warned on August 16: "The Korean Peninsula is faced with the worst crisis ever. An all-out war can be triggered by any accident." ¶ Recent incidents illustrate the real danger of miscalculation leading to a total shooting war, given the volatile situation on the Land of Morning Calm. ¶ 1. The most recent case in point is the August 10 shelling of North Korea by the South. Frightened South Korea marines on Yeonpyeong Island mistook three noises from a North Korean construction site across the narrow channel for artillery rounds, taking an hour to respond with three to five artillery rounds. ¶ The episode serves as a potent reminder to the world that the slightest incident can lead to war. A reportedly malfunctioning firefinder counter-artillery radar system seems to partly account for the panicky South Korean reaction. ¶ South Korean conservative newspaper the Joong Ang Daily reported August 17: ¶ "A military source said that radar installed to detect hostile fire did not work last week when North Korea fired five shots toward the Northern Limit Line (NLL), the disputed maritime border, on Aug 10. ¶ "'We must confirm the location of the source of the firing through the ARTHUR (Artillery Hunting Radar) and HALO (hostile artillery location) systems, but ARTHUR failed to operate, resulting in a failure to determine the source of the fire,' said the source." ¶ BBC reported on November 25 last year the aggressive nature of troops on the South Korea-held five islands in North Korean waters. ¶ "Seen in this sense, they (five islands including Yeonpyeong Island) could provide staging bases for flanking amphibious attacks into North Korea if South Korea ever takes the offensive." ¶ 2. An almost catastrophic incident took place at dawn on June 17 near Inchon. South Korean marines stationed on Gyodong Island near Inchon Airport fired rifles at a civilian South Korean jetliner Airbus A320 with 119 people aboard as it was descending to land, after mistaking it for a North Korean military aircraft. ¶ The Asiana Airlines flight was carrying 119 people from the Chinese city of Chengdu. ¶ About 600 civilian aircraft fly near the island every day, including those flying across the NLL, but they face a perennial risk of being misidentified as a hostile warplane. ¶ It is nothing short of a miracle that the Airbus A320 was not hit and nobody harmed. ¶ 3. On March 26, 2010, the high-tech South Korean corvette Sokcho fired 130 rounds at flocks of birds, mistaking them for a hostile flying object. The innocent birds looked like a North Korean warplane just at a time when an alleged North Korean midget submarine had managed to escape with impunity after torpedoing the hapless Cheonan deep inside security-tight South Korean waters. ¶ The South Korean military's habit of firing at the wrong target increases the risk of an incident running out of control. ¶ CNN aired a story December 16, headlined: "General: South Korea Drill Could Cause Chain Reaction." ¶ F/A-18 pilot-turned Marine Corp General James Cartwright told the press in the Pentagon, "What we worry about, obviously, is if that it [the drill] is misunderstood or if it's taken advantage of as an opportunity. ¶ "If North Korea were to react to that in a negative way and fire back at those firing positions on the islands, that would start potentially a chain reaction of firing and counter-firing. ¶ "What you don't want to have happen out of that is ... for us to lose control of the escalation. That's the concern." ¶ Agence France-Presse on December 11 quoted former chief of US intelligence retired admiral Dennis Blair as saying that South Korea "will be taking military action against North Korea". ¶ New Korean war differs from other wars¶ Obama and the Americans seem to be incapable of realizing that North Korea is the wrong enemy, much less that a new Korean War would be fundamentally different from all other wars including the two world wars. ¶ Two things will distinguish a likely American Conflict or DPRK-US War from previous wars. ¶ The first essential difference is that the US mainland will become the main theater of war for the first time since the US Civil War (1861-1865), giving the Americans an opportunity to know what it is like to have war fought on their own land, not on faraway soil. ¶ The US previously prospered by waging aggressive wars on other countries. Thus far, the Americans could afford to feel safe and comfortable while watching TV footage of war scenes from Afghanistan, Iraq, Pakistan and Libya as if they were fires raging across the river. ¶ The utmost collateral damage has been that some American veterans were killed or returned home as amputees, with post traumatic stress disorder, only to be left unemployed and homeless. ¶ However, this will no longer be the case. ¶ At long last, it is Americans' turn to have see their homeland ravaged.¶ An young North Korea in 1950-53 was unable to carry the war all the way across the Pacific Ocean to strike back, but the present-day North Korea stands out as a fortress nuclear weapons state that can withstand massive American ICBM (Intercontinental ballistic missile) attacks and launch direct retaliatory transpacific strikes on the Metropolitan USA. ¶ The second essential difference is that the next war in Korea, that is, the American Conflict or the DPRK-USA War would be the first actual full-fledged nuclear, thermonuclear war that mankind has ever seen, in no way similar to the type of nuclear warfare described in science fiction novels or films. ¶ North Korea is unique among the nuclear powers in two respects: One is that the Far Eastern country, founded by legendary peerless hero Kim Il-sung, is the first country to engage and badly maul the world's only superpower in three years of modern warfare when it was most powerful, after vanquishing Nazi Germany and Imperial Japan. ¶ The other is that North Korea is fully ready to go the length of fighting [hu]mankind's first and last nuclear exchange with the US. ¶ The DPRK led by two Kim Il-sungs - the ever-victorious iron-willed brilliant commander Kim Jong-il and his heir designate Kim Jong-eun - is different from Russia under Nikita Khrushchev which backed down in the 1962 Cuban missile crisis. ¶ Khrushchev and his company never fought the Americans in war. As a rule, most countries are afraid to engage the Americans. As the case is with them, North Korea is the last to favor war with the Americans. ¶ However, it is no exaggeration to say that the two North Korean leaders are just one click away from ordering a retaliatory nuclear strike on the US military forces in Guam, Hawaii and metropolitan centers on the US mainland. ¶ On behalf of Supreme Leader Kim Jong-il, Kim Jong-eun will fire highly destructive weapons of like Americans have never heard of or imagined to evaporate the US. ¶ The North Koreans are too proud of being descendents of the ancient civilizations of Koguryo 2,000 years ago and Dankun Korea 5,000 years ago, to leave the Land of morning Calm divided forever with the southern half under the control of the trigger-happy, predatory US. The North Koreans prefer to fight and die in honor rather than kowtow to the arrogant Americans. ¶ At the expense of comforts of a better life, North Koreans have devoted more than half a century to preparing for nuclear war with the Americans. All available resources have been used to convert the whole country into a fortress, including arming the entire population and indigenously turning out all types of nuclear thermonuclear weapons, and developing long-range delivery capabilities and digital warfare assets. ¶ An apocalyptic Day After Tommorow-like scenario will unfold throughout the US, with the skyscrapers of major cities consumed in a sea of thermonuclear conflagration. The nuclear exchange will begin with retaliatory North Korean ICBMs detonating hydrogen bombs in outer space far above the US mainland, leaving most of the country powerless. ¶ New York, Washington, Chicago, San Francisco and major cities should be torched by ICBMs streaking from North Korea with scores of nuclear power stations exploding, each spewing as much radioactive fallout as 150-180 H-bombs.

**Hegemony prevents extinction**

**Barnett 11** (Thomas P.M., Former Senior Strategic Researcher and Professor in the Warfare Analysis & Research Department, Center for Naval Warfare Studies, U.S. Naval War College American military geostrategist and Chief Analyst at Wikistrat., worked as the Assistant for Strategic Futures in the Office of Force Transformation in the Department of Defense, “The New Rules: Leadership Fatigue Puts U.S., and Globalization, at Crossroads,” March 7 <http://www.worldpoliticsreview.com/articles/8099/the-new-rules-leadership-fatigue-puts-u-s-and-globalization-at-crossroads>)

Events in Libya are a further reminder for Americans that we **stand at a crossroads in our continuing evolution as the world's sole full-service superpower**. Unfortunately, we are increasingly seeking change without cost, and shirking from risk because we are tired of the responsibility. We don't know who we are anymore, and our president is a big part of that problem. Instead of leading us, he explains to us. Barack Obama would have us believe that he is practicing strategic patience. But many experts and ordinary citizens alike have concluded that he is actually beset by strategic incoherence -- in effect, a man overmatched by the job. It is worth first examining the larger picture: We live in a time of arguably **the greatest structural change in the global order yet endured**, with this historical moment's most amazing feature being its relative and absolute **lack of mass violence**. That is something to consider when Americans contemplate military intervention in Libya, because if we do take the step to prevent larger-scale killing by engaging in some killing of our own, we will not be adding to some fantastically imagined global death count stemming from the ongoing "megalomania" and "evil" of American "empire." We'll be engaging in the same sort of system-administering activity that has marked our stunningly successful stewardship of global order since World War II. Let me be more blunt: As the **guardian of globalization**, the U.S. military has been the **greatest force for peace the world has ever known**. Had America been removed from the global dynamics that governed the 20th century, the **mass murder never would have ended**. Indeed, it's entirely conceivable **there would now be no identifiable human civilization left, once nuclear weapons entered the killing equation.**  But the world did not keep sliding down that **path of perpetual war**. Instead, America stepped up and changed everything by **ushering in our now-perpetual great-power peace**. We introduced the **international liberal trade order known as globalization** and played loyal Leviathan over its spread. What resulted was the collapse of empires, **an explosion of democracy**, the **persistent spread of human rights**, the liberation of women, **the doubling of life expectancy**, a roughly **10-fold increase in adjusted global GDP** and a **profound and persistent reduction in** battle deaths from **state-based conflicts.** That is what American "hubris" actually delivered. Please remember that the next time some TV pundit sells you the image of "unbridled" American military power as the cause of global disorder instead of its cure. With self-deprecation bordering on self-loathing, we now imagine a post-American world that is anything but. Just watch who scatters and who steps up as the Facebook revolutions erupt across the Arab world. While we might imagine ourselves the status quo power, we remain the world's most vigorously revisionist force. As for the sheer "evil" that is our military-industrial complex, again, let's examine what the world looked like before that establishment reared its ugly head. The last great period of global structural change was the first half of the 20th century, a period that saw a death toll of about 100 million across two world wars. That comes to an average of 2 million deaths a year in a world of approximately 2 billion souls. Today, with far more comprehensive worldwide reporting, researchers report an average of less than 100,000 battle deaths annually in a world fast approaching 7 billion people. Though admittedly crude, these calculations suggest a 90 percent absolute drop and a 99 percent relative drop in deaths due to war. We are clearly headed for a world order characterized by multipolarity, something the American-birthed system was designed to both encourage and accommodate. But given how things turned out the last time we collectively faced such a fluid structure, we would do well to keep U.S. power, in all of its forms, deeply embedded in the geometry to come. To continue the historical survey, after salvaging Western Europe from its half-century of civil war, the U.S. emerged as the progenitor of a new, far more just form of globalization -- one based on actual free trade rather than colonialism. America then successfully replicated globalization further in East Asia over the second half of the 20th century, setting the stage for the Pacific Century now unfolding.

#### The transition would cause chaos and conflict

Gary J. Schmitt 7 (June 22, “To Be, or Not to Be . . . an Empire”, A former staff director of the Senate Select Committee on Intelligence, Gary Schmitt was executive director of the President's Foreign Intelligence Advisory Board (PFIAB) during President Reagan's second term. As director of AEI's program on advanced strategic studies, Schmitt's work will focus on longer-term strategic issues that will affect America's security at home and its ability to lead abroad., Professional Experience

-Executive director, Project for the New American Century (a foreign and defense policy think tank), 1997-2005-Adjunct professor, Paul H. Nitze School of Advanced International Studies (SAIS), The Johns Hopkins University, 1996-97-Consultant, U.S. Department of Defense, 1992-1993-Fellow, The National Interest; the Brookings Institution; and the National Strategy Information Center, 1988-1996-Executive director, the President's Foreign Intelligence Advisory Board, the White House, 1984-1988

-Minority staff director, 1982-1984; professional staff member, 1981-1984, Senate Select Committee on Intelligence-Research faculty, White Burkett Miller Center for Public Policy, University of Virginia, 1977-1979, http://www.aei.org/scholars/filter.,scholarID.103/scholar.asp)

An additional problem, perhaps tied to the way the book is structured, is that Layne spends the majority of his time criticizing the argument for primacy without giving the reader much of a handle on the particulars of his own preferred strategy. As a result, we do not know whether his model of "offshore balancing" is more British in style--that is, fairly active in playing the decisive power broker among the other competing states--or more passive in content, such as the United States in the 1920s and 1930s. If the former, a key problem with the strategy is that it requires a far more calculating style of statecraft than the United States has ever had. And even if we had Henry Kissinger upon Henry Kissinger to carry it out, would the American people really let their government play this particular game of international politics, shifting partners based on power relations rather than on the character of the states themselves? The disappearance of the United States as a security guarantor is likely to lead to more competition among states and to the creation of a more chaotic and fluid international environment. Britain had a hard enough time playing this role in its day, finding itself in numerous conflicts regardless. If the latter, the passive offshore balancing approach leads to the question of whether such a strategy results in putting off a security challenge until it may be far more difficult to deal with. Layne's bet, at least in the case of Iran and China today, is that if the United States would only get out of the way, other powers would naturally begin to meet the challenge. It is possible, but doing so might create even more destabilizing competition among other regional powers or lead those same powers to acquiesce to China or Iran's new hegemony, fueling their ambitions rather than lessening them. The history of international relations suggests that most great crises result from neglecting to address more minor ones early on. As Thayer argues, it is probably less costly to nip these threats in the bud to than wait for them to become full-blown security crises.

#### Status seeking is inevitable --- heg is key to solve war

Wohlforth 9 – professor of government at Dartmouth (William, “Unipolarity, Status Competition, and Great Power War,” World Affairs, January, project muse)

The upshot is a near scholarly consensus that unpolarity’s consequences for great power conflict are indeterminate and that a power shift resulting in a return to bipolarity or multipolarity will not raise the specter of great power war. This article questions the consensus on two counts. First, I show that it depends crucially on a dubious assumption about human motivation. Prominent theories of war are based on the assumption that people are mainly motivated by the instrumental pursuit of tangible ends such as physical security and material prosperity. This is why such theories seem irrelevant to interactions among great powers in an international environment that diminishes the utility of war for the pursuit of such ends. Yet we know that people are motivated by a great many noninstrumental motives, not least by concerns regarding their social status. 3 As John Harsanyi noted, “Apart from economic payoffs, social status (social rank) seems to be the most important incentive and motivating force of social behavior.”4 This proposition rests on much firmer scientific ground now than when Harsanyi expressed it a generation ago, as cumulating research shows that humans appear to be hardwired for sensitivity to status and that relative standing is a powerful and independent motivator of behavior.5 [End Page 29] Second, I question the dominant view that status quo evaluations are relatively independent of the distribution of capabilities. If the status of states depends in some measure on their relative capabilities, and if states derive utility from status, then different distributions of capabilities may affect levels of satisfaction, just as different income distributions may affect levels of status competition in domestic settings. 6 Building on research in psychology and sociology, I argue that even capabilities distributions among major powers foster ambiguous status hierarchies, which generate more dissatisfaction and clashes over the status quo. And the more stratified the distribution of capabilities, the less likely such status competition is. Unipolarity thus generates far fewer incentives than either bipolarity or multipolarity for direct great power positional competition over status. Elites in the other major powers continue to prefer higher status, but in a unipolar system they face comparatively weak incentives to translate that preference into costly action. And the absence of such incentives matters because social status is a positional good—something whose value depends on how much one has in relation to others.7 “If everyone has high status,” Randall Schweller notes, “no one does.”8 While one actor might increase its status, all cannot simultaneously do so. High status is thus inherently scarce, and competitions for status tend to be zero sum.9

#### We control empirics

Wohlforth 8—Daniel Webster Professor of Government, Dartmouth. BA in IR, MA in IR and MPhil and PhD in pol sci, Yale (William, Unipolarity, Status Competition, and Great Power War, October 2008, World Politics Vol. 61, Iss. 1; pg. 28, 31 pgs, Proquest)

Despite increasingly compelling findings concerning the importance of status seeking in human behavior, research on its connection to war waned some three decades ago.38 Yet empirical studies of the relationship between both systemic and dyadic capabilities distributions and war have continued to cumulate. If the relationships implied by the status theory run afoul of well-established patterns or general historical findings, then there is little reason to continue investigating them. **The clearest empirical implication** of the theory **is that** status **competition is unlikely to cause great power military conflict in unipolar systems**. If status competition is an important contributory cause of great power war, then, ceteris paribus, unipolar systems should be markedly less war-prone than bipolar or multipolar systems. And this appears to be the case. As Daniel Geller notes in a review of the empirical literature: "**The only polar structure that appears to influence conflict probability is unipolarity**."39 In addition, a larger number of studies at the dyadic level support the related expectation that narrow capabilities gaps and ambiguous or unstable capabilities hierarchies increase the probability of war.40 These studies are based entirely on post-sixteenth-century European history, and most are limited to the post-1815 period covered by the standard data sets. Though the systems coded as unipolar, near-unipolar, and hegemonic are all marked by a high concentration of capabilities in a single state, these studies operationalize unipolarity in a variety of ways, often very differently from the definition adopted here. An ongoing collaborative project looking at ancient interstate systems over the course of two thousand years suggests that historical systems that come closest to the definition of unipolarity used here exhibit precisely the behavioral properties implied by the theory. 41 As David C. Kang's research shows, the East Asian system between 1300 and 1900 was an unusually stratified unipolar structure, with an economic and militarily dominant China interacting with a small number of geographically proximate, clearly weaker East Asian states.42 Status politics existed, but actors were channeled by elaborate cultural understandings and interstate practices into clearly recognized ranks. Warfare was exceedingly rare, and the major outbreaks occurred precisely when the theory would predict: when China's capabilities waned, reducing the clarity of the underlying material hierarchy and increasing status dissonance for lesser powers. Much more research is needed, but initial exploration of other arguably unipolar systems-for example, Rome, Assyria, the Amarna system-appears consistent with the hypothesis.43 Status Competition and Causal Mechanisms Both theory and evidence demonstrate convincingly that competition for status is a driver of human behavior, and social identity theory and related literatures suggest the conditions under which it might come to the fore in great power relations. Both the systemic and dyadic findings presented in large-N studies are broadly consistent with the theory, but they are also consistent with power transition and other rationalist theories of hegemonic war.

#### War is at its lowest level in history because of US primacy---best statistical studies prove

Owen 11 John M. Owen Professor of Politics at University of Virginia PhD from Harvard "DON’T DISCOUNT HEGEMONY" Feb 11 www.cato-unbound.org/2011/02/11/john-owen/dont-discount-hegemony/

Andrew Mack and his colleagues at the Human Security Report Project are to be congratulated. Not only do they present a study with a striking conclusion, driven by data, free of theoretical or ideological bias, but they also do something quite unfashionable: they bear good news. Social scientists really are not supposed to do that. Our job is, if not to be Malthusians, then at least to point out disturbing trends, looming catastrophes, and the imbecility and mendacity of policy makers. And then it is to say why, if people listen to us, things will get better. We do this as if our careers depended upon it, and perhaps they do; for if all is going to be well, what need then for us?¶ Our colleagues at Simon Fraser University are brave indeed. That may sound like a setup, but it is not. I shall challenge neither the data nor the general conclusion that violent conflict around the world has been decreasing in fits and starts since the Second World War. When it comes to violent conflict among and within countries, **things have been getting better**. (The trends have not been linear—Figure 1.1 actually shows that the frequency of interstate wars peaked in the 1980s—but the 65-year movement is clear.) Instead I shall accept that Mack et al. are correct on the macro-trends, and focus on their explanations they advance for these remarkable trends. With apologies to any readers of this forum who recoil from academic debates, this might get mildly theoretical and even more mildly methodological.¶ Concerning international wars, one version of the “nuclear-peace” theory is not in fact laid to rest by the data. It is certainly true that nuclear-armed states have been involved in many wars. They have even been attacked (think of Israel), which falsifies the simple claim of “assured destruction”—that any nuclear country A will deter any kind of attack by any country B because B fears a retaliatory nuclear strike from A.¶ But the most important “nuclear-peace” claim has been about mutually assured destruction, which obtains between two robustly nuclear-armed states. The claim is that (1) rational states having second-strike capabilities—enough deliverable nuclear weaponry to survive a nuclear first strike by an enemy—will have an overwhelming incentive not to attack one another; and (2) we can safely assume that nuclear-armed states are rational. It follows that states with a second-strike capability will not fight one another.¶ Their colossal atomic arsenals neither kept the United States at peace with North Vietnam during the Cold War nor the Soviet Union at peace with Afghanistan. But the argument remains strong that those arsenals did help keep the United States and Soviet Union at peace with each other. Why non-nuclear states are not deterred from fighting nuclear states is an important and open question. But in a time when calls to ban the Bomb are being heard from more and more quarters, we must be clear about precisely what the broad trends toward peace can and cannot tell us. They may tell us nothing about why we have had no World War III, and little about the wisdom of banning the Bomb now.¶ Regarding the **downward trend in international war**, Professor Mack is friendlier to more palatable theories such as the “**democratic peace**” (democracies do not fight one another, and the proportion of democracies has increased, hence less war); the interdependence or “**commercial peace**” (states with extensive economic ties find it irrational to fight one another, and interdependence has increased, hence less war); and the notion that people around the world are more anti-war than their forebears were. Concerning the downward trend in civil wars, he favors theories of economic growth (where commerce is enriching enough people, violence is less appealing—a logic similar to that of the “commercial peace” thesis that applies among nations) and the end of the Cold War (which end reduced superpower support for rival rebel factions in so many Third-World countries).¶ These are all **plausible mechanisms for peace**. What is more, none of them excludes any other; all could be working toward the same end. That would be somewhat puzzling, however. Is the world just lucky these days? How is it that an array of peace-inducing factors happens to be working coincidentally in our time, when such a magical array was absent in the past? The answer may be that one or more of these mechanisms reinforces some of the others, or perhaps some of them are mutually reinforcing. Some scholars, for example, have been focusing on whether economic growth might support democracy and vice versa, and whether both might support international cooperation, including to end civil wars.¶ We would still need to explain how this charmed circle of causes got started, however. And here let me raise another factor, perhaps even less appealing than the “nuclear peace” thesis, at least outside of the United States. That factor is what international relations scholars call hegemony—specifically **American hegemony**.¶ A theory that many regard as discredited, but that refuses to go away, is called hegemonic stability theory. The theory emerged in the 1970s in the realm of international political economy. It asserts that **for the global economy to remain open**—for countries to keep barriers to trade and investment low—**one powerful country must take the lead**. Depending on the theorist we consult, “taking the lead” entails paying for global public goods (keeping the sea lanes open, providing liquidity to the international economy), coercion (threatening to raise trade barriers or withdraw military protection from countries that cheat on the rules), or both. The theory is skeptical that international cooperation in economic matters can emerge or endure absent a hegemon. The distastefulness of such claims is self-evident: they imply that it is good for everyone the world over if one country has more wealth and power than others. More precisely, they imply that it has been good for the world that the United States has been so predominant.¶ There is no obvious reason why hegemonic stability theory could not apply to other areas of international cooperation, including in security affairs, human rights, international law, peacekeeping (UN or otherwise), and so on. What I want to suggest here—suggest, not test—is that **American hegemony might just be a deep cause of the steady decline of political deaths in the world**.¶ How could that be? After all, the report states that United States is the third most war-prone country since 1945. Many of the deaths depicted in Figure 10.4 were in wars that involved the United States (the Vietnam War being the leading one). Notwithstanding politicians’ claims to the contrary, a candid look at U.S. foreign policy reveals that the country is as ruthlessly self-interested as any other great power in history.¶ The answer is that U.S. hegemony might just be a **deeper cause of the proximate causes** outlined by Professor Mack. Consider economic growth and openness to foreign trade and investment, which (so say some theories) **render violence irrational**. American power and policies may be responsible for these in two related ways. First, at least since the 1940s Washington has **prodded other countries to embrace the market capitalism** that entails economic openness and produces **sustainable economic growth**. The United States promotes capitalism for selfish reasons, of course: its own domestic system depends upon growth, which in turn depends upon the efficiency gains from economic interaction with foreign countries, and the more the better. During the Cold War most of its allies accepted some degree of market-driven growth.¶ Second, the U.S.-led western victory in the Cold War damaged the credibility of alternative paths to development—communism and import-substituting industrialization being the two leading ones—and **left market capitalism the best model**. The end of the Cold War also involved an end to the billions of rubles in Soviet material support for regimes that tried to make these alternative models work. (It also, as Professor Mack notes, **eliminated the superpowers’ incentives to feed civil violence** in the Third World.) What we call **globalization** is **caused in part by the emergence of the United States as the global hegemon**.¶ The same case can be made, with somewhat more difficulty, concerning the **spread of democracy**. Washington has supported democracy only under certain conditions—the chief one being the absence of a popular anti-American movement in the target state—but those conditions have become much more widespread following the collapse of communism. Thus in the 1980s the Reagan administration—the most anti-communist government America ever had—began to dump America’s old dictator friends, starting in the Philippines. Today Islamists tend to be anti-American, and so the Obama administration is skittish about democracy in Egypt and other authoritarian Muslim countries. But general U.S. material and moral support for liberal democracy remains strong.

### 1AC – Water Advantage

#### CONTENTION 2: WATER

#### Water shortages coming --- causes instability

AFP 9/10, “World water crisis must be top UN priority: report”, http://www.google.com/hostednews/afp/article/ALeqM5gcIGn59te-BGkDoG1uG6XrAMXO\_A?docId=CNG.96ef5382d53f44338468570447594103.851

WASHINGTON — A rapidly worsening water shortage threatens to destabilize the planet and should be a top priority for the UN Security Council and world leaders, a panel of experts said in a report.¶ The world's diminishing water supply carries serious security, development and social risks, and could adversely affect global health, energy stores and food supplies, said the report titled "The Global Water Crisis: Addressing an Urgent Security Issue," published Monday.¶ The study was released by the InterAction Council (IAC), a group of 40 prominent former government leaders and heads of state, along with the United Nations University's Institute for Water, Environment and Health, and Canada's Walter and Duncan Gordon Foundation.¶ "As some of these nations are already politically unstable, such crises may have regional repercussions that extend well beyond their political boundaries," said Norway's former Prime Minister Gro Harlem Brundtland, a member of the group.¶ The Norwegian leader underscored that the danger is particularly acute in sub-Saharan Africa, western Asia and North Africa, where critical water shortages already exist.¶ She added that water insecurity could wreak havoc "even in politically stable regions."

#### Especially in China, Egypt, and Pakistan --- goes nuclear

NPR 10 (NPR citing Steven Solomon who has written for The New York Times, BusinessWeek, The Economist, Forbes, and Esquire. He has been a regular commentator on NPR’s Marketplace, and has appeared as a featured guest on the late Tim Russert’s CNBC show, NPR’s Talk of the Nation, Bloomberg TV, and on many other news shows. He has addressed the World Affairs Council, Center for Strategic and International Studies (CSIS), and university forums, author of *Water: The Epic Struggle for Wealth, Power, and Civilization and The Confidence Game*, 1/3/10, https://www.npr.org/templates/story/story.php?storyId=122195532)

Just as wars over oil played a major role in 20th-century history, a new book makes a convincing case that many 21st century conflicts will be fought over water. In Water: The Epic Struggle for Wealth, Power and Civilization, journalist Steven Solomon argues that water is surpassing oil as the world's scarcest critical resource. Only 2.5 percent of the planet's water supply is fresh, Solomon writes, much of which is locked away in glaciers. World water use in the past century grew twice as fast as world population. "We've now reached the limit where that trajectory can no longer continue," Solomon tells NPR's Mary Louise Kelly. "Suddenly we're going to have to find a way to use the existing water resources in a far, far more productive manner than we ever did before, because there's simply not enough." One issue, Solomon says, is that water's cost doesn't reflect its true economic value. While a society's transition from oil may be painful, water is irreplaceable. Yet water costs far less per gallon — and even less than that for some. "In some cases, where there are large political subsidies, largely in agriculture, it does not [cost very much]," Solomon says. "In many cases, irrigated agriculture is getting its water for free. And we in the cities are paying a lot, and industries are also paying an awful lot. That's unfair. It's inefficient to the allocation of water to the most productive economic ends." At the same time, Solomon says, there's an increasing feeling in the world that everyone has a basic right to a minimum 13 gallons of water a day for basic human health. He doesn't necessarily have an issue with that. "I think there's plenty of water in the world, even in the poorest and most water-famished country, for that 13 gallons to be given for free to individuals — and let them pay beyond that," he says. Solomon says the world is divided into water haves and have-nots. China, Egypt and Pakistan are just a few countries facing critical water issues in the 21st century. In his book he writes, "Consider what will happen in water-distressed, nuclear-armed, terrorist-besieged, overpopulated, heavily irrigation dependent and already politically unstable Pakistan when its single water lifeline, the Indus river, loses a third of its flow from the disappearance from its glacial water source."

#### Middle East war causes World War 3

The Earl of Stirling 11, hereditary Governor & Lord Lieutenant of Canada, Lord High Admiral of Nova Scotia, & B.Sc. in Pol. Sc. & History; M.A. in European Studies, “General Middle East War Nears - Syrian events more dangerous than even nuclear nightmare in Japan”, http://europebusines.blogspot.com/2011/03/general-middle-east-war-nears-syrian.html

Any Third Lebanon War/General Middle East War is apt to involve WMD on both side quickly as both sides know the stakes and that the Israelis are determined to end, once and for all, any Iranian opposition to a 'Greater Israel' domination of the entire Middle East. It will be a case of 'use your WMD or lose them' to enemy strikes. Any massive WMD usage against Israel will result in the usage of Israeli thermonuclear warheads against Arab and Persian populations centers in large parts of the Middle East, with the resulting spread of radioactive fallout over large parts of the Northern Hemisphere. However, the first use of nukes is apt to be lower yield warheads directed against Iranian underground facilities including both nuclear sites and governmental command and control and leadership bunkers, with some limited strikes also likely early-on in Syrian territory.¶ The Iranians are well prepared to launch a global Advanced Biological Warfare terrorism based strike against not only Israel and American and allied forces in the Middle East but also against the American, Canadian, British, French, German, Italian, etc., homelands. This will utilize DNA recombination based genetically engineered 'super killer viruses' that are designed to spread themselves throughout the world using humans as vectors. There are very few defenses against such warfare, other than total quarantine of the population until all of the different man-made viruses (and there could be dozens or even over a hundred different viruses released at the same time) have 'burned themselves out'. This could kill a third of the world's total population.¶Such a result from an Israeli triggered war would almost certainly cause a Russian-Chinese response that would eventually finish off what is left of Israel and begin a truly global war/WWIII with multiple war theaters around the world. It is highly unlikely that a Third World War, fought with 21st Century weaponry will be anything but the Biblical Armageddon.

#### Pakistan water scarcity causes war with India

Dr Akmal Hussain 11, The Express Tribune, “Pakistan’s water crisis”, 8-25, http://tribune.com.pk/story/231905/pakistans-water-crisis/

A water crisis is emerging which could have major implications for Pakistan’s economy and society. Effective management of this crisis first requires urgent mitigation and adaptation measures with close cooperation amongst Pakistan’s provinces of Khyber-Pakhtunkhwa, Punjab and Sindh on the one hand and then between Pakistan and India on the other. If the necessary collaboration for cooperative management of the Indus basin water resources is not undertaken expeditiously, the resultant economic crisis could lead to a war with India.¶ The problem of water scarcity in the Indus basin is predicated partly on the inherent limitations of water supply in the Indus River System and partly on the growing water demand associated with inefficient water use in the process of economic and population growth. Unsustainable development practices have exacerbated the problem with intrusion of salinity into the ground water, contamination of aquifers with harmful chemicals such as fluoride and arsenic and pollution of surface water due to lack of an institutional framework for environmentally safe disposal of urban and industrial waste. An important dimension of the water issue in the years ahead is the phenomenon of climate change, which could take the crisis to a critical level.¶ Water scarcity can be measured by the availability of water compared with the generally accepted minimum per capita requirement of 1,700 cubic metres per person per year. In their book, Freshwater Under Threat: South Asia, Mukand S Babel and Shahriar M Wahid have estimated that the per capita availability of water in the Indus basin is 1,329 cubic metres per capita per year. This is significantly below the threshold requirement. Another interesting indicator of the water problem is the measure of development pressure on water resources, which is the percentage of available water supply relative to the total water resources. This ratio is as high as 89 per cent for the Indus basin compared to only 15 per cent for the Ganges-Brahmaputra-Meghna (GBM) basin. This indicates the relatively greater development pressure on the Indus basin.¶ Worse, the utilisation of water for production is also highly inefficient by global standards. Water use efficiency is measured in terms of the GDP per unit of water used. In the case of the five top food producers in the world (Brazil, China, France, Mexico and the US) the water use efficiency is $23.8 per cubic metre. The figure is as low as $3.34 for the Indus basin.¶ The problem of water scarcity is expected to become more acute in the future due to the adverse impact of climate change. Dr Leena Srivastava, in a recent research paper, provides evidence to show that some of the Himalayan glaciers are melting more rapidly than the global average and this could increase the frequency of floods in the short run and increase water shortages in the long term by reducing river flows in South Asia. Furthermore, according to the UN’s Intergovernmental Panel on Climate Change report, given the sensitivity of existing seeds to heat, global warming could result in a 30 per cent reduction in the yield per acre of food crops in South Asia.¶ Science and empirical evidence make clear that existing water scarcity, when combined with the impact of climate change, could place critical stress on the economy and society of Pakistan in particular and South Asia in general: major food shortages, increased frequency of natural disasters, large scale dislocations of population and destabilising contention between upper and lower riparian regions.¶ Effective management of this crisis in Pakistan requires close cooperation with India in joint watershed management, increasing the efficiency of irrigation and water use, joint development of technologies, sustainable agriculture practices and institutional arrangements to manage food shortages as well as natural disasters. When faced with a common threat, ideology must be replaced by rationality in the conduct of governance. If we fail to do so, natural disasters could trigger the man-made catastrophe of war.

#### Indo-Pak war causes extinction

Greg Chaffin 11, Research Assistant at Foreign Policy in Focus, July 8, 2011, “Reorienting U.S. Security Strategy in South Asia,” online: http://www.fpif.org/articles/reorienting\_us\_security\_strategy\_in\_south\_asia

The greatest threat to regional security (although curiously not at the top of most lists of U.S. regional concerns) is the possibility that increased India-Pakistan tension will erupt into all-out war that could quickly escalate into a nuclear exchange. Indeed, in just the past two decades, the two neighbors have come perilously close to war on several occasions. India and Pakistan remain the most likely belligerents in the world to engage in nuclear war. ¶ Due to an Indian preponderance of conventional forces, Pakistan would have a strong incentive to use its nuclear arsenal very early on before a routing of its military installations and weaker conventional forces. In the event of conflict, Pakistan’s only chance of survival would be the early use of its nuclear arsenal to inflict unacceptable damage to Indian military and (much more likely) civilian targets. By raising the stakes to unacceptable levels, Pakistan would hope that India would step away from the brink. However, it is equally likely that India would respond in kind, with escalation ensuing. Neither state possesses tactical nuclear weapons, but both possess scores of city-sized bombs like those used on Hiroshima and Nagasaki. ¶ Furthermore, as more damage was inflicted (or as the result of a decapitating strike), command and control elements would be disabled, leaving individual commanders to respond in an environment increasingly clouded by the fog of war and decreasing the likelihood that either government (what would be left of them) would be able to guarantee that their forces would follow a negotiated settlement or phased reduction in hostilities. As a result any such conflict would likely continue to escalate until one side incurred an unacceptable or wholly debilitating level of injury or exhausted its nuclear arsenal. ¶ A nuclear conflict in the subcontinent would have disastrous effects on the world as a whole. In a January 2010 paper published in Scientific American, climatology professors Alan Robock and Owen Brian Toon forecast the global repercussions of a regional nuclear war. Their results are strikingly similar to those of studies conducted in 1980 that conclude that a nuclear war between the United States and the Soviet Union would result in a catastrophic and prolonged nuclear winter, which could very well place the survival of the human race in jeopardy. In their study, Robock and Toon use computer models to simulate the effect of a nuclear exchange between India and Pakistan in which each were to use roughly half their existing arsenals (50 apiece). Since Indian and Pakistani nuclear devices are strategic rather than tactical, the likely targets would be major population centers. Owing to the population densities of urban centers in both nations, the number of direct casualties could climb as high as 20 million. ¶ The fallout of such an exchange would not merely be limited to the immediate area. First, the detonation of a large number of nuclear devices would propel as much as seven million metric tons of ash, soot, smoke, and debris as high as the lower stratosphere. Owing to their small size (less than a tenth of a micron) and a lack of precipitation at this altitude, ash particles would remain aloft for as long as a decade, during which time the world would remain perpetually overcast. Furthermore, these particles would soak up heat from the sun, generating intense heat in the upper atmosphere that would severely damage the earth’s ozone layer. The inability of sunlight to penetrate through the smoke and dust would lead to global cooling by as much as 2.3 degrees Fahrenheit. This shift in global temperature would lead to more drought, worldwide food shortages, and widespread political upheaval.¶ Although the likelihood of this doomsday scenario remains relatively low, the consequences are dire enough to warrant greater U.S. and international attention. Furthermore, due to the ongoing conflict over Kashmir and the deep animus held between India and Pakistan, it might not take much to set them off. Indeed, following the successful U.S. raid on bin Laden’s compound, several members of India’s security apparatus along with conservative politicians have argued that India should emulate the SEAL Team Six raid and launch their own cross-border incursions to nab or kill anti-Indian terrorists, either preemptively or after the fact. Such provocative action could very well lead to all-out war between the two that could quickly escalate.

#### SMRs solve desalination---solves water wars and mission effectiveness

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The idea of using nuclear power to produce synthetic fuels, originally proposed in 1963, remains feasible today and is gaining significant attention because of recent advances in fuel cell technology, hydrogen liquefaction, and storage. At the same time, nuclear power has become a significant part of the energy supply in more than 20 countries—providing energy security, reducing air pollution, and cutting greenhouse gas emissions. The performance of the world's nuclear power plants has improved steadily and is at an all-time high. Assuming that nuclear power experiences further technological development and increased public acceptance as a safe and efficient energy source, its use will continue to grow. Nuclear power possibly could provide district heating, industrial process heating, desalination of seawater, and marine transportation.¶ Demand for cost-effective chemical fuels such as hydrogen and methanol is expected to grow rapidly. Fuel cell technology, which produces electricity from low-temperature oxidation of hydrogen and yields water as a byproduct, is receiving increasing attention. Cheap and abundant hydrogen eventually will replace carbon-based fuels in the transportation sector and eliminate oil's grip on our society. But hydrogen must be produced, since terrestrial supplies are extremely limited. Using nuclear power to produce hydrogen offers the potential for a limitless chemical fuel supply with near-zero greenhouse gas emissions. As the commercial transportation sector increasingly moves toward hydrogen fuel cells and other advanced engine concepts to replace the gasoline internal combustion engine, DOD eventually will adopt this technology for its tactical vehicles.¶ The demand for desalination of seawater also is likely to grow as inadequate freshwater supplies become an urgent global concern. Potable water in the 21st century will be what oil was in the 20th century—a limited natural resource subject to intense international competition. In many areas of the world, rain is not always dependable and ground water supplies are limited, exhausted, or contaminated. Such areas are likely to experience conflict among water-needy peoples, possibly prompting the deployment of U.S. ground forces for humanitarian relief, peacekeeping, or armed intervention. A mobile desalination plant using waste heat from a nuclear reactor could help prevent conflicts or provide emergency supplies of freshwater to indigenous populations, and to U.S. deployed forces if necessary.¶ Promising Technology for Tomorrow¶ Compact reactor concepts based on high-temperature, gas-cooled reactors are attracting attention worldwide and could someday fulfill the role once envisioned for the energy depot. One proposed design is the pebble bed modular reactor (PBMR) being developed by Eskom in South Africa. Westinghouse, BNFL Instruments Ltd., and Exelon Corporation currently are supporting this project to develop commercial applications.¶ A similar design is the remote site-modular helium reactor (RS-MHR) being developed by General Atomics. If proven feasible, this technology could be used to replace retiring power plants, expand the Navy's nuclear fleet, and provide mobile electric power for military or disaster relief operations. Ideally, modular nuclear power plants could be operated by a small staff of technicians and monitored by a central home office through a satellite uplink.¶ The technology of both the PBMR and the RS-MHR features small, modular, helium-cooled reactors powered by ceramic-coated fuel particles that are inherently safe and cannot melt under any scenario. This results in simpler plant design and lower capital costs than existing light water reactors. The PBMR, coupled with a direct-cycle gas turbine generator, would have a thermal efficiency of about 42 to 45 percent and would produce about 110 megawatts of electricity (MWe). The smaller RS-MHR would produce about 10 to 25 MWe, which is sufficient for powering remote communities and military bases. Multiple modules can be installed on existing sites and refueling can be performed on line, since the fuel pebbles recycle through the reactor continuously until they are expended. Both designs also feature coolant exit temperatures high enough to support the thermochemical water-splitting cycles needed to produce hydrogen.¶ For military applications, RS-MHR equipment could be transported inland by truck or railroad, or single modules could be built on barges and deployed as needed to coastal regions. The Army's nuclear reactor on the barge Sturgis, which provided electric power to the Panama Canal from 1968 to 1976, demonstrated the feasibility of this concept. In fact, the military previously used several power barges (oil-fired, 30-MWe power plants) during World War II and in Korea and Okinawa as emergency sources of electric power.¶ Research teams around the world also are examining other reactor concepts based on liquid-metal-cooled reactor systems with conventional sodium or lead-alloy coolants and advanced water-cooled systems. The Department of Energy (DOE) is supporting research and development of innovative concepts that are based on ultra-long-life reactors with cartridge cores. These reactors would not require refueling, and they could be deployed in the field, removed at the end of their service life, and replaced by a new system. The proposed international reactor innovative and secure (IRIS) design, funded by DOE's Nuclear Energy Research Initiative, would have a straight burn core lasting 8 years and may be available by 2010. Based on increasing costs of fossil fuels, a growing consensus that greenhouse gas emissions must be reduced, and a growing demand for energy, there is little doubt that we will continue to see significant advances in nuclear energy research and development.¶ Nuclear power is expected to grow in the 21st century, with potential benefits applicable to the military. Small, modular nuclear power reactors in mobile or portable configurations, coupled with hydrogen production and desalination systems, could be used to produce fuel and potable water for combat forces deployed in remote areas and reduce our logistics requirements. Assuming the inevitability of hydrogen fuel replacing fossil fuels, a clearly defined objective that was missing in 1966 now exists.¶ The partnership between DOD and the former AEC to develop Army nuclear reactors contributed to the technology of both military and small commercial power plants. This historical relationship should be renewed based on recent technological advances and projected logistics requirements. DOD logistics planners should reconsider military applications of nuclear power and support ongoing DOE research and development initiatives to develop advanced reactors such as RS-MHR, IRIS, and others. For the Army to fight and win on tomorrow's distant battlefields, nuclear power will have to play a significant role.

#### Only SMR’s solve

IAEA 7 “Economics of Nuclear Desalination: New Developments and Site Specific Studies”, July, <http://www-pub.iaea.org/MTCD/publications/PDF/te_1561_web.pdf>

Seventy percent of the planet is covered with water, but only 2.5% of that is fresh water. Nearly 70% of this fresh water is frozen in the icecaps of Antarctica and Greenland. Most of the rest is in the form of soil moisture or in deep inaccessible aquifers or comes in the form of heavy rains and floods that are difficult to contain and exploit. Consequently, only less than 0.008% (about 70 000 km3) of the world’s water is readily accessible for direct human use, and even that is very unevenly distributed. Recent statistics show that currently 2.3 billion people live in water-stressed areas and among them 1.7 billion live in water-scarce areas, where the water availability per person is less than 1000 m3/year. In fact, the situation is expected to worsen further since, by 2025, the number of people suffering from water stress or scarcity could swell to 3.5 billion, out of which 2.4 billion would live in water-scarce regions. Water scarcity is a global issue. Every year new countries are affected by growing water problems.¶ It is for this reason that the Millennium Declaration by UN General Assembly in 2000 set up a target¶ to halve, by the year 2015, the world population, which is unable to reach, or to afford, safe drinking¶ water. Vision 21: shared vision for Hygiene, Water Supply and Sanitation, has a target to provide¶ water, sanitation and hygiene for all by 2025.¶ Better water conservation, water management, pollution control and water reclamation are all part of the integrated solution to projected water stresses. So too are new sources of fresh water, including the desalination of seawater.¶ Desalination technologies have been well established since the mid-20th century and widely deployed in the Middle East and North Africa. The contracted capacity of desalination plants has increased steadily since 1965 and is now about 36 million m3/day worldwide, as shown in Figure 1. This capacity could cater to world’s population roughly 6 litres a day per capita of fresh potable water. If this capacity were available to 1.5 billion in the world without direct access to drinking water, it would provide approximately 20 litres/day/capita.¶ Large scale commercially available desalination processes can generally be classified into two categories: (a) distillation processes that require mainly heat plus some electricity for ancillary equipment, and (b) membrane processes that require only electricity. In the first category (distillation) there are two major processes: multi-stage flash (MSF) and multi-effect distillation (MED). In both processes, seawater is heated; the steam that evaporates is condensed and collected as freshwater; and the residual brine is discharged.¶ In the second category (membranes) is the reverse osmosis process (RO), in which pure water passes from the high-pressure seawater side of a semi-permeable membrane to the low-pressure freshwater side. The pressure differential must be high enough to overcome the natural tendency for water to move from the low concentration freshwater side of a membrane to the high concentration seawater side in order to balance osmotic pressures.¶ The energy for the desalination plants is generally supplied in the form of either steam or electricity. Conventional fossil fuel-powered plants have normally been utilized as the primary sources but their intensive use raises increasing environmental concerns, specifically in relation to greenhouse gas emissions (Section 1.3.3). The depleting sources and the future price uncertainty of the fossil fuels and their better use for other vital industrial applications are also the factors to be considered.¶ 1.3. THE ROLE OF NUCLEAR POWER IN DESALINATION¶ The world energy requirements are presently met from oil, coal, gas, hydro, nuclear and renewable energies in that order as shown in Table 1.¶ It is now universally recognized that there will be an increase in the world’s requirement for electricity over the next few decades. The present trend towards meeting this demand includes the building of fossil fuel plants, particularly combined cycle gas fired plants.¶ However, the spiralling increase in greenhouse gas (GHG) emissions has resulted in setting the emission targets in international meetings held at Toronto, Rio de Janeiro and Kyoto. The IAEA predicts that the GHG emissions would be 36-50% higher by 2010 compared to 1990 levels. Many analysts, therefore, feel that the only viable alternative to fossil fuels is nuclear energy to reduce the rate of increase of GHG, particularly, carbon dioxide.¶ Yet another incentive for nuclear power is to maintain diversity of supply. A national strategy limited to one particular form of energy (fossil fuels) will be vulnerable to increased fuel costs and pressures from exporting countries.¶ Nuclear power is a proven technology, which has provided more than 16% of world electricity supply in over 30 countries. More than ten thousand reactor-years of operating experience have been accumulated over the past 5 decades.¶ There are many reasons which favour a possible revival of the nuclear power production in the years to come. It is thus expected that this revival would also lead to an increased role of nuclear energy in non-electrical energy services, which, at the moment, are almost entirely dominated by fossil energy sources. Among various utilization of nuclear energy for non-electrical products, using it for the production of freshwater from seawater (nuclear desalination) has been drawing broad interest in the IAEA Member States as a result of acute water shortage issues in many arid and semi-arid zones worldwide. With technical co-ordination or support of the IAEA, several demonstration programs of nuclear desalination are also in progress in several Member States to confirm its technical and economical viability under country-specific conditions¶ The desalination of seawater using nuclear energy is a feasible option to meet the growing demand for potable water. Over 175 reactor-years of operating experience on nuclear desalination have already been accumulated worldwide.¶ 1.3.1. Nuclear desalination¶ In the IAEA terminology, nuclear desalination is defined to be the production of potable water from seawater in a facility in which a nuclear reactor is used as the source of energy for the desalination process. Electrical and/or thermal energy may be used in the desalination process on the same site. The facility may be dedicated solely to the production of potable water, or may be used for the generation of electricity and production of potable water, in which case only a portion of the total energy output of the reactor is used for water production.¶ The design approaches for a nuclear desalination plant are essentially derived from those of the nuclear reactor alone, with some additional aspects to be considered in the design of a desalination plant and its integration with the nuclear system.¶ All nuclear reactor types can provide the energy required by the various desalination processes. In this regard, it has been shown that Small and Medium Reactors (SMRs) offer the largest potential as coupling options to nuclear desalination systems in developing countries. The development of innovative reactor concepts and fuel cycles with enhanced safety features as well as their attractive economics are expected to improve the public acceptance and further the prospects of nuclear desalination.¶ The coupling with nuclear system is not difficult technically but needs some consideration in (a)¶ avoiding cross-contamination by radioactivity, (b) providing backup heat or power sources in case the¶ nuclear system is not in operation (e.g. for refuelling and maintenance), (c) incorporation of certain¶ design features, minimising the impact of the thermal desalination systems’ coupling to the nuclear¶ reactors (Section 1.6).¶ 1.3.2. Why nuclear desalination?¶ The International Atomic Energy Agency is a specialized organization of the UN system that seeks to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world. The institutional basis for the IAEA’s involvement in nuclear desalination is in its Statute and Medium Term Strategy.¶ Article II of the IAEA Statute provides that:¶ “ The Agency shall seek to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world”.¶ This refers implicitly to nuclear desalination as an option for the use of nuclear technologies.¶ The same applies to the Article III of the Statute, which authorizes the IAEA:¶ “ To encourage and assist research on, and development and practical application of, atomic energy for peaceful uses throughout the world….”; (Article III, A.1); and¶ “To foster the exchange of scientific and technical information on peaceful uses of atomic energy.” (Article III, A.3).¶ In addition, Objective A.3 of the Agency’s Medium Term Strategy requires the Agency:¶ “ To support and facilitate the development of new and emerging applications of nuclear technologies by co-generation and heat applications, including seawater desalination”.¶ Request of assessing feasibility of using nuclear energy for seawater desalination was first made by the five North African countries to the IAEA in 1989 and the General Conference adopted its resolution to resume the study. These countries are located in semi-arid zones and already suffer from water shortages.¶ In recent years, interests have been also been indicated by Member States in South and South East Asia for the feasibility, as well as the demonstration, of nuclear desalination projects. The issue has since then been repeatedly stressed at the General Conference (Committee on the Whole) and supported by many Member States including most members of Group-77. The support stems not only from their expectation of its possible contribution to the freshwater issue but has also been motivated by a variety of reasons that include: the economic competitiveness of nuclear desalination in areas lacking cheap hydropower or fossil fuel resources, energy supply diversification, conservation of fossil fuel resources and spin-off effects of nuclear technology for industrial development.¶ Looking to the future, there are several reasons for focusing now on expanding nuclear power’s contribution to desalination. Apart from the expanding demand for freshwater and the increasing concern about GHG emissions and pollution from fossil fuels, there is a renewed and growing emphasis on small and medium sized nuclear reactors, and this is particularly important for desalination because the countries most in need of new sources of freshwater often have limited industrial infrastructures and relatively weaker electricity grids. The size of the grid limits the possibilities for integrating a co-generating nuclear power plant into the grid to supply the electricity market, in addition to meeting the energy requirements of a desalination plant. The largest power unit that can be integrated into an electricity grid must not exceed about 10-20 % of the total grid capacity. Of course, smaller nuclear reactors would be more appropriate for remote areas that are not suitable for connections to the grid.¶ For nuclear desalination to be attractive in any given country, two conditions have to be satisfied simultaneously: a lack of water and the ability to use nuclear energy for desalination. In most regions, only one of the two is present. Both are present for example in China, the Republic of Korea, India and Pakistan. These regions already account for almost half the world’s population, and thus represent a potential long term market for nuclear desalination. The market will expand further to the extent that regions with high projected water needs, such as the Middle East and North Africa, increase their nuclear expertise and capabilities.¶ 1.3.3. Environmental impact of desalination by fossil fuelled energy sources¶ Desalination is an energy intensive process. A future desalination strategy based only on the use of fossil fuelled systems is not sustainable: Fossil fuel reserves are finite and must be conserved for more important uses such as transport, petrochemical industry etc. Besides, the demands for desalted water would continue increasing as population grows and standards of living improve. Conservation measures such as the modernisation of water networks to minimise leakages, the recycling of used water etc. will certainly reduce the future water demands slightly but they would not be able to halt the dissemination of desalination plants and consequently of the fossil fuelled based systems for the production of needed electricity and heat.¶ The following paragraphs illustrate the damaging consequences of such a policy by taking the example of the Mediterranean region.¶ Following the recent “Blue Plan” [2], the total available natural water resources (1), based on the statistics from 1990 to 1998, in the principle countries of the Mediterranean region, are as shown in Table 2.¶ The projected demands (3) for the year 2025 [31] are also included in Table 1.¶ It is obvious that available natural water resources would rather decrease in 2025 because of increased pollution, over exploitation and other human activities. However, to keep matters simple, it would be supposed that they would remain at the same level as in 1998.¶ It can be observed that, in 2025, the total projected water deficit (balance) in the Mediterranean region would of the order of 294 km3/per year.¶ Not all this required capacity would be met by desalination plants. Current contribution of desalination is of the order of 1 to 2 %. If it is supposed that in 2025, this contribution would be about 2.5 %, then the total required desalting capacity would be 7.3 km3/year (20.1 million m3/day).¶ According to the EC ExternE study2, the total emissions of GHG per MW(e).h of electricity produced by representative fossil fuelled power plants in France, are as presented in Table 3.¶ The specific heat and electricity consumptions of three main desalination plants are given in Table 4, [3].¶ The data presented in the above Tables allows to calculate the approximate3 total GHG emissions produced by the fossil fuelled plants and the three desalination plants.¶ Results for a total desalting capacity of 20.1 million m3/day are presented in Table 5.¶ It can thus be concluded that for a desalting capacity of 20.1 million m3/day in the Mediterranean region alone, required in 2025, one would produce, depending upon the energy source and the desalination process used,¶ 13 to 264 million tonnes/year of CO2.¶ 1350 to 1 310 000 tonnes/year of SOx.¶ 21 100 to 540 000 tonnes/year of NOx.¶ 1190 to 40 000 tonnes/year of particles.¶ The potential levels of GHG and particle emissions on the world scale could then be more than double these figures.¶ These could naturally be avoided through the use of nuclear energy.

### 1AC – Plan

#### The Executive Branch of the United States should acquire electricity from small modular nuclear reactors for mission critical military installations in the United States.

### 1AC – Solvency

#### CONTENTION 3: SOLVENCY

#### Plan’s solves SMRs in the military -- doesn’t pick winners

Andres and Breetz 11 Richard B, Professor of National Security Strategy at the National War College and a Senior Fellow and Energy and Environmental Security and Policy Chair in the Center for Strategic Research, Institute for National Strategic Studies, at the National Defense University and Hanna L, doctoral candidate in the Department of Political Science at The Massachusetts Institute of Technology, February, "Small Nuclear Reactors for Military Installations: Capabilities, Costs, and Technological Implications", www.ndu.edu/press/lib/pdf/StrForum/SF-262.pdf

DOD as First Mover¶ Thus far, this paper has reviewed two of DOD’s most pressing energy vulnerabilities—grid insecurity and fuel convoys—and explored how they could be addressed by small reactors. We acknowledge that there are many uncertainties and risks associated with these reactors. On the other hand, failing to pursue these technologies raises its own set of risks for DOD, which we review in this section: first, small reactors may fail to be commercialized in the United States; second, the designs that get locked in by the private market may not be optimal for DOD’s needs; and third, expertise on small reactors may become concentrated in foreign countries. By taking an early “first mover” role in the small reactor market, DOD could mitigate these risks and secure the long-term availability and appropriateness of these technologies for U.S. military applications.¶ The “Valley of Death.” Given the promise that small reactors hold for military installations and mobility, DOD has a compelling interest in ensuring that they make the leap from paper to production. However, if DOD does not provide an initial demonstration and market, there is a chance that the U.S. small reactor industry may never get off the ground. The leap from the laboratory to the marketplace is so difficult to bridge that it is widely referred to as the “Valley of Death.” Many promising technologies are never commercialized due to a variety of market failures— including technical and financial uncertainties, information asymmetries, capital market imperfections, transaction costs, and environmental and security externalities— that impede financing and early adoption and can lock innovative technologies out of the marketplace. 28 In such cases, the Government can help a worthy technology to bridge the Valley of Death by accepting the first mover costs and demonstrating the technology’s scientific and economic viability.29¶ Historically, nuclear power has been “the most clear-cut example . . . of an important general-purpose technology that in the absence of military and defense related procurement would not have been developed at all.”30 Government involvement is likely to be crucial for innovative, next-generation nuclear technology as well. Despite the widespread revival of interest in nuclear energy, Daniel Ingersoll has argued that radically innovative designs face an uphill battle, as “the high capital cost of nuclear plants and the painful lessons learned during the first nuclear era have created a prevailing fear of first-of-a-kind designs.”31 In addition, Massachusetts Institute of Technology reports on the Future of Nuclear Power called for the Government to provide modest “first mover” assistance to the private sector due to several barriers that have hindered the nuclear renaissance, such as securing high up-front costs of site-banking, gaining NRC certification for new technologies, and demonstrating technical viability.32¶ It is possible, of course, that small reactors will achieve commercialization without DOD assistance. As discussed above, they have garnered increasing attention in the energy community. Several analysts have even argued that small reactors could play a key role in the second nuclear era, given that they may be the only reactors within the means of many U.S. utilities and developing countries.33 However, given the tremendous regulatory hurdles and technical and financial uncertainties, it appears far from certain that the U.S. small reactor industry will take off. If DOD wants to ensure that small reactors are available in the future, then it should pursue a leadership role now.¶ Technological Lock-in. A second risk is that if small reactors do reach the market without DOD assistance, the designs that succeed may not be optimal for DOD’s applications. Due to a variety of positive feedback and increasing returns to adoption (including demonstration effects, technological interdependence, network and learning effects, and economies of scale), the designs that are initially developed can become “locked in.”34 Competing designs—even if they are superior in some respects or better for certain market segments— can face barriers to entry that lock them out of the market. If DOD wants to ensure that its preferred designs are not locked out, then it should take a first mover role on small reactors**.**¶ It is far too early to gauge whether the private market and DOD have aligned interests in reactor designs. On one hand, Matthew Bunn and Martin Malin argue that what the world needs is cheaper, safer, more secure, and more proliferation-resistant nuclear reactors; presumably, many of the same broad qualities would be favored by DOD.35 There are many varied market niches that could be filled by small reactors, because there are many different applications and settings in which they can be used, and it is quite possible that some of those niches will be compatible with DOD’s interests.36¶ On the other hand, DOD may have specific needs (transportability, for instance) that would not be a high priority for any other market segment. Moreover, while DOD has unique technical and organizational capabilities that could enable it to pursue more radically innovative reactor lines, DOE has indicated that it will focus its initial small reactor deployment efforts on LWR designs.37¶ If DOD wants to ensure that its preferred reactors are developed and available in the future, it should take a leadership role now. Taking a first mover role does not necessarily mean that DOD would be “picking a winner” among small reactors, as the market will probably pursue multiple types of small reactors. Nevertheless, DOD leadership would likely have a profound effect on the industry’s timeline and trajectory.

#### Military is best at advancing SMRs

Cohen 12 Armond, Executive Director for the Clean Air Task Force, "DoD: A Model for Energy Innovation?", May 21, energy.nationaljournal.com/2012/05/powering-our-military-whats-th.php

Unlike most other agencies, including the Energy Department, the Pentagon is the ultimate customer for the new technology it helps create, spending some $200 billion each year on R&D and procurement. The implications of DoD’s role as customer have not been widely appreciated, as:¶ · DoD, uniquely in government, supports multi-year, billion-dollar “end to end” innovation efforts that produce technology that is continuously tested, deployed and refined on bases and in the field, providing real world feedback that leads to increases in performance and reductions in cost. By contrast, most of the federal government’s civilian energy innovation efforts involve research loosely connected at best with the few commercialization efforts that it supports.¶ · DoD and its contractors know how to bring together multiple innovations to achieve system-level advances leading to big performance gains (examples range from nuclear submarines to unmanned aircraft to large-scale information systems). This systems approach is precisely what is needed to advance clean energy technologies.¶ · Relatively stable, multi-year funding allows the Pentagon to pursue “long cycle” innovation that is necessary for large, capital- intensive technologies and supports a highly capable contractor base that can respond to changing national security demands.¶ · The Pentagon’s scope and budget has allowed it to experiment with new and creative innovation tools such as the well-known Defense Advanced Projects Research Agency, which has produced extraordinary technological breakthroughs; and the Environmental Security Technology Certification Program, which develops and demonstrates cost-effective improvements in environmental and energy technologies for military installations and equipment.¶ · Because of DoD’s size and demands for performance and reliability, it is unique among government and private sector organizations as a demonstration test-bed. Smart-grid technologies and advanced energy management systems for buildings are already poised to benefit from this aspect of the Pentagon’s innovation system.¶ · DoD has collaborated effectively with other federal agencies, including the Department of Energy and its predecessors (for example, to advance nuclear energy technologies). Continuing competition and cooperation between DoD and DOE will spur energy innovation. DoD’s innovation capabilities can enhance U.S. national security, improve U.S. international competitiveness, and spur global energy restructuring and greenhouse gas emissions reductions.¶ At the same time, while providing enormous opportunities to develop and test energy efficiency technologies and small scale distributed energy appropriate to forward bases, the Pentagon is unlikely to become an all-purpose hub for advancing all categories of clean-energy technologies, because its energy innovation activities will be sustainable only where they can support the nation’s defense capabilities.¶ Therefore, many other large-scale technologies that are of great importance to improving the environment, such as carbon-free central station generation or zero carbon transportation, may not as easily fit with DoD’s mission. Possible exceptions might include small modular nuclear reactors that can be used for producing independent, non-grid power at military bases, or, conceivably, zero-carbon liquid fuels other than anything resembling current generation biofuels.¶ In any case, the challenge for military-led energy innovation is to further define and delineate avenues for improved clean-energy performance that are linked to the national strategic mission. History shows that when such linkages are strong, DoD’s innovation capabilities are second to none.

#### SMRs solve nuclear downsides

Ringle 10 John, Professor Emeritus of Nuclear Engineering at Oregon State University, "Reintroduction of reactors in US a major win", November 13, robertmayer.wordpress.com/2010/11/21/reintroduction-of-reactors-in-us-a-major-win/

Small nuclear reactors will probably be the mechanism that ushers in nuclear power’s renaissance in the U.S.¶ Nuclear plants currently supply about 20 percent of the nation’s electricity and more than 70 percent of our carbon-free energy. But large nuclear plants cost $8 billion to $10 billion and utilities are having second thoughts about how to finance these plants.¶ A small modular reactor (SMR) has several advantages over the conventional 1,000-megawatt plant:¶ 1. It ranges in size from 25 to 140 megawatts, hence only costs about a tenth as much as a large plant.¶ 2. It uses a cookie-cutter standardized design to reduce construction costs and can be built in a factory and shipped to the site by truck, railroad or barge.¶ 3. The major parts can be built in U.S. factories, unlike some parts for the larger reactors that must be fabricated overseas.¶ 4. Because of the factory-line production, the SMR could be built in three years with one-third of the workforce of a large plant.¶ 5. More than one SMR could be clustered together to form a larger power plant complex. This provides versatility in operation, particularly in connection with large wind farms. With the variability of wind, one or more SMRs could be run or shut down to provide a constant base load supply of electricity.¶ 6. A cluster of SMRs should be very reliable. One unit could be taken out of service for maintenance or repair without affecting the operation of the other units. And since they are all of a common design, replacement parts could satisfy all units. France has already proved the reliability of standardized plants.¶ At least half a dozen companies are developing SMRs, including NuScale in Oregon. NuScale is American-owned and its 45-megawatt design has some unique features. It is inherently safe. It could be located partially or totally below ground, and with its natural convection cooling system, it does not rely on an elaborate system of pumps and valves to provide safety. There is no scenario in which a loss-of-coolant accident could occur.

#### DOE funding SMRs now---more to come

Holly 12/6 Derrill, ECT Staff Writer, "DOE Advances Small Nuclear Reactors", 2012, [www.ect.coop/power-supply/power-plants/doe-funds-small-nuclear-reactors-project/50667](http://www.ect.coop/power-supply/power-plants/doe-funds-small-nuclear-reactors-project/50667)

The Department of Energy has agreed to help fund a small modular nuclear reactor design backed by a consortium that includes several generation and transmission electric cooperatives.¶ After reviewing several proposals, DOE selected a project led by Bechtel Corp., Babcock & Wilcox and the Tennessee Valley Authority. The mPower Consortium was formed in in 2010 to support the Generation mPower small modular nuclear reactor design. The consortium includes investor-owned FirstEnergy, TVA, and 13 G&Ts.¶ The lead companies have proposed deployment of up to five 180 megawatt Babcock & Wilcox mPower reactors at TVA’s abandoned Clinch River Breeder Reactor site in Oak Ridge, Tenn.¶ “DOE will match future engineering and design development, design certification and licensing activities up to a cap of $452 million,” said Sandra Byrd, vice president of member and public relations for Little Rock-based Arkansas Electric Cooperative Corp. “Although the mPower design is already far along, it still requires more testing and the design certification documents have to be developed and submitted to the Nuclear Regulatory Commission for approval.”¶ Plans call for the consortium to submit documentation to NRC by December 2013. An early site permit and a construction and operating license application will also be developed for submission over the next year.¶ “This will be the first time that a small nuclear design has been submitted to NRC for review and approval,” said Byrd, adding that commercial operation could begin between 2020 and 2022. Successful deployment of the technology is expected to lead to development of nuclear power plants roughly one-third the size of existing facilities, and DOE plans to issue additional funding opportunities.¶ “More is obviously better. Different designs may lend themselves to different utility operating situations,” said Byrd. Co-ops supported proposals from three of the four companies that sought consideration under the initial DOE cost-sharing grant.¶ Arkansas Electric Cooperative Corp. is among mPower Consortium backers also supporting the NexStart SMR Alliance led by Westinghouse and investor-owned Ameren Missouri. Springfield, Mo.-based Associated Electric Cooperative is also supporting the group.

# 2AC

## Solvency

### 2AC DoD Tradeoff

#### Link non-unique---Obama’s massive clean energy DoD budget

AODC 12 Association of Defense Communities, "FY 2013 Budget Likely to Bolster DOD’s Renewable Energy Programs", February 12, www.defensecommunities.org/fy-2013-budget-likely-to-bolster-dods-renewable-energy-programs/#

The fiscal 2013 budget request President Obama unveils today is expected to call for increased spending for the military’s campaign to shift to alternative energy sources, according to defense appropriators.¶ The request most likely would expand funding for the entire range of DOD clean energy programs now underway, including vehicles, aircraft and ships, forward operating locations and other operational uses, and installations, reports Government Executive.¶ “I think in the past three to five years this has been going on but that it has grown as a culture and a practice and it’s a good thing,” Rep. Jack Kingston (R-Ga.), a member of the House Defense Appropriations Subcommittee, said in reference to DOD’s efforts to increase its reliance on clean energy.¶ Increasing federal investment in DOD rather than the Energy Department would be a way for the administration to promote clean energy without risking renewed criticism of past investment failures, most notably the default by solar-panel manufacturer Solyndra on its $535 million federal loan.¶ On Monday, DOD officials will provide dollar details for the department’s FY 2013 budget request, which is based on the strategic guidance framework announced last month.¶ “We’ve previewed a lot of this budget already,” Pentagon Press Secretary George Little said Friday.¶ The strategy reflects the $487 billion budget reductions the Budget Control Act set for defense spending through 2021. The approach emphasizes a smaller force, focused away from large commitments of ground forces and supporting a strategic pivot toward the Asia-Pacific region.

#### Fuel costs spill-over and destroy the DOD budget

Freed 12 Josh, Vice President for Clean Energy, Third Way, “Improving capability, protecting 'budget”, May 21, <http://energy.nationaljournal.com/2012/05/powering-our-military-whats-th.php>

As Third Way explains in a digest being released this week by our National Security Program, the Pentagon’s efforts to reduce energy demand and find alternative energy sources could keep rising fuel costs from encroaching on the budgets of other important defense programs. And the payoff could be massive. The Air Force has already been able to implement behavioral and technology changes that will reduce its fuel costs by $500 million over the next five years. The Army has invested in better energy distribution systems at several bases in Afghanistan, which will save roughly $100 million each year. And, using less than 10% of its energy improvement funds, the Department has begun testing advanced biofuels for ships and planes. This relatively small investment could eventually provide the services with a cost-effective alternative to the increasingly expensive and volatile oil markets. These actions are critical to the Pentagon’s ability to focus on its defense priorities. As Secretary Panetta recently pointed out, he’s facing a $3 billion budget shortfall caused by “higher-than-expected fuel costs.” The Department’s energy costs could rise even further if action isn’t taken. DOD expects to spend $16 billion on fuel next year. The Energy Information Administration predicts the price of oil will rise 23% by 2016, without a major disruption in oil supplies, like the natural disasters, wars, and political upheaval the oil producing states have seen during the last dozen years. Meanwhile, the Pentagon’s planned budget, which will remain flat for the foreseeable future, will require significant adjustment to the Department’s pay-any-price mindset, even if sequestration does not go into effect. Unless energy costs are curbed, they could begin to eat into other budget priorities for DOD. In addition, the Pentagon’s own Defense Science Board acknowledges that using energy more efficiently makes our forces more flexible and resilient in military operations, and can provide them with greater endurance during missions. Also, by reducing energy demand in the field, DOD can minimize the number of fuel convoys that must travel through active combat zones, reducing the chances of attack to avoiding casualties and destruction of material. At our domestic bases, DOD is employing energy conservation, on-site clean energy generation, and smart grid technology to prevent disruptions to vital activities in case the civilian grid is damaged by an attack or natural disaster. The bottom line is, developing methods and technologies to reduce our Armed Forces’ use of fossil fuels and increase the availability of alternative energy makes our military stronger. That’s why the Pentagon has decided to invest in these efforts.

#### Plan saves money

Causbie and Hart 12 Lieutenant Colonel Steven Hart, Cadet Hanson Causbie, West Point, New York, United States Military Academy, May 13, “Deployable Nukes: The Future Of Nuclear Power In The Deployed Environment”, PDF Online

Ten years of operating in the deployed environment have brought to light a number of challenges faced by the United States Army. Over the course of the past decade we have developed our counterinsurgency and stability strategy operations, refined the training of our troops in a variety of fields, and fielded new equipment to help us fight and win in our current operations. Overall, we have adapted to our new environment well and created a fighting force more capable, lethal, and agile than perhaps ever before. Unfortunately, the advancement of our technology and strategy has not extended to that of infrastructure development, particularly power production. Power production and the fuel necessary for the process are a vital element of stability operations and the sustainment of troops in the deployed environment. The equipment needed to support power production, usually diesel generators, are costly and require constant time and attention to keep them operational. These generators are also heavy polluters, releasing carbon dioxide as well as other byproducts from burning diesel fuel. Additionally, thousands of gallons of fuel are required to power these generators. This fuel is often difficult to transport as well as dangerous especially in the regions where U.S. troops currently operate. A new source of power production is necessary to replace the military’s currently dirty and costly system and provide our service members with the clean, reliable, and safe power they need to fight and win our nation’s wars. Luckily, this power source has already existed for a number of years. Since its introduction in the 1960s nuclear power has continued to grow and advance at an exponential rate. The nuclear power of today is far beyond where it was even ten years ago. Clean, safe, and easy to maintain, nuclear power facilities also provide a substantial amount of power with a relatively small amount of waste compared to that of coal, natural gas, and diesel generators. With new and self- contained units now on the market nuclear power is able to be provided to almost any region in the world at a reasonable cost and with few safety risks. This new nuclear technology is also an excellent fit for deployed environment because of its self-contained operation, low fuel intake, high power output, and clean operation. This paper will assess the feasibility and practicality of small nuclear power plants for use by the United States Army in the deployed environment as an alternative to other methods of power production. Through the data presented it can be seen that the deployment of small nuclear power facilities could save the Army millions of dollars annually while substantially cutting fuel requirements. Additionally, the Army would cut its environmental waste production and leave its allied partners with a sustainable energy source which could be used for up to a decade. This paper is broken into four sections. First, the paper will present some statistics on the current power production methods in the deployed environment and data regarding fuel consumption. Next the paper will examine available nuclear technology and the benefits as well associated risks with this equipment in addition to the costs of this equipment. Third, the two methods of power production will be compared with the advantages and disadvantages of both discussed in detail. Finally, the study will close with conclusions on both power sources as well as the future of power production in the deployed environment. CURRENT POWER REQUIREMENTS AND PRODUCTION The current operational environment has completely changed the power requirements for deployed troops. In World War II, for example, a soldier consumed an average of one gallon of fuel a day. In Iraq and Afghanistan the average soldier now consumes twenty gallons of fuel daily.1 Such an increase has resulted in the Marine Corps tripling its use of energy in the deployed environment in the past ten years.2 The training, deployment, and support of military forces in the field now consume 75% of the energy used by the Department of Defense.3 In Afghanistan approximately 30% of operational fuel is used to supply power to forward deployed bases.4 70% of the logistics operations in Afghanistan and Iraq are devoted to fuel and water, a staggering amount of time and effort for only two of the thousands of resources the military must supply to its service members.5 In 2008 the Department of Defense was supplying 68 million gallons of fuel to OIF and OEF per month, or roughly 2 million gallons of fuel daily.6 In 2010, the Department of Defense spent $15 billion on fuel.7 The consumption of fuel for power is only one element of the power production process. For fuel to be consumed it must first be transported to the site requiring power. This is oftentimes one of the most dangerous jobs in the deployed environment. In Afghanistan 80% of convoys are dedicated to the transport of fuel.8 These convoys are extremely deadly, responsible for an average of one soldier killed or injured for every 24 convoys.9 Convoys have become such a danger that Marine Corps Major General Richard Zilmer sent the Pentagon a “Priority 1” request for renewable energy in order to bring awareness of the issue to higher. In 2011, the Pentagon published its first ever energy plan to address the burgeoning need for power on the battlefield. In the report the Pentagon spoke extensively about reducing the military’s energy footprint through the use of non-oil energy sources.10 The report concluded that reduction in oil usage must be reduced not only to shrink the logistical footprint of deployed troops but also because of the possible “disruption of oil supplies” in the near future.11 Size and Demands Base camps vary in size and the scope of the number of troops they must support. From platoon- sized Combat Outposts (COP) to a Forward Operating Base (FOB) of 25,000 soldiers and contractors COPs and FOBs have differing power demands depending on their mission and the equipment and troops they support. According to ATP 3-37.10, the Army’s guide to building base camps, base camps are built in four sizes. The smallest base camps are built for 50 to 299 people and are no larger than 150 by 250 meters.12 The largest base camps are for a population of 6,000 or greater with the dimensions determined by the individual planners.13 This study will focus on the latter category to include base camps of the “megabase” variety supporting up to 30,000 soldiers and contractors. This size of base camp would be the easiest to institute changes in the power infrastructure because of the massive amount of required and would also be the easiest to emplace nuclear power production facilities. The type and scope of power production also depends on the size of the base camp. At the smallest COPs there may be no source of power expect for batteries for radios and other equipment. Conversely, at Balad Air Base in Iraq the Air Force powered the base with a “generator farm” containing a number of 40 foot MILVANs holding 12 cylinder diesel generators.14 At Camp Leatherneck in Afghanistan the five megawatts of power is supplied by 196 generators consuming 15,431 gallons of fuel daily.15 On smaller FOBs and COPs power is obviously produced on a much more austere scale than the megabases of Balad and Leatherneck. Many of the generators used on larger base camps are Mobile Electric Power (MEP) units.16 One of the most common of the MEP units is the 750 KW MEP 012A Prime Power Units. These generators are powered by Cummins turbocharged twelve cylinder engines and weigh 25,000 pounds. On average these units consume 55 gallons of diesel fuel per hour.17 Many of these 012A generators are gradually being replaced by Deployable Power Generator and Distribution Systems (DPGDS) which are 25% lighter and 15% more fuel efficient than their 012A predecessors.18 82% of the generators in the deployed environment are Tactical Quiet Generators (TQG).19 These generators are available in six major models and range in size from medium suitcases to full-size tractor trailers.20 Power output for these generators ranges from as little as 3 kW to as much as 100 kW.21 These generators are usually used during early stages of a campaign or at smaller FOBs and COPs where transportation of larger generators is difficult or impossible. Varying estimates exist for the amount of power required for a large FOB and the assets which reside at the base. FOBs which support aviation assets require far more fuel than those supporting solely ground assets. One senior military official estimated that the average Army brigade (3,500 to 4,000 soldiers) requires 10,000 gallons of fuel daily or 2.5-2.8 gallons of fuel per soldier per day.22 Fuel costs range from $6.35 per gallon to as much as $45.00 per gallon for FOBs and COPs located on the “tactical edge,” or locations far from combat infrastructure and deep in enemy territory. These prices include transport and fees for the fuel required by contractors.23 Some of this fuel, however, is necessary for vehicles which are not powered by generators. Therefore, power requirements per soldier often give a more accurate picture of fuel requirements for FOBs. ATP 3.37.10 calls for anywhere from 1.5 to 3.5 KW required for each individual on a FOB.24 Approximated Power Costs A series of calculations are necessary for an accurate idea of the power and fuel requirements and the respective cost for a FOB of 25,000 soldiers and contractors. Using an average of 2 KW required per individual a FOB of 25,000 requires 50,000 KW or 500 MW of power. Assuming that the FOB is powered by the new DPGDS, consuming 47 gallons of fuel per hour at 750 KW, the base would require a minimum of 67 generators burning 3,149 gallons of fuel per hour. At a standardized price of $10.00 a gallon the cost per hour of generation is $31,490 or $755,760 per day. These calculations have been greatly simplified with a number of additional factors which must be taken into consideration. First, a number of power generation sources may be employed at a megabase described in this experiment. The construction of a more permanent power plant may decrease costs while the use of older, less efficient generator may increase fuel consumption and thus costs. Similarly, the fluctuation of fuel costs also changes the overall costs as does the fluctuation of contractor costs and contracts. Finally, this estimate does not include estimates on maintenance as well as the cost for additional generators. Many of the generators used on FOBs run at no more than 30% capacity because of maintenance issues. FOBs are also required to have more generators in case of maintenance issues or a sudden surge in power requirements.25 NUCLEAR POWER PRODUCTION AND REQUIREMENTS As can be seen in the preceding section power production through the use of generators can often be inefficient, expensive, and plagued with maintenance issues. This section will discuss the available nuclear technology for the deployed environment as well as the costs associated with this technology. Available Technology A number of nuclear reactor designs are available at varying costs and power outputs. Many of these designs are currently only available on paper while others have entered the initial stages of production. All of the designs, however, share common features which make them appropriate to the deployed environment. The first feature is their size. Reactors range in size from as small as a residential hot tub to as large as a van. This compactness allows these units to achieve specific fabrication and performance goals not found in large light water reactors. 26 Second is the self- containment of these units. Most of the current designs are simply installed in the required location and then left alone with the only maintenance required at the time of removal or refuel.27 Finally, these mini reactors are significantly safer than the prior generations of nuclear technology. Current reactors, known as Generation IV reactors, have fewer moving parts and fewer systems, thus decreasing the points of failure and thus danger of the units.28 Illustration 1 (see below) outlines a few of available nuclear power units available on today’s market. All of these units are self-contained and differ in the length of their service as well as their power output. Name Manufacturer Generating Capacity Fueling Cycle Transportable Gen4 Module (formerly Hyperion Power Module) Gen4 Energy (formerly Hyperion Power Generation) 25 (MW), scalable 8-10 years, returned to factory for refueling and waste removal Ship, rail, or truck NuScale NuScale 45 MW, scalable 2 years, on-site refueling and spent fuel cooling Ship, rail, or truck mPower The Babcock and Wilcox Company 125 MW, scalable 4.5 years, on-site refueling and waste storage Ship or rail Illustration 1: Nuclear Power Reactor Designs29 All of the units above are manufactured and then transported in their entirety to their on-site locations.30 Some of the larger units may require to be sent in components because of their size. Even though the units are self-contained they do require additional infrastructure to distribute power including but not limited to cooling towers and condensers, a steam turbine, and additional support services. Associated Costs Even though all of the above products are capable of operating in the deployed environment the Gen4 Module will be used as the example unit for a number of reasons. First, the Gen4 Module is the smallest and most transportable unit, thus making it an easier unit to integrate into FOBs and begin the transition to nuclear power. Second, the Gen4 Module is the closest to development with delivery of the first units by June of 2013.31 Finally, the Gen4 Module has some important technological advances over its counterparts which make it even more appropriate for the deployed environment. These characteristics will be discussed in detail below. The Gen4 Module is 1.5 meters wide by 2.5 meters high and is a completely self-contained unit with each reactor stocked with ten years of uranium.32 The entire unit, including fuel, weighs approximately 20 tons and requires movement by a heavy haul truck.33 The unit fits into many standard shipping containers as well, making air or water travel fairly straightforward.34 After ten years, or when the uranium has reached 15% uranium enrichment, the reactor module is replaced with a new module within the plant and the old module is shipped back to the manufacturing facility for disposal. The plant can continually produce 25 MW of power for entire ten year life of the reactor core. 35 Each unit is scheduled to cost between $25 million and $30 million dollars.36 Construction on-site will be limited to the reactor vault, water support systems, and connection of the plant to the current power infrastructure.37 Illustration 2 offers a glimpse of the dimensions and design of the unit. Illustration 2: Gen4 Energy Module38 As opposed to other light water reactor designs, the primary cooling system of the Gen4 module is not water. Instead, the reactor is cooled using a lead and bismuth composite, known as LBE. This alloy is non-reactive to air and water and has an exit temperature of 500C, thus making it much safer than water because of its higher boiling point. This makes the reactor much less susceptible to overheating.39 Additionally, such a reactor requires far less water than a traditional reactor with the only water being that in the secondary cooling loop which is self-contained within the power plant.40 Therefore, instead of the need to draw water from an exterior water source the Gen4 Module can operate on approximately 10,000 gallons of water per hour.41 This would require approximately 20,000 gallons of water to be in the system at all times.42 Assuming each unit to cost $30 million, a FOB of 25,000 personnel would require a minimum of twenty of these units to meet power demands for a total of $600 million for ten years of power production. Therefore, the total cost per day comes to approximately $164,384.00. It is important to note that this cost does not include the cost of vault construction, transport of the unit to site, or construction of the cooling system and necessary water required for the cooling of the reactor. The final construction of the power plant to support the Gen4 Module can be seen in Illustration 3. Much of this material, however, is readily available and easily transported to the deployed environments. For example, steam generators capable of supporting 25 MW of power are readily available in the commercial market and are sized to be transported with relative ease.43 After some additional research a reasonable estimate for the added cost of support structures, training, and water requirements necessary for the reactor an additional $8 million plus $3 million dollars annually would be a likely figure for each power plant. This would put the total cost of operation at $372,603.00, still less than half of the costs associated with the current power infrastructure. Even with these rough estimates using approximated numbers the benefits of nuclear technology in the deployed environment are substantial. COMPARISON After calculating the cost per day for each type of technology it can be seen that nuclear power provided by the Gen4 module costs approximately $372,603.00 per day compared to the $755,760.00 for diesel generators. Therefore, nuclear power appears to be over 50% less than the current power infrastructure in our deployed environment. Nonetheless, a number of other factors must be taken into consideration when considering the costs and considerations of nuclear power compared to diesel generators. As stated above, estimated numbers were used for predicting the costs in addition to the cost of the reactor itself. Therefore, fluctuation in costs of transport, training of personnel, water, and additional material necessary for power plant construction may drastically alter the affordability of such power plants. 25 MW steam turbines, for example, may cost as much as $2 million and vary by manufacturer and design. The need for extra training is another added cost of nuclear power. Even though Gen4 Energy includes operator training, licensing support, and technical support with the installation of their units contractors must be hired or Army personnel must be retrained in order to install the modules as well as to address any maintenance or safety issues with the plants.45 It is quite possible, however, that training for Amy personnel could be provided by other branches. The Navy, for example could provide the training or even the personnel for the sustainment of nuclear facilities. The Army may also require additional security and safety measures because of the dangers of nuclear power even though the units are buried underground and thus safe from threats of terrorism or theft. Even though the reactors discussed are buried underground and are relatively isolated from terrorist threats more research and analysis needs to be done by both the Army as well as the manufacturer to address security concerns. These challenges do not exist with the current power infrastructure. Personnel are already trained to maintain generators with minimum security and safety requirements. Generators also do not require special transport as they are not considered as volatile and dangerous as their nuclear counterparts. Additionally, the stigma associated with nuclear power does not exist with diesel power production. Education of the military population regarding the safety of nuclear power as well as our coalition partners is essential to successful use of this technology. While a host nation may not have an issue with diesel generators they may have concerns with the installation of a nuclear power facility on their own soil. CONCLUSIONS AND RECOMMENDATIONS Even with the additional costs and limitations nuclear power provided by small reactors is still a viable option for the future of Army operations in the deployed environment. However, this technology may only work in certain areas suitable for this new technology. First, the technology is more cost-effective in larger FOBs because of cheaper transportation costs as well as the current high security state of these facilities. Large FOBs may also have greater access to the good and services necessary for the construction and maintenance of these facilities. Finally, larger FOBs allow for the refinement of this technology before such units are deployed closer to the tactical edge.

#### No impact---military cuts don’t hurt modernization

CIP 11 Center for International Policy, "Myths vs. Realities of Pentagon Spending", 2011 is last date cited, www.ciponline.org/images/uploads/publications/CIP\_Fact\_Sheet\_Myths\_vs\_Realities\_of\_Pentagon\_Spending.pdf

Myth: The military has been cut to the bone. Any more cuts would be “doomsday.”¶ Reality: Nearly all of the purported ‘cuts’ to the Pentagon’s budget are actually reductions in the rate of growth, rather than true cuts in funding levels. In reality, even if sequestration is fully enacted as planned under the 2011 Budget Control Act, the Pentagon’s base budget would only return to 2006 levels (adjusted for inflation), which at the time was among the highest levels of spending since World War II.1¶ The Pentagon has asked for $525 billion in funding for fiscal year 2013 – a reduction of only $6 billion from the current year. The Pentagon budget would then resume its upward climb, rising to $567 billion in 2017.2 As former Assistant Secretary of Defense Lawrence J. Korb has noted, “even when adjusted for inflation, Panetta’s reductions halt the growth in the Pentagon’s budget, but they… do not bring the budget down much from its current level.”3 And while Congress has yet to enact funding for fiscal year 2013, it appears ready to increase the Pentagon’s budget, replacing the Defense Department’s extremely modest reductions with another year of growth.¶ Current reductions must also be measured against the unprecedented growth in Pentagon spending over the past 13 years. Since 1998, the Pentagon’s base budget has grown by 54% (adjusted for inflation).4 Moreover, with the country turning the page on a long decade of war in Iraq and Afghanistan, the planned reductions represent a historically small drawdown when compared with those following the end of Korea, Vietnam, and the Cold War.5

### AT: Asia Pivot Impact

#### The pivot does nothing

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The problem with the pivot is that to date it has lacked serious substance. The actions it has entailed either have been merely symbolic, such as the pending deployment of a small number of U.S. marines to Australia, or have involved simply the reallocation of existing air and naval assets from other theaters. Apart from vague references to a new "air-sea battle" concept, which the Pentagon describes, in typical jargon, as "networked, integrated, attack-in-depth to disrupt, destroy and defeat" opposing forces, the administration has not made clear how it actually intends to respond to China's increasing military capabilities. To the contrary, having announced the new approach, Defense Department spokespeople have been at pains to avoid acknowledging the obvious fact that it will be aimed primarily at China. Especially in the current fiscal climate, it is hard to see how any administration could mobilize the public support necessary to maintain a favorable balance of power in Asia if it is not willing to be far more candid about the nature of the challenge posed by China's growing strength.

### 2AC Status Gap (Smith) DA

#### Obama will never change grand strategy

Walt 9 (Stephen Walt, Robert and Rene Belfer Professor of International Relations at Harvard University, previously taught at Princeton University and the University of Chicago, resident associate of the Carnegie Endowment for Peace and a guest scholar at the Brookings Institution, November 2009, “Restoring Solvency”, <http://www.americanreviewmag.com/articles/restoringsolvency>)

It is by now a cliché to observe that Barack Obama took office facing the greatest challenge of any United States president since Franklin Roosevelt. The US economy had been in free-fall since the northern summer of 2008, the nation’s image around the world had taken a beating over the previous eight years. Obama inherited a losing war in Iraq, a deteriorating situation in Afghanistan and a wide array of unresolved foreign policy problems. No president in living memory had taken office with so much to solve and such limited room to manoeuvre. The new president wasted little time in responding. In his first 100 days, Obama pushed through an ambitious economic recovery program that included a major fiscal stimulus package, a controversial plan to buy up toxic assets in the banking industry, a limited bail-out for automobile manufacturers and proposals for a new regulatory regime for Wall Street. At the same time, he launched a dizzying set of foreign policy initiatives. After six months, Obama almost seemed to be the miracle worker his campaign had promised. As former advisor to President Clinton, William Galston, commented after Obama’s first 100 days: “If he’s right, our traditional notion of the limits of the possible—the idea that Washington can only handle so much at one time—will be blown to smithereens.” Yet appearances can be deceiving, and this is almost certainly the case when it comes to foreign policy. Although Obama has made a number of positive moves, his actions to date are more style than substance. To be blunt, anyone who expects Obama to produce a dramatic transformation in America’s global position is going to be disappointed. There are three reasons why major foreign policy achievements are unlikely. First, the big issue is still the economy, and Obama is going to focus most of his time and political capital there. Success in this area is critical to the rest of his agenda and to his prospects for re-election in 2012. Second, Obama is a pragmatic centrist and his foreign policy team is made up of mainstream liberal internationalists who believe active US leadership is essential to solving most international problems. Although they will undoubtedly try to reverse the excesses of the Bush administration, this group is unlikely to undertake a fundamental rethinking of the US’s global role. Third, and most important, there are no easy problems on Obama’s foreign policy “to-do” list. Even if he was able to devote his full attention to these issues, it would be difficult to resolve any of them quickly. In terms of grand strategy, his ultimate aim must be to bring US commitments back into alignment with its interests and resources—to restore what Walter Lippmann termed “solvency” to US foreign policy. This broad goal can be achieved by extricating the nation from some current obligations, by improving relations with adversaries, by getting other states to bear a greater share of America’s burden, or a combination of all three. Obama will try to keep US commitments within bounds and to improve relations with several adversaries, while taking symbolic steps to repair the damage the Bush administration did to the country’s global reputation. But he is unlikely to achieve any far-reaching breakthroughs. The foreign policy agenda at the end of his first term is likely to look a lot like it does today. To see why, let us look more closely at the crises he faces.

#### Smith is wrong---benefits of military SMR deployment outweigh the costs

Loudermilk 11 Micah J, Research Associate for the Energy & Environmental Security Policy program with the Institute for National Strategic Studies at National Defense University, February 23, "In Defense of Small Reactors: A Response", csis.org/blog/defense-small-reactors-response

Last week, this forum posted a thoughtful commentary on National Defense University’s recent publication examining the possibility that the Department of Defense could embrace small nuclear reactor technology at its domestic military installations. In the blog, Terrence Smith lays out his main objections to the NDU article by honing in on the hurdles and potential pitfalls – challenges freely admitted by the authors – that would accompany a move by DOD to integrate small reactors into its operations. The concerns Smith raises are real and the report presents them in detail. **Smith, however, opts for a cost-benefit analysis of the topic that largely** ignores the benefit side**, which, along with** several misunderstandings **about the larger argument, must be addressed**.¶ At several points, Smith suggests that Andres and Breetz push for DOD adoption of small reactors “for the purpose of controlling a competitive technological edge” while failing to examine “the wisdom behind DOD’s interest.” While the article does argue that pursuing the technology will help to preserve the United States’ edge in nuclear technology, it is made immediately clear in the opening paragraph that:¶ DOD’s attention to small reactors stems mainly from two critical vulnerabilities it has identified in its infrastructure and operations: the dependence of U.S. military bases on the fragile civilian electrical grid, and the challenge of safely and reliably supplying energy to troops in forward operating locations.¶ A bit of clarification is needed here as Smith misinterprets this, evidenced in his statement that:¶ …driving around nuclear reactors and material (particularly through areas that have “a fragile civilian electrical grid”) hardly seems like the idea of the century to me.¶ ¶ The central argument made by Andres and Breetz is that the military should look to small reactors as an energy source for domestic military installations – the U.S. is the country with the fragile grid. The claims about placing reactors in forward operating locations is a separate argument – and one discussed by the authors only due to its potential to save lives.¶ ¶ On both fronts (domestic and foreign), this is really a conversation about base vulnerabilities and energy security – all other considerations are secondary in nature. On the domestic side we know that the U.S. electrical grid is fragile (see 2003 Northeast blackout), that U.S. installations are almost entirely dependent on this grid, and that critical military mission capabilities are lodged at these bases**. All of this adds up to a significant strategic risk for the U.S**. – and one that was recognized by the Defense Science Board when it recommended “islanding” domestic military assets from the grid.¶ ¶ While the notion that this can be done entirely through increased efficiency and renewable technologies is pleasant**, it is a pipe dream on par with expecting the rest of the United States to be powered solely by renewable energy**. Small reactors on domestic military installations would provide a clean and assured supply of energy to bases – insulating them from electrical grid outages resulting from natural disasters, malfunction of outdated infrastructure, or attack by a foreign nation or group.¶ ¶ On the foreign side, where the bulk of Smith’s criticism is based, the authors are far more cautious – admitting each of the risks that are pointed out, especially that of contingency plans in the event that the reactors fall into enemy hands. However, at its core, the military aims to use the best available technologies in order to enable its warfighters to successfully execute their missions. This includes, but is not limited to, the best intelligence/surveillance equipment, weapons systems, operational vehicles, and yes, energy sources. Any and all equipment and technology brought into the field carries some risk of loss or capture, though that does not deter its use.¶ ¶ **Ultimately, calculations must be made on the basis of costs versus benefits**. The potential cost in this case is the risk that a small reactor could fall into enemy hands. What is the likelihood of this though? When was the last time that a U.S. forward base was overrun and captured by enemy combatants? How dangerous would it be for enemies to gain access to a small reactor? Furthermore, if the question is one of risk, most people would agree that Pakistan’s nuclear arsenal (weapons mind you, not reactors) is most likely significantly more vulnerable than U.S. bases. Finally, while the possibility of loss to the enemy is only distant and remote, the troops and drivers who die every month guarding fuel convoys are hard and ever-present reminders that the military depends completely on the consistent delivery of fuel supplies through hostile territory.¶ ¶ Smith’s final contention takes issue with the argument that DOD needs to operate as a “first mover” in the small reactor market – stating:¶ ¶ The U.S. nonproliferation agenda, if there is one, stands in opposition to this line of thinking. Pursuing a nuclear technology out of the fear that others will get it (or have it), is what fueled the Cold War and much of the proliferation we have seen and are seeing today.¶ ¶ Though this contention is arguably true from a weapons-related standpoint, Smith’s point does not make much sense when discussing nuclear energy. **The pursuit of nuclear energy is not remotely equivalent to an arms race and it is simply not possible to draw comparisons between the two.**

## T

### 2AC T – Financial Incentive

#### We meet – plan is a financial incentive – acquiring is T

US Code 3 Legal Information Institute, “41 USC § 131 – Acquisition”, November 24, <http://www.law.cornell.edu/uscode/text/41/131?quicktabs_8=1#quicktabs-8>

In division B, the term “acquisition”—¶ (1) means the process of acquiring, with appropriated amounts, by contract for purchase or lease, property or services (including construction) that support the missions and goals of an executive agency, from the point at which the requirements of the executive agency are established in consultation with the chief acquisition officer of the executive agency; and¶ (2) includes—¶ (A) the process of acquiring property or services that are already in existence, or that must be created, developed, demonstrated, and evaluated;¶ (B) the description of requirements to satisfy agency needs;¶ (C) solicitation and selection of sources;¶ (D) award of contracts;¶ (E) contract performance;¶ (F) contract financing;¶ (G) management and measurement of contract performance through final delivery and payment; and¶ (H) technical and management functions directly related to the process of fulfilling agency requirements by contract.

#### C/I – Financial incentives induce behaviors---that includes plan

Webb 93 – lecturer in the Faculty of Law at the University of Ottawa (Kernaghan, “Thumbs, Fingers, and Pushing on String: Legal Accountability in the Use of Federal Financial Incentives”, 31 Alta. L. Rev. 501 (1993) Hein Online)

In this paper, "financial incentives" are taken to mean disbursements 18 of public funds or contingent commitments to individuals and organizations, intended to encourage, support or induce certain behaviours in accordance with express public policy objectives. They take the form of grants, contributions, repayable contributions, loans, loan guarantees and insurance, subsidies, procurement contracts and tax expenditures.19 Needless to say, the ability of government to achieve desired behaviour may vary with the type of incentive in use: up-front disbursements of funds (such as with contributions and procurement contracts) may put government in a better position to dictate the terms upon which assistance is provided than contingent disbursements such as loan guarantees and insurance. In some cases, the incentive aspects of the funding come from the conditions attached to use of the monies.20 In others, the mere existence of a program providing financial assistance for a particular activity (eg. low interest loans for a nuclear power plant, or a pulp mill) may be taken as government approval of that activity, and in that sense, an incentive to encourage that type of activity has been created.21 Given the wide variety of incentive types, it will not be possible in a paper of this length to provide anything more than a cursory discussion of some of the main incentives used.22 And, needless to say, the comments made herein concerning accountability apply to differing degrees depending upon the type of incentive under consideration.¶ By limiting the definition of financial incentives to initiatives where *public funds are either disbursed or contingently committed*, a large number of regulatory programs with incentive *effects* which exist, but in which no money is forthcoming,23 are excluded from direct examination in this paper. Such programs might be referred to as *indirect* incentives. Through elimination of indirect incentives from the scope of discussion, thedefinition of the incentive instrument becomes both more manageable and more particular. Nevertheless, it is possible that much of the approach taken here may be usefully applied to these types of indirect incentives as well.24 Also excluded from discussion here are social assistance programs such as welfare and *ad hoc* industry bailout initiatives because such programs are not designed primarily to *encourage* behaviours in furtherance of specific public policy objectives. In effect, these programs are assistance, but they are not incentives.

#### Prefer our interp:

#### Precision---our definition’s from the DoE

Waxman 98 **–** Solicitor General of the US (Seth, Brief for the United States in Opposition for the US Supreme Court case HARBERT/LUMMUS AGRIFUELS PROJECTS, ET AL., PETITIONERS v. UNITED STATES OF AMERICA, http://www.justice.gov/osg/briefs/1998/0responses/98-0697.resp.opp.pdf)

2 On November 15, 1986, Keefe was delegated “the authority, with respect to actions valued at $50 million or less, to approve, execute, enter into, modify, administer, closeout, terminate and take any other necessary and appropriate action (collectively, ‘Actions’) with respect to Financial Incentive awards.” Pet. App. 68, 111-112. Citing DOE Order No. 5700.5 (Jan. 12, 1981), the delegation defines “Financial Incentives” as the authorized financial incentive programs of DOE, “including direct loans, loan guarantees, purchase agreements, price supports, guaranteed market agreements and any others which may evolve.” The delegation proceeds to state, “[h]owever, a separate prior written approval of any such action must be given by or concurred in by Keefe to accompany the action.” The delegation also states that its exercise “shall be governed by the rules and regulations of [DOE] and policies and procedures prescribed by the Secretary or his delegate(s).” Pet. App. 111-113.

## K

### 2AC Neolib K

#### Trade eliminates the only rational incentives for war—proves sustainability

Gartzke 11 Erik Gartzke is an associate Professor of political science at the University of California, San Diego PhD from Iowa and B.A. from UCSF "SECURITY IN AN INSECURE WORLD" www.cato-unbound.org/2011/02/09/erik-gartzke/security-in-an-insecure-world/

Almost as informative as the decline in warfare has been where this decline is occurring. Traditionally, nations were constrained by opportunity. Most nations did not fight most others because they could not physically do so. Powerful nations, in contrast, tended to fight more often, and particularly to fight with other powerful states. Modern “zones of peace” are dominated by powerful, militarily capable countries. These countries could fight each other, but are not inclined to do so. At the same time, weaker developing nations that continue to exercise force in traditional ways are incapable of projecting power against the developed world, with the exception of unconventional methods, such as terrorism.

The world is thus divided between those who could use force but prefer not to (at least not against each other) and those who would be willing to fight but lack the material means to fight far from home. Warfare in the modern world has thus become an activity involving weak (usually neighboring) nations, with intervention by powerful (geographically distant) states in a policing capacity. So, the riddle of peace boils down to why capable nations are not fighting each other. There are several explanations, as Mack has pointed out.

The easiest, and I think the best, explanation has to do with an absence of motive. Modern states find little incentive to bicker over tangible property, since armies are expensive and the goods that can be looted are no longer of considerable value. Ironically, this is exactly the explanation that Norman Angell famously supplied before the World Wars. Yet, today the evidence is abundant that the most prosperous, capable nations prefer to buy rather than take. Decolonization, for example, divested European powers of territories that were increasingly expensive to administer and which contained tangible assets of limited value.

Of comparable importance is the move to substantial consensus among powerful nations about how international affairs should be conducted. The great rivalries of the twentieth century were ideological rather than territorial. These have been substantially resolved, as Francis Fukuyama has pointed out. The fact that remaining differences are moderate, while the benefits of acting in concert are large (due to economic interdependence in particular) means that nations prefer to deliberate rather than fight. Differences remain, but for the most part the capable countries of the world have been in consensus, while the disgruntled developing world is incapable of acting on respective nations’ dissatisfaction.

While this version of events explains the partial peace bestowed on the developed world, it also poses challenges in terms of the future. The rising nations of Asia in particular have not been equal beneficiaries in the world political system. These nations have benefited from economic integration, and this has proved sufficient in the past to pacify them. The question for the future is whether the benefits of tangible resources through markets are sufficient to compensate the rising powers for their lack of influence in the policy sphere. The danger is that established powers may be slow to accommodate or give way to the demands of rising powers from Asia and elsewhere, leading to divisions over the intangible domain of policy and politics. Optimists argue that at the same time that these nations are rising in power, their domestic situations are evolving in a way that makes their interests more similar to the West. Consumerism, democracy, and a market orientation all help to draw the rising powers in as fellow travelers in an expanding zone of peace among the developed nations. Pessimists argue instead that capabilities among the rising powers are growing faster than their affinity for western values, or even that fundamental differences exist among the interests of first- and second-wave powers that cannot be bridged by the presence of market mechanisms or McDonald’s restaurants.

If the peace observed among western, developed nations is to prove durable, it must be because warfare proves futile as nations transition to prosperity. Whether this will happen depends on the rate of change in interests and capabilities, a difficult thing to judge. We must hope that the optimistic view is correct, that what ended war in Europe can be exported globally. Prosperity has made war expensive, while the fruits of conflict, both in terms of tangible and intangible spoils have declined in value. These forces are not guaranteed to prevail indefinitely. Already, research on robotic warfare promises to lower the cost of conquest. If in addition, fundamental differences among capable communities arise, then warfare over ideology or policy can also be resurrected. We must all hope that the consolidating forces of prosperity prevail, that war becomes a durable anachronism.

#### a) No political crises

Stelzer 9 Irwin Stelzer is a business adviser and director of economic policy studies at the Hudson Institute, “Death of capitalism exaggerated,” http://www.theaustralian.news.com.au/story/0,25197,26174260-5013479,00.html

A FUNNY thing happened on the way to the collapse of market capitalism in the face of the worst economic crisis since the Great Depression. It didn't. Indeed, in Germany voters relieved Chancellor Angela Merkel of the necessity of cohabiting with a left-wing party, allowing her to form a coalition with a party favouring lower taxes and free markets. And in Pittsburgh leaders representing more than 90 per cent of the world's GDP convened to figure out how to make markets work better, rather than to hoist the red flag. The workers are to be relieved, not of their chains but of credit-card terms that are excessively onerous, and helped to retain their private property - their homes. All of this is contrary to expectations. The communist spectre that Karl Marx confidently predicted would be haunting Europe is instead haunting Europe's left-wing parties, with even Vladimir Putin seeking to attract investment by re-privatising the firms he snatched. Which raises an interesting question: why haven't the economic turmoil and rising unemployment led workers to the barricades, instead of to their bankers to renegotiate their mortgages? It might be because Spain's leftish government has proved less able to cope with economic collapse than countries with more centrist governments. Or because Britain, with a leftish government, is now the sick man of Europe, its financial sector in intensive care, its recovery likely to be the slowest in Europe, its prime credit rating threatened. Or it might be because left-wing trade unions, greedily demanding their public-sector members be exempted from the pain they want others to share, have lost their credibility and ability to lead a leftward lurch. All of those factors contribute to the unexpected strength of the Right in a world in which a record number of families are being tossed out of their homes, and jobs have been disappearing by the million. But even more important in promoting reform over revolution are three factors: the existence of democratic institutions; the condition of the unemployed; and the set of policies developed to cope with the recession. Democratic institutions give the aggrieved an outlet for their discontent, and hope they can change conditions they deem unsatisfactory. Don't like the way George W. Bush has skewed income distribution? Toss the Republicans out and elect a man who promises to tax the rich more heavily. Don't like Gordon Brown's tax increases? Toss him out and hope the Tories mean it when they promise at least to try to lower taxes. Result: angry voters but no rioters, unless one counts the nutters who break windows at McDonald's or storm banks in the City. Contrast that with China, where the disaffected have no choice but to take to the streets. Result: an estimated 10,000 riots this year protesting against job losses, arbitrary taxes and corruption. A second factor explaining the Left's inability to profit from economic suffering is capitalism's ability to adapt, demonstrated in the Great Depression of the 1930s. While a gaggle of bankers and fiscal conservatives held out for the status quo, Franklin D. Roosevelt and his experimenters began to weave a social safety net. In Britain, William Beveridge produced a report setting the stage for a similar, indeed stronger, net. Continental countries recovering from World War II did the same. So unemployment no longer dooms a worker to close-to-starvation. Yes, civic institutions were able to soften the blow for the unemployed before the safety net was put in place, but they could not cope with pervasive protracted lay-offs. Also, during this and other recessions, when prices for many items are coming down, the real living standard of those in work actually improves. In the US, somewhere between 85 per cent and 90 per cent of workers have kept their jobs, and now see their living costs declining as rents and other prices come down. So the impetus to take to the streets is limited. Then there are the steps taken by capitalist governments to limit the depth and duration of the downturn. As the economies of most of the big industrial countries imploded, policy went through two phases. The first was triage - do what is necessary to prevent the financial system from collapse. Spend. Guarantee deposits to prevent runs on banks and money funds, bail out big banks, force relatively healthier institutions to take over sicker ones, mix all of this with rhetorical attacks on greedy bankers - the populist spoonful of sugar that made the bailouts go down with the voters - and stop the rot. Meanwhile, have the central banks dust off their dog-eared copies of Bagehot and inject lots of liquidity by whatever means comes to mind. John Maynard Keynes, meet Milton Friedman for a cordial handshake. Then came more permanent reform, another round of adapting capitalism to new realities, in this case the malfunctioning of the financial markets. Even Barack Obama's left-wing administration decided not to scupper the markets but instead to develop rules to relate bankers' pay more closely to long-term performance; to reduce the chance of implosions by increasing the capital banks must hold, cutting their profits and dividends, but leaving them in private hands; and to channel most stimulus spending through private-sector companies. This leaves the anti-market crowd little room for manoeuvre as voters seem satisfied with the changes to make capitalism and markets work better and more equitably. At least so far. There are exceptions. Australia moved a bit to the left in the last election, but more out of unhappiness with a tired incumbent's environmental and foreign policy. Americans chose Obama, but he had promised to govern from the centre before swinging left. And for all his rhetorical attacks on greedy bankers and other malefactors of great wealth, he sticks to reform of markets rather than their replacement, with healthcare a possible exception. Even in these countries, so far, so good for reformed capitalism. No substitutes accepted.

#### No root cause

Larrivee 10— PF ECONOMICS AT MOUNT ST MARY’S UNIVERSITY – MASTERS FROM THE HARVARD KENNEDY SCHOOL AND PHD IN ECONOMICS FROM WISCONSIN, 10 [JOHN, A FRAMEWORK FOR THE MORAL ANALYSIS OF MARKETS, 10/1, <http://www.teacheconomicfreedom.org/files/larrivee-paper-1.pdf>]

 The Second Focal Point: Moral, Social, and Cultural Issues of Capitalism **Logical errors abound** in critical commentary on capitalism. Some critics observe a problem and conclude: “I see X in our society. We have a capitalist economy. Therefore capitalism causes X.” They draw their conclusion by looking at a phenomenon as it appears only in one system. Others merely follow a host of popular theories according to which capitalism is particularly bad. 6 The solution to such flawed reasoning is to be comprehensive, to look at the good and bad, in market and non-market systems. Thus the following section considers a number of issues—greed, selfishness and human relationships, honesty and truth, alienation and work satisfaction, moral decay, and religious participation—that have often been associated with capitalism, but have also been problematic in other systems and usually in more extreme form. I conclude with some evidence for the view that markets foster (at least some) virtues rather than undermining them. My purpose is not to smear communism or to make the simplistic argument that “capitalism isn’t so bad because other systems have problems too.” The critical point is that **certain people thought** various **social ills resulted from capitalism, and on this basis they took action to establish alternative economic systems** to solve the problems they had identified. That **they failed to solve the problems, and** in fact **exacerbated them** while also creating new problems, implies that capitalism itself wasn’t the cause of the problems in the first place, at least not to the degree theorized.

#### Collapse is worse for all their impacts---causes extinction of every other species and then humans

Monbiot 9 – George Monbiot, columnist for The Guardian, has held visiting fellowships or professorships at the universities of Oxford (environmental policy), Bristol (philosophy), Keele (politics), Oxford Brookes (planning), and East London (environmental science, August 17, 2009, “Is there any point in fighting to stave off industrial apocalypse?,” online: <http://www.guardian.co.uk/commentisfree/cif-green/2009/aug/17/environment-climate-change>

The interesting question, and the one that probably divides us, is this: to what extent should we welcome the likely collapse of industrial civilisation? Or more precisely: to what extent do we believe that some good may come of it?

I detect in your writings, and in the conversations we have had, an attraction towards – almost a yearning for – this apocalypse, a sense that you see it as a cleansing fire that will rid the world of a diseased society. If this is your view, I do not share it. I'm sure we can agree that the immediate consequences of collapse would be hideous: the breakdown of the systems that keep most of us alive; mass starvation; war. These alone surely give us sufficient reason to fight on, however faint our chances appear. But even if we were somehow able to put this out of our minds, I believe that what is likely to come out on the other side will be worse than our current settlement.

Here are three observations: 1 Our species (unlike most of its members) is tough and resilient; 2 When civilisations collapse, psychopaths take over; 3 We seldom learn from others' mistakes.

From the first observation, this follows: even if you are hardened to the fate of humans, you can surely see that our species will not become extinct without causing the extinction of almost all others. However hard we fall, we will recover sufficiently to land another hammer blow on the biosphere. We will continue to do so until there is so little left that even Homo sapiens can no longer survive. This is the ecological destiny of a species possessed of outstanding intelligence, opposable thumbs and an ability to interpret and exploit almost every possible resource – in the absence of political restraint.

## DA

### 2AC Debt Ceiling DA

#### Won’t pass---GOP won’t back down

LA Times 12/31 Kathleen Hennessey and David Lauter, "Obama wins 'fiscal cliff' victory, but at high cost", 2012, www.latimes.com/news/nationworld/nation/la-na-fiscal-cliff-analysis-20130101,0,6417926.story

Others, however, expressed doubt that Obama would be able to achieve his additional goals now that his trump card had been played. The president's leverage in the current negotiations had been the automatic tax increase set to take effect Tuesday. If Republicans did not vote for a deal, taxes would go up for everyone, and polls indicated voters were inclined to blame them, not Obama.¶ The challenge of squeezing tax increases out of a Republican-led House will get harder, not easier, in the new year. Without the threat of an automatic tax increase, Obama has much less leverage, said Jared Bernstein, the former chief economist and economic advisor to Vice President Joe Biden. And Republicans will gain leverage through their threats to refuse an increase in the debt ceiling, which would cause the government to default on its bonds.¶ "While the White House had the leverage, it would have been very good for them to deal with the debt ceiling," Bernstein said. "The Republicans are absolutely sharpening their knives for that next fight, which is horrific, by comparison — a much worse self-inflicted wound on the economy."

#### Obama has zero leverage in the debt ceiling fight---PC’s irrelevant

Joshua Holland 1-1, editor and senior writer at AlterNet, 1/1/13, “What the Fiscal Cliff Deal Was Really About,” http://www.alternet.org/print/election-2012/what-fiscal-cliff-deal-was-really-about

It's simply a hostage exchange. The Republicans gave up the fiscal cliff, and will now take the debt limit, the federal budget and automatic across-the-board cuts to discretionary spending (the sequester), and have another standoff in 2-3 months time. The deal wouldn't have gotten 85 GOP votes in the House without the leadership giving right-wingers ironclad guarantees that they'll have another hostage soon. ¶ What leverage will the White House have at that point? They've already rejected the "constitutional option" to avoid the debt ceiling -- and won't mint a big platinum coin [4]. The Bush tax cuts on high earners will be off the table. That leaves cuts to defense -- which Republicans hate -- and public opinion, to which the GOP doesn't seem terribly responsive when its base is screaming murder and threatening primaries (which is always). That's pretty thin gruel given that the "austerity caucus" thinks it has a good shot at cutting Social Security and Medicare as part of a "grand bargain" with Obama. ¶ Other than that, we'll only have the Democrats' legendary iron back-bone on which to rely. Nobody's ever gotten rich betting on that.

#### Executive military action shields---their link evidence is about biofuels

Davenport 12 Coral, energy and environment correspondent for National Journal, Prior to joining National Journal in 2010, Davenport covered energy and environment for Politico, and before that, for Congressional Quarterly. In 2010, she was a fellow with the Metcalf Institute for Marine and Environmental Reporting. From 2001 to 2004, Davenport worked in Athens, Greece, as a correspondent for numerous publications, including the Christian Science Monitor and USA Today, covering politics, economics, international relations and terrorism in southeastern Europe. She also covered the 2004 Olympic Games in Athens, and was a contributing writer to the Fodor’s, Time Out, Eyewitness and Funseekers’ guidebook series. Davenport started her journalism career at the Daily Hampshire Gazette in Northampton, Massachusetts, after graduating from Smith College with a degree in English literature. National Journal, 2/10, White House Budget to Expand Clean-Energy Programs Through Pentagon, ProQuest

The White House believes it has figured out how to get more money for clean-energy programs touted by President Obama without having it become political roadkill in the wake of the Solyndra controversy: **Put it in the Pentagon**. While details are thin on the ground, lawmakers who work on both energy- and defense-spending policy believe the fiscal 2013 budget request to be delivered to Congress on Monday probably won't include big increases for wind and solar power through the Energy Department, a major target for Republicans since solar-panel maker Solyndra defaulted last year on a $535 million loan guarantee. But they do expect to see increases in spending on alternative energy in the Defense Department, such as programs to replace traditional jet fuel with biofuels, supply troops on the front lines with solar-powered electronic equipment, build hybrid-engine tanks and aircraft carriers, and increase renewable-energy use on military bases. While Republicans will instantly shoot down requests for fresh spending on Energy Department programs that could be likened to the one that funded Solyndra, many support alternative-energy programs for the military. "I do expect to see the spending," said Rep. Jack Kingston, R-Ga., a member of the House Defense Appropriations Subcommittee, when asked about increased investment in alternative-energy programs at the Pentagon. "I think in the past three to five years this has been going on, but that it has grown as a culture and a practice - and it's a good thing." "If Israel attacks Iran, and we have to go to war - and the Straits of Hormuz are closed for a week or a month and the price of fuel is going to be high," Kingston said, "the question is, in the military, what do you replace it with? It's not something you just do for the ozone. It's strategic." Sen. Lindsey Graham, R-S.C., who sits on both the Senate Armed Services Committee and the Defense Appropriations Subcommittee, said, "I don't see what they're doing in DOD as being Solyndra." "We're not talking about putting $500 million into a goofy idea," Graham told National Journal . "We're talking about taking applications of technologies that work and expanding them. I wouldn't be for DOD having a bunch of money to play around with renewable technologies that have no hope. But from what I understand, there are renewables out there that already work." A senior House Democrat noted that this wouldn't be the first time that the **Pentagon has been utilized to advance policies that wouldn't otherwise be supported**. "They did it in the '90s with medical research," said Rep. Henry Waxman, D-Calif., ranking member of the House Energy and Commerce Committee. In 1993, when funding was frozen for breast-cancer research programs in the National Institutes of Health, Congress boosted the Pentagon's budget for breast-cancer research - to more than double that of the health agency's funding in that area. **Politically, the strategy makes sense**. Republicans are ready to fire at the first sign of any pet Obama program, and renewable programs at the Energy Department are an exceptionally ripe target. That's because of Solyndra, but also because, in the last two years, the Energy Department received a massive $40 billion infusion in funding for clean-energy programs from the stimulus law, a signature Obama policy. When that money runs out this year, a request for more on top of it would be met with flat-out derision from most congressional Republicans. Increasing renewable-energy initiatives at the Pentagon can also help Obama advance his broader, national goals for transitioning the U.S. economy from fossil fuels to alternative sources. As the largest industrial consumer of energy in the world, the U.S. military can have a significant impact on energy markets - if it demands significant amounts of energy from alternative sources, it could help scale up production and ramp down prices for clean energy on the commercial market. Obama acknowledged those impacts in a speech last month at the Buckley Air Force Base in Colorado. "The Navy is going to purchase enough clean-energy capacity to power a quarter of a million homes a year. And it won't cost taxpayers a dime," Obama said. "What does it mean? It means that the world's largest consumer of energy - the Department of Defense - is making one of the largest commitments to clean energy in history," the president added. "That will grow this market, it will strengthen our energy security." Experts also hope that Pentagon engagement in clean-energy technology could help yield breakthroughs with commercial applications. Kingston acknowledged that the upfront costs for alternative fuels are higher than for conventional oil and gasoline. For example, the Air Force has pursued contracts to purchase biofuels made from algae and camelina, a grass-like plant, but those fuels can cost up to $150 a barrel, compared to oil, which is lately going for around $100 a barrel. Fuel-efficient hybrid tanks can cost $1 million more than conventional tanks - although in the long run they can help lessen the military's oil dependence, Kingston said Republicans recognize that the up-front cost can yield a payoff later. "It wouldn't be dead on arrival. But we'd need to see a two- to three-year payoff on the investment," Kingston said. Military officials - particularly Navy Secretary Ray Mabus, who has made alternative energy a cornerstone of his tenure - have been telling Congress for years that the military's dependence on fossil fuels puts the troops - and the nation's security - at risk. Mabus has focused on meeting an ambitious mandate from a 2007 law to supply 25 percent of the military's electricity from renewable power sources by 2025. (Obama has tried and failed to pass a similar national mandate.) Last June, the DOD rolled out its first department-wide energy policy to coalesce alternative and energy-efficient initiatives across the military services. In January, the department announced that a study of military installations in the western United States found four California desert bases suitable to produce enough solar energy - 7,000 megawatts - to match seven nuclear power plants. And so far, those **moves have met with approval from congressional Republicans**. Even so, any request for new Pentagon spending will be met with greater scrutiny this year. The Pentagon's budget is already under a microscope, due to $500 billion in automatic cuts to defense spending slated to take effect in 2013. But even with those challenges, clean-energy spending probably won't stand out as much in the military budget as it would in the Energy Department budget. Despite its name, the Energy Department has traditionally had little to do with energy policy - its chief portfolio is maintaining the nation's nuclear weapons arsenal. Without the stimulus money, last year only $1.9 billion of Energy's $32 billion budget went to clean-energy programs. A spending increase of just $1 billion would make a big difference in the agency's bottom line. But it would probably be easier to tuck another $1 billion or $2 billion on clean-energy spending into the Pentagon's $518 billion budget. Last year, the Pentagon spent about $1 billion on renewable energy and energy-efficiency programs across its departments.

#### Hagel pounds the disad---requires all Obama’s PC

Politico 1-6 – “Chuck Hagel takes fire from Capitol Hill,” 1/6/13, http://dyn.politico.com/printstory.cfm?uuid=F3C2EA30-9671-40B6-A668-0BDDCDC603FB

Senate Democrats and Republicans are far from sold on President Barack Obama’s expected nomination of Chuck Hagel as secretary of defense.¶ In fact, Obama’s decision to tap the Vietnam veteran and outspoken former Republican senator is likely to spark another nasty fight with Congress right on the heels of the fiscal cliff showdown and just before another likely battle royal over the debt ceiling.¶ Republicans on Sunday unleashed a fresh barrage of attacks amid reports Obama would nominate Hagel on Monday for the top job at the Pentagon. ¶ The new Senate minority whip, Texas Republican John Cornyn, said he’s firmly against Hagel’s nomination. Sen. Lindsey Graham (R-S.C.), an Air Force reservist who serves on the Armed Services Committee that will consider the nod, said Hagel would hold the “most antagonistic” views toward Israel of any defense secretary in U.S. history.¶ And despite heaping praise on Hagel when he retired from the Senate after the 2008 elections, Minority Leader Mitch McConnell (R-Ky.) on Sunday failed to extend an olive branch to the Nebraska Republican, instead suggesting there would be “tough questions” ahead. ¶ Even Senate Democrats are privately signaling they‘re not yet on board with the Hagel pick, and that the White House has a lot of work to do to get him across the finish line. ¶ The nomination comes at a tricky time for the administration — just as the fights over raising the debt ceiling and government appropriations are set to begin. And it could put a number of at-risk or pro-Israel Democrats in tough political spots — especially if the nomination fight grows even more contentious.¶ Democrats are also scratching their heads over why Obama appears willing to go to the mat for Hagel, while abandoning his push for a close friend and member of his inner circle, U.N. Ambassador Susan Rice, to become secretary of state. Rice, an unabashed Democrat, abandoned her bid after withering GOP criticism over the deadly attacks on the U.S. Consulate in Libya. ¶ Though different in substance, the controversy over Rice’s remarks is not unlike the current pushback over Hagel’s past foreign policy positions and controversial remarks. But Hagel lacks a natural constituency in the Senate, given that he’s grown alienated from the GOP, yet Democrats are suspicious of his record. ¶ “It is a strange signal for the White House to send that they are willing to fight for Hagel but not Rice,” one Senate Democratic aide said Sunday. “Democrats are not currently unified behind Hagel, and it will take some real work by the administration to get them there, if it’s even possible.” ¶ Senior Republicans agreed, noting that after Hagel infuriated Republicans and Democrats alike over the years, there isn’t a natural base for him. ¶ “I can’t imagine why [Obama] would choose to burn his political capital on this nomination. For what? There is no constituency for Chuck Hagel,” one senior GOP aide said. “Obama will expend every ounce of political capital he has to get him across the finish line. Dems will hate this.”

#### SMR incentives are bipartisan

King et al 11 Marcus, Associate Director of Research at The George Washington University's Elliott School of International Affairs, with a concurrent appointment as Associate Research Professor of International Affairs, LaVar Huntzinger and Thoi Nguyen, "Feasibility of Nuclear Power on U.S. Military Installations", March, www.cna.org/sites/default/files/research/Nuclear Power on Military Installations D0023932 A5.pdf

Favorable public perception has contributed to bipartisan congressional interest in building new nuclear capacity. Congress has introduced several bills that provide funding for new nuclear research and incentives **for the nuclear industry**. The Enabling the Nuclear Renaissance Act (ENRA) under consideration by the Senate contains many of the nuclear provisions found in previously introduced bills. In the area of small reactor technology, the legislation directs the Department of Energy (DOE) to develop a 50 percent cost-sharing program with industry, and it provides government funding at the rate of $100 million per year for 10 years. The bill also calls for the establishment of a program office within DOE to manage community led initiatives to develop “energy parks” on former DOE sites. The energy parks may include nuclear power plants [11].

#### Winners win

Marshall and Prins 11 (BRYAN W, Miami University and BRANDON C, University of Tennessee & Howard H. Baker, Jr. Center for Public Policy, “Power or Posturing? Policy Availability and Congressional Influence on U.S. Presidential Decisions to Use Force”, Sept, Presidential Studies Quarterly 41, no. 3)

Presidents rely heavily on Congress in converting their political capital into real policy success. Policy success not only shapes the reelection prospects of presidents, but it also builds the president’s reputation for political effectiveness and fuels the prospect for subsequent gains in political capital (Light 1982). Moreover, the president’s legislative success in foreign policy is correlated with success on the domestic front. On this point, some have largely disavowed the two-presidencies distinction while others have even argued that foreign policy has become a mere extension of domestic policy (Fleisher et al. 2000; Oldfield and Wildavsky 1989) Presidents implicitly understand that there exists a linkage between their actions in one policy area and their ability to affect another. The use of force is no exception; in promoting and protecting U.S. interests abroad, presidential decisions are made with an eye toward managing political capital at home (Fordham 2002).

#### No impact to the debt ceiling---it’s exaggerated

Fisher Investments 12/10 (Fisher Investments is an independent investment adviser serving both individual and institutional investors, 12/10/12, Debt Ceiling Worries Are Overblown: Opinion, www.thestreet.com/story/11787447/1/debt-ceiling-worries-are-overblown-opinion.html)

The debt ceiling debate seems to have returned from the dead. But as our boss Ken Fisher has said, what many folks miss is that the debt ceiling is a purely political (and arbitrary) machination. And it's one that members of Congress aren't terribly motivated to fix, so it's unlikely to kick the bucket anytime soon.¶ For context, Congress used to have to approve debt issuance, but during World War I, lawmakers feared such a mundane task might slow potential war funding. Hence, they created the debt ceiling in 1917 to (try to) take themselves out of the picture.¶ Noble enough! But the limit was arbitrary and didn't account for debt's tendency to grow in sympathy with the broader economy. Hence, over time and as the country grew, our debt rose as well, butting up against Congress's arbitrary ceiling.¶ Congress mostly rubber-stamped debt ceiling increases until the mid-1950s, when lawmakers began using the debt ceiling as a political tool to leverage concessions from a president and/or the opposing party by threatening a government shutdown and a potential debt default.¶ This political gamesmanship has occurred over and over. Often the deliberations go down to the wire (or even a bit beyond) before a new ceiling is established. In fact, the debt ceiling has been lifted 91 times in the last 40 years. No politician wants to be tainted with causing the U.S. to default. Yet, at the same time, neither party wants to give up this potential battering ram. Hence, we likely will continue to have debt ceilings, debt ceiling debates and half-hearted "solutions" for "solving" the debt ceiling dilemma.¶ One such solution we've heard in recent years is minting a $1 trillion platinum coin, as explained in a post at AEIdeas, the public policy blog of the American Enterprise Institute.¶ At CNN, Jack M. Balkin wrote, "some commentators have suggested that the Treasury create two $1 trillion coins, deposit them in its account in the Federal Reserve and write checks on the proceeds."¶ That is ... one ... (theoretical) option. Yet we'd hasten to add it's entirely unnecessary and likely comes with unintended costs of its own. There is, after all, no such thing as a free lunch.¶ But beyond that, this theoretical $1 trillion platinum coin (and why must we use platinum, by the way?) is merely another arbitrary measure on top of the already arbitrary debt ceiling -- a Band-Aid on top of a Band-Aid.¶ Imagine for a moment that the Treasury does authorize creating and stashing a $1 trillion coin at the Fed. Failing a congressional debt ceiling lift, the government would issue new checks against the coin ad nausem until ... it reached the $1 trillion limit. But then perhaps Treasury would add another $1 trillion coin, and so forth and so on.¶ This merely would create a temporary bypass to the debt ceiling that likely would need to be revisited as the economy continues growing (as it always has, in fits and starts). Make no mistake: We're not fans of ever-increasing relative debt (mostly because we prefer smaller government relative to the private sector). But the absolute amount of debt pretty much has always grown and likely will continue to do so. (The government never repaid all the WW II-related borrowings after the war ended, yet a slower debt growth rate combined with economic growth reduced the size of debt relative to GDP).¶ We just think a debt ceiling serves little purpose outside of creating a periodic opportunity for political posturing. And remember, since 1921, Congress has been required to develop and pass a budget that ultimately determines what the nation spends in a given fiscal year. The Treasury merely issues debt to cover differences between government expenses and revenue.¶ Our bet is pols fold like they have 11 times in the last decade and find compromises to raise the debt ceiling again. But we'd be remiss if we didn't address the economic consequences if the government doesn't lift the ceiling before borrowings hit the $16.4 trillion debt ceiling as projected in February 2013. Those consequences, at least in the near term, aren't catastrophic.¶ The government need only delay some nonessential spending or shut down some services, such as national parks or passport issuance. At only 1.4% of GDP (as of 2011), debt service costs are tiny and likely easily paid by revenues (only 9.9% of total tax revenue in 2011, according to the White House Office of Management and Budget.) So the likelihood of default is also exceedingly low. And of course, it's probably also likely that the government finds some extra cash in the sofa cushions or a $20 bill in the laundry, buying further time for Congress to find resolution.¶ The debt ceiling is so arbitrary and so lacking in real, economic impact that you just don't need to spend the time conjuring schemes like trillion-dollar coins, Fed vaults and check writing. Given time, politicians are highly likely to do what they've nearly always done: Politick to the last moment, then raise the debt ceiling.

#### SMR expansion solves growth

MSCR 11 US Department of Commerce International Trade Administration Manufacturing and Services Competitiveness Report, February 2011, “The Commercial Outlook for U.S. Small Modular Nuclear Reactors”, http://trade.gov/mas/ian/build/groups/public/@tg\_ian/@nuclear/documents/webcontent/tg\_ian\_003185.pdf

A primary advantage of SMRs is in their production. Their small size means that they do not need the ultra-heavy forged components that currently can be made only by Japan Steel Works and Doosan Heavy Industries in South Korea.7 In most of the current U.S. SMR designs, the reactor pressure vessels and other large forgings could be supplied by domestic vendors, which would create U.S. jobs and potential exports of SMR components to international customers. In addition, most SMR designs allow for factory manufacturing, which could potentially provide opportunities for cost savings, for increased quality, and for more efficient production. Those attributes mean that SMRs could be a significant source of economic growth in the United States.

#### SMRs on Alaskan bases solve vulnerabilities

Holdmann 11 Gwen, Director of Alaska Center for Energy and Power at the University of Alaska Fairbanks, “Small Scale Modular Nuclear Power: an option for Alaska”, February, http://www.uaf.edu/files/acep/Executive-Summary-3-2-11.pdf

Executive Summary¶ Alaska is home to some of the most abundant supplies of fossil fuels and renewable energy resources on the planet. While the Alaska treasury benefits financially from development of these resources for export, the supply of reliable, affordable energy to small and often isolated Alaska markets remains a challenge. These conditions result in energy prices for space heating and electricity that are volatile and expensive in many areas of the state. These high energy prices are a significant burden for Alaska residents and businesses and stifle economic development.¶ Ways to address high energy prices are being deliberated, including the possible construction of one of several proposed natural gas pipeline projects, funding of individual projects in rural communities with access to developable resources, and consideration of a large-scale hydroelectric project to serve the Railbelt. Another possible source of energy is nuclear power.¶ Why discuss the nuclear option? With Alaska’s abundant energy resources, this form of energy might not seem needed. However, Alaska’s resources are not equitably distributed geographically, with some areas located near energy sources (for example, the gas fields of Cook Inlet that supply energy for Anchorage), and many other areas less fortunate. In particular, communities in rural Alaska face very high energy prices due to reliance on imported diesel fuel, and many do not have access to developable local resources that can appreciably reduce this dependence. To a lesser degree, the Fairbanks area also lacks low-cost, locally abundant energy resources. It is possible that the new small-scale modular nuclear power plants could lower the cost of energy in some of these locations.¶ Alaska was not part of the first wave of nuclear power development in the U.S., as the nation’s existing commercial nuclear industry is comprised of 1000 MW reactors that are too large for any Alaska applications. However, as part of a new generation of nuclear power plants worldwide, small modular reactors (SMRs) are being developed that range in size from 10 MWe to 300 MWe. These SMRs would be manufactured in factories, allowing standardized design and fabrication, high quality control, shorter power facility construction times, and reduced finance charges during construction. In larger markets in the Lower 48, multiple SMR modules could be combined to form a single gigawatt-scale power plant, which would have several advantages over a single large reactor, including reduced downtime for maintenance and improved safety. These SMRs would also be appropriately sized for use in Alaska, making nuclear energy a viable option to consider. In addition to providing energy (heat and power) for rural communities and/or the Railbelt, other potential applications include providing energy to military bases, remote mining operations, and other industrial users.

#### Alaskan bases prevent Arctic escalation

Schanz 8 Associate Editor of the Air Force Magazine, “Strategic Alaska”, http://www.airforce-magazine.com/MagazineArchive/Pages/2008/November%202008/1108alaska.aspx

Billy Mitchell saw its great potential in 1935, and now the rest of the world has finally caught on.

More than ever before, the Air Force is paying close attention to its force structure in Alaska. Indeed, a major rush of events in the High North has propelled the 49th state up to the top ranks of service thinking. A resurgent Russia has ramped up its long-range bomber flights nearby. A changing Arctic climate has uncorked a flurry of activity in the region as once inaccessible resources now seem ready for exploitation. Alaska’s strategic Arctic location is viewed as useful for missile defense, air defense, and force deployments to locations ranging from Europe to East Asia and beyond. And the military training space available to USAF there is huge and varied. For these and other reasons, the Air Force has started beefing up its forces in the state. A visitor there sees that the service has been sending its newest and most advanced equipment for Alaskan service, including brand-new F-22 fighters and C-17 transports. "From an airman’s perspective, [it’s] probably the most strategic location," said Lt. Gen. Dana T. Atkins, commander of Alaskan Command and Alaskan NORAD region. The state’s geographic location "makes it hugely of strategic import to the United States and really important in a global context." From Alaskan bases, the Air Force can gain quick access both to the Pacific and European Theaters. Transiting across the Arctic, forces could arrive in Europe faster than if flying from the East Coast of the US, Atkins pointed out. This responsive location has helped to push Alaska to the forefront of USAF’s investment queue. The reinvigoration of Russian bomber patrols over Arctic waters in August 2007 was an opening push of that country’s increasingly assertive power projection efforts. NORAD’s US and Canadian fighters have repeatedly intercepted Russian flights skirting Alaskan airspace. New F-22s at Elmendorf Air Force Base took center stage last fall when Raptors stepped in to fill the role of the temporarily grounded F-15 fleet to intercept Russian Tu-95 Bear bombers. The Air Sovereignty Mission Many of the Raptor pilots leveraged their F-15 backgrounds, and the scrambles led to the development of a new training plan for the air sovereignty mission, said Lt. Col. Orlando Sanchez, director of operations for the 525th Fighter Squadron at Elmendorf. While F-22s are no longer on alert, they may perform intercepts in the future. The commander of Russia’s Air Force, Col. Gen. Alexander Zelin, said in April the country will increase its strategic patrols to as many as 30 a month. "It’s been interesting in the last few years," said Gen. Carrol H. Chandler, chief of Pacific Air Forces, in September. "When I was ... Alaskan Command commander, we had one intercept in the time that I was there. The Russians have continued to put emphasis on long-range aviation; they’ve continued to put emphasis on presence in the Arctic. ... Those numbers have picked up considerably over the last three to four years." Chandler suspects that a "competition for resources" will continue, and perhaps intensify, in the Arctic. Last year, Russia publicized a submarine trip to the bottom of the seabed at the North Pole—where the crew deposited a titanium Russian flag, symbolically marking territory. The Canadians derided the expedition as a "stunt," with Prime Minister Stephen Harper making a trip to Canada’s Arctic region to unveil several major military investments, and following with a new defense strategy, outlining new capabilities in the North. Russia’s focus on Arctic operations is a part of the country’s push to assert its own interests over Siberia’s extended continental shelf—the largest and least explored so far of the world’s continental shelves, according to senior Russian military officials. Geologists believe major oil and gas deposits could potentially become available as the polar ice cap slowly recedes with warming temperatures—a fact that is the focus of increasing attention to the nations claiming Arctic waters. "I don’t see that abating anytime in the near future, and the Russians certainly have the resources at this point" to continue to push into the region, said Chandler. A Resurgent Russia While Russia’s Arctic bellicosity has been on the rise, commanders in the region say the moves have to be kept in perspective. "Is it Cold War games all over again? I don’t think so," said Brig. Gen. Thomas L. Tinsley, who led the 3rd Wing at Elmendorf until his death in July. The moves are not hollow, however, and represent Russia’s "desire to bring their Air Forces back up to the speed they were." Tinsley noted that Russia has doubled the fuel it allots to its strategic aviation forces in order to bring back lost training capability. "But you know we’re constantly testing each others’ intel ability, we’re constantly testing each others’ reaction ability, and that’s just part of it." A big issue in the mix is the filing of standard international flight plans by the Russians, Atkins said. If an aircraft approaches a nation’s sovereign boundary with a flight plan, things would be a lot less complicated, he said. The problem with the Russian long-range bomber missions is that "what we’ve witnessed ... is these flights occur without these flight plans." This is one of the goals of improved mil-to-mil relations with the Russian Far East Military District commanders, Atkins added. "It seems too simple to say that, but if they would just adhere to the protocols that we have all accepted, then I think a lot of the perceived tension will evaporate." The US Coast Guard cooperates closely with the Russians just across the Bering Strait on issues ranging from fishing to limiting piracy, Atkins said. This month a survival search and rescue exercise was to be conducted, and this past summer US forces participated in a homeland defense exercise where a simulated hijacking took place—with command and control elements in both Alaska and Russia simulating the tracking and handing off of the aircraft. Both Atkins and Gen. Victor E. Renuart Jr. at NORAD have been working to invite some of the Russian Far East Military District commanders to visit Alaska to continue building between the two militaries professional relationships—which haven’t always been as close as the Coast Guard’s. "I’m the new guy. I’m going to try to keep building that professional rapport," Atkins quipped. "It would be great to get a rapport like the [Coast Guard’s]. ... I’d like to achieve the same kind of professional tie." In addition to renewed tensions with Russia, increased air and maritime traffic is a growing concern at Alaskan Command. Climate conditions have revealed a host of new Arctic transnational issues.

#### Goes nuclear

Wallace and Staples 10 Michael Wallace is Professor Emeritus at the University of British Columbia; Steven Staples is President of the Rideau Institute in Ottawa, March 2010, “Ridding the Arctic of Nuclear Weapons A Task Long Overdue”, http://www.arcticsecurity.org/docs/arctic-nuclear-report-web.pdf

The fact is, the Arctic is becoming a zone of increased military competition. Russian President Medvedev has announced the creation of a special military force to defend Arctic claims. Last year Russian General Vladimir Shamanov declared that Russian troops would step up training for Arctic combat, and that Russia’s submarine fleet would increase its “operational radius.” Recently, two Russian attack submarines were spotted off the U.S. east coast for the first time in 15 years. In January 2009, on the eve of Obama’s inauguration, President Bush issued a National Security Presidential Directive on Arctic Regional Policy. It affirmed as a priority the preservation of U.S. military vessel and aircraft mobility and transit throughout the Arctic, including the Northwest Passage, and foresaw greater capabilities to protect U.S. borders in the Arctic. The Bush administration’s disastrous eight years in office, particularly its decision to withdraw from the ABM treaty and deploy missile defence interceptors and a radar station in Eastern Europe, have greatly contributed to the instability we are seeing today, even though the Obama administration has scaled back the planned deployments. The Arctic has figured in this renewed interest in Cold War weapons systems, particularly the upgrading of the Thule Ballistic Missile Early Warning System radar in Northern Greenland for ballistic missile defence. The Canadian government, as well, has put forward new military capabilities to protect Canadian sovereignty claims in the Arctic, including proposed ice-capable ships, a northern military training base and a deep-water port. Earlier this year Denmark released an all-party defence position paper that suggests the country should create a dedicated Arctic military contingent that draws on army, navy and air force assets with shipbased helicopters able to drop troops anywhere. Danish fighter planes would be tasked to patrol Greenlandic airspace. Last year Norway chose to buy 48 Lockheed Martin F-35 fighter jets, partly because of their suitability for Arctic patrols. In March, that country held a major Arctic military practice involving 7,000 soldiers from 13 countries in which a fictional country called Northland seized offshore oil rigs. The manoeuvres prompted a protest from Russia – which objected again in June after Sweden held its largest northern military exercise since the end of the Second World War. About 12,000 troops, 50 aircraft and several warships were involved. Jayantha Dhanapala, President of Pugwash and former UN under-secretary for disarmament affairs, summarized the situation bluntly: “From those in the international peace and security sector, deep concerns are being expressed over the fact that two nuclear weapon states – the United States and the Russian Federation, which together own 95 per cent of the nuclear weapons in the world – converge on the Arctic and have competing claims. These claims, together with those of other allied NATO countries – Canada, Denmark, Iceland, and Norway – could, if unresolved, lead to conflict escalating into the threat or use of nuclear weapons.” Many will no doubt argue that this is excessively alarmist, but no circumstance in which nuclear powers find themselves in military confrontation can be taken lightly. The current geo-political threat level is nebulous and low – for now, according to Rob Huebert of the University of Calgary, “[the] issue is the uncertainty as Arctic states and non-Arctic states begin to recognize the geo-political/economic significance of the Arctic because of climate change.”

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## Delays

### AT: Manufacturing Arg

#### SMRs solve cost concerns---super cheap, no cost overruns, easier financing, immediate revenue and standardized quality construction

Cunningham 12 Nick, Policy Analyst for Energy and Climate at the American Security Project, "Small Modular Reactors: A Possible Path Forward for Nuclear Power", October, americansecurityproject.org/ASP%20Reports/Ref%200087%20-%20Small%20Modular%20Reactors.pdf

Lower Upfront Costs¶ The greatest challenge facing the nuclear power industry is the upfront costs of new reactors. Although large reactors should be able to take advantage of economies of scale, there are economic advantages to small designs. Large reactors require substantial upfront investment, with long permitting and construction times before a return on investment can be realized. ¶ These upfront costs make investing in a large nuclear power plant highly risky, even if the final cost per kilowatt-hour is profitable. A large nuclear power plant can cost between $6 and $9 billion, often exceeding the financing capabilities of most financial institutions, utilities, or even small countries. 23¶ Conversely, small modular reactors at commercial scale could produce a 100 MW plant for $250 million. 24 Due to lower upfront costs and shorter lead times, SMRs would present lower financial risks, allowing for significantly lower costs of financing. The shorter lead times for SMRs allow for more certainty for investors, and the ability to change with market conditions. 25¶ The smaller project size of each additional reactor also reduces the risks of cost-overruns. 26 This translates not only to lower absolute costs, but also lower upfront capital costs, making it easier for projects to attract financing, at better rates.27¶ Shorter construction times also provide a quicker revenue stream. SMRs can be built in roughly one-half to one-third of the time required for conventional plants. 28¶ Even comparing multiple small reactors to the equivalent installed capacity of one large reactor, SMRs allow incremental capacity to come online while the large reactor is still under construction. SMRs create revenue generation immediately after each small unit is completed, and the owner can retire debt before the next increment is constructed. 29 Similarly, the SMR units can be under parallel construction (multiple reactors under construction simultaneously), allowing the full SMR project to be completed before the large nuclear reactor, a significant cost advantage for SMRs over large reactors. 30¶ Another major drawback for conventional large reactors is the lack of standardization. This leads to long, expensive, and uncertain time periods for licensing and siting. SMRs can overcome this hurdle with standardized designs, standardized components, and enhanced safety from reduced reactor size, all of which are not easy to accomplish with large reactors. 31¶ Small Modular Reactors, as their name suggests, can be “modularized”. SMRs can be constructed in factories and actually shipped to site. Factory construction allows for greater quality control, predictability and scheduling. In contrast, large reactors are designed and built uniquely for each project, which can lead to delays and inflated costs. 32

## AT: Expertise

#### DoD has the expertise

Robitaille 12 George E, Department of Army Civilian, March 21, "Small Modular Reactors: The Army’s Secure Source of Energy?", [www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA561802](http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA561802)

Section 332 of the FY2010 National Defense Authorization Act (NDAA), “Extension and Expansion of Reporting Requirements Regarding Department of Defense Energy Efficiency Programs,” requires the Secretary of Defense to evaluate the cost and feasibility of a policy that would require new power generation projects established on installations to be able to provide power for military operations in the event of a commercial grid outage.28 A potential solution to meet this national security requirement, as well as the critical needs of nearby towns, is for DoD to evaluate SMRs as a possible source for safe and secure electricity. Military facilities depend on reliable sources of energy to operate, train, and support national security missions. The power demand for most military facilities is not very high, and could easily be met by a SMR. Table 1 provides the itemized description of the annual energy requirements in megawatt of electricity (MWe) required for the three hundred seventy four DoD installations.29 DoD History with SMRs The concept of small reactors for electrical power generation is not new. In fact, the DoD built and operated small reactors for applications on land and at sea. The U.S. Army operated eight nuclear power plants from 1954 to 1977. Six out of the eight reactors built by the Army produced operationally useful power for an extended period, including the first nuclear reactor to be connected and provide electricity to the commercial grid. 30 The Army program that built and operated compact nuclear reactors was ended after 1966, not because of any safety issues, but strictly as a result of funding cuts in military long range research and development programs. In essence, it was determined that the program costs could only be justified if there was a unique DoD specific requirement. At the time there were none.31 Although it has been many years since these Army reactors were operational, the independent source of energy they provided at the time is exactly what is needed again to serve as a secure source of energy today. Many of the nuclear power plant designs used by the Army were based on United States Naval reactors. Although the Army stopped developing SMRs, the Navy as well as the private sector has continued to research, develop, and implement improved designs to improve the safety and efficiency of these alternative energy sources. The U.S. Navy nuclear program developed twenty seven different power plant systems and almost all of them have been based on a light water reactor design.32 This design focus can be attributed to the inherent safety and the ability of this design to handle the pitch and roll climate expected on a ship at sea. To date, the U. S Navy operated five hundred twenty six reactor cores in two hundred nineteen nuclear powered ships, accumulated the equivalent of over six thousand two hundred reactor years of operation and safely steamed one hundred forty nine million miles. The U.S. Navy has never experienced a reactor accident.33 All of the modern Navy reactors are design to use fuel that is enriched to ninety three percent Uranium 235 (U235) versus the approximate three percent U235 used in commercial light water reactors. The use of highly enriched U235 in Navy vessels has two primary benefits, long core lives and small reactor cores.34 The power generation capability for naval reactors ranges from two hundred MWe (megawatts of electricity) for submarines to five hundred MWe for an aircraft carrier. A Naval reactor can expect to operate for at least ten years before refueling and the core has a fifty year operational life for a carrier or thirty to forty years for a submarine.35 As an example, the world’s first nuclear carrier, the USS Enterprise, which is still operating, celebrated fifty years of operations in 2011.36 The Navy nuclear program has set a precedent for safely harnessing the energy associated with the nuclear fission reaction. In addition, the Navy collaborates with the private sector to build their reactors and then uses government trained personnel to serve as operators. Implementing the use of SMRs as a secure source of energy for our critical military facilities will leverage this knowledge and experience.

## Px

### AT: Dollar Heg

#### Dollar hegemony is resilient

Adam Kritzer 10 is the lead editor of the Forex Blog and contributor to other leading financial news sites. B.A. in Economics from Penn, "Dollar Returns to Favor as World’s Reserve Currency" March 16 www.forexblog.org/2010/03/dollar-returns-to-favor-as-worlds-reserve-currency.html

Rumor has it that the Dollar is about to make a run. As the credit crisis slowly subsides, (currency) investors are once again looking at the long-term, and they like what they see when it comes to the Dollar.¶ For those that care to remember, 2008 was a great year for the Dollar, as the credit crisis precipitated an increase in risk aversion, and investors realized that despite its pitfalls, the Dollar was (and still is) the most stable and really the only viable global reserve currency. [This reversed a trend which had essentially been in place since the inception of the Euro in 1999]. In 2009, meanwhile, the Dollar resumed its multi-year decline, and many analysts were quick to label the rally of 2008 as an aberration.¶ Then came the debt crises, first in Dubai, then in Greece. Suddenly, a handful of smaller EU countries appeared vulnerable to fiscal crises. Japan officially became the first of the Aaa economies to receive a downgrade in its credit rating. The British Pound is dealing with crises on both the political and economic fronts. According to Moody’s, “The ratings of the Aaa governments — which also include Britain, France, Spain and the Nordic countries — are currently ’stable’…But…their ‘distance-to-downgrade’ has in all cases substantially diminished.” Suddenly, the Greenback doesn’t look so bad.¶ I want to point out that in forex, everything is relative. (Novice) forex investors are often baffled by how sustained economic and financial crises don’t immediately result in currency depreciation. The explanation is that when the crises are worse in (every) other countries, the base currency still looks attractive.¶ This is precisely the case when it comes to the US Dollar. To be sure, the economy is still flawed, financial markets have yet to fully to recover, the federal budget deficit topped $1.8 Trillion in 2009, and government finances seem close to the breaking point. Moody’s has also identified the US as a candidate for a ratings downgrade. And yet, when you look at the situation in every other currency that currently rivals the US for reserve currency status, the Dollar still wins hands down.¶ Its economy is the world’s largest. So are its financial markets, which are also the deepest and most liquid. Its sovereign finances are still manageable from the standpoint of debt-to-GDP and interest-to-revenue ratios. It is the only currency whose circulation can even come close to meeting the needs of global trade. Summarized S&P – when it confirmed the AAA credit rating of the US, “The dollar’s widespread acceptance stems from the U.S. economy’s fundamental strength, which in our view comes from the economy’s size and the flexibility of labor and product markets. We view U.S. banking and capital markets to be dynamic and unfettered relative to their peers.”¶ That’s why auctions of US Treasury bonds remain heavily oversubscribed (demand exceeds supply), despite the rock-bottom interest coupons. China has reaffirmed its commitment to Treasuries (what other choice does it have), confirmed by some forensic accounting work. Gold might continue to rally. So will other commodities, for all I know. Emerging market currencies are still in good shape as well, but none of these will seriously rival the US Dollar for a long-time, if ever. In short, when it comes to the other majors, the Dollar is still King: “You can say whatever you want, but the dollar is the currency of last resort. It’s the currency people want in a crisis.”

#### No impact to dollar decline---it would cause stable duopoly with the euro

Bergsten 9 C. Fred Bergsten, Peterson Institute for International Economics, “The Dollar and the Deficits: How Washington Can Prevent the Next Crisis,” Article in Foreign Affairs, Volume 88 No. 6, November/December 2009

Both the United States and the rest of the world have an interest in continued globalization and efficient international financial markets, and so neither has any interest in entirely eliminating the international role of the dollar. In any case, inertia is such a powerful force in financial matters that a sweeping step of this kind is technically impossible. Instead, the United States should encourage two eminently feasible changes in the current international monetary order. The first is the further evolution of a multiple-currency system in which other monies increasingly share the international position of the dollar in private markets. The euro, based on a collective European economy as large as the United States' and with capital markets as extensive in most respects, is the most obvious candidate. The euro **already rivals the dollar** in some domains, such as currency holdings and private bond placements, and will become a full competitor whenever the eurozone countries adopt a more common fiscal policy. The Chinese renminbi is likely to acquire a significant international role once China allows it to be converted for financial as well as current account transactions and eases capital controls. **Some** observers **fear that a system of multiple currencies is inherently unstable.** However, such a regime functioned smoothly for several decades before World War I, and a pound-dollar duopoly existed throughout the 1920s. A dollar-euro duopoly has **already begun to emerge** over the last decade. Competition between national currencies is likely to improve economic policies and performance by forcing market discipline on the governments and central banks behind these alternative currencies.

### 1AR XT – DOD Shields

#### No politician will oppose the plan---helps troops

Merchant 10 Political & Environment Columnist-Discovery, 10/21, “How the US Military Could Bring Solar Power to Mass Market,” http://www.treehugger.com/corporate-responsibility/how-the-us-military-could-bring-solar-power-to-mass-market.html

Furthermore, **Congress is infinitely more likely to approve funding for R&D**; and infrastructure **if the projects are military-related**. Which is depressing, but true -- the one thing that **no politician can get caught opposing is the safety of American troops.** In fact, the whole premise of the article is rather depressing, on point though it may be: The only way we may end up getting a competitive clean energy industry is through serious military investment, which is of course, serious government spending. Which **under any other guise would be vehemently opposed by conservatives.**

#### Plan shields controversy

Appelbaum 12 Binyamin, Defense cuts would hurt scientific R&D, experts say, The New York Times, 1-8, http://hamptonroads.com/2012/01/defense-cuts-would-hurt-scientific-rd-experts-say

Sarewitz, who studies the government's role in promoting innovation, said the Defense Department had been **more successful** than other federal agencies because it is the **main user of the innovations that it finances**. The Pentagon, which spends billions each year on weapons, equipment and technology, has an **unusually direct stake in the outcome** of its research and development projects.¶ "The central thing that distinguishes them from other agencies is that they are the customer," Sarewitz said. "You can't pull the wool over their eyes."¶ Another factor is the Pentagon's relative insulation from politics, which has allowed it to sustain a long-term research agenda **in controversial areas.** No matter which party is in power, the Pentagon has continued to invest in clean-energy technology, for example, in an effort to find ways to reduce one of its largest budget items, energy costs.

### 1AR XT – Hagel Pounder

#### Ignites huge controversy---previous comments

Allen 1/6 Mike, Politico Playbook, 2013, www.politico.com/playbook/0113/playbook9763.html

FLASH: President Barack Obama has chosen Chuck Hagel, a Republican and former U.S. senator from Nebraska, to succeed Defense Secretary Leon Panetta, with an announcement expected Monday, Democratic officials tell Playbook. The choice of Hagel, who opposed his party on the Iraq war as a senator, is likely to ignite a raucous confirmation battle, since several Democratic interest groups and prominent Republicans have voiced strong opposition since Hagel’s vetting for the job was reported five weeks ago.¶ A Democratic aide described the White House’s logic for choosing Hagel, age 66: “Chuck Hagel is a decorated war hero who would be the first enlisted soldier and Vietnam veteran to go on to serve as Secretary of Defense. He had the courage to break with his party during the Iraq War, and would help bring the war in Afghanistan to an end while building the military we need for the future.¶ “He has been a champion for troops, veterans and military families through his service at the VA and USO, and his leadership on behalf of the post-9/11 G.I. Bill. The President knows him well, has travelled with him to Iraq and Afghanistan, trusts him, and believes he represents the proud tradition of a strong, bipartisan foreign policy in the United States.”¶ Obama, who is due back at the White House at 10:45 a.m. Sunday, is expected to announce his nomination of Hagel on Monday, as his first public appearance after the continuation of his Hawaii vacation. Within a few days, and perhaps at the same time as the Hagel announcement, the president is likely to name his successor for former CIA Director David Petraeus. The candidates are John Brennan, White House homeland security and counterterrorism adviser, or Michael Morrell, acting CIA director.¶ Neoconservative Republicans have rallied against Hagel. More damaging with the Democratic-controlled Senate, gay-rights groups have marshaled opposition because of a 1998 quote from Hagel disparaging James C. Hormel as “openly aggressively gay,” after President Bill Clinton named him ambassador to Luxembourg.¶ A Senate Democratic official told us this morning: “I don't think Dems just fall in line. Ultimately, he may be confirmed. But at this stage, his fate is totally up in the air. He will really have to work hard to overcome some of his previous statements and positions.”

### No Impact – Econ/Investors

#### No econ impact---deal will be reached and markets will rebound

O'Kane 1/2 Josh, "'Cliff' deal is no panacea for market", 2013, www.theglobeandmail.com/globe-investor/investment-ideas/cliff-deal-is-no-panacea-for-market/article6875372/

While the countdown is on to yet another show-stopping U.S. fiscal deadline, Mr. Sollbach said, “the U.S. isn’t going to default.” He expects another high-stakes drama to go down to the wire in February and March, but says that “crisis fatigue” is setting in among investors. “Ultimately, people realize they’re going to solve this thing,” Mr. Sollbach said.¶ This means investors should see clearer buying opportunities as details shape up ahead of the next bargaining deadlines.¶ Mr. Vasic calls himself “moderately constructive” despite his warnings. “There will be plenty of counterpunching opportunities in markets,” he said. While volatility will creep back into markets as the next deadline approaches, he said, “inevitably, they will rise again.”