# 1AC- Round 1

### Plan

#### The United States Department of Defense should procure small modular reactors for use on military bases within the United States.

### Advantage 1- Islanding

#### Small nuclear reactors key to prevent bases from being vulnerable to inevitable grid outages- the impact is nuclear war

Andres and Breetz 11

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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 in the next 3 years- smart grids fail

Huff 12

(Ethan A, staff writer at natural news “Hacking expert says catastrophic failure of smart energy grid within 3 year” <http://usahitman.com/hcfseg/>, SEH)

For at least the past five years, the federal government has been pushing utility companies across America to “upgrade” their infrastructures to support “smart grid” technology that allows two-way communication with, and centralized control of, the energy grid through an internet-based network. But cyber expert David Chalk says that a complete and catastrophic failure of the entire smart energy grid is definitely going to occur within the next three years, and that few are aware of this.¶ Traditionally, the electric meters attached to structures, the wired and underground poles that deliver electricity to them, and the plants where electricity are generated have all been operated and maintained independently by field workers who gather data in a one-way system of communication. In other words, when a problem occurs with an electric meter or a pole in the traditional system, an expert has to go out and assess the problem, as there is no automated way for the system itself to send feedback.¶ For this reason and others, many have hailed smart grid technology as the solution, and as the way to bring the electric grid into the 21st century. But according to Chalk and many other experts in the field, smart grid technology is highly vulnerable to cyber attacks, and the technology is so digitally centralized that hackers are sure to “crack the code,” so to speak, and eventually bring down the system.¶ “We’re in a state of crisis,” says Chalk. “The front door is open and there is no lock to be had. There is not a power meter or device on the grid that is protected from hacking — if not already infected — with some sort of trojan horse that can cause the grid to be shut down or completely annihilated.”¶ Solar storms, digital warfare threaten to bring down the smart grid¶ Smart grid technology is also vulnerable to failure from solar storms and digital warfare, both of which could quickly take down the entire system in an instant, leaving millions, and potentially billions, of people in the dark without power. Smart grid technology also comes with its own unique health and privacy risks that are being ignored by its proponents as well.¶ “Unless we wake up and realize what we’re doing, there is 100 percent certainty of total catastrophic failure of the entire power infrastructure within three years,” adds Chalk. “This could actually be worse than a nuclear war, because it would happen everywhere. How governments and utilities are blindly merging the power grid with the Internet, and effectively without any protection, is insanity at its finest.”

#### Grids goes down- laundry list of reasons

Slavo 7/12

(Mac is editor of shftplan, “UPDATE: Cascading Grid Crash: Now 600 Million Without Power in India (Are We Vulnerable?)” <http://www.shtfplan.com/headline-news/paralysis-grid-down-in-india-370-million-left-without-power_07302012>, SEH)

The power grid in the United States, while more advanced and apparently better maintained, is also under excessive strain as has been witnessed in recent years with rolling brownouts, blackouts, and unforeseen crashes resulting from key component failure.¶ One industry insider who has worked in the utility industry for nearly two decades advised this author recently that it wouldn’t take much to bring down the system even in the United States, potentially affecting tens of millions of customers. Though it’s the 21st century, many grid components in operation are, in some cases, as much as 40 years old, thus replacement parts are almost impossible to find. Other components, like massive transformers may take weeks or months to replace. In the event of a scenario where multiple components are targeted simultaneously, by either a man-made EMP or natural event, it is not too far of a stretch to suggest that the afflicted regions would be engulfed in pandemonium.¶ This potential for widespread failure is so plausible that former Congressman Roscoe Bartlett, who has spoken on the vulnerabilities of the US power grid, has advised that Those Who Can, Should Move Their Families Out Of the City:¶ After Hurricane Ike passed through the Houston area 2008 some 90% of the metropolitan was without power. While hospitals, police and critical infrastructure was restored within a few days, residents in outlying suburban areas experienced the outage for over three weeks. We witnessed the rapid loss of patience, increased anxiety and frustration, and the subsequent breakdown of interpersonal interaction at high-demand venues such as gas stations, where long lines, screaming matches and even fist fights became a common occurrence.¶ The bottom line: As demonstrated in India today, Quebec in 1989 (caused by a geo-magnetic storm originating from the sun), Ike in 2008, Hurricane Irene on the East coast in 2012 and the plethora of incidents that have taken place over the last couple of decades, the North American power grid, just as India’s, is susceptible to far-from-equilibrium situations, and sometimes it takes extended periods of time to get power up and running.¶ With just three major grids running the United States, our dependence on massive flows of electricity to power our home air conditioners, food refrigeration, communications, water and gas pump systems, and daily business operations could come to a screeching halt should the grid ever be struck by a natural disaster like a solar coronal mass ejection or a large-scale earthquake in California or on the Madrid fault. Likewise, as we’ve noted previously, rogue organizations looking to wreak havoc have already demonstrated the staggering security holes in our power, water and oil grid infrastructure, with leading cyber security firms noting that it is just a matter of time before disaster strikes.¶ While a short-term, isolated metropolitan outage can be dealt with by sourcing labor and supplies from unaffected areas of the country, considering that the US operates on three key power grid systems, a region-wide outage affecting just one of these nodes could lead to a cascading breakdown in the electrical power system that envelops the entire country.¶ The most dangerous possibility emerges when we look at threats posed by the sun or a rogue terror cell or nation that could deploy an Electro-Magnetic Pulse weapon (EMP / Super EMP) over American skies. It’s been surmised that either one of these possibilities could cause damage so staggering that the grid would be down for months, leaving millions without just-in-time food and gas delivery systems, medical care, local emergency response, or even clean water. According to one estimate, some 90% of Americans would die in such a scenario if the power wasn’t restored within one year.¶ Thus, it is clear that our power grids are a critical lifeline to keeping life as we know it in the world today operational. And, as we have seen historically and India this morning, power grids can and do crash – even in countries with hundreds of millions of residents.

#### Al Qaeda can and will pull off a cyber-attack – Al Qaeda video proves

Cloherty ‘12

(Jack Cloherty is the lead producer for the Justice Department/Homeland Security beat at World News. “Virtual Terrorism: Al Qaeda Video Calls for 'Electronic Jihad'” May 22, 2012 accessed online September 15, 2012 at http://abcnews.go.com/Politics/cyber-terrorism-al-qaeda-video-calls-electronic-jihad/story?id=16407875#.UFS0p42PVe-, TSW)

Al Qaeda may be turning its destructive attention to cyber-warfare against the United States. In a chilling video, an al Qaeda operative calls for "electronic jihad" against the United States, and compares vulnerabilities in vital American computer networks to the flaws in aviation security before the 9/11 attack.¶ The al Qaeda video calls upon the "covert mujahidin" to launch cyber attacks against the U.S. networks of both government and critical infrastructure, including the electric grid. The video was obtained by the FBI last year, and released today by the Senate Committee on Homeland Security and Governmental Affairs.¶ "This is the clearest evidence we've seen that al Qaeda and other terrorist groups want to attack the cyber systems of our critical infrastructure," Homeland Security and Governmental Affairs Committee Chairman Joe Lieberman, I-Conn., said in a statement.¶ "This video is troubling as it urges al Qaeda adherents to launch a cyber attack on America," said Sen. Susan Collins, R-Maine, the ranking member on the committee. "It's clear that al Qaeda is exploring all means to do us harm and this is evidence that our critical infrastructure is a target."¶ ¶ Dept. of Homeland Security¶ In this screenshot obtained by the FBI, an Al... View Full Size¶ ¶ If Israel Attacks Iran Watch Video¶ The national security community says the threat of cyber attack is real, and the gap between terrorist aspirations and capability is closing. The senior intelligence official at Cyber Command, Rear Adm. Samuel Cox, has said al Qaeda operatives are seeking the capability to stage cyber attacks against U.S. networks and terrorists could purchase the capabilities to do so from expert criminal hackers.¶ Increasing evidence also suggests that Iran is looking to commit cyber attacks against the United States, according to testimony last month before the House Committee on Homeland Security. Iran's sponsorship of terrorist groups takes on a new dimension in cyberspace, where it could develop a powerful cyber weapon and pass it on to a terrorist group..¶ Lieberman is using the al Qaeda video to underline what he says is the need for new legislation..¶ "Congress needs to act now to protect the American public from a possible devastating attack on our electric grid, water delivery systems, or financial networks," he said. "As numerous, bipartisan national security experts have said, minimum cyber security standards for those networks are necessary to protect our national and economic security. That is why the Senate needs to act on our bipartisan Cyber Security Act that requires minimum security performance requirements for key critical infrastructure cyber networks."¶ The Homeland Security Committee says the Department of Homeland Security received more than 50,000 reports of cyber intrusions or attempted intrusions since October, an increase of 10,000 reports over the same period the previous year.

#### Current policy of cyber deterrence risks spoofing- leads to nuclear war.

Gelinas 10

(Ryan Richard, thesis for Master of Arts¶ in Security Studies from Georgetown, “CYBERDETERRENCE AND THE PROBLEM OF ATTRIBUTION” <https://repository.library.georgetown.edu/bitstream/handle/10822/553494/gelinasRyan.pdf?sequence=1>, SEH)

The set of cases analyzed here demonstrate decisively that attribution of cyber attacks is ¶ technically difficult and often politically unpalatable. Established networking protocols allow ¶ easy spoofing and obfuscation of source, destination, and intent of packets as they stream around ¶ the world. Attribution, as demonstrated in these cases, is often circumstantial at best. While ¶ victims often have strong suspicions of attackers‘ identities built from pieces of intelligence, the ¶ decisions of war and peace involved in a deterrence policy require a higher level of confidence ¶ than a measured hunch. To reach even elementary levels of attribution significant resources, ¶ expertise, and time are required.¶ The chilling suspicion of the unknown unknowns, the realization that undetected attacks ¶ may be underway at any moment, is potentially paralyzing to any deterrence policy. A ¶ deterrence policy of ―I will attack you back if you attack me, but only if I find out that you did it‖ ¶ is not an appropriate cornerstone of a computer network defense strategy. Without a response, ¶ an attacker can assume that the victim is either unable to detect the attack or, even more ¶ emboldening, the victim is unable or unwilling to make good on its threat. Cyber attacks can be ¶ a powerful part of salami tactics on the part of the attacker. If attacks are unable to generate a ¶ deterrent response in the cyber realm, what other lines can the attacker cross?¶ Addressing cases where the victim state realizes that it is being attacked, Lt. Gen. Keith ¶ Alexander, director of the National Security Agency, recently proposed that his future U.S. ¶ CYBERCOMMAND would support a deterrence doctrine by attacking back in a proportional and discriminating way against the sources of any cyber attack against the United States.¶ 69¶ He ¶ extended this case specifically to those where the identities of the attackers are unknown. ¶ According to Gen. Alexander, the U.S. will attack back in accordance with the rules of ¶ engagement and in accordance with the principles of proportionality and discrimination, with the ¶ caveat that ―neither proportionality nor discrimination requires that we know who is responsible ¶ before we take defensive action.‖¶ 70¶ With statements like this, Gen. Alexander and others are ¶ providing a strong incentive for enemies of the U.S. to launch cyber attacks on the United States ¶ from third-party territory, hoping to lure the U.S. into conflict with a nation that had no role in or ¶ idea of the attack.¶ What the cases analyzed in this paper illustrate is that deterrence is a phenomenally poor ¶ choice as a core component in a computer network defense strategy. Bloviation and bluster, ¶ vowing deterrent responses to attacks, make for good sound bites and allow for easy porting of¶ deep deterrence scholarship to the cyber realm. But less flashy policies and measures are more ¶ effective. Defense in depth, better security standards for software and hardware, robust ¶ computer network intelligence systems, and information sharing between and among industry ¶ and government are all good and necessary elements of a more successful computer network ¶ defense strategy. Combined with aggressive hack-back defensive measures that work to disrupt ¶ or exploit attacker infrastructure, vital networks will be better defended and deterrence as a ¶ general national policy tool will be better preserved for realms where it is more applicable.

#### That risks terrorism

Defense Science Board 8

(The DSB is a Federal ¶ Advisory Committee established to provide independent advice to the Secretary of ¶ Defense, “More Fight – Less Fuel” <http://www.acq.osd.mil/dsb/reports/ADA477619.pdf>, SEH)

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. About 85% of the energy infrastructure upon which DoD ¶ depends is commercially owned, and 99% of the electrical energy DoD installations ¶ consume originates outside the fence.¶ 3¶ As noted below, however, the grid 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. ¶ 2.3.1 State of the Grid ¶ The U.S.-Canadian electric grid is very efficient and cost effective but its design metric ¶ is efficiency more than resiliency. As a consequence, it is vulnerable to natural disaster or deliberate attack. The Task Force received several briefings from the Mission ¶ Assurance Division at Dahlgren (MAD), the Department of Energy and the utility ¶ industry. Based on these briefings, the Task Force is concerned about the condition of ¶ the grid and the ability to effect timely repairs. ¶ This concern extends not only to the complete dependency of critical national security ¶ missions on the grid, but also to its centrality to all facets of the nation’s economic life. ¶ To appreciate the seriousness of the impacts of an extended disruption, consider the ¶ 2003 Northeast blackout. At around 4:15pm EST on August 14, 2003 about 50 million ¶ people living in a 9,300 square mile area in the U.S. and Canada lost electrical power. ¶ More than 500 generating units at 265 power plants shut down during the outage, 22 of ¶ which were nuclear. Those plants took about two weeks to regain full capacity, and lost ¶ an average of more than half their capacity for 12 days. The shutdown was in part ¶ precautionary in nature. If an imbalance between load and supply occurs, power lines ¶ grow longer and sag from overheating and other hardware can fail. These imbalances ¶ can damage equipment that is hard-to-repair, requires long lead time to produce and is ¶ expensive. So, the grid quickly disconnects itself when a threatening imbalance is ¶ detected. Nuclear plants are required for safety reasons to shut down when the grid ¶ they’re connected to is de-energized.¶ 4¶ A U.S.-Canada Task Force found the main cause of the blackout to be the failure of a ¶ utility in Ohio to properly trim trees near a power line, causing the first in what became a ¶ set of cascading failures.¶ 5¶ Secretary of Energy Spencer Abraham said there would be ¶ no punishment for the utility because current U.S. law does not require electric reliability ¶ standards. However, the Energy Policy Act of 2005 (EPAct 2005) gave the Federal ¶ Energy Regulatory Commission (FERC) new authority to direct the industry to develop ¶ reliability standards. It directs FERC to designate an Electric Reliability Organization ¶ (ERO) to develop and propose reliability standards, which only after agreement by the ¶ industry become mandatory. The ERO chosen by the FERC is a volunteer, industry run ¶ organization. While FERC oversight of industry developed standards is an ¶ improvement over the previous situation, the Task Force remains concerned that FERC ¶ may be unable to reduce the risk to critical DoD missions to acceptable levels in a ¶ reasonable timeframe. ¶ Some have argued that the August 2003 incident shows that the protections built into ¶ the grid worked. Within several hours electricity was restored to many areas, though a ¶ few areas waited nearly a week. However, the incident highlights how easily the power ¶ grid could be taken down. Also, quick restoration was possible because no significant ¶ equipment was damaged, something that might not occur in future incidents. Further, ¶ during the blackout most systems failed that would detect unauthorized border ¶ crossings, port landings, or unauthorized access to vulnerable sites. Future such blackouts could be exploited for terrorist activity, with potentially far more catastrophic ¶ results. ¶ These risks exist elsewhere than in the U.S. For example, on September 28, 2003 Italy ¶ experienced the largest of a series of blackouts suffered through that year, affecting a ¶ total of 56 million people, and spilling into Switzerland.¶ 6¶ It was also the most serious ¶ blackout in Italy in 20 years. DoD installations located outside the continental United ¶ States (OCONUS) are dependent on the commercial grids serving their locations. ¶ Security of their power supplies and continuation of their missions is as important as ¶ within the U.S.

#### Numerous attempts prove our impact

Wagner 9/11

(Dr. Abraham R. Wagner is a Professor of International and Public Affairs at the ¶ Arnold A. Saltzman Institute of War & Peace Studies at Columbia University. “Counter-Terrorism Technologies -- Taking Stock on 9/11” 09/11/2012 2:13 pm accessed online September 11, 2012 at <http://www.huffingtonpost.com/abraham-r-wagner/counterterrorism-technolo_b_1874521.html>, TSW)

On this 11th anniversary of the 9/11 attacks, it makes sense to take stock of where the nation has progressed in its effort to deter and combat future terrorist attacks, both at home and abroad. The 9/11 attacks came as a shock, and have rightfully come to be regarded as a major U.S. intelligence failure. In the aftermath, the nation undertook significant organizational reforms designed to enable more effective intelligence and law enforcement operations against evolving terrorist threats. The country also looked to see what science, engineering and technology could do to help addresses these threats.¶ Technology has long been the nation's strong suit. Americans tend to believe that where there is a problem, there must certainly be a solution and it most likely involves technology and money. During the decade that followed 9/11, billions of dollars were spent on a vast range of programs and technologies in the name of counter-terrorism. For the first two years after 9/11, I joined with other scientists and engineers at the Department of Defense and the Intelligence Community in efforts to identify the most promising approaches to the problem. Ultimately we found that there was no magic bullet or perfect solution to this thorny problem, but were able to suggest a range of investments that could be made to address the evolving terrorist threat.¶ An honest assessment of these investments in counter-terrorism technologies reveals that the results have been mixed -- as one might well expect. A combination of greatly improved intelligence and law enforcement personnel have employed some of the better technologies with considerable success. Indeed, some 45 terrorist plots have been stopped and others deterred. How much of this has been simply luck and how much can be traced to any new technology program is a matter of debate, and there are clearly examples of both that can be found.¶ One area where technology has made a significant contribution has been in new systems to aid in intelligence and surveillance against terrorist operations. While terrorists may hold to an eighth century ideology, they have not been reluctant to employ 21st century communications and information technologies. They have utilized the Internet and cell phones for a number of purposes, and at the time of 9/11 the nation was in need of systems to intercept and sort out terrorist communications. While highly sensitive, public disclosures about several key programs show that considerable progress has been made in this critical area, giving the intelligence agencies some key tools in locating terrorists and stopping their plots. Aside from communications intercept, a new area of "data mining" has also shown considerable promise in locating terrorists and their plots.¶ At the same time, several of key surveillance programs used for counter-terrorism have come under fire from civil liberties groups as being unconstitutional violations of the Fourth Amendment privacy protections, and others. Critics of the Bush Administration saw this as "running roughshod over the Constitution." Even now there are still federal court challenges to laws such as the 2008 FISA Amendments Act and others that have enabled counter-terrorist efforts since 9/11. Ultimately a balance needs to be struck between the essential needs for intelligence to thwart future attacks and protected privacy rights, but as yet it remains an unsettled area where the Supreme Court will need to rule at some future point in time.¶ Less controversial have been efforts over the past decade to employ new information technologies to what has been termed the Information Sharing Environment -- collaborative efforts to best utilize available intelligence and other data among the various federal, state and local agencies with counter-terrorism responsibilities. While certainly some progress has been made over the past 11 years, the net result is largely a national embarrassment, and clearly a triumph of politics over physics. The information and communications technologies are all well-developed, but multiple bureaucracies have generated a set of plans and an even larger set of excuses as to why the fundamental problems in this area remain to be solved.

#### Leads to a bioattack.

De Rugy and Pena 2

, \*policy analyst, \*senior defense policy analyst at the Cato Institute, (Veronique and Charles, “ Responding to the Threat of Smallpox Bioterrorism An Ounce of Prevention Is Best Approach” April 18, Policy Analysis No. 432 <http://www.cato.org/pubs/pas/pa434.pdf>)

There is evidence that al-Qaeda members have been trying to acquire nuclear materials since at least 1994 and have experimented with using chemical weapons (cyanide).4 Intelligence sources have pointed to an alQaeda training camp (called abu-Khabab after the Egyptian chemical-biological weapons expert who directed it) outside Jalalabad, Afghanistan, as a chemical and biological weapons training facility.5 And a manual (“Encyclopedia of Afghan Resistance”) distributed on CD-ROM includes a section on how to make chemical and biological weapons.6 Finally, there is evidence that the September 11 terrorists were interested in crop-dusters, which could be used to distribute a chemical or biological agent.7 Terrorism and WMD Although the use of any WMD by a terrorist group would be an event of devastating proportions, there are differences worth noting and understanding between potential nuclear, chemical, and biological terrorist attacks. A low-yield nuclear weapon would cause immediate damage to a circumscribed area by explosive blast, overpressure, extreme heat, and radiation. If such a weapon were detonated in a major metropolitan area, the casualties would likely be in excess of 100,000 dead, injured, and subjected to lethal doses of radiation.8 The Aum Shinrikyo cult used a chemical weapon, Sarin (a nerve agent so deadly that a single drop on the skin can be fatal) in the 1995 Tokyo subway attack. The attack was not a complete success because of ineffective dissemination, but 12 people died and nearly 3,800 were injured.9 Aum Shinrikyo also used VX (10 to 1,000 times stronger than Sarin) in four other attacks. Those attacks were targeted against specific individuals or groups of people rather than aimed at inflicting massive casualties. In one instance, there was 1 fatality and in another 20 deaths, but the other attacks failed because of ineffective release of the VX agent.10 It is estimated that, under ideal conditions, a quart of VX properly distributed in a major metropolitan area could kill about 12 million people in 60 minutes.11 As catastrophic as either a nuclear or a chemical terrorist attack would be, the effects of the attack would be immediate and limited to people in the vicinity of the attack. Although the damage and casualties would likely be an order of magnitude or more greater than those of the World Trade Center attacks, it would be possible to know that an attack had taken place and respond accordingly. According to D. A. Henderson at Johns Hopkins University, “After an explosion or a chemical attack, the worst effects are quickly over, the dimensions of the catastrophe can be defined, the toll of injuries and deaths can be ascertained, and efforts can be directed to stabilization and recovery.”12 Bioterrorism Is Different from Nuclear or Chemical Attacks The nature of bioterrorism, however, is very different from that of nuclear or chemical attacks. Biological agents are diseasecausing organisms. If the organisms used are contagious pathogens, their effects can be passed on unknowingly, thereby spreading the damage well beyond the people who are initially infected. If successful, a smallpox attack could be more devastating than even a nuclear weapon. Unlike a nuclear or chemical attack, a biological attack would not be detected immediately; there is usually an incubation period of several days to a few weeks before the first symptoms appear in infected persons. Furthermore, it would be difficult to know immediately whether infection was the result of a natural outbreak of a disease or of a premeditated release of the pathogen. And even if there is an antidote for the disease, detection of the attack may occur too late for the antidote to be effective. The devastation that could be caused by a biological attack can be demonstrated by the natural outbreak of influenza in the United States during the winter of 1918–19. The first signs of the influenza virus (the symptoms being no different than those of a common cold, which further highlights the difficulties associated with detecting and diagnosing biological infection) occurred in the spring of 1918 in military camps throughout the United States. American soldiers carried the flu to Europe where it mutated into a killer virus. Returning troops brought the disease back to the United States where it spread to the civilian population. By the fall of 1918 the United States was in the grips of an influenza epidemic that killed an estimated 675,000 Americans.13 But, unlike a natural outbreak of a disease such as influenza, a bioterrorist attack would be an intentional release of a deadly disease by a thinking enemy intent on inflicting mass casualties. In all likelihood, an effective bioterrorist attack would ultimately exact a similar or greater toll. The threat of bioterrorism is especially worrisome because of the vulnerability of the U.S. population to such an attack. Indeed, according to the Chemical and Biological Arms Control Institute, “The vulnerabilities of the United States to bioterrorism attack are virtually infinite.”14 As a result, the problem of bioterrorism can paralyze policymakers and response planners. Frequently, such a large threat is downplayed, dismissed, or ignored. For example, Milton Leitenberg at the Center for International and Security Studies at the University of Maryland wrote (before September 11), “As regards bioterrorism, the current national discussion is characterized by gross exaggeration, hype, and abstract vulnerability assessments.”15 Leitenberg further asserted, “The greatest problem that the United States—and the world—face regarding biological weapons is their proliferation among nation states, and not the potential of their use by non-state, or ‘terrorist’ actors.”16 In other words—at least before September 11—Leitenberg thought not only that the threat of bioterrorism was exaggerated but also that terrorists were not the problem the United States should focus on. September 11 demonstrated that the United States can ill afford such an attitude. No one can predict a bioterrorist attack with high certainty and confidence. But a simple “back of the envelope” threat assessment using a model used by Col. Lani Kass (USAF, Ret.) at the National War College,17 Vulnerability x Intentions x Capabilities = Threat provides insight about and understanding of the potential of a future bioterrorist attack. The vulnerability of the United States to such an attack is quite high. The attacks on the World Trade Center and the Pentagon demonstrate the seriousness of al-Qaeda’s intentions. The big unknown is whether alQaeda possesses the capabilities to carry out an attack with biological weapons. But, as demonstrated by September 11, the United States can ill afford to ignore the possibility. The Smallpox Threat A bioterrorist attack could come in one (or more) of many forms (plague, smallpox, or anthrax, for example). Of those, smallpox is the threat most often discussed. Concerns about smallpox as a potential bioweapon were heightened when Ken Alibek, a former deputy director of the Soviet Union’s civilian bioweapons program, alleged that the Soviet government produced the smallpox virus in large quantities and weaponized it. Alibek also contended that Russia continued the program after the disintegration of the USSR.18 Given the deterioration of the Russian military and the supporting industrial complex, there are legitimate concerns that equipment, expertise, and possibly even the virus or weaponized smallpox19 could have fallen into non-Russian hands.20 Smallpox is an especially serious threat because of its high case-fatality rate (30 percent or more of unvaccinated persons)21 and transmissibility (it spreads easily via inhalation of droplets or direct contact with contaminated objects such as clothing or bed linens).22 There is also no known effective treatment for smallpox.23 Smallpox has long been feared as the most devastating of all infectious diseases (before its supposed eradication from the world in 1978, smallpox had killed more people than any other infectious disease in human history),24 and its potential for devastation is far greater today since there has been no routine vaccination in the United States for more than 25 years. 25 Therefore, in a highly susceptible and mobile population, smallpox would be able to spread widely and rapidly. The smallpox virus is also easy to disperse. It is one of the smallest living organisms and can be easily prepared as an aerosol and released into the air in a crowded place such as a shopping mall or a sports stadium. Or a suicide terrorist with the virus could infect passersby simply by coughing and sneezing, which can release millions of virus particles into the air.26 One example of the magnitude of the consequences of a potential bioterrorist attack with smallpox is the Dark Winter exercise conducted in June 2001.27 Dark Winter was a fictional scenario depicting a terrorist attack using smallpox released via aerosol at three shopping malls in Oklahoma, Georgia, and Pennsylvania. On day 1 of the crisis (nine days after initial exposure), all that was known was that some two dozen people reported to hospitals in Oklahoma City (there were no similar signs of potential outbreak in Georgia and Pennsylvania where the dispersion was not as effective but nonetheless resulted in infected people) with flulike symptoms of a strange illness, which was later confirmed by the Centers for Disease Control as smallpox. Assuming that each case was expected to infect at least 10 other people,28 on day 6 of the crisis there were 2,000 known cases of smallpox and 300 deaths. Due to limited amounts (12 million doses) on hand, the reserve of smallpox vaccine was effectively used up on day 6. By day 12 of the crisis, there were 3,000 cases and 1,000 dead in 25 states. With no vaccine, the smallpox virus was projected to explode as follows: • After 3 weeks: 30,000 cases and 10,000 dead • After 5 weeks: 300,000 cases and 100,000 dead • After 7 weeks: 3 million cases and 1 million dead It is important to emphasize that the purpose of the Dark Winter exercise was not to make the case that smallpox is the weapon most likely to be used in a bioterrorist attack (it is impossible to make such predictions). However, the Dark Winter exercise did demonstrate that the use of a contagious pathogen as a weapon of bioterrorism can have devastating and far-reaching effects. The consequences of an attack with smallpox are potentially catastrophic, and such an attack is the only external threat to the continued existence of the United States other than a massive nuclear attack from Russia. Therefore, even if likelihood cannot be established, the effects of smallpox as a weapon of bioterrorism warrant taking the threat seriously in order to understand the efficacy of potential response options. Also, preventive measures, which might act as a potential deterrent, reduce the risk, and mitigate the consequences of an attack, need to be examined and evaluated.

#### Terrorists can obtain Bio-weapons and will use them – Syria Demise

Blair ‘12

(Charles P. Blair joined FAS in June 2010. He is the Senior Fellow on State and Non-State Threats. Born and raised in Los Alamos, New Mexico, Mr. Blair was an exchange student in Moscow in the mid-1980s, witnessing firsthand the closing salvos of the Cold War. Since the end of that era, Mr. Blair has worked on issues relating to the diffusion and diversification of weapons of mass destruction (WMD) in the context of proliferation amid the rise of mass casualty terrorism incidents and the centripetal and centrifugal elements of globalization. Mr. Blair’s work focuses on state and violent non-state actors (VNSA) – amid a dystopic and increasingly tribal world. “Fearful of a nuclear Iran? The real WMD nightmare is Syria” 1 MARCH 2012 accessed online August 22, 2012 at http://www.thebulletin.org/web-edition/op-eds/fearful-of-nuclear-iran-the-real-wmd-nightmare-syria)

As possible military action against Iran's suspected nuclear weapons program looms large in the public arena, far more international concern should be directed toward Syria and its weapons of mass destruction. When the Syrian uprising began more than a year ago, few predicted the regime of President Bashar al-Assad would ever teeter toward collapse. Now, though, the demise of Damascus's current leadership appears inevitable, and Syria's revolution will likely be an unpredictable, protracted, and grim affair. Some see similarities with Libya's civil war, during which persistent fears revolved around terrorist seizure of Libyan chemical weapons, or the Qaddafi regime's use of them against insurgents. Those fears turned out to be unfounded.¶ But the Libyan chemical stockpile consisted of several tons of aging mustard gas leaking from a half-dozen canisters that would have been impossible to utilize as weapons. Syria likely has one of the largest and most sophisticated chemical weapon programs in the world. Moreover, Syria may also possess an offensive biological weapons capability that Libya did not.¶ While it is uncertain whether the Syrian regime would consider using WMD against its domestic opponents, Syrian insurgents, unlike many of their Libyan counterparts, are increasingly sectarian and radicalized; indeed, many observers fear the uprising is being "hijacked" by jihadists. Terrorist groups active in the Syrian uprising have already demonstrated little compunction about the acquisition and use of WMD. In short, should Syria devolve into full-blown civil-war, the security of its WMD should be of profound concern, as sectarian insurgents and Islamist terrorist groups may stand poised to seize chemical and perhaps even biological weapons.¶ An enormous unconventional arsenal. Syria's chemical weapons stockpile is thought to be massive. One of only eight nations that is not a member of the Chemical Weapons Convention -- an arms control agreement that outlaws the production, possession, and use of chemical weapons -- Syria has a chemical arsenal that includes several hundred tons of blistering agents along with likely large stockpiles of deadly nerve agents, including VX, the most toxic of all chemical weapons. At least four large chemical weapon production facilities exist. Additionally, Syria likely stores its deadly chemical weapons at dozens of facilities throughout the fractious country. In contrast to Libya's unusable chemical stockpile, analysts emphasize that Syrian chemical agents are weaponized and deliverable. Insurgents and terrorists with past or present connections to the military might feasibly be able to effectively disseminate chemical agents over large populations. (The Global Security Newswire recently asserted that "[t]he Assad regime is thought to possess between 100 and 200 Scud missiles carrying warheads loaded with sarin nerve agent. The government is also believed to have several hundred tons of sarin agent and mustard gas stockpiled that could be used in air-dropped bombs and artillery shells, according to information compiled by the James Martin Center.")¶ Given its robust chemical weapons arsenal and its perceived need to deter Israel, Syria has long been suspected of having an active biological weapons program. Despite signing the Biological Weapons and Toxins Convention in 1972 (the treaty prohibits the development, production, and stockpiling of biological and toxin weapons), Syria never ratified the treaty. Some experts contend that any Syrian biological weapons program has not moved beyond the research and development phase. Still, Syria's biotechnical infrastructure undoubtedly has the capability to develop numerous biological weapon agents. After Israel destroyed a clandestine Syrian nuclear reactor in September 2007, Damascus may have accelerated its chemical and biological weapons programs.¶ It's hard to guard WMD when a government collapses. Although the United States and its allies are reportedly monitoring Syria's chemical weapons, recent history warns that securing them from theft or transfer is an extraordinary challenge. For example, during Operation Iraqi Freedom, more than 330 metric tons of military-grade high explosives vanished from Iraq's Al-Qaqaa military installation. Almost 200 tons of the most powerful of Iraq's high-explosives, HMX -- used by some states to detonate nuclear weapons -- was under International Atomic Energy Agency seal. Many tons of Al-Qaqaa's sealed HMX reportedly went missing in the early days of the war in Iraq. Forensic tests later revealed that some of these military-grade explosives were subsequently employed against US and coalition forces.¶ Even with a nationwide presence of 200,000 coalition troops, several other sensitive military sites were also looted, including Iraq's main nuclear complex, Tuwaitha. Should centralized authority crumble in Syria, it seems highly unlikely that the country's 50 chemical storage and manufacturing facilities -- and, possibly, biological weapon repositories -- can be secured. The US Defense Department recently estimated that it would take more than 75,000 US military personnel to guard Syria's chemical weapons. This is, of course, if they could arrive before any WMD were transferred or looted -- a highly unlikely prospect.¶ Complicating any efforts to secure Syria's WMD, post-Assad, are its porous borders. With Syria's government distracted by internal revolt and US forces now fully out of Iraq, it is plausible that stolen chemical or biological weapons could find their way across the Syrian border into Iraq. Similarly, Syrian WMD could be smuggled into southern Turkey, Jordan, Lebanon, the West Bank, Israel, and, potentially, the United States and Europe.¶ At least six formal terrorist organizations have long maintained personnel within Syria. Three of these groups -- Hamas, Hizbollah, and Palestinian Islamic Jihad -- have already attempted to acquire or use chemical or biological agents, or both. Perhaps more troubling, Al Qaeda-affiliated fighters from Iraq have streamed into Syria, acting, in part, on orders from Al Qaeda leader Ayman al-Zawahiri. In the past, Al Qaeda-in-Iraq fighters attempted to use chemical weapons, most notably attacks that sought to release large clouds of chlorine gas. The entry of Al Qaeda and other jihadist groups into the Syrian crisis underscores its increasingly sectarian manifestation. Nearly 40 percent of Syria's population consists of members of minority communities. Syria's ruling Alawite regime, a branch of Shia Islam, is considered heretical by many of Syria's majority Sunni Muslims -- even those who are not jihadists. Alawites, Druze, Kurds, and Christians could all become targets for WMD-armed Sunni jihadists. Similarly, Shiite radicals could conceivably employ WMD agents against Syria's Sunnis.¶ Religious fanaticism and WMD. Evidence of growing religious fanaticism is also reflected in recent Syrian suicide attacks. Since last December, at least five suicide attacks occurred in Syria. In the 40 years preceding, only two suicide attacks were recorded. Al Qaeda-linked mujahidin are believed to be responsible for all of these recent attacks. Civil wars are often the most violent and unpredictable manifestations of war. With expanding sectarian divisions, the use of seized WMD in Syria's uprising is plausible. To the extent that religious extremists believe that they are doing God's bidding, fundamentally any action they undertake is justified, no matter how abhorrent, since the "divine" ends are believed to legitimize PDF the means.¶ The situation in Syria is unprecedented. Never before has a WMD-armed country fallen into civil war. All states in the region stand poised to lose if these weapons find their way outside of Syria. The best possible outcome, in terms of controlling Syria's enormous WMD arsenal, would be for Assad to maintain power, but such an outcome seems increasingly implausible. And there is painfully little evidence that democratic forces are likely to take over in Syria. Even if they do eventually triumph, it will take months or years to consolidate control over the entire country.¶ If chaos ensues in Syria, the United States cannot go it alone in securing hundreds of tons of Syrian WMD. Regional leaders -- including some, such as Sunni Saudi Arabia and Shiite Iran, that are now backing the insurgency and the regime, respectively -- must come together and begin planning to avert a dispersion of Syrian chemical or biological weapons that would threaten everyone, of any political or religious persuasion, in the Middle East and around the world.

#### Extinction

Ochs 2

**(**Richard, Naturalist – Grand Teton National park with Masters in Natural Resource Management – Rutgers, “Biological Weapons must be abolished immediately” 6-9, http://www.freefromterror.net/other\_articles/abolish.html)

Of all the weapons of mass destruction, the genetically engineered biological weapons, many without a known cure or vaccine, are an extreme danger to the continued survival of life on earth. Any perceived military value or deterrence pales in comparison to the great risk these weapons pose just sitting in vials in laboratories. While a "nuclear winter," resulting from a massive exchange of nuclear weapons, could also kill off most of life on earth and severely compromise the health of future generations, they are easier to control. Biological weapons, on the other hand, can get out of control very easily, as the recent anthrax attacks has demonstrated. There is no way to guarantee the security of these doomsday weapons because very tiny amounts can be stolen or accidentally released and then grow or be grown to horrendous proportions. The Black Death of the Middle Ages would be small in comparison to the potential damage bioweapons could cause. Abolition of chemical weapons is less of a priority because, while they can also kill millions of people outright, their persistence in the environment would be less than nuclear or biological agents or more localized. Hence, chemical weapons would have a lesser effect on future generations of innocent people and the natural environment. Like the Holocaust, once a localized chemical extermination is over, it is over. With nuclear and biological weapons, the killing will probably never end. Radioactive elements last tens of thousands of years and will keep causing cancers virtually forever. Potentially worse than that, bio-engineered agents by the hundreds with no known cure could wreck even greater calamity on the human race than could persistent radiation. AIDS and ebola viruses are just a small example of recently emerging plagues with no known cure or vaccine. Can we imagine hundreds of such plagues? HUMAN EXTINCTION IS NOW POSSIBLE.

#### Even if it doesn’t kill everyone retaliation would

Conley 03

(Harry W., chief of the systems analysis Branch, Directorate of Requirements, Air and Space Power Journal- Spring 2003- http://www.airpower.maxwell.af.mil/airchronicles/apj/apj03/spr03/conley.html

The number of American casualties suffered due to a WMD attack may well be the most important variable in determining the nature of the US reprisal. A key question here is how many Americans would have to be killed to prompt a massive response by the United States. The bombing of marines in Lebanon, the Oklahoma City bombing, and the downing of Pan Am Flight 103 each resulted in a casualty count of roughly the same magnitude (150–300 deaths). Although these events caused anger and a desire for retaliation among the American public, they prompted no serious call for massive or nuclear retaliation. The body count from a single biological attack could easily be one or two orders of magnitude higher than the casualties caused by these events. Using the rule of proportionality as a guide, one could justifiably debate whether the United States should use massive force in responding to an event that resulted in only a few thousand deaths. However, what if the casualty count was around 300,000? Such an unthinkable result from a single CBW incident is not beyond the realm of possibility: “According to the U.S. Congress Office of Technology Assessment, 100 kg of anthrax spores delivered by an efficient aerosol generator on a large urban target would be between two and six times as lethal as a one megaton thermo-nuclear bomb.”46 Would the deaths of 300,000 Americans be enough to trigger a nuclear response? In this case, proportionality does not rule out the use of nuclear weapons. Besides simply the total number of casualties, the types of casualties- predominantly military versus civilian- will also affect the nature and scope of the US reprisal action. Military combat entails known risks, and the emotions resulting from a significant number of military casualties are not likely to be as forceful as they would be if the attack were against civilians. World War II provides perhaps the best examples for the kind of event or circumstance that would have to take place to trigger a nuclear response. A CBW event that produced a shock and death toll roughly equivalent to those arising from the attack on Pearl Harbor might be sufficient to prompt a nuclear retaliation. President Harry Truman’s decision to drop atomic bombs on Hiroshima and Nagasaki- based upon a calculation that up to one million casualties might be incurred in an invasion of the Japanese homeland 47- is an example of the kind of thought process that would have to occur prior to a nuclear response to a CBW event. Victor Utgoff suggests that “if nuclear retaliation is seen at the time to offer the best prospects for suppressing further CB attacks and speeding the defeat of the aggressor, and if the original attacks had caused severe damage that had outraged American or allied publics, nuclear retaliation would be more than just a possibility, whatever promises had been made.”48

### Advantage 2 Leadership

#### SMR key to nuclear leadership

Rosner and Goldberg 11

(Robert Rosner, astrophysicist and founding director of the Energy Policy Institute at Chicago. He was the director of Argonne National Laboratory from 2005 to 2009, Stephen Goldberg, Special Assistant to the Director, Argonne National Laboratory ¶ Senior Fellow, Energy Policy Institute at Chicago¶ Research Coordinator, Global Nuclear Future Initiative ¶ American Academy of Arts and Sciences, “Small Modular Reactors – Key to Future Nuclear Power ¶ Generation in the U.S.” Energy Policy Institute at Chicago, <http://csis.org/files/attachments/111129_SMR_White_Paper.pdf>, SEH)

As stated earlier, SMRs have the potential to achieve significant greenhouse gas emission ¶ reductions. They could provide alternative baseload power generation to facilitate the retirement ¶ of older, smaller, and less efficient coal generation plants that would, otherwise, not be good ¶ candidates for retrofitting carbon capture and storage technology. They could be deployed in ¶ regions of the U.S. and the world that have less potential for other forms of carbon-free ¶ electricity, such as solar or wind energy. There may be technical or market constraints, such as ¶ projected electricity demand growth and transmission capacity, which would support SMR ¶ deployment but not GW-scale LWRs. From the on-shore manufacturing perspective, a key point ¶ is that the manufacturing base needed for SMRs can be developed domestically. Thus, while the ¶ large commercial LWR industry is seeking to transplant portions of its supply chain from current ¶ foreign sources to the U.S., the SMR industry offers the potential to establish a large domestic ¶ manufacturing base building upon already existing U.S. manufacturing infrastructure and ¶ capability, including the Naval shipbuilding and underutilized domestic nuclear component and ¶ equipment plants. The study team learned that a number of sustainable domestic jobs could be ¶ created – that is, the full panoply of design, manufacturing, supplier, and construction activities – ¶ if the U.S. can establish itself as a credible and substantial designer and manufacturer of SMRs. ¶ While many SMR technologies are being studied around the world, a strong U.S. ¶ commercialization program can enable U.S. industry to be first to market SMRs, thereby serving ¶ as a fulcrum for export growth as well as a lever in influencing international decisions on ¶ deploying both nuclear reactor and nuclear fuel cycle technology. A viable U.S.-centric SMR ¶ industry would enable the U.S. to recapture technological leadership in commercial nuclear ¶ technology, which has been lost to suppliers in France, Japan, Korea, Russia, and, now rapidly ¶ emerging, China.

#### US dominance in SMR’s key to nuclear leadership which prevents proliferation

Loudermilk 11

(Micah J. Loudermilk is a Research Associate for the Energy & Environmental Security Policy program with the Institute for National Strategic Studies at National Defense University, “Small Nuclear Reactors and US Energy Security: Concepts, Capabilities, and Costs” Journal of Energy Security, May 2011, <http://www.ensec.org/index.php?option=com_content&view=article&id=314:small-nuclear-reactors-and-us-energy-security-concepts-capabilities-and-costs&catid=116:content0411&Itemid=375>, SEH)

Combating proliferation with US leadership¶ Reactor safety itself notwithstanding, many argue that the scattering of small reactors around the world would invariably lead to increased proliferation problems as nuclear technology and know-how disseminates around the world. Lost in the argument is the fact that this stance assumes that US decisions on advancing nuclear technology color the world as a whole. In reality, regardless of the US commitment to or abandonment of nuclear energy technology, many countries (notably China) are blazing ahead with research and construction, with 55 plants currently under construction around the world—though Fukushima may cause a temporary lull.¶ Since Three Mile Island, the US share of the global nuclear energy trade has declined precipitously as talent and technology begin to concentrate in countries more committed to nuclear power. On the small reactor front, more than 20 countries are examining the technology and the IAEA estimates that 40-100 small reactors will be in operation by 2030. Without US leadership, new nations seek to acquire nuclear technology turn to countries other than the US who may not share a deep commitment to reactor safety and nonproliferation objectives. Strong US leadership globally on nonproliferation requires a vibrant American nuclear industry. This will enable the US to set and enforce standards on nuclear agreements, spent fuel reprocessing, and developing reactor technologies.¶ As to the small reactors themselves, the designs achieve a degree of proliferation-resistance unmatched by large reactors. Small enough to be fully buried underground in independent silos, the concrete surrounding the reactor vessels can be layered much thicker than the traditional domes that protect conventional reactors without collapsing. Coupled with these two levels of superior physical protection is the traditional security associated with reactors today. Most small reactors also are factory-sealed with a supply of fuel inside. Instead of refueling reactors onsite, SMRs are returned to the factory, intact, for removal of spent fuel and refueling. By closing off the fuel cycle, proliferation risks associated with the nuclear fuel running the reactors are mitigated and concerns over the widespread distribution of nuclear fuel allayed.

#### That leads to runaway proliferation

Macalister 9

(Terry, energy editor of the Guardian, He is an award-winning journalist and has just produced a new ebook focusing on the opportunities and threats posed by industrialization of the Arctic. “New generation of nuclear power stations 'risk terrorist anarchy” <http://www.guardian.co.uk/environment/2009/mar/16/nuclearpower-nuclear-waste>. SEH)

The new generation of atomic power stations planned for Britain, China and many other parts of the world risks proliferation that could lead to "nuclear anarchy", a security expert warned in a report published today.¶ Governments and multilateral organisations must come up with a strategy to deal the impact of the new nuclear age, which will produce enough plutonium to make 1m nuclear weapons by 2075, argues Frank Barnaby from the Oxford Research Group thinktank in a paper for the Institute for Public Policy Research (IPPR).¶ "We are at a crossroads. Unless governments work together to safeguard nuclear energy supplies, the rise in unsecured nuclear technology will put us all in danger. Without this, we are hurtling towards a state of nuclear anarchy where terrorists or rogue states have the ways and means of making nuclear weapons or 'dirty bombs', the consequences of which are unimaginable," says Barnaby.¶ Any country choosing to operate new-generation nuclear reactors in future would have relatively easy access to plutonium, which is used to make the most efficient atomic weapons, along with the nuclear physicists and engineers to design them. These countries would be latent nuclear-weapon powers "and it is to be expected that some will take the political decision to become actual nuclear weapons powers," argues Barnaby in his paper submitted to the IPPR's independent Commission on National Security chaired by former Nato boss, Lord George Robertson.¶ The issue of nuclear proliferation security has been largely ignored until today as the nuclear power debate has concentrated on the economics, social issues and how to deal with radioactive waste.¶ Ministers in the UK have made clear their desire to see a new generation of facilities to replace existing ones at a time when North Sea gas is running out and the country needs to reduce its reliance on fossil fuels to meet its Kyoto protocol carbon emission targets. Nuclear power plants across the life cycle produce one third of the CO2 of gas-fired ones.¶ Barnaby says that a shortage of uranium for the kind of reactors that EDF and others are considering building in Britain could encourage them to reprocess fuel and produce more plutonium. But he is equally convinced that a nuclear renaissance will lead to fast breeder reactors which produce more nuclear fuel than they use and which could be useful to terrorists.¶ The Atomic Energy Agency and the Organisation for Economic Co-operation and Development have already suggested that uranium resources would last less than 70 years if processed using the current generation of light water nuclear reactors.¶ Barnaby wants the non-proliferation treaty strengthened at a "make or break" review conference next year and would also like to see countries as yet without nuclear capabilities discouraged from obtaining enriched uranium, a problem highlighted in the case of Iran.¶ Ian Kearns, deputy commissioner of the IPPR's security commission, said it was crucial that the rush to address climate change did not worsen the international security environment.¶ "A global nuclear renaissance, if badly managed, could bring enormous complications in terms of nuclear non-proliferation and terrorism. Policymakers need to be alert to the dangers and to construct policies that bring secure low-carbon energy and a stable nuclear weapons environment," he said.¶ Companies such as E.ON of Germany who want to build new nuclear plants in Britain declined to comment on the issue.

#### Proliferation risks nuclear war due to brinkmanship games- questions of deterrence miss the point.

Kroenig 12

(Matthew, assistant professor of Government at Georgetown University and a Stanton Nuclear Security Fellow at the Council on Foreign Relations, “The History of Proliferation Optimism: Does It Have A Future?” Non Proliferation Policy Center, <http://npolicy.org/article.php?aid=1182&tid=30#_ftn11>, SEH)

First and foremost, proliferation optimists do not appear to understand contemporary deterrence theory. I do not say this lightly in an effort to marginalize or discredit my intellectual opponents. Rather, I make this claim with all due caution and with complete sincerity. A careful review of the contemporary proliferation optimism literature does not reflect an understanding of, or engagement with, the developments in academic deterrence theory in top scholarly journals such as the American Political Science Review and International Organization over the past few decades.[35] While early optimists like Viner and Brodie can be excused for not knowing better, the writings of contemporary proliferation optimists ignore the past fifty years of academic research on nuclear deterrence theory. ¶ In the 1940s, Viner, Brodie, and others argued that the advent of Mutually Assured Destruction (MAD) rendered war among major powers obsolete, but nuclear deterrence theory soon advanced beyond that simple understanding.[36] After all, great power political competition does not end with nuclear weapons. And nuclear-armed states still seek to threaten nuclear-armed adversaries. States cannot credibly threaten to launch a suicidal nuclear war, but they still want to coerce their adversaries. This leads to a credibility problem: how can states credibly threaten a nuclear-armed opponent? Since the 1960s academic nuclear deterrence theory has been devoted almost exclusively to answering this question.[37] And, unfortunately for proliferation optimists, the answers do not give us reasons to be optimistic.¶ Thomas Schelling was the first to devise a rational means by which states can threaten nuclear-armed opponents.[38] He argued that leaders cannot credibly threaten to intentionally launch a suicidal nuclear war, but they can make a “threat that leaves something to chance.”[39] They can engage in a process, the nuclear crisis, which increases the risk of nuclear war in an attempt to force a less resolved adversary to back down. As states escalate a nuclear crisis there is an increasing probability that the conflict will spiral out of control and result in an inadvertent or accidental nuclear exchange. As long as the benefit of winning the crisis is greater than the incremental increase in the risk of nuclear war, threats to escalate nuclear crises are inherently credible. In these games of nuclear brinkmanship, the state that is willing to run the greatest risk of nuclear war before back down will win the crisis as long as it does not end in catastrophe. It is for this reason that Thomas Schelling called great power politics in the nuclear era a “competition in risk taking.”[40] This does not mean that states eagerly bid up the risk of nuclear war. Rather, they face gut-wrenching decisions at each stage of the crisis. They can quit the crisis to avoid nuclear war, but only by ceding an important geopolitical issue to an opponent. Or they can the escalate the crisis in an attempt to prevail, but only at the risk of suffering a possible nuclear exchange.¶ Since 1945 there were have been many high stakes nuclear crises (by my count, there have been twenty) in which “rational” states like the United States run a risk of nuclear war and inch very close to the brink of nuclear war.[41] By asking whether states can be deterred or not, therefore, proliferation optimists are asking the wrong question. The right question to ask is: what risk of nuclear war is a specific state willing to run against a particular opponent in a given crisis? Optimists are likely correct when they assert that Iran will not intentionally commit national suicide by launching a bolt-from-the-blue nuclear attack on the United States or Israel. This does not mean that Iran will never use nuclear weapons, however. Indeed, it is almost inconceivable to think that a nuclear-armed Iran would not, at some point, find itself in a crisis with another nuclear-armed power and that it would not be willing to run any risk of nuclear war in order to achieve its objectives. If a nuclear-armed Iran and the United States or Israel have a geopolitical conflict in the future, over say the internal politics of Syria, an Israeli conflict with Iran’s client Hezbollah, the U.S. presence in the Persian Gulf, passage through the Strait of Hormuz, or some other issue, do we believe that Iran would immediately capitulate? Or is it possible that Iran would push back, possibly even brandishing nuclear weapons in an attempt to deter its adversaries? If the latter, there is a real risk that proliferation to Iran could result in nuclear war.¶ An optimist might counter that nuclear weapons will never be used, even in a crisis situation, because states have such a strong incentive, namely national survival, to ensure that nuclear weapons are not used. But, this objection ignores the fact that leaders operate under competing pressures. Leaders in nuclear-armed states also have very strong incentives to convince their adversaries that nuclear weapons could very well be used. Historically we have seen that in crises, leaders purposely do things like put nuclear weapons on high alert and delegate nuclear launch authority to low level commanders, purposely increasing the risk of accidental nuclear war in an attempt to force less-resolved opponents to back down.¶ Moreover, not even the optimists’ first principles about the irrelevance of nuclear posture stand up to scrutiny. Not all nuclear wars would be equally devastating.[42] Any nuclear exchange would have devastating consequences no doubt, but, if a crisis were to spiral out of control and result in nuclear war, any sane leader would rather be facing a country with five nuclear weapons than one with thirty-five thousand. Similarly, any sane leader would be willing to run a greater risk of nuclear war against the former state than against the latter. Indeed, systematic research has demonstrated that states are willing to run greater risks and, therefore, more likely to win nuclear crises when they enjoy nuclear superiority over their opponent.[43] Proliferation optimists miss this point, however, because they are still mired in 1940s deterrence theory. It is true that no rational leader would choose to launch a nuclear war, but, depending on the context, she would almost certainly be willing to risk one. Nuclear deterrence theorists have proposed a second scenario under which rational leaders could instigate a nuclear exchange: a limited nuclear war.[44] By launching a single nuclear weapon against a small city, for example, it was thought that a nuclear-armed state could signal its willingness to escalate the crisis, while leaving its adversary with enough left to lose to deter the adversary from launching a full-scale nuclear response. In a future crisis between a nuclear-armed China and the United States over Taiwan, for example, China could choose to launch a nuclear attack on Honolulu to demonstrate its seriousness. In that situation, with the continental United States intact, would Washington choose to launch a full-scale nuclear war on China that could result in the destruction of many more American cities? Or would it back down? China might decide to strike hoping that Washington will choose a humiliating retreat over a full-scale nuclear war. If launching a limited nuclear war could be rational, it follows that the spread of nuclear weapons increases the risk of nuclear use. Again, by ignoring contemporary developments in scholarly discourse and relying exclusively on understandings of nuclear deterrence theory that became obsolete decades ago, optimists reveal the shortcomings of their analysis and fail to make a compelling case.

#### Proliferation draws major powers in to regional disputes

Kroenig 9

(Matthew, assistant professor of Government at Georgetown University and a Stanton Nuclear Security Fellow at the Council on Foreign Relations, “Beyond Optimism and Pessimism: ¶ The Differential Effects of Nuclear Proliferation” Harvard Kennedy School of Government, <http://belfercenter.ksg.harvard.edu/files/Beyond-Optimism-and-Pessimism.pdf>, SEH)

There is direct evidence that regional conflicts involving nuclear powers can ¶ encourage power-projecting states to become involved in nuclear disputes. Secretary of ¶ State Henry Kissinger was reluctant to aid Israel in the 1973 Yom Kippur War until Israeli ¶ Prime Minister Golda Meir threatened that, without U.S. assistance, she might be forced to ¶ use nuclear weapons against the Arab armies.¶ 52¶ In response, Kissinger reversed his decision ¶ and provided emergency aid to the Israeli Defense Forces.¶ 53¶ The Soviet Union also ¶ considered a military intervention to help its Arab proxies in the Yom Kippur War, causing ¶ the United States to go on nuclear alert, and leading leaders in both Moscow and ¶ Washington to consider the very real possibility that a conflict involving a regional nuclear ¶ power could spiral into a superpower war.¶ 54¶ Similarly, in 1999 and 2002, the United States became caught in diplomatic initiatives to prevent nuclear war in crises between the nuclear armed countries of India and Pakistan.¶ 55¶ ¶ Indeed, the expectation that powerful states will intervene in conflicts involving a ¶ nuclear-armed state is so firmly ingrained in the strategic thinking of national leaders that ¶ small nuclear powers actually incorporate it into their strategic doctrines. South Africa’s ¶ nuclear doctrine envisioned, in the event of an imminent security threat, the detonation of a ¶ nuclear weapon, not against the threatening party, but over the Atlantic Ocean in an attempt ¶ to jolt the United States into intervening on South Africa’s behalf.¶ 56¶ Israel’s nuclear ¶ doctrine was also constructed along similar lines. While the Israelis are notoriously silent ¶ about the existence and purpose of their nuclear arsenal, Francis Perrin, a French official ¶ who assisted in the development of Israel’s nuclear program in the 1950s and 1960s, ¶ explained that Israel’s arsenal was originally aimed “against the Americans, not to launch ¶ against America, but to say ‘If you don’t want to help us in a critical situation, we will require you to help us. Otherwise, we will use our nuclear bombs. Similarly, Pakistan’s surprise raid on Indian-controlled Kargil in 1999 was motivated partly by the expectation that Pakistan would be able to retain any territory it was able to seize quickly, because Pakistani officials calculated that the United States would never allow an extended conflict in nuclear South Asia.

#### That leads to great power war

Kroenig 9

(Matthew, assistant professor of Government at Georgetown University and a Stanton Nuclear Security Fellow at the Council on Foreign Relations, “Beyond Optimism and Pessimism: ¶ The Differential Effects of Nuclear Proliferation” Harvard Kennedy School of Government, <http://belfercenter.ksg.harvard.edu/files/Beyond-Optimism-and-Pessimism.pdf>, SEH)

Leaders in power-projecting states also fear that regional instability set off by nuclear¶ proliferation could entrap power-projecting states in a great power war. Other power projecting states, facing a mirror-image situation, may feel compelled to intervene in a crisis ¶ to secure their own interests, entangling multiple great powers in a regional conflict. In a¶ 1963 NIE, U.S. intelligence analysts assessed that “the impact of (nuclear proliferation in the¶ Middle East) will be the possibility that hostilities arising out of existing or future ¶ controversies could escalate into a confrontation involving the major powers.”¶ 67¶ President ¶ Johnson believed that a nuclear Israel meant increased Soviet involvement in the Middle¶ East and perhaps superpower war.¶ 68¶ If historical experience provides a guide, U.S. ¶ strategists at the time of writing are undoubtedly concerned by the possibility that China m¶ feel compelled to intervene in any conflict involving a nuclear-armed North Korea, making the Korean Peninsula another dangerous flash-point in the uncertain Sino-American strategic relationship.

#### US investment in SMRs key to beat china

Chu ‘10

(Mr. Chu is the U.S. Secretary of Energy. “America's New Nuclear Option” March 23, 2010 <http://online.wsj.com/article/SB10001424052748704231304575092130239999278.html>)

Perhaps most importantly, investing in nuclear energy will position America to lead in a growing industry. World-wide electricity generation is projected to rise 77% by 2030. If we are serious about cutting carbon pollution then nuclear power must be part of the solution. Countries such as China, South Korea and India have recognized this and are making investments in nuclear power that are driving demand for nuclear technologies. Our choice is clear: Develop these technologies today or import them tomorrow.¶ That is why—even as we build a new generation of clean and safe nuclear plants—we are constantly looking ahead to the future of nuclear power. As this paper recently reported, one of the most promising areas is small modular reactors (SMRs). If we can develop this technology in the U.S. and build these reactors with American workers, we will have a key competitive edge.¶ Small modular reactors would be less than one-third the size of current plants. They have compact designs and could be made in factories and transported to sites by truck or rail. SMRs would be ready to "plug and play" upon arrival.¶ If commercially successful, SMRs would significantly expand the options for nuclear power and its applications. Their small size makes them suitable to small electric grids so they are a good option for locations that cannot accommodate large-scale plants. The modular construction process would make them more affordable by reducing capital costs and construction times.¶ Their size would also increase flexibility for utilities since they could add units as demand changes, or use them for on-site replacement of aging fossil fuel plants. Some of the designs for SMRs use little or no water for cooling, which would reduce their environmental impact. Finally, some advanced concepts could potentially burn used fuel or nuclear waste, eliminating the plutonium that critics say could be used for nuclear weapons.

#### Without increasing nuclear technology, we lose out to China in nuclear leadership. The impact is Asian influence and proliferation.

Cullinane ‘11

[Scott Cullinane is a graduate student at the Institute of World Politics in Washington, D.C <http://www.ensec.org/index.php?option=com_content&view=article&id=319:america-falling-behind-the-strategic-dimensions-of-chinese-commercial-nuclear-energy&catid=118:content&Itemid=376> ETB]

Due to a confluence of events the United States has recently focused more attention on nuclear weapons policy than it has in previous years; however, the proliferation of commercial nuclear technology and its implications for America’s strategic position have been largely ignored. While the Unites States is currently a participant in the international commercial nuclear energy trade, America’s own domestic construction of nuclear power plants has atrophied severely and the US risks losing its competitive edge in the nuclear energy arena.¶ Simultaneously, the People’s Republic of China (PRC) has made great strides in closing the nuclear energy development gap with America. Through a combination of importing technology, research from within China itself, and a disciplined policy approach the PRC is increasingly able to leverage the export of commercial nuclear power as part of its national strategy. Disturbingly, China does not share America’s commitment to stability, transparency, and responsibility when exporting nuclear technology. This is a growing strategic weakness and risk for the United States. To remain competitive and to be in a position to offset the PRC when required the American government should encourage the domestic use of nuclear power and spur the forces of technological innovation.¶ History has recorded well American wartime nuclear developments which culminated in the July 1945 Trinity Test, but what happened near Arco, Idaho six years later has been overlooked. In 1951, scientists for the first time produced usable electricity from an experimental nuclear reactor. Once this barrier was conquered the atom was harnessed to generate electricity and permitted America to move into the field of commercial nuclear power. In the next five years alone the United States signed over 20 nuclear cooperation agreements with various countries. Not only did the US build dozens of power plants domestically during the 1960s and 1970s, the US Export-Import Bank also distributed $7.1 billion dollars in loans and guarantees for the international sale of 49 reactors. American built and designed reactors were exported around the world during those years. Even today, more than 60% of the world’s 440 operating reactors are based on technology developed in the United States. The growth of the US civilian nuclear power sector stagnated after the Three Mile Island incident in 1979 – the most serious accident in American civilian nuclear power history. Three Mile Island shook America’s confidence in nuclear power and provided the anti-nuclear lobby ample fuel to oppose the further construction of any nuclear power plants. In the following decade, 42 planned domestic nuclear power plants were cancelled, and in the 30 years since the Three Mile Island incident the American nuclear power industry has survived only through foreign sales and merging operations with companies in Asia and Europe. Westinghouse sold its nuclear division to Toshiba and General Electric joined with Hitachi. Even the highest levels of the American government came to cast nuclear power aside. President Bill Clinton bragged in his 1993 State of the Union Address that “we are eliminating programs that are no longer needed, such as nuclear power research and development.” ¶ America’s slow pace of reactor construction over the past three decades has stymied innovation and caused the nuclear sector and its industrial base to shrivel. While some aspects of America’s nuclear infrastructure still operate effectively, many critical areas have atrophied. For example, one capability that America has entirely lost is the means to cast ultra heavy forgings in the range of 350,000 – 600,000 pounds, which impacts the construction of containment vessels, turbine rotors, and steam generators. In contrast, Japan, China, and Russia all possess an ultra heavy forging capacity and South Korea and India plan to build forges in this range. Likewise, the dominance America enjoyed in uranium enrichment until the 1970s is gone. The current standard centrifuge method for uranium enrichment was not invented in America and today 40% of the enriched uranium US power plants use is processed overseas and imported. Another measure of how much the US nuclear industry has shrunk is evident in the number of companies certified to handle nuclear material. In the 1980s the United States had 400 nuclear suppliers and 900 holders of N-stamp certificates (N-stamps are the international nuclear rating certificates issued by the American Society of Mechanical Engineers). By 2008 that number had reduced itself to 80 suppliers and 200 N-stamp holders. A recent Government Accountability Office report, which examined data from between 1994 and 2009, found the US to have a declining share of the global commercial nuclear trade. However, during that same period over 60 reactors were built worldwide. Nuclear power plants are being built in the world increasingly by non-American companies.¶ The American nuclear industry entered the 1960s in a strong position, yet over the past 30 years other countries have closed the development gap with America. The implications of this change go beyond economics or prestige to include national security. These changes would be less threatening if friendly allies were the ones moving forward with developing a nuclear export industry;however, the quick advancement of the PRC in nuclear energy changes the strategic calculus for America.¶ The shifting strategic landscape¶ While America’s nuclear industry has languished, current changes in the world’s strategic layout no longer allow America the option of maintaining the status quo without being surpassed. The drive for research, development, and scientific progress that grew out of the Cold War propelled America forward, but those priorities have long since been downgraded by the US government. The economic development of formerly impoverished countries means that the US cannot assume continued dominance by default. The rapidly industrializing PRC is seeking its own place among the major powers of the world and is vying for hegemony in Asia; nuclear power is an example of their larger efforts to marshal their scientific and economic forces as instruments of national power.¶ The rise of China is a phrase that connotes images of a backwards country getting rich off of exporting cheap goods at great social and environmental costs. Yet, this understanding of the PRC has lead many in the United States to underestimate China’s capabilities. The Communist Party of China (CPC) has undertaken a comprehensive long-term strategy to transition from a weak state that lags behind the West to a country that is a peer-competitor to the United States. Nuclear technology provides a clear example of this. ¶ In 1978, General Secretary Deng Xiaoping began to move China out of the destructive Mao era with his policies of 'reform and opening.' As part of these changes during the 1980s, the CPC began a concerted and ongoing effort to modernize the PRC and acquire advanced technology including nuclear technology from abroad. This effort was named Program 863 and included both legal methods and espionage. By doing this, the PRC has managed to rapidly catch up to the West on some fronts. In order to eventually surpass the West in scientific development the PRC launched the follow-on Program 973 to build the foundations of basic scientific research within China to meet the nation’s major strategic needs. These steps have brought China to the cusp of the next stage of technological development, a stage known as “indigenous innovation.”¶ ¶ In 2006 the PRC published their science and technology plan out to 2020 and defined indigenous innovation as enhancing original innovation, integrated innovation, and re-innovation based on assimilation and absorption of imported technology in order improve national innovation capability. The Chinese seek to internalize and understand technological developments from around the world so that they can copy the equipment and use it as a point to build off in their own research. This is a step beyond merely copying and reverse engineering a piece of technology. The PRC sees this process of absorbing foreign technology coupled with indigenous innovation as a way of leapfrogging forward in development to gain the upper hand over the West. The PRC’s official statement on energy policy lists nuclear power as one of their target fields. When viewed within this context, the full range of implications from China’s development of nuclear technology becomes evident. The PRC is now competing with the United States in the areas of innovation and high-technology, two fields that have driven American power since World War Two. China’s economic appeal is no longer merely the fact that it has cheap labor, but is expanding its economic power in a purposeful way that directly challenges America’s position in the world.¶ ¶ The CPC uses the market to their advantage to attract nuclear technology and intellectual capital to China. The PRC has incentivized the process and encouraged new domestic nuclear power plant construction with the goal of having 20 nuclear power plants operational by 2020. The Chinese Ministry of Electrical Power has described PRC policy to reach this goal as encouraging joint investment between State Owned Corporations and foreign companies. 13 reactors are already operating in China, 25 more are under construction and even more reactors are in the planning stages. ¶ In line with this economic policy, China has bought nuclear reactors from Westinghouse and Areva and is cooperating with a Russian company to build nuclear power plants in Taiwan. By stipulating that Chinese companies and personnel be involved in the construction process, China is building up its own domestic capabilities and expects to become self-sufficient. China’s State Nuclear Power Technology Corporation has partnered with Westinghouse to build a new and larger reactor based on the existing Westinghouse AP 1000 reactor. This will give the PRC a reactor design of its own to then export. If the CPC is able to combine their control over raw materials, growing technical know-how, and manufacturing base, China will not only be a powerful economy, but be able to leverage this power to service its foreign policy goals as well.¶ Even though the PRC is still working to master third generation technology, their scientists are already working on what they think will be the nuclear reactor of the future. China is developing Fourth Generation Fast Neutron Reactors and wants to have one operational by 2030. Additionally, a Chinese nuclear development company has announced its intentions to build the “world’s first high-temperature, gas-cooled reactor” in Shandong province which offers to possibility of a reactor that is nearly meltdown proof. A design, which if proved successful, could potentially redefine the commercial nuclear energy trade.¶ The risk to America¶ The international trade of nuclear material is hazardous in that every sale and transfer increases the chances for an accident or for willful misuse of the material. Nuclear commerce must be kept safe in order for the benefits of nuclear power generation to be realized. Yet, China has a record of sharing dangerous weapons and nuclear material with unfit countries. It is a risk for America to allow China to become a nuclear exporting country with a competitive technical and scientific edge. In order to limit Chinese influence and the relative attractiveness of what they can offer, America must ensure its continuing and substantive lead in reactor technology.¶ ¶ The PRC’s record of exporting risky items is well documented. It is known that during the 1980s the Chinese shared nuclear weapon designs with Pakistan and continues to proliferate WMD-related material. According to the Office of the Director of National Intelligence to Congress, China sells technologies and components in the Middle East and South Asia that are dual use and could support WMD and missile programs. Jane’s Intelligence Review reported in 2006 that China,¶ Despite a 1997 promise to Washington to halt its nuclear technology sales to Iran, such assistance is likely to continue. In 2005, Iranian resistance groups accused China of selling Iran beryllium, which is useful for making nuclear triggers and maraging steel (twice as hard as stainless steel), which is critical for fabricating centrifuges needed to reprocess uranium into bomb-grade material. ¶ China sells dangerous materials in order to secure its geopolitical objectives, regardless if those actions harm world stability. There is little reason to believe China will treat the sale of nuclear reactors any differently. Even if the PRC provides public assurances that it will behave differently in the future, the CPC has not been truthful for decades about its nuclear material and weapons sales and hence lacks credibility. For example, in 1983 Chinese Vice Premier Li Peng said that China does not encourage or support nuclear proliferation. In fact, it was that same year that China contracted with Algeria, then a non-NPT [Non-Proliferation Treaty] state, to construct a large, unsafeguarded plutonium production reactor. In 1991 a Chinese Embassy official wrote in a letter to the The Washington Post that 'China has struck no nuclear deal with Iran.' In reality, China had provided Iran with a research reactor capable of producing plutonium and a calutron, a technology that can be used to enrich uranium to weapons-grade. It has been reported that even after United Nation sanctions were put on Iran, Chinese companies were discovered selling “high-quality carbon fiber” and “pressure gauges” to Iran for use in improving their centrifuges.¶ In 2004 the PRC joined the Nuclear Suppliers Groups (NSG), gaining international recognition of their growing power in the nuclear field. In spite of this opportunity for China to demonstrate its responsibility with nuclear energy, it has not fulfilled it NSG obligations. The PRC has kept the terms of its nuclear reactor sale to Pakistan secret and used a questionable legal technicality to justify forgoing obtaining a NSG waiver for the deal. Additionally, China chose to forgo incorporating new safety measures into the reactors in order to avoid possible complications.¶ A further consequence of China exporting reactors is that these countries may wish to control the fuel cycle which provides the uranium to power their new reactors. The spread of fuel cycle technology comes with two risks: enrichment and reprocessing. Uranium can be enriched to between 3% and 5% for reactor use, but the process can be modified to produce 90% enriched uranium which is weapons-grade. Even if a country only produces low enriched uranium they could easily begin enriching at a higher level if they so choose. Every new country that nuclear technology or information is spread to exponentially increases the risk of material being stolen, given to a third party or being used as the launching point for a weapons program. China’s history of proliferation and willingness to engage economically with very unsavory governments seems likely to increase the risks involving nuclear material.

#### U.S. leadership in Asia solves multiple scenarios for war

Goh 8

(Evelyn, Lecturer in International Relations in the Department of Politics and International Relations at the Univ of Oxford, International Relations of the Asia-Pacific, “Hierarchy and the role of the United States in the East Asian security order,” 2008 8(3):353-377, Oxford Journals Database)

This is the main structural dilemma: as long as the United States does not give up its primary position in the Asian regional hierarchy, China is very unlikely to act in a way that will provide comforting answers to the two questions. Yet, the East Asian regional order has been and still is constituted by US hegemony, and to change that could be extremely disruptive and may lead to regional actors acting in highly destabilizing ways. Rapid Japanese remilitarization, armed conflict across the Taiwan Straits, Indian nuclear brinksmanship directed toward Pakistan, or a highly destabilized Korean peninsula are all illustrative of potential regional disruptions. 5 Conclusion To construct a coherent account of East Asia’s evolving security order, I have suggested that the United States is the central force in constituting regional stability and order. The major patterns of equilibrium and turbulence in the region since 1945 can be explained by the relative stability of the US position at the top of the regional hierarchy, with periods of greatest insecurity being correlated with greatest uncertainty over the American commitment to managing regional order. Furthermore, relationships of hierarchical assurance and hierarchical deference explain the unusual character of regional order in the post-Cold War era. However, the greatest contemporary challenge to East Asian order is the potential conflict between China and the United States over rank ordering in the regional hierarchy, a contest made more potent because of the intertwining of regional and global security concerns. Ultimately, though, investigating such questions of positionality requires conceptual lenses that go beyond basic material factors because it entails social and normative questions. How can China be brought more into a leadership position, while being persuaded to buy into shared strategic interests and constrain its own in ways that its vision of regional and global security may eventually be reconciled with that of the United States and other regional players? How can Washington be persuaded that its central position in the hierarchy must be ultimately shared in ways yet to be determined? The future of the East Asian security order is tightly bound up with the durability of the United States’ global leadership and regional domination. At the regional level, the main scenarios of disruption are an outright Chinese challenge to US leadership, or the defection of key US allies, particularly Japan. Recent history suggests, and the preceding analysis has shown, that challenges to or defections from US leadership will come at junctures where it appears that the US commitment to the region is in doubt, which in turn destabilizes the hierarchical order. At the global level, American geopolitical over-extension will be the key cause of change. This is the one factor that Hierarchy and the role of the United States in the East Asian security order 373lead to both greater regional and global turbulence, if only by the attendant strategic uncertainly triggering off regional challenges or defections. However, it is notoriously difficult to gauge thresholds of over-extension. More positively, East Asia is a region that has adjusted to previous periods of uncertainty about US primacy. Arguably, the regional consensus over the United States as primary state in a system of benign hierarchy could accommodate a shifting of the strategic burden to US allies like Japan and Australia as a means of systemic preservation. The alternatives that could surface as a result of not doing so would appear to be much worse.

#### Asian wars go nuclear

Landy 2k

 National Security Expert @ Knight Ridder, 3/10

(Jonathan, Knight Ridder, lexis)

Few if any experts think China and Taiwan, North Korea and South Korea, or India and Pakistan are spoiling to fight. But even a minor miscalculation by any of them could destabilize Asia, jolt the global economy and even start a nuclear war. India, Pakistan and China all have nuclear weapons, and North Korea may have a few, too. Asia lacks the kinds of organizations, negotiations and diplomatic relationships that helped keep an uneasy peace for five decades in Cold War Europe. “Nowhere else on Earth are the stakes as high and relationships so fragile,” said Bates Gill, director of northeast Asian policy studies at the Brookings Institution, a Washington think tank. “We see the convergence of great power interest overlaid with lingering confrontations with no institutionalized security mechanism in place. There are elements for potential disaster.” In an effort to cool the region’s tempers, President Clinton, Defense Secretary William S. Cohen and National Security Adviser Samuel R. Berger all will hopscotch Asia’s capitals this month. For America, the stakes could hardly be higher. There are 100,000 U.S. troops in Asia committed to defending Taiwan, Japan and South Korea, and the United States would instantly become embroiled if Beijing moved against Taiwan or North Korea attacked South Korea. While Washington has no defense commitments to either India or Pakistan, a conflict between the two could end the global taboo against using nuclear weapons and demolish the already shaky international nonproliferation regime. In addition, globalization has made a stable Asia \_ with its massive markets, cheap labor, exports and resources \_ indispensable to the U.S. economy. Numerous U.S. firms and millions of American jobs depend on trade with Asia that totaled $600 billion last year, according to the Commerce Department.

### Solvency

#### SMRs deployable soon

U.S. Department of Commerce International Trade Administration 11

(“The Commercial Outlook for¶ U.S. Small Modular Nuclear¶ Reactors” <http://www.trade.gov/publications/pdfs/the-commercial-outlook-for-us-small-modular-nuclear-reactors.pdf>, SEH)

Although SMRs have significant potential and ¶ the market for their deployment is growing, their ¶ designs must still go through the technical and ¶ regulatory processes necessary to ensure that ¶ they can be safely and securely deployed. Lightwater technology–based SMRs may not be ready ¶ for deployment in the United States for at least ¶ a decade, and advanced designs might be even ¶ further off. Light-water SMRs and SMRs that have ¶ undergone significant testing are the most likely ¶ candidates for near-term deployment, because ¶ they are most similar to existing reactors that ¶ have certified designs and significant operating ¶ histories. NuScale is on track to submit its reactor ¶ design to the NRC by 2012, as is Babcock & Wilcox ¶ for its mPower design. In addition, GE-Hitachi, ¶ which already completed an NRC preapplication ¶ review for its PRISM reactor in 1994, plans to submit its PRISM design for certification in 2012. ¶ With fierce competition for commercial deployment of U.S. SMRs anticipated, the U.S. government is accelerating its efforts to support the ¶ licensing of new reactor designs. The fiscal year ¶ 2011 budget request for the Department of Energy ¶ includes $39 million for a program to support ¶ design certification of SMRs for commercial deployment, as well as a research and development ¶ portfolio that will address the technology development needs of both near- and longer-term SMRs. ¶ The Department of Energy is also in discussions ¶ with several U.S. companies to facilitate the lightwater SMR design certification by the NRC within ¶ a reasonable timeframe. The department also ¶ continues to support research and development ¶ efforts toward advanced reactor designs through ¶ the Advanced Reactor Concepts program, which ¶ focuses on metal-cooled reactor technologies.

#### Military procurement solves commercial use proliferation and islanding- avoid regulation

Andres and Loudermilk 10

(Richard B. Andres, 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, Micah J, Research Associate for the Energy & Environmental Security Policy program with the Institute for National Strategic Studies at National Defense University, “Small Reactors and the Military’s Role in Securing America’s Nuclear IndustryPosted” <http://robertmayer.wordpress.com/2010/08/28/small-reactors-and-the-militarys-role-in-securing-americas-nuclear-industryposted/>, SEH)

Unlike private industry, the military does not face the same regulatory and congressional hurdles to constructing reactors and would have an easier time in adopting them for use. By integrating small nuclear reactors as power sources for domestic U.S. military bases, three potential energy dilemmas are solved at the same time. First, by incorporating small reactors at its bases, the military addresses its own energy security quandary. The military has recently sought to “island” its bases in the U.S. -protecting them from grid outages, be they accidental or intentional. The Department of Defense has promoted this endeavor through lowering energy consumption on bases and searching for renewable power alternatives, but these measures alone will prove insufficient. Small reactors provide sufficient energy output to power military installations and in some cases surrounding civilian population centers.¶ Secondly, as the reactors become integrated on military facilities, the stigma on the nuclear power industry will ease and inroads will be created for the adoption of small-scale reactors as a viable source of energy. Private industry and the public will see that nuclear reactors can indeed be utilized safely and effectively, resulting in a renewed push toward the expansion of nuclear power. Although many of the same hurdles will still be in place, a shift in public opinion and a stronger effort by utilities, coupled with the demonstrated success of small reactors on military bases, could prove the catalysts necessary for the federal government and the NRC to take more aggressive action.¶ Finally, while new reactors are not likely in the near future, the military’s actions will preserve, for a while longer, the badly ailing domestic nuclear energy industry. Nuclear power is here to stay around the globe, and the United States has an opportunity to take a leading role in supplying the world’s nuclear energy and reactor technology. With the U.S. nuclear industry dormant for three decades, much of the attention, technology, and talent have concentrated overseas in countries with a strong interest in nuclear technology. Without the United States as a player in the nuclear energy market, it has little say over safety regulations of reactors or the potential risks of proliferation from the expansion of nuclear energy. If the current trend continues, the U.S. will reach a point where it is forced to import nuclear technology and reactors from other countries. Action by the military to install reactors on domestic bases will both guarantee the survival of the American nuclear industry in the short term, and work to solidify support for it in the long run.¶ Ultimately, between small-scale nuclear reactors and the U.S. military, the capability exists to revitalize America’s sleeping nuclear industry and promoting energy security and clean energy production. The reactors offer the ability to power domestic military bases, small towns, and other remote locations detached from the energy grid. Furthermore, reactor sites can house multiple units, allowing for greater energy production – rivaling even large reactors. Small reactors offer numerous benefits to the United States and a path initiated by the military presents a realistic route by which their adoption can be achieved.

#### DOD key- prevents unfavorable lock-in

Andres and Breetz 11

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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.

#### They have the personnel

Robitaille 12

(George, Department of Army Civilian, United States Army War College, “Small Modular Reactors: The Army’s Secure Source of Energy?” 21-03-2012, Strategy Research Project)

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.

#### SMR’s cost competitive with traditional electricity production

King et al 11

(Marcus King, Associate Director of Research at The George Washington University's Elliott School of International Affairs LaVar Huntzinger, Thoi Nguyen, “Feasibility of Nuclear Power on U.S.

Military Installations” <http://www.cna.org/sites/default/files/research/Nuclear%20Power%20on%20Military%20Installations%20D0023932%20A5.pdf>, SEH)

Our estimates for the cost of electricity produced by a small nuclear¶ power plant ranged from a low of $0.066 per kWh to a high of $0.203.¶ Our estimate using the default values we regard as “best” for the input¶ parameters was $0.081 per kWh. Compared with buying commercial¶ power at projected market prices, the lower and default estimates¶ make power from a nuclear power plant viable almost everywhere¶ (depending on the value DoD places on achieving the objectives for¶ switching to nuclear power). As the estimated cost of power from a¶ nuclear plant rises above $0.10 per kWh, there are fewer sites where¶ the option is viable and the highest estimates make the option unattractive almost everywhere.

#### Barely any waste

Tularak and Totev ‘11

(Thitidej, Office of Atoms for Peace, and Dr. Totju, Argonne National Laboratory, “IAEA Fellowship Work Report,” AM)

Reduced spent fuels and waste management obligation: Nuclear waste and spent fuels are another critical part in nuclear industry. They are sensitive in posting threats to people and environment. With most designs offering longer fuel lifetime and smaller amount of nuclear waste and spent fuels, SMRs are able to limit obligation in waste management and spent fuels or even have no spent fuel pool.

#### SMR’s are safe

Loudermilk 11

(Micah J. Loudermilk is a Research Associate for the Energy & Environmental Security Policy program with the Institute for National Strategic Studies at National Defense University, “Small Nuclear Reactors and US Energy Security: Concepts, Capabilities, and Costs” Journal of Energy Security, May 2011, <http://www.ensec.org/index.php?option=com_content&view=article&id=314:small-nuclear-reactors-and-us-energy-security-concepts-capabilities-and-costs&catid=116:content0411&Itemid=375>, SEH)

Promoting safer nuclear power¶ The debate over nuclear energy over the years has consistently revolved around the central question “Is nuclear power safe?” Certainly, the events at Fukushima illustrate that nuclear power can be unsafe, however, no energy source is without its own set of some inherent risks on the safety front—as last year’s oil spill in the Gulf of Mexico or the long-term environmental consequences of fossil fuel use demonstrate—and nuclear power’s operating record remains significantly above that of other energy sources. Instead, accepting the role that nuclear energy plays in global electricity generation, especially in a clean-energy environment, a more pointed question to ask is “How can nuclear power be made safer?”¶ Although large reactors possess a stellar safety record throughout their history of operation, SMRs are able to take safety several steps further, in large part due to their small size. Due to simpler designs as a result of advancing technology and a heavy reliance on passive safety features, many problems plaguing larger and earlier generations of reactors are completely averted. Simpler designs mean less moving parts, less potential points of failure or accident, and fewer systems for operators to monitor. Additionally, small reactor designs incorporate passive safety mechanisms which rely on the laws of nature—such as gravity and convection—as opposed to human-built systems requiring external power to safeguard the reactor in the event of an accident, making the reactor inherently safer.¶ Furthermore, numerous small reactor concepts incorporate other elements—such as liquid sodium—as coolants instead of the pressurized water used in large reactors today. While sodium is a more efficient heat-transfer material, it is also able to cool the reactor core at normal atmospheric pressure, whereas water which must be pressurized at 100-150 times normal to prevent it boiling away. As an additional passive safety feature, sodium’s boiling point is 575-750 degrees higher than the reactor’s operating temperature, providing an immense natural heat sink in the event that the reactor overheats. Even should an accident occur, without a pressurized reactor no radiation would be released into the surrounding environment.¶ Even on the most basic level, small reactors provide a greater degree of security by merit of providing lower energy output and using less nuclear fuel. To make up for the loss in individual reactor generating capacity, small reactors are generally designed as scalable units, enabling the siting of multiple units in one location to rival the output capacity of a large nuclear plant. However, with each reactor housed independently and powering its own steam turbine, an accident affecting one reactor would be limited to that individual reactor.

#### No structural impact to mining

Anderson 9/9/12

Corby, served from 2010 to 2011 as a committee member for the National Academy of Sciences study on uranium mining in Virginia. Anderson has more than 33 years of academic and applied global industrial experience in mining, metallurgical, energy, chemical, environmental, and materials engineering. He holds a Ph.D. in metallurgical engineering from the University of Idaho, “What the uranium mining study said and did not say,” <http://www2.timesdispatch.com/news/commentary/2012/sep/09/tdcomm03-what-the-uranium-mining-study-said-and-di-ar-2187800/>, AM

Much of the concern about uranium mining in Virginia is based on fears of an improbable catastrophic natural disaster releasing mill tailings. The NAS study directly addressed this concern and found that, "Over the past few decades, improvements have been made to tailings management systems to isolate tailings from the environment." Specifically, the report identified below-ground tailings disposal as a way to eliminate the possibility of catastrophic storm or flood-induced releases. Another concern expressed is the potential for groundwater contamination from the mine or tailings. Again, the NAS report addressed this directly: "To date, modern tailings disposal cells have been effective at preventing groundwater contamination." The report emphasized the effectiveness of runoff and wastewater collection systems, as well as buffer zones and groundwater monitoring wells surrounding the site to detect the slightest elevations in contaminant levels and prevent contaminated water from escaping the site.

# 2AC- Round 1

### Complexity

#### Perm do the plan and all non-mutually exclusive parts of the alternative – Scenario Planning is consistent with complexity theory

KAVALSKI ‘7

 (Emilian; University of Alberta, “The fifth debate and the emergence of complex international relations theory: notes on the application of complexity theory to the study of international life,” Cambridge Review of International Affairs, v. 20 n. 3, September)

In a further examination of the cognitive perspective, some proponents of CIR theory have suggested ‘scenarios’ as tools for the modelling of complexity (Feder 2002; Harcourt and Muliro 2004). Scenarios are defined as ‘imaginative stories of the future that describe alternative ways the present might evolve over a given period of time’ (Heinzen 2004, 4). They focus on subjective interpretations and perceptions. Understanding complexity, therefore, would depend on the relationship between the ‘cognitive schema’ (that is, available knowledge) and the ‘associative network’ (that is, the activation of the links between different concepts) of the observer (Bradfield 2004, 40). The suggestion is that in some sense ‘we create our own consciousness of complexity by seeking it out’ (LaPorte 1975, 329). In this respect, some proponents of CIR theory have asserted the analysis of discourses as an important distinction between human and nonhuman complex systems (Geyer 2003b, 26).14

The intellectual considerations of these epistemological frameworks suggest the challenging conceptual and methodological problems facing CIR theory. On a metatheoretical level, the problem stems from the realization that students of the complexity of international life can never be fully cognizant of the underlying truths, principles and processes that ‘govern reality’ because this would (i) involve (a degree of) simplification of complex phenomena (LaPorte 1975, 50), as well as (ii) imply ‘knowing the not knowable’ (Cioffi-Revilla 1998, 11). As suggested, analytically, the conscious consideration of complexity is hindered by the inherent difficulty of formalizing uncertainty and contingency (Whitman 2005, 105). Some commentators, therefore, have rejected the possibility of constructing comprehensive models for the study of complexity altogether in an attempt to overcome the trap of having to justify their methodologies in ways that are understandable to conventional IR. Therefore, a number of CIR proponents rely on ‘sensemaking’ (Browaeys and Baets 2003, 337; Coghill 2004, 53), ‘whatiffing’ (Beaumont 1994, 171) and other forms of ‘speculative thinking’ (Feder 2002, 114) for their interpretations of the complexity of international life. The claim is that the acceptance of endogeneity as a ‘fact’ of international life provides more insightful modes of analysis than the linear-regression-type approach of traditional IR (Johnston 2005 1040). Without ignoring some controversial aspects of incorporating ontological and epistemological reflection into methodological choices, the claim here is that CIR theory suggests intriguing heuristic devices that both challenge conventional wisdom and provoke analytical imaginations.

Complex international relations theory, therefore, proffers analytical tools both for explaining and understanding discontinuities. It is claimed that its approaches offer ‘antidotes’ to the anxiety that randomness engenders in traditional IR as well as provide a paradigm that accepts uncertainty as inevitable (Feder 2002, 117). Thus, in contrast to the typically linear perceptions of change in mainstream IR— that is, changes in variables occur, but the effect is constant—CIR suggests that ‘things suffer change’. The contention is that the unpredictability of the emergent patterns of international life needs to be conceptualized within the framework of self-organizing criticality—that is, their dynamics ‘adapt to, or are themselves on, the edge of chaos, and most of the changes take place through catastrophic events rather than by following a smooth gradual path’ (Dunn 2007, 99). Complex international relations, in other words, suggests that change entails the possibility of a ‘radical qualitative effect’ (Richards 2000, 1). Therefore, the alleged arbitrariness of occurrences that conventional IR might describe as the effects of randomness (or exogenous/surprising shocks) could (and, in fact, more often than not does) reflect ignorance of their interactions. In fact, the reference to ‘chance’ is merely a metaphor for our lack of knowledge of the dynamics of complexity (Smith and Jenks 2006, 273).

In this respect, CIR theory sketches the fifth debate in the study of international life (see Table 2). Its outlines follow the proposition of the Gulbenkian Commission to break down the division between ‘natural’ and ‘social’ sciences, since both are pervaded by ‘complexity’. Therefore, scholars should not be ‘conceiving of humanity as mechanical, but rather instead conceiving nature as active and creative [to make] the laws of nature compatible with the idea of novelty and of creativity’ (Wallerstein 1996, 61–63). Complex international relations (unlike other IR approaches) acknowledges that patterns of international life are panarchic ‘hybrids’ of physical and social relations (Urry 2003, 18) and advocates such fusion (through the dissolution of the outdated distinction) of scientific realities (Whitman 2005, 45–64). Its complex adaptive thinking in effect challenges the very existence of ‘objective standards’ for the assessment of competing knowledge claims, because these are ‘not nature’s, but rather always human standards, standards which are not given but made . . . adopted by convention by the members of a specific community’ (Hoffmann and Riley 2002, 304). The complex adaptive thinking of CIR theory, therefore, is an instance of ‘true thinking’—‘thinking that looks disorder and uncertainty straight in the face’ (Smith and Jenks 2006, 4).

### Linear Good Enough

#### Linear better than complexity

Levy 4

Levy, University of Massachusetts Chair of Management, 04

(David, November 19, 2004, “Applications and Limitations of Complexity Theory in Organization Theory and Strategy”, http://www.faculty.umb.edu/david\_levy/complex00.pdf, 9/22/12, atl)

Despite its attractions, the application of complexity theory to the social sciences is ¶ still in its infancy and some think that expectations are too high (Baumol and Benhabib ¶ 1989). Although many economic and social processes may resemble the patterns generated ¶ by simple nonlinear systems, that does not mean that we can easily model and forecast these ¶ phenomena; it is almost impossible to take a set of data and determine the system of rela- ¶ tionships that generates it (Butler 1990). In fact, there is considerable debate in the eco- ¶ nomics and finance literature about how one tests a data series to determine whether it is ¶ chaotic or simply subject to random influences (Brock and Malliaris 1989; Hsieh 1991). ¶ Moreover, it is important to recognize that many systems are not chaotic and that within ¶ certain parameters, linear approximations are good enough.

### Complexity Dumb

#### Complexity theory stems from hacks who don’t do real science

Phelan 1

Phelan, William G. Rohrer Professorial Chair in Entrepreneurship, 01

(Steven E., Director of the Center for Innovation & Entrepreneurship, Ph.D. in economics from La Trobe University, Australia; an M.B.A. in marketing from Monash University; and a B.S. in psychology from the University of Melbourne , “What Is Complexity Science, Really?” EMERGENCE, 3(1), 120–36 Copyright © 2001, Lawrence Erlbaum Associates, Inc., 8/10/12, atl)

The need for a special issue of Emergence on the question¶ “What is complexity science?” is disturbing on several levels. At one level, one could be forgiven for thinking that the¶ voluminous literature generated in recent years on chaos¶ and complexity theory must contain a clear exposition of the definition,¶ mission, and scope of complexity science. That this exposition has not¶ been forthcoming, or is the subject of controversy, is disconcerting. On¶ another level, the inability to differentiate science clearly from pseudoscience in complexity studies is also problematic. Allowing pseudoscience to penetrate a field of study lowers the credibility of that field¶ with mainstream scientists and hinders the flow of resources for future¶ development.¶ It is my contention that much of the work in complexity theory has¶ indeed been pseudo-science, that is, many writers in this field have used¶ the symbols and methods of complexity science (either erroneously or¶ deliberately) to give the illusion of science even though they lack supporting evidence and plausibility (Shermer, 1997). This proliferation of¶ pseudo-science has, in turn, obscured the meaning and agenda of the¶ science of complexity. The purpose of this article is twofold: to provide a¶ working definition of complexity science; and to use this definition to differentiate complexity science from complexity pseudo-science. This is a play in three acts. In the first section, I will undertake an examination of¶ science and the factors differentiating science from nonscience. In the¶ second section, I examine the relationship between complexity and¶ science, leading to a definition of complexity science. In the final section,¶ I offer a test for distinguishing between science and pseudo-science in¶ complexity studies and provide several examples of the latter. I also¶ describe why it is important for scientists working in the area vigorously¶ to reject pseudo-scientific theories.

#### Terrorists have religious motivations that make discourse and compromise meaningless. The only way to win the war we are in is to kill them before they kill us.¶

Peters 4

 - (Ralph, Retired Army Officer, “In Praise of Attrition,” Parameters, Summer)¶

Trust me. We don’t need discourses. We need plain talk, honest answers, and the will to close with the enemy and kill him. And to keep on killing him until it is unmistakably clear to the entire world who won. When military officers start speaking in academic gobbledygook, it means they have nothing to contribute to the effectiveness of our forces. They badly need an assignment to Fallujah. Consider our enemies in the War on Terror. Men who believe, literally, that they are on a mission from God to destroy your civilization and who regard death as a promotion are not impressed by elegant maneuvers. You must find them, no matter how long it takes, then kill them. If they surrender, you must accord them their rights under the laws of war and international conventions. But, as we have learned so painfully from all the mindless, left-wing nonsense spouted about the prisoners at Guantanamo, you are much better off killing them before they have a chance to surrender. We have heard no end of blather about network-centric warfare, to the great profit of defense contractors. If you want to see a superb—and cheap—example of “net-war,” look at al Qaeda. The mere possession of technology does not ensure that it will be used effectively. And effectiveness is what matters. It isn’t a question of whether or not we want to fight a war of attrition against religion-fueled terrorists. We’re in a war of attrition with them. We have no realistic choice. Indeed, our enemies are, in some respects, better suited to both global and local wars of maneuver than we are. They have a world in which to hide, and the world is full of targets for them. They do not heed laws or boundaries. They make and observe no treaties. They do not expect the approval of the United Nations Security Council. They do not face election cycles. And their weapons are largely provided by our own societies. We have the technical capabilities to deploy globally, but, for now, we are forced to watch as Pakistani forces fumble efforts to surround and destroy concentrations of terrorists; we cannot enter any country (except, temporarily, Iraq) without the permission of its government. We have many tools—military, diplomatic, economic, cultural, law enforcement, and so on—but we have less freedom of maneuver than our enemies. But we do have superior killing power, once our enemies have been located. Ultimately, the key advantage of a superpower is superpower. Faced with implacable enemies who would kill every man, woman, and child in our country and call the killing good (the ultimate war of attrition), we must be willing to use that power wisely, but remorselessly. We are, militarily and nationally, in a transition phase. Even after 9/11, we do not fully appreciate the cruelty and determination of our enemies. We will learn our lesson, painfully, because the terrorists will not quit. The only solution is to kill them and keep on killing them: a war of attrition. But a war of attrition fought on our terms, not theirs. Of course, we shall hear no end of fatuous arguments to the effect that we can’t kill our way out of the problem. Well, until a better methodology is discovered, killing every terrorist we can find is a good interim solution. The truth is that even if you can’t kill yourself out of the problem, you can make the problem a great deal smaller by effective targeting. And § Marked 10:25 § we shall hear that killing terrorists only creates more terrorists. This is sophomoric nonsense. The surest way to swell the ranks of terror is to follow the approach we did in the decade before 9/11 and do nothing of substance. Success breeds success. Everybody loves a winner. The clichés exist because they’re true. Al Qaeda and related terrorist groups metastasized because they were viewed in the Muslim world as standing up to the West successfully and handing the Great Satan America embarrassing defeats with impunity. Some fanatics will flock to the standard of terror, no matter what we do. But it’s far easier for Islamic societies to purge themselves of terrorists if the terrorists are on the losing end of the global struggle than if they’re allowed to become triumphant heroes to every jobless, unstable teenager in the Middle East and beyond. Far worse than fighting such a war of attrition aggressively is to pretend you’re not in one while your enemy keeps on killing you. Even the occupation of Iraq is a war of attrition. We’re doing remarkably well, given the restrictions under which our forces operate. But no grand maneuvers, no gestures of humanity, no offers of conciliation, and no compromises will persuade the terrorists to halt their efforts to disrupt the development of a democratic, rule-of-law Iraq. On the contrary, anything less than relentless pursuit, with both preemptive and retaliatory action, only encourages the terrorists and remaining Baathist gangsters.

## Framework

#### Framework: we get to weight the aff

#### Prevents mooting of the 1AC and makes sure we learn about the topic, at worst perm our interpretations

## Extinction Outweighs

#### We are the only intelligent life—extinction is a d-rule

**Leslie 96** (John, is a philosopher who focuses on explaining existence. “T H E E N D O F T H E WORLD”Pg 138, Donnie)

Ought we, then, to join the flying-saucer spotters who claim that extraterrestrials have in fact been seen? It could seem better to join Barrow and Tipler12 in reflecting that Earth could easily be the one and only place in the galaxy where advanced life (or any life) had been going to evolve. It is little use arguing that we need to treat the intelligence-carrying planet on which we find ourselves as fairly typical until we get evidence to the contrary—for if there were instead only a single intelligence-carrying planet in the universe, where else could we intelligent beings find ourselves? Very possibly, almost all galaxies will remain permanently lifeless. Quite conceivably the entire universe would for ever remain empty of intelligent beings if humans became extinct. Very primitive life might itself arise only after chemicals in some primeval soup had combined in highly improbable ways.13 The leap from primitive life to intelligent life could also be very difficult. And even if it were easy it might well not be made, because there was so little evolutionary advantage in making it. Think of the clever and curious animal putting its head into some dark hole and tell him to go to bone citygetting it snapped off. In view of all this we have a strong duty not to risk the extinction of the human race, and above all not to risk it for utterly trivial benefits. As soon as it became fairly clear that CFCs were efficient at destroying stratospheric ozone, their use for spraying deodorants into armpits ought to have been banned outright and world wide.

**Won’t cause extinction**

**Easterbrook ‘3**

(Gregg, senior fellow at The New Republic, July, Wired Magazine, “We’re All Gonna Die!” <http://www.wired.com/wired/archive/11.07/doomsday.html?pg=1&topic=&topic_set>=)

If we’re talking about doomsday - the end of human civilization - many scenarios simply don’t measure up. A single nuclear bomb ignited by terrorists, for example, would be awful beyond words, but life would go on. People and machines might converge in ways that you and I would find ghastly, but from the standpoint of the future, they would probably represent an adaptation. Environmental collapse might make parts of the globe unpleasant, but considering that the biosphere has survived ice ages, it wouldn’t be the final curtain. Depression, which has become 10 times more prevalent in Western nations in the postwar era, might grow so widespread that vast numbers of people would refuse to get out of bed, a possibility that Petranek suggested in a doomsday talk at the Technology Entertainment Design conference in 2002. But Marcel Proust, as miserable as he was, wrote Remembrance of Things Past while lying in bed.

## Multiple Condo Bad

#### A. Fairness- No stable 2AC offense can’t game for later in the debate, it’s not reciprocal and it also allows them read opposite positions and use our offense on one against us on the other.

#### B. Education- prevents deep debates, and just has the 2NR go for the argument with the least ink.

#### C. critical thinking- no stable 1NC advocacy, and it’s not real world.

#### D. Rejecting the team is the only way to remedy abuse

## PIKs Are Bad

#### 1. Steals 1AC offense

#### 2. Moots topic education

## Vague Alts Bad

#### Allows them to shift out of offense and gain unpredictable net benefits late in the debate

## First K

## Threats are Real

#### Threats are not socially constructed- decision makers use the most objective, rational, and accurate assessments possible- there are no bureaucratic or ideological motivations to invent threats.

Ravenal ‘9

[Earl C. Ravenal, distinguished senior fellow in foreign policy studies @ Cato, is professor emeritus of the Georgetown University School of Foreign Service. He is an expert on NATO, defense strategy, and the defense budget. He is the author of *Designing Defense for a New World Order.* What's Empire Got to Do with It? The Derivation of America's Foreign Policy.” *Critical Review: An Interdisciplinary Journal of Politics and Society* 21.1 (2009) 21-75]

Quite expectedly, the more doctrinaire of the non-interventionists take pains to deny any straightforward, and therefore legitimate, security motive in American foreign and military policy. In fact, this denial leads to a more sweeping rejection of any recognizably rational basis for American foreign policy, and, even, sometimes (among the more theoretical of the non-interventionists), a preference for non-rational accounts, or “models,” of virtually any nation’s foreign policy-making.4 One could call this tendency among anti-imperialists “motive displacement.” More specifically, in the cases under review here, one notes a receptivity to any reworking of history, and any current analysis of geopolitics, that denigrates “the threat”; and, along with this, a positing of “imperialism” (the almost self-referential and primitive impulse) as a sufficient explanation for the often strenuous and risky actions of great powers such as the United States. Thus, not only is “empire” taken to be a sufficient and, in some cases, a necessary condition in bringing about foreign “threats”; but, by minimizing the extent and seriousness of these threats, the anti-imperialists put themselves into the position of lacking a rational explanation for the derivation of the (pointless at best, counter-productive at worst) policies that they designate as imperialistic. A pungent example of this threat denigration and motive displacement is Eland’s account of American intervention in the Korean and Vietnam wars:

After North Korea invaded, the Truman administration intervened merely for the purpose of a demonstration to friends and foes alike. Likewise, according to eminent cold war historians, the United States did not inter- vene in Vietnam because it feared communism, which was fragmented, or the Soviet Union, which wanted détente with the West, or China, which was weak, but because it did not want to appear timid to the world. The behavior of the United States in both Korea and Vietnam is typical of imperial powers, which are always concerned about their reputation, pres- tige, and perceived resolve. (Eland 2004, 64)

Of course, the motive of “reputation,” to the extent that it exists in any particular instance, is a part of the complex of motives that characterize a great power that is drawn toward the role of hegemon (not the same thing as “empire”). Reputation is also a component of the power projec- tion that is designed to serve the interest of national security. Rummaging through the concomitants of “imperialism,” Eland (2004, 65) discovers the thesis of “threat inflation” (in this case, virtual threat invention): Obviously, much higher spending for the military, homeland security, and foreign aid are required for a policy of global intervention than for a policy of merely defending the republic. For example, after the cold war, the security bureaucracies began looking for new enemies to justify keeping defense and intelligence budgets high. Similarly, Eland (ibid., 183), in a section entitled “Imperial Wars Spike Corporate Welfare,” attributes a large portion of the U.S. defense budget—particularly the procurement of major weapons systems, such as “Virginia-class submarines . . . aircraft carriers . . . F-22 fighters . . . [and] Osprey tilt-rotor transport aircraft”—not to the systemically derived requirement for certain kinds of military capabilities, but, rather, to the imperatives of corporate pork. He opines that such weapons have no stra- tegic or operational justification; that “the American empire, militarily more dominant than any empire in world history, can fight brushfire wars against terrorists and their ‘rogue’ state sponsors without those gold- plated white elephants.”

The underlying notion of “the security bureaucracies . . . looking for new enemies” is a threadbare concept that has somehow taken hold across the political spectrum, from the radical left (viz. Michael Klare [1981], who refers to a “threat bank”), to the liberal center (viz. Robert H. Johnson [1997], who dismisses most alleged “threats” as “improbable dangers”), to libertarians (viz. Ted Galen Carpenter [1992], Vice President for Foreign and Defense Policy of the Cato Institute, who wrote a book entitled A Search for Enemies). What is missing from most analysts’ claims of “threat inflation,” however, is a convincing theory of why, say, the American government significantly (not merely in excusable rhetoric) might magnify and even invent threats (and, more seriously, act on such inflated threat estimates). In a few places, Eland (2004, 185) suggests that such behavior might stem from military or national security bureaucrats’ attempts to enhance their personal status and organizational budgets, or even from the influence and dominance of “the military-industrial complex”; viz.: “Maintaining the empire and retaliating for the blowback from that empire keeps what President Eisenhower called the military-industrial complex fat and happy.” Or, in the same section:

In the nation’s capital, vested interests, such as the law enforcement bureaucracies . . . routinely take advantage of “crises”to satisfy parochial desires. Similarly, many corporations use crises to get pet projects— a.k.a. pork—funded by the government. And national security crises, because of people’s fears, are especially ripe opportunities to grab largesse. (Ibid., 182)

Thus, “bureaucratic-politics” theory, which once made several reputa- tions (such as those of Richard Neustadt, Morton Halperin, and Graham Allison) in defense-intellectual circles, and spawned an entire sub-industry within the field of international relations,5 is put into the service of dismissing putative security threats as imaginary. So, too, can a surprisingly cognate theory, “public choice,”6 which can be considered the right-wing analog of the “bureaucratic-politics” model, and is a preferred interpretation of governmental decision- making among libertarian observers. As Eland (2004, 203) summarizes:

Public-choice theory argues [that] the government itself can develop sepa- rate interests from its citizens. The government reflects the interests of powerful pressure groups and the interests of the bureaucracies and the bureaucrats in them. Although this problem occurs in both foreign and domestic policy, it may be more severe in foreign policy because citizens pay less attention to policies that affect them less directly.

There is, in this statement of public-choice theory, a certain ambiguity, and a certain degree of contradiction: Bureaucrats are supposedly, at the same time, subservient to societal interest groups and autonomous from society in general.

This journal has pioneered the argument that state autonomy is a likely consequence of the public’s ignorance of most areas of state activity (e.g., Somin 1998; DeCanio 2000a, 2000b, 2006, 2007; Ravenal 2000a). But state autonomy does not necessarily mean that bureaucrats substitute their own interests for those of what could be called the “national society” that they ostensibly serve. I have argued (Ravenal 2000a) that, precisely because of the public-ignorance and elite-expertise factors, and especially because the opportunities—at least for bureaucrats (a few notable post-government lobbyist cases nonwithstanding)—for lucrative self-dealing are stringently fewer in the defense and diplomatic areas of government than they are in some of the contract-dispensing and more under-the-radar-screen agencies of government, the “public-choice” imputation of self-dealing, rather than working toward the national interest (which, however may not be synonymous with the interests, perceived or expressed, of citizens!) is less likely to hold. In short, state autonomy is likely to mean, in the derivation of foreign policy, that “state elites” are using rational judgment, in insulation from self-promoting interest groups—about what strategies, forces, and weapons are required for national defense.

Ironically, “public choice”—not even a species of economics, but rather a kind of political interpretation—is not even about “public” choice, since, like the bureaucratic-politics model, it repudiates the very notion that bureaucrats make truly “public” choices; rather, they are held, axiomatically, to exhibit “rent-seeking” behavior, wherein they abuse their public positions in order to amass private gains, or at least to build personal empires within their ostensibly official niches. Such sub- rational models actually explain very little of what they purport to observe. Of course, there is some truth in them, regarding the “behavior” of some people, at some times, in some circumstances, under some conditions of incentive and motivation. But the factors that they posit operate mostly as constraints on the otherwise rational optimization of objectives that, if for no other reason than the playing out of official roles, transcends merely personal or parochial imperatives.

My treatment of “role” differs from that of the bureaucratic-politics theorists, whose model of the derivation of foreign policy depends heavily, and acknowledgedly, on a narrow and specific identification of the role- playing of organizationally situated individuals in a partly conflictual “pulling and hauling” process that “results in” some policy outcome. Even here, bureaucratic-politics theorists Graham Allison and Philip Zelikow (1999, 311) allow that “some players are not able to articulate [sic] the governmental politics game because their conception of their job does not legitimate such activity.” This is a crucial admission, and one that points— empirically—to the need for a broader and generic treatment of role.

Roles (all theorists state) give rise to “expectations” of performance. My point is that virtually every governmental role, and especially national-security roles, and particularly the roles of the uniformed mili- tary, embody expectations of devotion to the “national interest”; rational- ity in the derivation of policy at every functional level; and objectivity in the treatment of parameters, especially external parameters such as “threats” and the power and capabilities of other nations.

Sub-rational models (such as “public choice”) fail to take into account even a partial dedication to the “national” interest (or even the possibility that the national interest may be honestly misconceived in more paro- chial terms). In contrast, an official’s role connects the individual to the (state-level) process, and moderates the (perhaps otherwise) self-seeking impulses of the individual. Role-derived behavior tends to be formalized and codified; relatively transparent and at least peer-reviewed, so as to be consistent with expectations; surviving the particular individual and trans- mitted to successors and ancillaries; measured against a standard and thus corrigible; defined in terms of the performed function and therefore derived from the state function; and uncorrrupt, because personal cheating and even egregious aggrandizement are conspicuously discouraged.

My own direct observation suggests that defense decision-makers attempt to “frame” the structure of the problems that they try to solve on the basis of the most accurate intelligence. They make it their business to know where the threats come from. Thus, threats are not “socially constructed” (even though, of course, some values are).

A major reason for the rationality, and the objectivity, of the process is that much security planning is done, not in vaguely undefined circum- stances that offer scope for idiosyncratic, subjective behavior, but rather in structured and reviewed organizational frameworks. Non-rationalities (which are bad for understanding and prediction) tend to get filtered out. People are fired for presenting skewed analysis and for making bad predictions. This is because something important is riding on the causal analysis and the contingent prediction. For these reasons, “public choice” does not have the “feel” of reality to many critics who have participated in the structure of defense decision-making. In that structure, obvious, and even not-so-obvious, “rent-seeking” would not only be shameful; it would present a severe risk of career termination. And, as mentioned, the defense bureaucracy is hardly a productive place for truly talented rent-seekers to operate, compared to opportunities for personal profit in the commercial world. A bureaucrat’s very self-placement in these reaches of government testi- fies either to a sincere commitment to the national interest or to a lack of sufficient imagination to exploit opportunities for personal profit.

### AT Coherence

#### Perm is key to resist the and/or mentality that devolves into intellectual conservitism and the death of radical creativity

Kurasawa. 2006

Fuyuki. Associate Professor of Sociology at York University in Toronto. The State of Intellectual Play: A Generational Manifesto for Neoliberal Times. Topia. 18.

Seventh Thesis: We must be users of dynamite, not worshippers of idols. If we are to become an intellectual generation for ourselves, we must shun idolatry of deceased or living master thinkers and the temptation to worship obediently at the alter of theoretical gods and goddesses, for what might seem like harmlessly timid reverence for the accomplishments of our forebears reveals itself to be symptomatic of much more pernicious inclinations. Witness the intransigence of those who, after discovering or being introduced to an iconic figure’s writings, most often through seminars that function as initiation rites, latch onto them with the fervour of the converted as sacred texts that must be admired and dutifully preserved against the sins of deviation, immanent or transcendent critique and apostasy; the convert is a blind follower of a particular theorist, inhabited by a doctrinaire faith in the superiority of the latter’s thinking and an intolerance toward other paradigms of thought. Consequently, intellectual life is conceptualized as a struggle to the death between warring giants (e.g., Kant vs. Nietzsche, Foucault vs. Habermas) of whom we are the earthly representatives, or toward whom we stand as mere supporters in the great theatre of ideas. Inadvertently or not, too many Gen-Xers have elevated conformism to a virtue by regulating what we think, say and write in accordance with the precepts of our intellectual idols. The master’s voice inhabits us and we have learned to love it, seeking to gain his approval or to follow the “correct” path that she allegedly laid out (“I cannot argue X since he has claimed Y ” or “is my idea consonant with what she believes?”). We must denounce this for what it is: intellectual heteronomy, the conversion of previous generations’ theoretical perspectives into prescriptive rules that impede the exercise of independent judgement. Perhaps most worrisome is the possibility that our generation’s longing for icons to worship is a mark of intellectual conservatism, a staid contentment or lack of ambition satisfied to follow in their footsteps by applying or extending their analytical frameworks. Imitation may be the sincerest form of flattery, yet mere mimicry of the past and the already existing is the death-knell of radical creativity.15 The pervasive sense that we dwell in the aftermath of defining debates (the theory and culture wars), and of grand theory itself, breeds a distressing quietism. Where are the angry young women and men who will thrust us into the annals of intellectual history, rather than render us footnotes and addenda to the labours of our predecessors? To avoid this, we must transform ourselves into merciless iconoclasts, who search out and smash all intellectual icons in order to destroy cults and cabals asserting to represent sacred truths. Put differently, we must symbolically murder our intellectual mothers and fathers to cease living under their shadow and acquire the maturity to invent our own schemes of interpretation of the world (Sapere aude!). Lest I be misunderstood, these exhortations are not to defend the creation of a tabula rasa that would swiftly and unconditionally dismiss the past or sustain the fantasy of ex nihilo thinking, but to put to rest the notion of maîtres-penseurs once and for all; we must keep at bay the tendency to replace old dogmas and idols with new ones by renouncing the desire for them. Iconoclasm is the twin of ambivalence, which critically wrestles with and contests the theories of established figures in the human sciences without proscribing their use, elaboration or pragmatic combination for our own purposes—yet remains eternally suspicious of sectarian lapses in what ought to be a post-paradigmatic age. Leaving orthodoxy behind is the beginning. We should conceive of ourselves as a generational avant-garde dedicated to overthrowing the régime ancien of dominant systems of thought. Indeed, several of the most important intellectual and aesthetic movements have been brought forth out of an explicit revolt against institutionalized approaches and consecrated standards of taste and excellence: the moderns vs. the ancients, structuralism vs. the philosophy of consciousness, cubism vs. figurational realism, post-structuralism vs. structuralism, pop art vs. minimalism, punk vs. progressive rock and so on. To reiterate, we should be wary of antagonisms of this sort degenerating into a Jacobiniste lust for excess that would confine all previous thinking to the rubbish-heap of history or the naive arrogance of youth that reinvents the wheel at every turn. On the contrary, we can become intellectual gleaners, collecting and rediscovering the marginal thinkers who have been forgotten and the detritus of others—which is frequently more interesting than what has been sanctified and acclaimed.16 Simultaneously, we must be fearless in striving to surpass what has already been accomplished and in giving free rein to acts of theoretical creativity that will redefine the human sciences.

### Inevitable

#### Capitalism isn’t dead and its inevitable – empirically economic panics show resilience/innovation of the system

Walter Russell Mead, 2008. James Clarke Chace Professor of Foreign Affairs and Humanities at Bard College , The Australian, “Boom and bust the way of the West”, Dec 5, 2008,

And those 300 years have been marked by one financial crisis after another. Even before the English began to dominate global markets, the Dutch suffered though the tulip bubble of the 17thcentury. There was the South Sea bubble of the early 18th century. There were the panics of the Napoleonic wars, followed by successive and intensifying panics and crashes during the 19th century. Financial crises have continued throughout the 20th century and now into the 21st. And none of those panics and crashes interrupted or fundamentally altered the liberal capitalist path of development. It is possible, of course, that this time is different, but history gives us sound reason to believe that this kind of economic crisis does not mean the system is failing or has failed. Indeed, economic crisis is intrinsic to the capitalist economic system. It's not pleasant, but it is a regular and inevitable part of our lives. This is because the essence of capitalism is change. Capitalism constantly forces us to innovate, to do things differently, and as the economy changes we no longer understand it as well as we once did. In the past 25 years we have seen a series of revolutionary changes taking place in financial markets. We have seen extraordinary progress in the way information technology has been harnessed for the purposes of market trading. There have been new kinds of securities developed. The crisis occurred because market participants and regulators no longer fully understand how the toe bone is connected to the foot bone in an international financial crisis. But none of this means capitalism has failed; it means capitalism is succeeding. The history of the world economy shows us that crisis and panic have been our teachers. It is only through the study of past crashes that we have been able to understand risks and trade-offs in markets. We will come to grips with our past failures and figure out ways to protect against the problems that have landed us here, at least until markets develop a new level of complexity that defeats us and leads to yet another meltdown.

## Scholarship

### Perm

#### Perm: do both.

#### Perm: do the affirmative and the alternative in all other instances.

### Probability

#### Multiple warrants and internal links increases probability

Wood 10

(Brian Wood “Drop chance probability”, <http://wow.joystiq.com/2010/01/13/drop-chance-probability/>, SEH)

Even though your chance on each single attempt always remains the same, the probability of getting your drop over the course of multiple attempts increases. I know at first this sounds like crazy talk that contradicts what we just discussed, so another example is in order:¶ We're flipping our coin again. We know that we have a 50% chance of getting heads on any given toss, and it doesn't matter at all what results we got before. But I think we can all agree that if we flip a coin 100 times it's very, very likely that we'll get heads at least one of those times. The chance on the first toss is 50%, and on the 42nd toss it's 50%, and on the 100th toss it's 50%. But over the course of 100 tosses, the probability of getting heads is way more than 50%. (In fact, the chance is 99.999999999999999999999999999921% that we'll get heads at least once.)

### Paradigm Wars

#### Alt leads to paradigm wars

Wendt 98

professor of international security – Ohio State University, (Alexander, “On Constitution and Causation in International Relations,” British International Studies Association)

As a community, we in the academic study of international politics spend too much time worrying about the kind of issues addressed in this essay. The central point of IR scholarship is to increase our knowledge of how the world works, not to worry about how (or whether) we can know how the world works. What matters for IR is ontology, not epistemology. This doesn’t mean that there are no interesting epistemological questions in IR, and even less does it mean that there are no important political or sociological aspects to those questions. Indeed there are, as I have suggested above, and as a discipline IR should have more awareness of these aspects. At the same time, however, these are questions best addressed by philosophers and sociologists of knowledge, not political scientists. Let’s face it: most IR scholars, including this one, have little or no proper training in epistemology, and as such the attempt to solve epistemological problems anyway will inevitably lead to confusion (after all, after 2000 years, even the specialists are still having a hard time). Moreover, as long as we let our research be driven in an open-minded fashion by substantive questions and problems rather than by epistemologies and methods, there is little need to answer epistemological questions either. It is simply not the case that we have to undertake an epistemological analysis of how we can know something before we can know it, a fact amply attested to by the success of the natural sciences, whose practitioners are only rarely forced by the results of their inquiries to consider epistemological questions. In important respects we do know how international politics works, and it doesn’t much matter how we came to that knowledge. In that light, going into the epistemology business will distract us from the real business of IR, which is international politics. Our great debates should be about first-order issues of substance, like the ‘first debate’ between Realists and Idealists, not second-order issues of method. Unfortunately, it is no longer a simple matter for IR scholars to ‘just say no’ to epistemological discourse. The problem is that this discourse has already contaminated our thinking about international politics, helping to polarize the discipline into ‘paradigm wars’. Although the resurgence of these wars in the 1980s and 90s is due in large part to the rise of post-positivism, its roots lie in the epistemological anxiety of positivists, who since the 1950s have been very concerned to establish the authority of their work as Science. This is an important goal, one that I share, but its implementation has been marred by an overly narrow conception of science as being concerned only with causal questions that can be answered using the methods of natural science. The effect has been to marginalize historical and interpretive work that does not fit this mould, and to encourage scholars interested in that kind of work to see themselves as somehow not engaged in science. One has to wonder whether the two sides should be happy with the result. Do positivists really mean to suggest that it is not part of science to ask questions about how things are constituted, questions which if those things happen to be made of ideas might only be answerable by interpretive methods? If so, then they seem to be saying that the double-helix model of DNA, and perhaps much of rational choice theory, is not science. And do post-positivists really mean to suggest that students of social life should not ask causal questions or attempt to test their claims against empirical evidence? If so, then it is not clear by what criteria their work should be judged, or how it differs from art or revelation. On both sides, in other words, the result of the Third Debate’s sparring over epistemology is often one-sided, intolerant caricatures of science.

### Predictions Good

#### Scenario planning solves their impacts

Flaherty 12

Tom Flaherty, et al. Michael Bagale, Christopher Dann, Owen Ward, Partners at Booz & Co. Global Management Consulting, 8/7/2012 (<http://www.booz.com/media/uploads/BoozCo_After-Fukushima-Nuclear-Power.pdf>)

It is still not fully clear how the new NRC recommendations will affect the U.S. nuclear fleet. One thing is certain, however: The way the industry has historically evaluated risk will have to change. In particular, the assessment of low-probability, high-consequence risks, such as events that trigger worst-case accident conditions, will need to be revisited. Owner resiliency and responsiveness will need to increase. Probabilistic risk assessment, common in the industry since the 1979 accident at Three Mile Island in Pennsylvania, will assume an even greater role in ensuring nuclear safety in the future. Operators will have to develop enhanced risk analysis methodologies that can adequately address not only the full range of “traditional” postulated design-basis accident scenarios, but also the much more improbable black swan events. Finally, investment decisions will need to evolve to reflect this new risk environment. The greatest degree of regulatory uncertainty surrounds the interpretation of the first recommendation of the NRC’s Near-Term Task Force, which the commission’s staff will consider over the next year. Its goal is to incorporate “beyond design basis” requirements within the definition of what is required to provide “adequate protection”: balancing considerations of defense and risk, without taking cost into account as a deterrent to action. The task force has pointed out that this move is analogous to regulatory changes enacted following the September 11, 2001, terrorist attacks. But it is potentially more far-reaching, given the wide range of possible black swan scenarios. Indeed, it is likely that the broadening of the underlying principle of adequate protection will markedly reshape the regulatory environment. Traditional risk management approaches rely on estimating the likely consequences of potential events; they are not well suited for dealing with extremely lowprobability, high-consequence risks. Black swan risks challenge the traditional approach because even when the events are anticipated, their impact falls outside the expected range of predictability. In the case of the tragic events in northeast Japan in March 2011, the black swan was not the earthquake and tsunami, which were foreseeable, but their sheer size. Another earthquake, the one that struck the East Coast of the U.S. in August 2011, was significantly stronger than what was thought possible in the region. The terrorist attacks on 9/11 represented another black swan event, not because terrorist attacks had never happened on U.S. soil—they had—but because of their scale, their means, and their enormous impact. The U.S. nuclear industry must enhance its risk management capabilities in two ways. First, it must strengthen existing risk assessment methodologies to address extremely low-probability, high-consequence risks. This will involve improving existing processes and tools to identify potential risks from a much wider range of uncertainties than the industry has used in the past (see Exhibit 2). Traditional thinking about “known unknowns” must be expanded to include “unknown unknowns.” Scenario planning that includes situations that are themselves unimaginable can be a useful tool in expanding leaders’ range of thinking about identifying risks and assessing vulnerabilities. In these exercises, management is challenged to begin with the premise of an unforeseeable situation—like the apocryphal story of a wanderer in a desert who finds a Civil War battleship stuck in the sand there—and then to explore the potential vulnerabilities the situation may create. Often, when managers are required to construct a chain of causal events that could explain a seemingly inexplicable situation, a previously unthinkable scenario becomes plausible, even if still highly improbable. Another methodology used for expanding management’s thinking about the future involves wargaming and other simulations of real-world challenges; the games mimic the complexity of genuine events, in which seemingly rational interactions among players or actions can result in unanticipated outcomes. A deeper examination of the interdependencies and correlations among various risk factors can also help unearth additional exposures and potential systemic effects. Nuclear plant owners should be encouraged to build this risk identification capability in a **collaborative manner**. Utility peer groups, technical experts, and industry support entities should work together to develop analytical risk assessment tools and methodologies that individual plant owners and operators can use to quantify the probability and effect of plant-specific worst-case events. The techniques developed through this approach should be tailored to the culture and practices of the companies involved. They can also provide plant owners with best-in-class, cost-effective solutions to regulatory mandates, potentially streamlining the overall NRC review and concurrence cycle with respect to providing “reasonable assurance” regarding operating safety. The end goal of this next generation of risk management is to develop an industry-wide approach to defining and quantifying Fukushimalevel improbable events that will both satisfy any regulatory safety requirements and assuage public concerns, while being implementable and cost-effective. Since the concepts of reasonable assurance and adequate protection do not contemplate direct cost-benefit trade-offs, anything short of this goal may hurt the future of nuclear power.

## Energy Justice

### Begining

#### Assign them no risk of a unique impact – energy injustice and inequity is inevitable and has been since the invention of technological manipulation of energy. None of their link evidence to these equity impacts is specific to the plan’s interaction of SMRs, meaning there is Zero risk the plan will exacerbate

### AT Root Cause

#### Focus on proximately not root cause

Moore ’04 – Dir. Center for Security Law @ University of Virginia, 7-time Presidential appointee, & Honorary Editor of the American Journal of International Law, Solving the War Puzzle: Beyond the Democratic Peace, John Norton Moore, pages 41-2.

If major interstate war is predominantly a product of a synergy between a potential nondemocratic aggressor and an absence of effective deterrence, what is the role of the many traditional "causes" of war? Past, and many contemporary, theories of war have focused on the role of specific disputes between nations, ethnic and religious differences, arms races, poverty or social injustice, competition for resources, incidents and accidents, greed, fear, and perceptions of "honor," or many other such factors. Such factors may well play a role in motivating aggression or in serving as a means for generating fear and manipulating public opinion. The reality, however, is that while some of these may have more potential to contribute to war than others, there may well be an infinite set of motivating factors, or human wants, motivating aggression. It is not the independent existence of such motivating factors for war but rather the circumstances permitting or encouraging high risk decisions leading to war that is the key to more effectively controlling war. And the same may also be true of democide. The early focus in the Rwanda slaughter on "ethnic conflict," as though Hutus and Tutsis had begun to slaughter each other through spontaneous combustion, distracted our attention from the reality that a nondemocratic Hutu regime had carefully planned and orchestrated a genocide against Rwandan Tutsis as well as its Hutu opponents.I1 Certainly if we were able to press a button and end poverty, racism, religious intolerance, injustice, and endless disputes, we would want to do so. Indeed, democratic governments must remain committed to policies that will produce a better world by all measures of human progress. The broader achievement of democracy and the rule of law will itself assist in this progress. No one, however, has yet been able to demonstrate the kind of robust correlation with any of these "traditional" causes of war as is reflected in the "democratic peace." Further, given the difficulties in overcoming many of these social problems, an approach to war exclusively dependent on their solution may be to doom us to war for generations to come. A useful framework in thinking about the war puzzle is provided in the Kenneth Waltz classic Man, the State, and War,12 first published in 1954 for the Institute of War and Peace Studies, in which he notes that previous thinkers about the causes of war have tended to assign responsibility at one of the three levels of individual psychology, the nature of the state, or the nature of the international system. This tripartite level of analysis has subsequently been widely copied in the study of international relations. We might summarize my analysis in this classical construct by suggesting that the most critical variables are the second and third levels, or "images," of analysis. Government structures, at the second level, seem to play a central role in levels of aggressiveness in high risk behavior leading to major war. In this, the "democratic peace" is an essential insight. The third level of analysis, the international system, or totality of external incentives influencing the decision for war, is also critical when government structures do not restrain such high risk behavior on their own. Indeed, nondemocratic systems may not only fail to constrain inappropriate aggressive behavior, they may even massively enable it by placing the resources of the state at the disposal of a ruthless regime elite. It is not that the first level of analysis, the individual, is unimportant. I have already argued that it is important in elite perceptions about the permissibility and feasibility of force and resultant necessary levels of deterrence. It is, instead, that the second level of analysis, government structures, may be a powerful proxy for settings bringing to power those who may be disposed to aggressive military adventures and in creating incentive structures predisposing to high risk behavior. We should keep before us, however, the possibility, indeed probability, that a war/peace model focused on democracy and deterrence might be further usefully refined by adding psychological profiles of particular leaders, and systematically applying other findings of cognitive psychology, as we assess the likelihood of aggression and levels of necessary deterrence in context. A post-Gulf War edition of Gordon Craig and Alexander George's classic, Force and Statecraft,13 presents an important discussion of the inability of the pre-war coercive diplomacy effort to get Saddam Hussein to withdraw from Kuwait without war.14 This discussion, by two of the recognized masters of deterrence theory, reminds us of the many important psychological and other factors operating at the individual level of analysis that may well have been crucial in that failure to get Hussein to withdraw without war. We should also remember that nondemocracies can have differences between leaders as to the necessity or usefulness of force and, as Marcus Aurelius should remind us, not all absolute leaders are Caligulas or Neros. Further, the history of ancient Egypt reminds us that not all Pharaohs were disposed to make war on their neighbors. Despite the importance of individual leaders, however, we should also keep before us that major international war is predominantly and critically an interaction, or synergy, of certain characteristics at levels two and three, specifically an absence of democracy and an absence of effective deterrence. Yet another way to conceptualize the importance of democracy and deterrence in war avoidance is to note that each in its own way internalizes the costs to decision elites of engaging in high risk aggressive behavior. Democracy internalizes these costs in a variety of ways including displeasure of the electorate at having war imposed upon it by its own government. And deterrence either prevents achievement of the objective altogether or imposes punishing costs making the gamble not worth the risk. Testing the Hypothesis Theory without truth is but costly entertainment. HYPOTHESES, OR PARADIGMS, are useful if they reflect the real world better than previously held paradigms.

In the complex world of foreign affairs and the war puzzle, perfection is unlikely. No general construct will fit all cases even in the restricted category of "major interstate war"; there are simply too many variables. We should insist, however, on testing against the real world and on results that suggest enhanced usefulness over other constructs. In testing the hypothesis, we can test it for consistency with major wars; that is, in looking, for example, at the principal interstate wars in the twentieth century, did they present both a nondemocratic aggressor and an absence of effective deterrence?' And although it is by itself not going to prove causation, we might also want to test the hypothesis against settings of potential wars that did not occur. That is, in nonwar settings, was there an absence of at least one element of the synergy? We might also ask questions about the effect of changes on the international system in either element of the synergy; that is, what, in general, happens when a totalitarian state makes a transition to stable democracy or vice versa? And what, in general, happens when levels of deterrence are dramatically increased or decreased?

#### War turns structural violence

Bulloch 8

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 But the idea that poverty and peace are directly related presupposes that wealth inequalities are – in and of themselves – unjust, and that the solution to the problem of war is to alleviate the injustice that inspires conflict, namely poverty. However, it also suggests that poverty is a legitimate inspiration for violence, otherwise there would be no reason to alleviate it in the interests of peace. It has become such a commonplace to suggest that poverty and conflict are linked that it rarely suffers any examination. To suggest that war causes poverty is to utter an obvious truth, but to suggest the opposite is – on reflection – quite hard to believe. War is an expensive business in the twenty-first century, even asymmetrically. And just to examine Bangladesh for a moment is enough at least to raise the question concerning the actual connection between peace and poverty. The government of Bangladesh is a threat only to itself, and despite 30 years of the Grameen Bank, Bangladesh remains in a state of incipient civil strife. So although Muhammad Yunus should be applauded for his work in demonstrating the efficacy of micro-credit strategies in a context of development, it is not at all clear that this has anything to do with resolving the social and political crisis in Bangladesh, nor is it clear that this has anything to do with resolving the problem of peace and war in our times. It does speak to the Western liberal mindset – as Geir Lundestad acknowledges – but then perhaps this exposes the extent to which the Peace Prize itself has simply become an award that reflects a degree of Western liberal wish-fulfilment. It is perhaps comforting to believe that poverty causes violence, as it serves to endorse a particular kind of concern for the developing world that in turn regards all problems as fundamentally economic rather than deeply – and potentially radically – political.

### Perm Do both

#### Perm: do both. If the alt solves then it would overcome residual links.

#### And, debates about American nuclear energy policy shouldn’t be dictated by emotive appeals to alleviate inequality or achieve social justice but rather through cost-benefit analysis of the real-world consequences. Debating the relative merits of specific proposals is key to solve both teams’ impacts.

Sagan ‘11

[Scott D. Sagan, Caroline S.G. Munro Professor of Political Science and Co-Director, Center for International Security and Cooperation @ Stanford University; Co-Chair, Global Nuclear Future Initiative @ American Academy of Arts and Sciences. “The International Security Implications Of U.S. Domestic Nuclear Power Decisions.” Prepared for the Blue Ribbon Commission on America’s Nuclear Future. April 18,2011 ETB]

Specific nuclear energy policy proposals, and how best to evaluate trade-offs between competing objectives, can and should be debated in the United States. In these debates, however, it is important to recognize that American nuclear policies play an important role in shaping – if not fully determining – the decisions made in other capitals regarding nuclear power, the nuclear fuel cycle, and nuclear security. The U.S. has an opportunity to promote a safer and more secure global nuclear future by adopting policies that encourage other countries to restrict the spread of sensitive fuel cycle facilities and to adopt higher standards for nuclear safety, security and safeguards.

### AT Waste DA

#### No waste DA

Szondy 2/16

(David, writer for Gizmag, “Feature: Small modular nuclear reactors - the future of energy?” <http://www.gizmag.com/small-modular-nuclear-reactors/20860/>, SEH)

SMRs can help with proliferation, nuclear waste and fuel supply issues because, while some modular reactors are based on conventional pressurized water reactors and burn enhanced uranium, others use less conventional fuels. Some, for example, can generate power from what is now regarded as "waste", burning depleted uranium and plutonium left over from conventional reactors. Depleted uranium is basically U-238 from which the fissible U-235 has been consumed. It's also much more abundant in nature than U-235, which has the potential of providing the world with energy for thousands of years. Other reactor designs don't even use uranium. Instead, they use thorium. This fuel is also incredibly abundant, is easy to process for use as fuel and has the added bonus of being utterly useless for making weapons, so it can provide power even to areas where security concerns have been raised.

#### No risk and their impact is academic garbage

**NEI 12**, Nuclear Energy Institute, “Myths & Facts About Nuclear Energy”, June, http://www.nei.org/resourcesandstats/documentlibrary/reliableandaffordableenergy/factsheet/myths--facts-about-nuclear-energy-january-2012/

Fact: If this claim were true, it would be dangerous to breathe air or eat food. Every human being is continuously exposed to different forms of radiation every moment of their life. In fact, the use of radiation in medicine, electricity generation and many other common applications has improved, extended and saved the lives of millions of Americans. Studies by the United Nations Scientific Committee on the Effects of Atomic Radiation, the National Research Council’s BEIR VII study group and the National Council on Radiation Protection and Measurements all show that the risk associated with low-dose radiation from natural and man-made sources, including nuclear power plants, is extremely small. Researchers with the U.S. Department of Energy’s Lawrence Berkeley National Laboratory, through a combination of state-of-the-art time-lapse live imaging and mathematical modeling of a special line of human breast cells, found evidence that for low-dose levels of ionizing radiation, cancer risks may not be directly proportional to dose. The data show that at lower doses of ionizing radiation, DNA repair mechanisms work much better than at higher doses. This contradicts the standard model for predicting biological damage from ionizing radiation—the linear-no-threshold hypothesis or LNT—which holds that risk is directly proportional to dose at all levels of irradiation. Dr. James Conca addressed LNT in a recent Forbes article. Conca is an international expert on the environmental effects of radiological and chemical contamination and the 9 determination of risk at low doses of radiation. Radiation is strictly controlled and monitored at all nuclear power plants to § Marked 10:31 § minimize plant emissions and worker exposure. Less than one-tenth of a percent of all radiation exposure is from nuclear facilities as confirmed by widespread radiation monitoring programs that ensure the safety of plant workers and neighbors. For more information about radiation, visit www.radiationanswers.org. Nuclear plants emit dangerous amounts of radiation. Fact: Nuclear power plants have controlled and monitored emissions of radiation, but the amount is extremely small and poses no threat to the public or the environment. The Nuclear Regulatory Commission reports that people living close to a nuclear power plant receive, at most, an additional one millirem of radiation exposure a year. To put this in perspective, one millirem is one thousandth of the radiation exposure from a single whole-body CAT scan. The average American is exposed to 620 millirem of radiation every year. Three hundred millirem comes from natural sources, such as cosmic rays, uranium in the Earth’s crust and radon gas in the atmosphere. Most of the rest comes from medical procedures such as CAT scans and consumer products. The radiation exposure from living near a nuclear power plant is insignificant and is no threat to the health of the public. After more than 3,600 reactor years of operation, there is no scientific or medical evidence that shows anyone has been harmed by the radiation from any of America’s commercial nuclear energy facilities, including the accident at Three Mile Island 32 years ago. The radiation from nuclear plants causes cancer and other harmful effects. Fact: After more than a half-century of radiological monitoring and medical research, there is no evidence linking U.S. nuclear energy plants to negative effects on the health of the public or workers. Claims that radioactivity from nuclear plants has caused negative health effects have been refuted by the United Nations Scientific Committee of the Effects of Atomic Radiation, National Research Council’s BEIR VII study group, the National Cancer Institute, the American Cancer Society, the American Academy of Pediatrics, numerous state departments of health and other independent studies.

### Transition Wars

#### The alt causes backlash and transition wars

Anderson 1984. professor of sociology – UCLA, ’84 (Perry, In the tracks of historical materialism, p. 102-103)

That background also indicates, however, what is essentially missing from his work. How are we to get from where we are today to where he point us to tomorrow? There is no answer to this question in Nove. His halting discussion of “transition” tails away into apprehensive admonitions to moderation to the British Labor Party, and pleas for proper compensation to capitalist owners of major industries, if these are to be nationalized. Nowhere is there any sense of what a titanic political change would have to occur, with what fierceness of social struggle, for the economic model of socialism he advocates ever to materialize. Between the radicalism of the future end-state he envisages, and the conservatism of the present measures he is prepared to countenance, there is an unbridgeable abyss. How could private ownership of the means of production ever be abolished by policies less disrespectful of capital than those of Allende or a Benn, which he reproves? What has disappeared from the pages of The Economics of Feasible Socialism is virtually all attention to the historical dynamics of any serious conflict over the control of the means of production, as the record of the 20th century demonstrates them. If capital could visit such destruction on even so poor and small an outlying province of its empire in Vietnam, to prevent its loss, is it likely that it would suffer its extinction meekly in its own homeland? The lessons of the past sixty-five years or so are in this respect without ambiguity or exception, there is no case, from Russia to China, from Vietnam to Cuba, from Chile to Nicaragua, where the existence of capitalism has been challenged, and the furies of intervention, blockade and civil strife have not descended in response. Any viable transition to socialism in the West must seek to curtail that pattern: but to shrink from or to ignore it is to depart from the world of the possible altogether. In the same way, to construct an economic model of socialism in one advanced country is a legitimate exercise: but to extract it from any computable relationship with a surrounding, and necessarily opposing, capitalist environment—as this work does—is to locate it in thin air.

#### That causes extinction

Kothari 1982

Kothari, profrssor of political science – University of Delhi, ‘82

(Rajni, Towards a Just Social Order, Alternatives, p. 571)

Attempts at global economic reform could also lead to a world racked by increasing turbulence, a greater sense of insecurity among the major centres of power -- and hence to a further tightening of the structures of domination and domestic repression – producing in their wake an intensification ofthe old arms race and militarization of regimes, encouraging regional conflagrations and setting the stage for eventual global holocaust.

### Violence inevitable

#### They can’t solve—violence is hardwired into our brains

Eisner 9—prof of Comparative & Developmental Criminology, Deputy Director of the Institute, Cambridge. Work revolves around macro-level historical patterns of violence and research on individual development and the causes and prevention of aggressive behavior. PhD in sociology, U Zurich (Manuel, The Uses of Violence: An Examination of Some Cross-Cutting Issues,<http://www.ijcv.org/index.php/ijcv/article/viewArticle/47>,)

Research from all angles has produced convincing evidence that some features of violence are remarkably similar across time and space. These commonalities comprise: the sex distribution of people involved in fighting (mostly men); the approximate age at which people are most likely to engage in violence (about &' to 0)); essential goals over which fights are fought (material resources, power, and sex); situations that are prone to violence (e.g. humiliations in the presence of others); individual characteristics associated with violence (e.g. courage and risk-seeking); and emotional processes involved in violent encounters (e.g. arousal and anger). Such commonalities are difficult to understand from a purely cultural perspective. Rather, it is becoming increasingly clear that any general theory of violence will need to integrate an evolutionary perspective on human nature (Pinker +,,+). In an insightful paper, Wood (+,,/) has recently laid out how and why an evolutionary perspective is an essential element for the way social scientists understand violence both historically and across societies. On the most general level, an evolutionary perspective serves as a corrective to the view, long cherished amongst social scientists, that the human mind is essentially a blank slate, ready to store and retrieve whatever happens to characterize a given culture (Pinker +,,+). In contrast, evolutionary psychologists emphasize that the “hardwired” architecture of our brain evolved over § Marked 10:32 § long periods of time as a solution to the adaptive problems posed by the environmental conditions and problems in the ancestral world (Tooby and Cosmides &((+). Hence the human brain is theorized to be a network of “regulatory circuits” that “organize the way we interpret our experiences, inject certain recurrent concepts and motivations into our mental life, and provide universal frames of meaning that allow us to understand the actions and intentions of others” (Tooby and Cosmides &((/). In developing answers to these questions Buss and Shackelford (&((/) suggest that aggression is a highly context-specific collection of strategies that have evolved as an adaptation to recurrent problems that humans were confronted with during the history of human evolution. They may be grouped into strategies of proactive aggression developed to in#ict costs on rivals and reactive strategies that have developed to deter rivals and to defend one’s interests. The proactive use of aggression entails violence as means to gain access to resources that are valuable for reproduction (land, water, food); as a strategy to win in competitions against intrasexual rivals; and a way to negotiate status and power hierarchies. Reactive uses include strategies where violence is used to defend against attack, situations where it serves as a way to gain a reputation as aggressive in order to deter rivals from future aggression, and reactions that deter longterm mates from sexual infidelity (jealousy).

### Smart Grid

#### SMRs key to renewables penetration

Loudermilk ‘11

(Micah J. Loudermilk is a Research Associate for the Energy & Environmental Security Policy program with the Institute for National Strategic Studies at National Defense University, May 31, 2011, “Small Nuclear Reactors and US Energy Security: Concepts, Capabilities, and Costs,” Journal of Energy Security, <http://www.ensec.org/index.php?option=com_content&view=article&id=314:small-nuclear-reactors-and-us-energy-security-concepts-capabilities-and-costs&catid=116:content0411&Itemid=375>)

Limitations of renewables Renewable energy technologies have made great strides forward during the last decade. In an increasingly carbon emissions and greenhouse gas (GHG) aware global commons, the appeal of solar, wind, and other alternative energy sources is strong, and many countries are moving to increase their renewable electricity generation. However, despite massive expansion on this front, renewable sources struggle to keep pace with increasing demand, to say nothing of decreasing the amount of energy obtained from other sources.¶ The continual problem with solar and wind power is that, lacking efficient energy storage mechanisms, it is difficult to contribute to baseload power demands. Due to the intermittent nature of their energy production, which often does not line up with peak demand usage, electricity grids can only handle a limited amount of renewable energy sources—a situation which Germany is now encountering. Simply put, nuclear power provides virtually carbon-free baseload power generation, and renewable options are unable to replicate this, especially not on the scale required by expanding global energy demands.¶ Small nuclear reactors, however, like renewable sources, can provide enhanced, distributed, and localized power generation. As the US moves towards embracing smart grid technologies, power production at this level becomes a critical piece of § Marked 10:32 § the puzzle. Especially since renewable sources, due to sprawl, are of limited utility near crowded population centers, small reactors may in fact prove instrumental to enabling the smart grid to become a reality.¶

# 1AR- Round 1

### A2: Minning

**No structural impact to mining**

**Anderson 9/9/12**

Corby, served from 2010 to 2011 as a committee member for the National Academy of Sciences study on uranium mining in Virginia. Anderson has more than 33 years of academic and applied global industrial experience in mining, metallurgical, energy, chemical, environmental, and materials engineering. He holds a Ph.D. in metallurgical engineering from the University of Idaho, “What the uranium mining study said and did not say,” <http://www2.timesdispatch.com/news/commentary/2012/sep/09/tdcomm03-what-the-uranium-mining-study-said-and-di-ar-2187800/>, AM **on fears of an improbable catastrophic** **natural disaster releasing mill tailings.** **The NAS study** directly addressed this concern and **found that, "Over the past few decades, improvements have been made to tailings management systems to isolate tailings from the environment.**" Specifically, the **report identified below-ground tailings disposal as a way to eliminate the possibility of catastrophic storm or flood-induced releases**. **Another concern expressed is the potential for groundwater contamination** from the mine or tailings. Again, the NAS report addressed this directly: "To **date, modern tailings disposal cells have been effective at preventing groundwater**

**Much of the concern about uranium mining** in Virginia **is** **based contamination.**" The report emphasized the effectiveness of **runoff and wastewater collection systems, as well as buffer zones and groundwater monitoring wells surrounding the site** to **detect the slightest elevations in contaminant levels and prevent contaminated water from escaping** the site.

# 1AC- Round 2

### Plan

#### The United States Department of Defense should procure small modular reactors for use on military bases within the United States.

### Advantage 1- Islanding

#### Small nuclear reactors key to prevent bases from being vulnerable to inevitable grid outages- the impact is nuclear war

Andres and Breetz 11

(Richard B. Andres is 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. Hanna L. Breetz is a doctoral candidate in the Department of Political Science at the Massachusetts institute of technology, “Small Nuclear Reactors ¶ for Military Installations:¶ Capabilities, Costs, and ¶ Technological Implications” Institute for National Strategic Studies, <http://www.ndu.edu/press/lib/pdf/strforum/sf-262.pdf>, SEH)

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 in the next 3 years- smart grids fail

Huff 12

(Ethan A, staff writer at natural news “Hacking expert says catastrophic failure of smart energy grid within 3 year” <http://usahitman.com/hcfseg/>, SEH)

For at least the past five years, the federal government has been pushing utility companies across America to “upgrade” their infrastructures to support “smart grid” technology that allows two-way communication with, and centralized control of, the energy grid through an internet-based network. But cyber expert David Chalk says that a complete and catastrophic failure of the entire smart energy grid is definitely going to occur within the next three years, and that few are aware of this.¶ Traditionally, the electric meters attached to structures, the wired and underground poles that deliver electricity to them, and the plants where electricity are generated have all been operated and maintained independently by field workers who gather data in a one-way system of communication. In other words, when a problem occurs with an electric meter or a pole in the traditional system, an expert has to go out and assess the problem, as there is no automated way for the system itself to send feedback.¶ For this reason and others, many have hailed smart grid technology as the solution, and as the way to bring the electric grid into the 21st century. But according to Chalk and many other experts in the field, smart grid technology is highly vulnerable to cyber attacks, and the technology is so digitally centralized that hackers are sure to “crack the code,” so to speak, and eventually bring down the system.¶ “We’re in a state of crisis,” says Chalk. “The front door is open and there is no lock to be had. There is not a power meter or device on the grid that is protected from hacking — if not already infected — with some sort of trojan horse that can cause the grid to be shut down or completely annihilated.”¶ Solar storms, digital warfare threaten to bring down the smart grid¶ Smart grid technology is also vulnerable to failure from solar storms and digital warfare, both of which could quickly take down the entire system in an instant, leaving millions, and potentially billions, of people in the dark without power. Smart grid technology also comes with its own unique health and privacy risks that are being ignored by its proponents as well.¶ “Unless we wake up and realize what we’re doing, there is 100 percent certainty of total catastrophic failure of the entire power infrastructure within three years,” adds Chalk. “This could actually be worse than a nuclear war, because it would happen everywhere. How governments and utilities are blindly merging the power grid with the Internet, and effectively without any protection, is insanity at its finest.”

#### Grids goes down- laundry list of reasons

Slavo 7/12

(Mac is editor of shftplan, “UPDATE: Cascading Grid Crash: Now 600 Million Without Power in India (Are We Vulnerable?)” <http://www.shtfplan.com/headline-news/paralysis-grid-down-in-india-370-million-left-without-power_07302012>, SEH)

The power grid in the United States, while more advanced and apparently better maintained, is also under excessive strain as has been witnessed in recent years with rolling brownouts, blackouts, and unforeseen crashes resulting from key component failure.¶ One industry insider who has worked in the utility industry for nearly two decades advised this author recently that it wouldn’t take much to bring down the system even in the United States, potentially affecting tens of millions of customers. Though it’s the 21st century, many grid components in operation are, in some cases, as much as 40 years old, thus replacement parts are almost impossible to find. Other components, like massive transformers may take weeks or months to replace. In the event of a scenario where multiple components are targeted simultaneously, by either a man-made EMP or natural event, it is not too far of a stretch to suggest that the afflicted regions would be engulfed in pandemonium.¶ This potential for widespread failure is so plausible that former Congressman Roscoe Bartlett, who has spoken on the vulnerabilities of the US power grid, has advised that Those Who Can, Should Move Their Families Out Of the City:¶ After Hurricane Ike passed through the Houston area 2008 some 90% of the metropolitan was without power. While hospitals, police and critical infrastructure was restored within a few days, residents in outlying suburban areas experienced the outage for over three weeks. We witnessed the rapid loss of patience, increased anxiety and frustration, and the subsequent breakdown of interpersonal interaction at high-demand venues such as gas stations, where long lines, screaming matches and even fist fights became a common occurrence.¶ The bottom line: As demonstrated in India today, Quebec in 1989 (caused by a geo-magnetic storm originating from the sun), Ike in 2008, Hurricane Irene on the East coast in 2012 and the plethora of incidents that have taken place over the last couple of decades, the North American power grid, just as India’s, is susceptible to far-from-equilibrium situations, and sometimes it takes extended periods of time to get power up and running.¶ With just three major grids running the United States, our dependence on massive flows of electricity to power our home air conditioners, food refrigeration, communications, water and gas pump systems, and daily business operations could come to a screeching halt should the grid ever be struck by a natural disaster like a solar coronal mass ejection or a large-scale earthquake in California or on the Madrid fault. Likewise, as we’ve noted previously, rogue organizations looking to wreak havoc have already demonstrated the staggering security holes in our power, water and oil grid infrastructure, with leading cyber security firms noting that it is just a matter of time before disaster strikes.¶ While a short-term, isolated metropolitan outage can be dealt with by sourcing labor and supplies from unaffected areas of the country, considering that the US operates on three key power grid systems, a region-wide outage affecting just one of these nodes could lead to a cascading breakdown in the electrical power system that envelops the entire country.¶ The most dangerous possibility emerges when we look at threats posed by the sun or a rogue terror cell or nation that could deploy an Electro-Magnetic Pulse weapon (EMP / Super EMP) over American skies. It’s been surmised that either one of these possibilities could cause damage so staggering that the grid would be down for months, leaving millions without just-in-time food and gas delivery systems, medical care, local emergency response, or even clean water. According to one estimate, some 90% of Americans would die in such a scenario if the power wasn’t restored within one year.¶ Thus, it is clear that our power grids are a critical lifeline to keeping life as we know it in the world today operational. And, as we have seen historically and India this morning, power grids can and do crash – even in countries with hundreds of millions of residents.

#### Al Qaeda can and will pull off a cyber-attack – Al Qaeda video proves

Cloherty ‘12

(Jack Cloherty is the lead producer for the Justice Department/Homeland Security beat at World News. “Virtual Terrorism: Al Qaeda Video Calls for 'Electronic Jihad'” May 22, 2012 accessed online September 15, 2012 at http://abcnews.go.com/Politics/cyber-terrorism-al-qaeda-video-calls-electronic-jihad/story?id=16407875#.UFS0p42PVe-, TSW)

Al Qaeda may be turning its destructive attention to cyber-warfare against the United States. In a chilling video, an al Qaeda operative calls for "electronic jihad" against the United States, and compares vulnerabilities in vital American computer networks to the flaws in aviation security before the 9/11 attack.¶ The al Qaeda video calls upon the "covert mujahidin" to launch cyber attacks against the U.S. networks of both government and critical infrastructure, including the electric grid. The video was obtained by the FBI last year, and released today by the Senate Committee on Homeland Security and Governmental Affairs.¶ "This is the clearest evidence we've seen that al Qaeda and other terrorist groups want to attack the cyber systems of our critical infrastructure," Homeland Security and Governmental Affairs Committee Chairman Joe Lieberman, I-Conn., said in a statement.¶ "This video is troubling as it urges al Qaeda adherents to launch a cyber attack on America," said Sen. Susan Collins, R-Maine, the ranking member on the committee. "It's clear that al Qaeda is exploring all means to do us harm and this is evidence that our critical infrastructure is a target."¶ ¶ Dept. of Homeland Security¶ In this screenshot obtained by the FBI, an Al... View Full Size¶ ¶ If Israel Attacks Iran Watch Video¶ The national security community says the threat of cyber attack is real, and the gap between terrorist aspirations and capability is closing. The senior intelligence official at Cyber Command, Rear Adm. Samuel Cox, has said al Qaeda operatives are seeking the capability to stage cyber attacks against U.S. networks and terrorists could purchase the capabilities to do so from expert criminal hackers.¶ Increasing evidence also suggests that Iran is looking to commit cyber attacks against the United States, according to testimony last month before the House Committee on Homeland Security. Iran's sponsorship of terrorist groups takes on a new dimension in cyberspace, where it could develop a powerful cyber weapon and pass it on to a terrorist group..¶ Lieberman is using the al Qaeda video to underline what he says is the need for new legislation..¶ "Congress needs to act now to protect the American public from a possible devastating attack on our electric grid, water delivery systems, or financial networks," he said. "As numerous, bipartisan national security experts have said, minimum cyber security standards for those networks are necessary to protect our national and economic security. That is why the Senate needs to act on our bipartisan Cyber Security Act that requires minimum security performance requirements for key critical infrastructure cyber networks."¶ The Homeland Security Committee says the Department of Homeland Security received more than 50,000 reports of cyber intrusions or attempted intrusions since October, an increase of 10,000 reports over the same period the previous year.

#### Current policy of cyber deterrence risks spoofing- leads to nuclear war.

Gelinas 10

(Ryan Richard, thesis for Master of Arts¶ in Security Studies from Georgetown, “CYBERDETERRENCE AND THE PROBLEM OF ATTRIBUTION” <https://repository.library.georgetown.edu/bitstream/handle/10822/553494/gelinasRyan.pdf?sequence=1>, SEH)

The set of cases analyzed here demonstrate decisively that attribution of cyber attacks is ¶ technically difficult and often politically unpalatable. Established networking protocols allow ¶ easy spoofing and obfuscation of source, destination, and intent of packets as they stream around ¶ the world. Attribution, as demonstrated in these cases, is often circumstantial at best. While ¶ victims often have strong suspicions of attackers‘ identities built from pieces of intelligence, the ¶ decisions of war and peace involved in a deterrence policy require a higher level of confidence ¶ than a measured hunch. To reach even elementary levels of attribution significant resources, ¶ expertise, and time are required.¶ The chilling suspicion of the unknown unknowns, the realization that undetected attacks ¶ may be underway at any moment, is potentially paralyzing to any deterrence policy. A ¶ deterrence policy of ―I will attack you back if you attack me, but only if I find out that you did it‖ ¶ is not an appropriate cornerstone of a computer network defense strategy. Without a response, ¶ an attacker can assume that the victim is either unable to detect the attack or, even more ¶ emboldening, the victim is unable or unwilling to make good on its threat. Cyber attacks can be ¶ a powerful part of salami tactics on the part of the attacker. If attacks are unable to generate a ¶ deterrent response in the cyber realm, what other lines can the attacker cross?¶ Addressing cases where the victim state realizes that it is being attacked, Lt. Gen. Keith ¶ Alexander, director of the National Security Agency, recently proposed that his future U.S. ¶ CYBERCOMMAND would support a deterrence doctrine by attacking back in a proportional and discriminating way against the sources of any cyber attack against the United States.¶ 69¶ He ¶ extended this case specifically to those where the identities of the attackers are unknown. ¶ According to Gen. Alexander, the U.S. will attack back in accordance with the rules of ¶ engagement and in accordance with the principles of proportionality and discrimination, with the ¶ caveat that ―neither proportionality nor discrimination requires that we know who is responsible ¶ before we take defensive action.‖¶ 70¶ With statements like this, Gen. Alexander and others are ¶ providing a strong incentive for enemies of the U.S. to launch cyber attacks on the United States ¶ from third-party territory, hoping to lure the U.S. into conflict with a nation that had no role in or ¶ idea of the attack.¶ What the cases analyzed in this paper illustrate is that deterrence is a phenomenally poor ¶ choice as a core component in a computer network defense strategy. Bloviation and bluster, ¶ vowing deterrent responses to attacks, make for good sound bites and allow for easy porting of¶ deep deterrence scholarship to the cyber realm. But less flashy policies and measures are more ¶ effective. Defense in depth, better security standards for software and hardware, robust ¶ computer network intelligence systems, and information sharing between and among industry ¶ and government are all good and necessary elements of a more successful computer network ¶ defense strategy. Combined with aggressive hack-back defensive measures that work to disrupt ¶ or exploit attacker infrastructure, vital networks will be better defended and deterrence as a ¶ general national policy tool will be better preserved for realms where it is more applicable.

#### That risks terrorism

Defense Science Board 8

(The DSB is a Federal ¶ Advisory Committee established to provide independent advice to the Secretary of ¶ Defense, “More Fight – Less Fuel” <http://www.acq.osd.mil/dsb/reports/ADA477619.pdf>, SEH)

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. About 85% of the energy infrastructure upon which DoD ¶ depends is commercially owned, and 99% of the electrical energy DoD installations ¶ consume originates outside the fence.¶ 3¶ As noted below, however, the grid 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. ¶ 2.3.1 State of the Grid ¶ The U.S.-Canadian electric grid is very efficient and cost effective but its design metric ¶ is efficiency more than resiliency. As a consequence, it is vulnerable to natural disaster or deliberate attack. The Task Force received several briefings from the Mission ¶ Assurance Division at Dahlgren (MAD), the Department of Energy and the utility ¶ industry. Based on these briefings, the Task Force is concerned about the condition of ¶ the grid and the ability to effect timely repairs. ¶ This concern extends not only to the complete dependency of critical national security ¶ missions on the grid, but also to its centrality to all facets of the nation’s economic life. ¶ To appreciate the seriousness of the impacts of an extended disruption, consider the ¶ 2003 Northeast blackout. At around 4:15pm EST on August 14, 2003 about 50 million ¶ people living in a 9,300 square mile area in the U.S. and Canada lost electrical power. ¶ More than 500 generating units at 265 power plants shut down during the outage, 22 of ¶ which were nuclear. Those plants took about two weeks to regain full capacity, and lost ¶ an average of more than half their capacity for 12 days. The shutdown was in part ¶ precautionary in nature. If an imbalance between load and supply occurs, power lines ¶ grow longer and sag from overheating and other hardware can fail. These imbalances ¶ can damage equipment that is hard-to-repair, requires long lead time to produce and is ¶ expensive. So, the grid quickly disconnects itself when a threatening imbalance is ¶ detected. Nuclear plants are required for safety reasons to shut down when the grid ¶ they’re connected to is de-energized.¶ 4¶ A U.S.-Canada Task Force found the main cause of the blackout to be the failure of a ¶ utility in Ohio to properly trim trees near a power line, causing the first in what became a ¶ set of cascading failures.¶ 5¶ Secretary of Energy Spencer Abraham said there would be ¶ no punishment for the utility because current U.S. law does not require electric reliability ¶ standards. However, the Energy Policy Act of 2005 (EPAct 2005) gave the Federal ¶ Energy Regulatory Commission (FERC) new authority to direct the industry to develop ¶ reliability standards. It directs FERC to designate an Electric Reliability Organization ¶ (ERO) to develop and propose reliability standards, which only after agreement by the ¶ industry become mandatory. The ERO chosen by the FERC is a volunteer, industry run ¶ organization. While FERC oversight of industry developed standards is an ¶ improvement over the previous situation, the Task Force remains concerned that FERC ¶ may be unable to reduce the risk to critical DoD missions to acceptable levels in a ¶ reasonable timeframe. ¶ Some have argued that the August 2003 incident shows that the protections built into ¶ the grid worked. Within several hours electricity was restored to many areas, though a ¶ few areas waited nearly a week. However, the incident highlights how easily the power ¶ grid could be taken down. Also, quick restoration was possible because no significant ¶ equipment was damaged, something that might not occur in future incidents. Further, ¶ during the blackout most systems failed that would detect unauthorized border ¶ crossings, port landings, or unauthorized access to vulnerable sites. Future such blackouts could be exploited for terrorist activity, with potentially far more catastrophic ¶ results. ¶ These risks exist elsewhere than in the U.S. For example, on September 28, 2003 Italy ¶ experienced the largest of a series of blackouts suffered through that year, affecting a ¶ total of 56 million people, and spilling into Switzerland.¶ 6¶ It was also the most serious ¶ blackout in Italy in 20 years. DoD installations located outside the continental United ¶ States (OCONUS) are dependent on the commercial grids serving their locations. ¶ Security of their power supplies and continuation of their missions is as important as ¶ within the U.S.

#### Numerous attempts prove our impact

Wagner 9/11

(Dr. Abraham R. Wagner is a Professor of International and Public Affairs at the ¶ Arnold A. Saltzman Institute of War & Peace Studies at Columbia University. “Counter-Terrorism Technologies -- Taking Stock on 9/11” 09/11/2012 2:13 pm accessed online September 11, 2012 at <http://www.huffingtonpost.com/abraham-r-wagner/counterterrorism-technolo_b_1874521.html>, TSW)

On this 11th anniversary of the 9/11 attacks, it makes sense to take stock of where the nation has progressed in its effort to deter and combat future terrorist attacks, both at home and abroad. The 9/11 attacks came as a shock, and have rightfully come to be regarded as a major U.S. intelligence failure. In the aftermath, the nation undertook significant organizational reforms designed to enable more effective intelligence and law enforcement operations against evolving terrorist threats. The country also looked to see what science, engineering and technology could do to help addresses these threats.¶ Technology has long been the nation's strong suit. Americans tend to believe that where there is a problem, there must certainly be a solution and it most likely involves technology and money. During the decade that followed 9/11, billions of dollars were spent on a vast range of programs and technologies in the name of counter-terrorism. For the first two years after 9/11, I joined with other scientists and engineers at the Department of Defense and the Intelligence Community in efforts to identify the most promising approaches to the problem. Ultimately we found that there was no magic bullet or perfect solution to this thorny problem, but were able to suggest a range of investments that could be made to address the evolving terrorist threat.¶ An honest assessment of these investments in counter-terrorism technologies reveals that the results have been mixed -- as one might well expect. A combination of greatly improved intelligence and law enforcement personnel have employed some of the better technologies with considerable success. Indeed, some 45 terrorist plots have been stopped and others deterred. How much of this has been simply luck and how much can be traced to any new technology program is a matter of debate, and there are clearly examples of both that can be found.¶ One area where technology has made a significant contribution has been in new systems to aid in intelligence and surveillance against terrorist operations. While terrorists may hold to an eighth century ideology, they have not been reluctant to employ 21st century communications and information technologies. They have utilized the Internet and cell phones for a number of purposes, and at the time of 9/11 the nation was in need of systems to intercept and sort out terrorist communications. While highly sensitive, public disclosures about several key programs show that considerable progress has been made in this critical area, giving the intelligence agencies some key tools in locating terrorists and stopping their plots. Aside from communications intercept, a new area of "data mining" has also shown considerable promise in locating terrorists and their plots.¶ At the same time, several of key surveillance programs used for counter-terrorism have come under fire from civil liberties groups as being unconstitutional violations of the Fourth Amendment privacy protections, and others. Critics of the Bush Administration saw this as "running roughshod over the Constitution." Even now there are still federal court challenges to laws such as the 2008 FISA Amendments Act and others that have enabled counter-terrorist efforts since 9/11. Ultimately a balance needs to be struck between the essential needs for intelligence to thwart future attacks and protected privacy rights, but as yet it remains an unsettled area where the Supreme Court will need to rule at some future point in time.¶ Less controversial have been efforts over the past decade to employ new information technologies to what has been termed the Information Sharing Environment -- collaborative efforts to best utilize available intelligence and other data among the various federal, state and local agencies with counter-terrorism responsibilities. While certainly some progress has been made over the past 11 years, the net result is largely a national embarrassment, and clearly a triumph of politics over physics. The information and communications technologies are all well-developed, but multiple bureaucracies have generated a set of plans and an even larger set of excuses as to why the fundamental problems in this area remain to be solved.

#### Leads to a bioattack.

De Rugy and Pena 2

, \*policy analyst, \*senior defense policy analyst at the Cato Institute, (Veronique and Charles, “ Responding to the Threat of Smallpox Bioterrorism An Ounce of Prevention Is Best Approach” April 18, Policy Analysis No. 432 <http://www.cato.org/pubs/pas/pa434.pdf>)

There is evidence that al-Qaeda members have been trying to acquire nuclear materials since at least 1994 and have experimented with using chemical weapons (cyanide).4 Intelligence sources have pointed to an alQaeda training camp (called abu-Khabab after the Egyptian chemical-biological weapons expert who directed it) outside Jalalabad, Afghanistan, as a chemical and biological weapons training facility.5 And a manual (“Encyclopedia of Afghan Resistance”) distributed on CD-ROM includes a section on how to make chemical and biological weapons.6 Finally, there is evidence that the September 11 terrorists were interested in crop-dusters, which could be used to distribute a chemical or biological agent.7 Terrorism and WMD Although the use of any WMD by a terrorist group would be an event of devastating proportions, there are differences worth noting and understanding between potential nuclear, chemical, and biological terrorist attacks. A low-yield nuclear weapon would cause immediate damage to a circumscribed area by explosive blast, overpressure, extreme heat, and radiation. If such a weapon were detonated in a major metropolitan area, the casualties would likely be in excess of 100,000 dead, injured, and subjected to lethal doses of radiation.8 The Aum Shinrikyo cult used a chemical weapon, Sarin (a nerve agent so deadly that a single drop on the skin can be fatal) in the 1995 Tokyo subway attack. The attack was not a complete success because of ineffective dissemination, but 12 people died and nearly 3,800 were injured.9 Aum Shinrikyo also used VX (10 to 1,000 times stronger than Sarin) in four other attacks. Those attacks were targeted against specific individuals or groups of people rather than aimed at inflicting massive casualties. In one instance, there was 1 fatality and in another 20 deaths, but the other attacks failed because of ineffective release of the VX agent.10 It is estimated that, under ideal conditions, a quart of VX properly distributed in a major metropolitan area could kill about 12 million people in 60 minutes.11 As catastrophic as either a nuclear or a chemical terrorist attack would be, the effects of the attack would be immediate and limited to people in the vicinity of the attack. Although the damage and casualties would likely be an order of magnitude or more greater than those of the World Trade Center attacks, it would be possible to know that an attack had taken place and respond accordingly. According to D. A. Henderson at Johns Hopkins University, “After an explosion or a chemical attack, the worst effects are quickly over, the dimensions of the catastrophe can be defined, the toll of injuries and deaths can be ascertained, and efforts can be directed to stabilization and recovery.”12 Bioterrorism Is Different from Nuclear or Chemical Attacks The nature of bioterrorism, however, is very different from that of nuclear or chemical attacks. Biological agents are diseasecausing organisms. If the organisms used are contagious pathogens, their effects can be passed on unknowingly, thereby spreading the damage well beyond the people who are initially infected. If successful, a smallpox attack could be more devastating than even a nuclear weapon. Unlike a nuclear or chemical attack, a biological attack would not be detected immediately; there is usually an incubation period of several days to a few weeks before the first symptoms appear in infected persons. Furthermore, it would be difficult to know immediately whether infection was the result of a natural outbreak of a disease or of a premeditated release of the pathogen. And even if there is an antidote for the disease, detection of the attack may occur too late for the antidote to be effective. The devastation that could be caused by a biological attack can be demonstrated by the natural outbreak of influenza in the United States during the winter of 1918–19. The first signs of the influenza virus (the symptoms being no different than those of a common cold, which further highlights the difficulties associated with detecting and diagnosing biological infection) occurred in the spring of 1918 in military camps throughout the United States. American soldiers carried the flu to Europe where it mutated into a killer virus. Returning troops brought the disease back to the United States where it spread to the civilian population. By the fall of 1918 the United States was in the grips of an influenza epidemic that killed an estimated 675,000 Americans.13 But, unlike a natural outbreak of a disease such as influenza, a bioterrorist attack would be an intentional release of a deadly disease by a thinking enemy intent on inflicting mass casualties. In all likelihood, an effective bioterrorist attack would ultimately exact a similar or greater toll. The threat of bioterrorism is especially worrisome because of the vulnerability of the U.S. population to such an attack. Indeed, according to the Chemical and Biological Arms Control Institute, “The vulnerabilities of the United States to bioterrorism attack are virtually infinite.”14 As a result, the problem of bioterrorism can paralyze policymakers and response planners. Frequently, such a large threat is downplayed, dismissed, or ignored. For example, Milton Leitenberg at the Center for International and Security Studies at the University of Maryland wrote (before September 11), “As regards bioterrorism, the current national discussion is characterized by gross exaggeration, hype, and abstract vulnerability assessments.”15 Leitenberg further asserted, “The greatest problem that the United States—and the world—face regarding biological weapons is their proliferation among nation states, and not the potential of their use by non-state, or ‘terrorist’ actors.”16 In other words—at least before September 11—Leitenberg thought not only that the threat of bioterrorism was exaggerated but also that terrorists were not the problem the United States should focus on. September 11 demonstrated that the United States can ill afford such an attitude. No one can predict a bioterrorist attack with high certainty and confidence. But a simple “back of the envelope” threat assessment using a model used by Col. Lani Kass (USAF, Ret.) at the National War College,17 Vulnerability x Intentions x Capabilities = Threat provides insight about and understanding of the potential of a future bioterrorist attack. The vulnerability of the United States to such an attack is quite high. The attacks on the World Trade Center and the Pentagon demonstrate the seriousness of al-Qaeda’s intentions. The big unknown is whether alQaeda possesses the capabilities to carry out an attack with biological weapons. But, as demonstrated by September 11, the United States can ill afford to ignore the possibility. The Smallpox Threat A bioterrorist attack could come in one (or more) of many forms (plague, smallpox, or anthrax, for example). Of those, smallpox is the threat most often discussed. Concerns about smallpox as a potential bioweapon were heightened when Ken Alibek, a former deputy director of the Soviet Union’s civilian bioweapons program, alleged that the Soviet government produced the smallpox virus in large quantities and weaponized it. Alibek also contended that Russia continued the program after the disintegration of the USSR.18 Given the deterioration of the Russian military and the supporting industrial complex, there are legitimate concerns that equipment, expertise, and possibly even the virus or weaponized smallpox19 could have fallen into non-Russian hands.20 Smallpox is an especially serious threat because of its high case-fatality rate (30 percent or more of unvaccinated persons)21 and transmissibility (it spreads easily via inhalation of droplets or direct contact with contaminated objects such as clothing or bed linens).22 There is also no known effective treatment for smallpox.23 Smallpox has long been feared as the most devastating of all infectious diseases (before its supposed eradication from the world in 1978, smallpox had killed more people than any other infectious disease in human history),24 and its potential for devastation is far greater today since there has been no routine vaccination in the United States for more than 25 years. 25 Therefore, in a highly susceptible and mobile population, smallpox would be able to spread widely and rapidly. The smallpox virus is also easy to disperse. It is one of the smallest living organisms and can be easily prepared as an aerosol and released into the air in a crowded place such as a shopping mall or a sports stadium. Or a suicide terrorist with the virus could infect passersby simply by coughing and sneezing, which can release millions of virus particles into the air.26 One example of the magnitude of the consequences of a potential bioterrorist attack with smallpox is the Dark Winter exercise conducted in June 2001.27 Dark Winter was a fictional scenario depicting a terrorist attack using smallpox released via aerosol at three shopping malls in Oklahoma, Georgia, and Pennsylvania. On day 1 of the crisis (nine days after initial exposure), all that was known was that some two dozen people reported to hospitals in Oklahoma City (there were no similar signs of potential outbreak in Georgia and Pennsylvania where the dispersion was not as effective but nonetheless resulted in infected people) with flulike symptoms of a strange illness, which was later confirmed by the Centers for Disease Control as smallpox. Assuming that each case was expected to infect at least 10 other people,28 on day 6 of the crisis there were 2,000 known cases of smallpox and 300 deaths. Due to limited amounts (12 million doses) on hand, the reserve of smallpox vaccine was effectively used up on day 6. By day 12 of the crisis, there were 3,000 cases and 1,000 dead in 25 states. With no vaccine, the smallpox virus was projected to explode as follows: • After 3 weeks: 30,000 cases and 10,000 dead • After 5 weeks: 300,000 cases and 100,000 dead • After 7 weeks: 3 million cases and 1 million dead It is important to emphasize that the purpose of the Dark Winter exercise was not to make the case that smallpox is the weapon most likely to be used in a bioterrorist attack (it is impossible to make such predictions). However, the Dark Winter exercise did demonstrate that the use of a contagious pathogen as a weapon of bioterrorism can have devastating and far-reaching effects. The consequences of an attack with smallpox are potentially catastrophic, and such an attack is the only external threat to the continued existence of the United States other than a massive nuclear attack from Russia. Therefore, even if likelihood cannot be established, the effects of smallpox as a weapon of bioterrorism warrant taking the threat seriously in order to understand the efficacy of potential response options. Also, preventive measures, which might act as a potential deterrent, reduce the risk, and mitigate the consequences of an attack, need to be examined and evaluated.

#### Terrorists can obtain Bio-weapons and will use them – Syria Demise

Blair ‘12

(Charles P. Blair joined FAS in June 2010. He is the Senior Fellow on State and Non-State Threats. Born and raised in Los Alamos, New Mexico, Mr. Blair was an exchange student in Moscow in the mid-1980s, witnessing firsthand the closing salvos of the Cold War. Since the end of that era, Mr. Blair has worked on issues relating to the diffusion and diversification of weapons of mass destruction (WMD) in the context of proliferation amid the rise of mass casualty terrorism incidents and the centripetal and centrifugal elements of globalization. Mr. Blair’s work focuses on state and violent non-state actors (VNSA) – amid a dystopic and increasingly tribal world. “Fearful of a nuclear Iran? The real WMD nightmare is Syria” 1 MARCH 2012 accessed online August 22, 2012 at http://www.thebulletin.org/web-edition/op-eds/fearful-of-nuclear-iran-the-real-wmd-nightmare-syria)

As possible military action against Iran's suspected nuclear weapons program looms large in the public arena, far more international concern should be directed toward Syria and its weapons of mass destruction. When the Syrian uprising began more than a year ago, few predicted the regime of President Bashar al-Assad would ever teeter toward collapse. Now, though, the demise of Damascus's current leadership appears inevitable, and Syria's revolution will likely be an unpredictable, protracted, and grim affair. Some see similarities with Libya's civil war, during which persistent fears revolved around terrorist seizure of Libyan chemical weapons, or the Qaddafi regime's use of them against insurgents. Those fears turned out to be unfounded.¶ But the Libyan chemical stockpile consisted of several tons of aging mustard gas leaking from a half-dozen canisters that would have been impossible to utilize as weapons. Syria likely has one of the largest and most sophisticated chemical weapon programs in the world. Moreover, Syria may also possess an offensive biological weapons capability that Libya did not.¶ While it is uncertain whether the Syrian regime would consider using WMD against its domestic opponents, Syrian insurgents, unlike many of their Libyan counterparts, are increasingly sectarian and radicalized; indeed, many observers fear the uprising is being "hijacked" by jihadists. Terrorist groups active in the Syrian uprising have already demonstrated little compunction about the acquisition and use of WMD. In short, should Syria devolve into full-blown civil-war, the security of its WMD should be of profound concern, as sectarian insurgents and Islamist terrorist groups may stand poised to seize chemical and perhaps even biological weapons.¶ An enormous unconventional arsenal. Syria's chemical weapons stockpile is thought to be massive. One of only eight nations that is not a member of the Chemical Weapons Convention -- an arms control agreement that outlaws the production, possession, and use of chemical weapons -- Syria has a chemical arsenal that includes several hundred tons of blistering agents along with likely large stockpiles of deadly nerve agents, including VX, the most toxic of all chemical weapons. At least four large chemical weapon production facilities exist. Additionally, Syria likely stores its deadly chemical weapons at dozens of facilities throughout the fractious country. In contrast to Libya's unusable chemical stockpile, analysts emphasize that Syrian chemical agents are weaponized and deliverable. Insurgents and terrorists with past or present connections to the military might feasibly be able to effectively disseminate chemical agents over large populations. (The Global Security Newswire recently asserted that "[t]he Assad regime is thought to possess between 100 and 200 Scud missiles carrying warheads loaded with sarin nerve agent. The government is also believed to have several hundred tons of sarin agent and mustard gas stockpiled that could be used in air-dropped bombs and artillery shells, according to information compiled by the James Martin Center.")¶ Given its robust chemical weapons arsenal and its perceived need to deter Israel, Syria has long been suspected of having an active biological weapons program. Despite signing the Biological Weapons and Toxins Convention in 1972 (the treaty prohibits the development, production, and stockpiling of biological and toxin weapons), Syria never ratified the treaty. Some experts contend that any Syrian biological weapons program has not moved beyond the research and development phase. Still, Syria's biotechnical infrastructure undoubtedly has the capability to develop numerous biological weapon agents. After Israel destroyed a clandestine Syrian nuclear reactor in September 2007, Damascus may have accelerated its chemical and biological weapons programs.¶ It's hard to guard WMD when a government collapses. Although the United States and its allies are reportedly monitoring Syria's chemical weapons, recent history warns that securing them from theft or transfer is an extraordinary challenge. For example, during Operation Iraqi Freedom, more than 330 metric tons of military-grade high explosives vanished from Iraq's Al-Qaqaa military installation. Almost 200 tons of the most powerful of Iraq's high-explosives, HMX -- used by some states to detonate nuclear weapons -- was under International Atomic Energy Agency seal. Many tons of Al-Qaqaa's sealed HMX reportedly went missing in the early days of the war in Iraq. Forensic tests later revealed that some of these military-grade explosives were subsequently employed against US and coalition forces.¶ Even with a nationwide presence of 200,000 coalition troops, several other sensitive military sites were also looted, including Iraq's main nuclear complex, Tuwaitha. Should centralized authority crumble in Syria, it seems highly unlikely that the country's 50 chemical storage and manufacturing facilities -- and, possibly, biological weapon repositories -- can be secured. The US Defense Department recently estimated that it would take more than 75,000 US military personnel to guard Syria's chemical weapons. This is, of course, if they could arrive before any WMD were transferred or looted -- a highly unlikely prospect.¶ Complicating any efforts to secure Syria's WMD, post-Assad, are its porous borders. With Syria's government distracted by internal revolt and US forces now fully out of Iraq, it is plausible that stolen chemical or biological weapons could find their way across the Syrian border into Iraq. Similarly, Syrian WMD could be smuggled into southern Turkey, Jordan, Lebanon, the West Bank, Israel, and, potentially, the United States and Europe.¶ At least six formal terrorist organizations have long maintained personnel within Syria. Three of these groups -- Hamas, Hizbollah, and Palestinian Islamic Jihad -- have already attempted to acquire or use chemical or biological agents, or both. Perhaps more troubling, Al Qaeda-affiliated fighters from Iraq have streamed into Syria, acting, in part, on orders from Al Qaeda leader Ayman al-Zawahiri. In the past, Al Qaeda-in-Iraq fighters attempted to use chemical weapons, most notably attacks that sought to release large clouds of chlorine gas. The entry of Al Qaeda and other jihadist groups into the Syrian crisis underscores its increasingly sectarian manifestation. Nearly 40 percent of Syria's population consists of members of minority communities. Syria's ruling Alawite regime, a branch of Shia Islam, is considered heretical by many of Syria's majority Sunni Muslims -- even those who are not jihadists. Alawites, Druze, Kurds, and Christians could all become targets for WMD-armed Sunni jihadists. Similarly, Shiite radicals could conceivably employ WMD agents against Syria's Sunnis.¶ Religious fanaticism and WMD. Evidence of growing religious fanaticism is also reflected in recent Syrian suicide attacks. Since last December, at least five suicide attacks occurred in Syria. In the 40 years preceding, only two suicide attacks were recorded. Al Qaeda-linked mujahidin are believed to be responsible for all of these recent attacks. Civil wars are often the most violent and unpredictable manifestations of war. With expanding sectarian divisions, the use of seized WMD in Syria's uprising is plausible. To the extent that religious extremists believe that they are doing God's bidding, fundamentally any action they undertake is justified, no matter how abhorrent, since the "divine" ends are believed to legitimize PDF the means.¶ The situation in Syria is unprecedented. Never before has a WMD-armed country fallen into civil war. All states in the region stand poised to lose if these weapons find their way outside of Syria. The best possible outcome, in terms of controlling Syria's enormous WMD arsenal, would be for Assad to maintain power, but such an outcome seems increasingly implausible. And there is painfully little evidence that democratic forces are likely to take over in Syria. Even if they do eventually triumph, it will take months or years to consolidate control over the entire country.¶ If chaos ensues in Syria, the United States cannot go it alone in securing hundreds of tons of Syrian WMD. Regional leaders -- including some, such as Sunni Saudi Arabia and Shiite Iran, that are now backing the insurgency and the regime, respectively -- must come together and begin planning to avert a dispersion of Syrian chemical or biological weapons that would threaten everyone, of any political or religious persuasion, in the Middle East and around the world.

#### Extinction

Ochs 2

**(**Richard, Naturalist – Grand Teton National park with Masters in Natural Resource Management – Rutgers, “Biological Weapons must be abolished immediately” 6-9, http://www.freefromterror.net/other\_articles/abolish.html)

Of all the weapons of mass destruction, the genetically engineered biological weapons, many without a known cure or vaccine, are an extreme danger to the continued survival of life on earth. Any perceived military value or deterrence pales in comparison to the great risk these weapons pose just sitting in vials in laboratories. While a "nuclear winter," resulting from a massive exchange of nuclear weapons, could also kill off most of life on earth and severely compromise the health of future generations, they are easier to control. Biological weapons, on the other hand, can get out of control very easily, as the recent anthrax attacks has demonstrated. There is no way to guarantee the security of these doomsday weapons because very tiny amounts can be stolen or accidentally released and then grow or be grown to horrendous proportions. The Black Death of the Middle Ages would be small in comparison to the potential damage bioweapons could cause. Abolition of chemical weapons is less of a priority because, while they can also kill millions of people outright, their persistence in the environment would be less than nuclear or biological agents or more localized. Hence, chemical weapons would have a lesser effect on future generations of innocent people and the natural environment. Like the Holocaust, once a localized chemical extermination is over, it is over. With nuclear and biological weapons, the killing will probably never end. Radioactive elements last tens of thousands of years and will keep causing cancers virtually forever. Potentially worse than that, bio-engineered agents by the hundreds with no known cure could wreck even greater calamity on the human race than could persistent radiation. AIDS and ebola viruses are just a small example of recently emerging plagues with no known cure or vaccine. Can we imagine hundreds of such plagues? HUMAN EXTINCTION IS NOW POSSIBLE.

#### Even if it doesn’t kill everyone retaliation would

Conley 03

(Harry W., chief of the systems analysis Branch, Directorate of Requirements, Air and Space Power Journal- Spring 2003- http://www.airpower.maxwell.af.mil/airchronicles/apj/apj03/spr03/conley.html

The number of American casualties suffered due to a WMD attack may well be the most important variable in determining the nature of the US reprisal. A key question here is how many Americans would have to be killed to prompt a massive response by the United States. The bombing of marines in Lebanon, the Oklahoma City bombing, and the downing of Pan Am Flight 103 each resulted in a casualty count of roughly the same magnitude (150–300 deaths). Although these events caused anger and a desire for retaliation among the American public, they prompted no serious call for massive or nuclear retaliation. The body count from a single biological attack could easily be one or two orders of magnitude higher than the casualties caused by these events. Using the rule of proportionality as a guide, one could justifiably debate whether the United States should use massive force in responding to an event that resulted in only a few thousand deaths. However, what if the casualty count was around 300,000? Such an unthinkable result from a single CBW incident is not beyond the realm of possibility: “According to the U.S. Congress Office of Technology Assessment, 100 kg of anthrax spores delivered by an efficient aerosol generator on a large urban target would be between two and six times as lethal as a one megaton thermo-nuclear bomb.”46 Would the deaths of 300,000 Americans be enough to trigger a nuclear response? In this case, proportionality does not rule out the use of nuclear weapons. Besides simply the total number of casualties, the types of casualties- predominantly military versus civilian- will also affect the nature and scope of the US reprisal action. Military combat entails known risks, and the emotions resulting from a significant number of military casualties are not likely to be as forceful as they would be if the attack were against civilians. World War II provides perhaps the best examples for the kind of event or circumstance that would have to take place to trigger a nuclear response. A CBW event that produced a shock and death toll roughly equivalent to those arising from the attack on Pearl Harbor might be sufficient to prompt a nuclear retaliation. President Harry Truman’s decision to drop atomic bombs on Hiroshima and Nagasaki- based upon a calculation that up to one million casualties might be incurred in an invasion of the Japanese homeland 47- is an example of the kind of thought process that would have to occur prior to a nuclear response to a CBW event. Victor Utgoff suggests that “if nuclear retaliation is seen at the time to offer the best prospects for suppressing further CB attacks and speeding the defeat of the aggressor, and if the original attacks had caused severe damage that had outraged American or allied publics, nuclear retaliation would be more than just a possibility, whatever promises had been made.”48

### Advantage 2 Leadership

#### SMR key to nuclear leadership

Rosner and Goldberg 11

(Robert Rosner, astrophysicist and founding director of the Energy Policy Institute at Chicago. He was the director of Argonne National Laboratory from 2005 to 2009, Stephen Goldberg, Special Assistant to the Director, Argonne National Laboratory ¶ Senior Fellow, Energy Policy Institute at Chicago¶ Research Coordinator, Global Nuclear Future Initiative ¶ American Academy of Arts and Sciences, “Small Modular Reactors – Key to Future Nuclear Power ¶ Generation in the U.S.” Energy Policy Institute at Chicago, <http://csis.org/files/attachments/111129_SMR_White_Paper.pdf>, SEH)

As stated earlier, SMRs have the potential to achieve significant greenhouse gas emission ¶ reductions. They could provide alternative baseload power generation to facilitate the retirement ¶ of older, smaller, and less efficient coal generation plants that would, otherwise, not be good ¶ candidates for retrofitting carbon capture and storage technology. They could be deployed in ¶ regions of the U.S. and the world that have less potential for other forms of carbon-free ¶ electricity, such as solar or wind energy. There may be technical or market constraints, such as ¶ projected electricity demand growth and transmission capacity, which would support SMR ¶ deployment but not GW-scale LWRs. From the on-shore manufacturing perspective, a key point ¶ is that the manufacturing base needed for SMRs can be developed domestically. Thus, while the ¶ large commercial LWR industry is seeking to transplant portions of its supply chain from current ¶ foreign sources to the U.S., the SMR industry offers the potential to establish a large domestic ¶ manufacturing base building upon already existing U.S. manufacturing infrastructure and ¶ capability, including the Naval shipbuilding and underutilized domestic nuclear component and ¶ equipment plants. The study team learned that a number of sustainable domestic jobs could be ¶ created – that is, the full panoply of design, manufacturing, supplier, and construction activities – ¶ if the U.S. can establish itself as a credible and substantial designer and manufacturer of SMRs. ¶ While many SMR technologies are being studied around the world, a strong U.S. ¶ commercialization program can enable U.S. industry to be first to market SMRs, thereby serving ¶ as a fulcrum for export growth as well as a lever in influencing international decisions on ¶ deploying both nuclear reactor and nuclear fuel cycle technology. A viable U.S.-centric SMR ¶ industry would enable the U.S. to recapture technological leadership in commercial nuclear ¶ technology, which has been lost to suppliers in France, Japan, Korea, Russia, and, now rapidly ¶ emerging, China.

#### US dominance in SMR’s key to nuclear leadership which prevents proliferation

Loudermilk 11

(Micah J. Loudermilk is a Research Associate for the Energy & Environmental Security Policy program with the Institute for National Strategic Studies at National Defense University, “Small Nuclear Reactors and US Energy Security: Concepts, Capabilities, and Costs” Journal of Energy Security, May 2011, <http://www.ensec.org/index.php?option=com_content&view=article&id=314:small-nuclear-reactors-and-us-energy-security-concepts-capabilities-and-costs&catid=116:content0411&Itemid=375>, SEH)

Combating proliferation with US leadership¶ Reactor safety itself notwithstanding, many argue that the scattering of small reactors around the world would invariably lead to increased proliferation problems as nuclear technology and know-how disseminates around the world. Lost in the argument is the fact that this stance assumes that US decisions on advancing nuclear technology color the world as a whole. In reality, regardless of the US commitment to or abandonment of nuclear energy technology, many countries (notably China) are blazing ahead with research and construction, with 55 plants currently under construction around the world—though Fukushima may cause a temporary lull.¶ Since Three Mile Island, the US share of the global nuclear energy trade has declined precipitously as talent and technology begin to concentrate in countries more committed to nuclear power. On the small reactor front, more than 20 countries are examining the technology and the IAEA estimates that 40-100 small reactors will be in operation by 2030. Without US leadership, new nations seek to acquire nuclear technology turn to countries other than the US who may not share a deep commitment to reactor safety and nonproliferation objectives. Strong US leadership globally on nonproliferation requires a vibrant American nuclear industry. This will enable the US to set and enforce standards on nuclear agreements, spent fuel reprocessing, and developing reactor technologies.¶ As to the small reactors themselves, the designs achieve a degree of proliferation-resistance unmatched by large reactors. Small enough to be fully buried underground in independent silos, the concrete surrounding the reactor vessels can be layered much thicker than the traditional domes that protect conventional reactors without collapsing. Coupled with these two levels of superior physical protection is the traditional security associated with reactors today. Most small reactors also are factory-sealed with a supply of fuel inside. Instead of refueling reactors onsite, SMRs are returned to the factory, intact, for removal of spent fuel and refueling. By closing off the fuel cycle, proliferation risks associated with the nuclear fuel running the reactors are mitigated and concerns over the widespread distribution of nuclear fuel allayed.

#### That leads to runaway proliferation

Macalister 9

(Terry, energy editor of the Guardian, He is an award-winning journalist and has just produced a new ebook focusing on the opportunities and threats posed by industrialization of the Arctic. “New generation of nuclear power stations 'risk terrorist anarchy” <http://www.guardian.co.uk/environment/2009/mar/16/nuclearpower-nuclear-waste>. SEH)

The new generation of atomic power stations planned for Britain, China and many other parts of the world risks proliferation that could lead to "nuclear anarchy", a security expert warned in a report published today.¶ Governments and multilateral organisations must come up with a strategy to deal the impact of the new nuclear age, which will produce enough plutonium to make 1m nuclear weapons by 2075, argues Frank Barnaby from the Oxford Research Group thinktank in a paper for the Institute for Public Policy Research (IPPR).¶ "We are at a crossroads. Unless governments work together to safeguard nuclear energy supplies, the rise in unsecured nuclear technology will put us all in danger. Without this, we are hurtling towards a state of nuclear anarchy where terrorists or rogue states have the ways and means of making nuclear weapons or 'dirty bombs', the consequences of which are unimaginable," says Barnaby.¶ Any country choosing to operate new-generation nuclear reactors in future would have relatively easy access to plutonium, which is used to make the most efficient atomic weapons, along with the nuclear physicists and engineers to design them. These countries would be latent nuclear-weapon powers "and it is to be expected that some will take the political decision to become actual nuclear weapons powers," argues Barnaby in his paper submitted to the IPPR's independent Commission on National Security chaired by former Nato boss, Lord George Robertson.¶ The issue of nuclear proliferation security has been largely ignored until today as the nuclear power debate has concentrated on the economics, social issues and how to deal with radioactive waste.¶ Ministers in the UK have made clear their desire to see a new generation of facilities to replace existing ones at a time when North Sea gas is running out and the country needs to reduce its reliance on fossil fuels to meet its Kyoto protocol carbon emission targets. Nuclear power plants across the life cycle produce one third of the CO2 of gas-fired ones.¶ Barnaby says that a shortage of uranium for the kind of reactors that EDF and others are considering building in Britain could encourage them to reprocess fuel and produce more plutonium. But he is equally convinced that a nuclear renaissance will lead to fast breeder reactors which produce more nuclear fuel than they use and which could be useful to terrorists.¶ The Atomic Energy Agency and the Organisation for Economic Co-operation and Development have already suggested that uranium resources would last less than 70 years if processed using the current generation of light water nuclear reactors.¶ Barnaby wants the non-proliferation treaty strengthened at a "make or break" review conference next year and would also like to see countries as yet without nuclear capabilities discouraged from obtaining enriched uranium, a problem highlighted in the case of Iran.¶ Ian Kearns, deputy commissioner of the IPPR's security commission, said it was crucial that the rush to address climate change did not worsen the international security environment.¶ "A global nuclear renaissance, if badly managed, could bring enormous complications in terms of nuclear non-proliferation and terrorism. Policymakers need to be alert to the dangers and to construct policies that bring secure low-carbon energy and a stable nuclear weapons environment," he said.¶ Companies such as E.ON of Germany who want to build new nuclear plants in Britain declined to comment on the issue.

#### Proliferation risks nuclear war due to brinkmanship games- questions of deterrence miss the point.

Kroenig 12

(Matthew, assistant professor of Government at Georgetown University and a Stanton Nuclear Security Fellow at the Council on Foreign Relations, “The History of Proliferation Optimism: Does It Have A Future?” Non Proliferation Policy Center, <http://npolicy.org/article.php?aid=1182&tid=30#_ftn11>, SEH)

First and foremost, proliferation optimists do not appear to understand contemporary deterrence theory. I do not say this lightly in an effort to marginalize or discredit my intellectual opponents. Rather, I make this claim with all due caution and with complete sincerity. A careful review of the contemporary proliferation optimism literature does not reflect an understanding of, or engagement with, the developments in academic deterrence theory in top scholarly journals such as the American Political Science Review and International Organization over the past few decades.[35] While early optimists like Viner and Brodie can be excused for not knowing better, the writings of contemporary proliferation optimists ignore the past fifty years of academic research on nuclear deterrence theory. ¶ In the 1940s, Viner, Brodie, and others argued that the advent of Mutually Assured Destruction (MAD) rendered war among major powers obsolete, but nuclear deterrence theory soon advanced beyond that simple understanding.[36] After all, great power political competition does not end with nuclear weapons. And nuclear-armed states still seek to threaten nuclear-armed adversaries. States cannot credibly threaten to launch a suicidal nuclear war, but they still want to coerce their adversaries. This leads to a credibility problem: how can states credibly threaten a nuclear-armed opponent? Since the 1960s academic nuclear deterrence theory has been devoted almost exclusively to answering this question.[37] And, unfortunately for proliferation optimists, the answers do not give us reasons to be optimistic.¶ Thomas Schelling was the first to devise a rational means by which states can threaten nuclear-armed opponents.[38] He argued that leaders cannot credibly threaten to intentionally launch a suicidal nuclear war, but they can make a “threat that leaves something to chance.”[39] They can engage in a process, the nuclear crisis, which increases the risk of nuclear war in an attempt to force a less resolved adversary to back down. As states escalate a nuclear crisis there is an increasing probability that the conflict will spiral out of control and result in an inadvertent or accidental nuclear exchange. As long as the benefit of winning the crisis is greater than the incremental increase in the risk of nuclear war, threats to escalate nuclear crises are inherently credible. In these games of nuclear brinkmanship, the state that is willing to run the greatest risk of nuclear war before back down will win the crisis as long as it does not end in catastrophe. It is for this reason that Thomas Schelling called great power politics in the nuclear era a “competition in risk taking.”[40] This does not mean that states eagerly bid up the risk of nuclear war. Rather, they face gut-wrenching decisions at each stage of the crisis. They can quit the crisis to avoid nuclear war, but only by ceding an important geopolitical issue to an opponent. Or they can the escalate the crisis in an attempt to prevail, but only at the risk of suffering a possible nuclear exchange.¶ Since 1945 there were have been many high stakes nuclear crises (by my count, there have been twenty) in which “rational” states like the United States run a risk of nuclear war and inch very close to the brink of nuclear war.[41] By asking whether states can be deterred or not, therefore, proliferation optimists are asking the wrong question. The right question to ask is: what risk of nuclear war is a specific state willing to run against a particular opponent in a given crisis? Optimists are likely correct when they assert that Iran will not intentionally commit national suicide by launching a bolt-from-the-blue nuclear attack on the United States or Israel. This does not mean that Iran will never use nuclear weapons, however. Indeed, it is almost inconceivable to think that a nuclear-armed Iran would not, at some point, find itself in a crisis with another nuclear-armed power and that it would not be willing to run any risk of nuclear war in order to achieve its objectives. If a nuclear-armed Iran and the United States or Israel have a geopolitical conflict in the future, over say the internal politics of Syria, an Israeli conflict with Iran’s client Hezbollah, the U.S. presence in the Persian Gulf, passage through the Strait of Hormuz, or some other issue, do we believe that Iran would immediately capitulate? Or is it possible that Iran would push back, possibly even brandishing nuclear weapons in an attempt to deter its adversaries? If the latter, there is a real risk that proliferation to Iran could result in nuclear war.¶ An optimist might counter that nuclear weapons will never be used, even in a crisis situation, because states have such a strong incentive, namely national survival, to ensure that nuclear weapons are not used. But, this objection ignores the fact that leaders operate under competing pressures. Leaders in nuclear-armed states also have very strong incentives to convince their adversaries that nuclear weapons could very well be used. Historically we have seen that in crises, leaders purposely do things like put nuclear weapons on high alert and delegate nuclear launch authority to low level commanders, purposely increasing the risk of accidental nuclear war in an attempt to force less-resolved opponents to back down.¶ Moreover, not even the optimists’ first principles about the irrelevance of nuclear posture stand up to scrutiny. Not all nuclear wars would be equally devastating.[42] Any nuclear exchange would have devastating consequences no doubt, but, if a crisis were to spiral out of control and result in nuclear war, any sane leader would rather be facing a country with five nuclear weapons than one with thirty-five thousand. Similarly, any sane leader would be willing to run a greater risk of nuclear war against the former state than against the latter. Indeed, systematic research has demonstrated that states are willing to run greater risks and, therefore, more likely to win nuclear crises when they enjoy nuclear superiority over their opponent.[43] Proliferation optimists miss this point, however, because they are still mired in 1940s deterrence theory. It is true that no rational leader would choose to launch a nuclear war, but, depending on the context, she would almost certainly be willing to risk one. Nuclear deterrence theorists have proposed a second scenario under which rational leaders could instigate a nuclear exchange: a limited nuclear war.[44] By launching a single nuclear weapon against a small city, for example, it was thought that a nuclear-armed state could signal its willingness to escalate the crisis, while leaving its adversary with enough left to lose to deter the adversary from launching a full-scale nuclear response. In a future crisis between a nuclear-armed China and the United States over Taiwan, for example, China could choose to launch a nuclear attack on Honolulu to demonstrate its seriousness. In that situation, with the continental United States intact, would Washington choose to launch a full-scale nuclear war on China that could result in the destruction of many more American cities? Or would it back down? China might decide to strike hoping that Washington will choose a humiliating retreat over a full-scale nuclear war. If launching a limited nuclear war could be rational, it follows that the spread of nuclear weapons increases the risk of nuclear use. Again, by ignoring contemporary developments in scholarly discourse and relying exclusively on understandings of nuclear deterrence theory that became obsolete decades ago, optimists reveal the shortcomings of their analysis and fail to make a compelling case.

#### Proliferation draws major powers in to regional disputes

Kroenig 9

(Matthew, assistant professor of Government at Georgetown University and a Stanton Nuclear Security Fellow at the Council on Foreign Relations, “Beyond Optimism and Pessimism: ¶ The Differential Effects of Nuclear Proliferation” Harvard Kennedy School of Government, <http://belfercenter.ksg.harvard.edu/files/Beyond-Optimism-and-Pessimism.pdf>, SEH)

There is direct evidence that regional conflicts involving nuclear powers can ¶ encourage power-projecting states to become involved in nuclear disputes. Secretary of ¶ State Henry Kissinger was reluctant to aid Israel in the 1973 Yom Kippur War until Israeli ¶ Prime Minister Golda Meir threatened that, without U.S. assistance, she might be forced to ¶ use nuclear weapons against the Arab armies.¶ 52¶ In response, Kissinger reversed his decision ¶ and provided emergency aid to the Israeli Defense Forces.¶ 53¶ The Soviet Union also ¶ considered a military intervention to help its Arab proxies in the Yom Kippur War, causing ¶ the United States to go on nuclear alert, and leading leaders in both Moscow and ¶ Washington to consider the very real possibility that a conflict involving a regional nuclear ¶ power could spiral into a superpower war.¶ 54¶ Similarly, in 1999 and 2002, the United States became caught in diplomatic initiatives to prevent nuclear war in crises between the nuclear armed countries of India and Pakistan.¶ 55¶ ¶ Indeed, the expectation that powerful states will intervene in conflicts involving a ¶ nuclear-armed state is so firmly ingrained in the strategic thinking of national leaders that ¶ small nuclear powers actually incorporate it into their strategic doctrines. South Africa’s ¶ nuclear doctrine envisioned, in the event of an imminent security threat, the detonation of a ¶ nuclear weapon, not against the threatening party, but over the Atlantic Ocean in an attempt ¶ to jolt the United States into intervening on South Africa’s behalf.¶ 56¶ Israel’s nuclear ¶ doctrine was also constructed along similar lines. While the Israelis are notoriously silent ¶ about the existence and purpose of their nuclear arsenal, Francis Perrin, a French official ¶ who assisted in the development of Israel’s nuclear program in the 1950s and 1960s, ¶ explained that Israel’s arsenal was originally aimed “against the Americans, not to launch ¶ against America, but to say ‘If you don’t want to help us in a critical situation, we will require you to help us. Otherwise, we will use our nuclear bombs. Similarly, Pakistan’s surprise raid on Indian-controlled Kargil in 1999 was motivated partly by the expectation that Pakistan would be able to retain any territory it was able to seize quickly, because Pakistani officials calculated that the United States would never allow an extended conflict in nuclear South Asia.

#### That leads to great power war

Kroenig 9

(Matthew, assistant professor of Government at Georgetown University and a Stanton Nuclear Security Fellow at the Council on Foreign Relations, “Beyond Optimism and Pessimism: ¶ The Differential Effects of Nuclear Proliferation” Harvard Kennedy School of Government, <http://belfercenter.ksg.harvard.edu/files/Beyond-Optimism-and-Pessimism.pdf>, SEH)

Leaders in power-projecting states also fear that regional instability set off by nuclear¶ proliferation could entrap power-projecting states in a great power war. Other power projecting states, facing a mirror-image situation, may feel compelled to intervene in a crisis ¶ to secure their own interests, entangling multiple great powers in a regional conflict. In a¶ 1963 NIE, U.S. intelligence analysts assessed that “the impact of (nuclear proliferation in the¶ Middle East) will be the possibility that hostilities arising out of existing or future ¶ controversies could escalate into a confrontation involving the major powers.”¶ 67¶ President ¶ Johnson believed that a nuclear Israel meant increased Soviet involvement in the Middle¶ East and perhaps superpower war.¶ 68¶ If historical experience provides a guide, U.S. ¶ strategists at the time of writing are undoubtedly concerned by the possibility that China m¶ feel compelled to intervene in any conflict involving a nuclear-armed North Korea, making the Korean Peninsula another dangerous flash-point in the uncertain Sino-American strategic relationship.

#### US investment in SMRs key to beat china

Chu ‘10

(Mr. Chu is the U.S. Secretary of Energy. “America's New Nuclear Option” March 23, 2010 <http://online.wsj.com/article/SB10001424052748704231304575092130239999278.html>)

Perhaps most importantly, investing in nuclear energy will position America to lead in a growing industry. World-wide electricity generation is projected to rise 77% by 2030. If we are serious about cutting carbon pollution then nuclear power must be part of the solution. Countries such as China, South Korea and India have recognized this and are making investments in nuclear power that are driving demand for nuclear technologies. Our choice is clear: Develop these technologies today or import them tomorrow.¶ That is why—even as we build a new generation of clean and safe nuclear plants—we are constantly looking ahead to the future of nuclear power. As this paper recently reported, one of the most promising areas is small modular reactors (SMRs). If we can develop this technology in the U.S. and build these reactors with American workers, we will have a key competitive edge.¶ Small modular reactors would be less than one-third the size of current plants. They have compact designs and could be made in factories and transported to sites by truck or rail. SMRs would be ready to "plug and play" upon arrival.¶ If commercially successful, SMRs would significantly expand the options for nuclear power and its applications. Their small size makes them suitable to small electric grids so they are a good option for locations that cannot accommodate large-scale plants. The modular construction process would make them more affordable by reducing capital costs and construction times.¶ Their size would also increase flexibility for utilities since they could add units as demand changes, or use them for on-site replacement of aging fossil fuel plants. Some of the designs for SMRs use little or no water for cooling, which would reduce their environmental impact. Finally, some advanced concepts could potentially burn used fuel or nuclear waste, eliminating the plutonium that critics say could be used for nuclear weapons.

#### Without increasing nuclear technology, we lose out to China in nuclear leadership. The impact is Asian influence and proliferation.

Cullinane ‘11

[Scott Cullinane is a graduate student at the Institute of World Politics in Washington, D.C <http://www.ensec.org/index.php?option=com_content&view=article&id=319:america-falling-behind-the-strategic-dimensions-of-chinese-commercial-nuclear-energy&catid=118:content&Itemid=376> ETB]

Due to a confluence of events the United States has recently focused more attention on nuclear weapons policy than it has in previous years; however, the proliferation of commercial nuclear technology and its implications for America’s strategic position have been largely ignored. While the Unites States is currently a participant in the international commercial nuclear energy trade, America’s own domestic construction of nuclear power plants has atrophied severely and the US risks losing its competitive edge in the nuclear energy arena.¶ Simultaneously, the People’s Republic of China (PRC) has made great strides in closing the nuclear energy development gap with America. Through a combination of importing technology, research from within China itself, and a disciplined policy approach the PRC is increasingly able to leverage the export of commercial nuclear power as part of its national strategy. Disturbingly, China does not share America’s commitment to stability, transparency, and responsibility when exporting nuclear technology. This is a growing strategic weakness and risk for the United States. To remain competitive and to be in a position to offset the PRC when required the American government should encourage the domestic use of nuclear power and spur the forces of technological innovation.¶ History has recorded well American wartime nuclear developments which culminated in the July 1945 Trinity Test, but what happened near Arco, Idaho six years later has been overlooked. In 1951, scientists for the first time produced usable electricity from an experimental nuclear reactor. Once this barrier was conquered the atom was harnessed to generate electricity and permitted America to move into the field of commercial nuclear power. In the next five years alone the United States signed over 20 nuclear cooperation agreements with various countries. Not only did the US build dozens of power plants domestically during the 1960s and 1970s, the US Export-Import Bank also distributed $7.1 billion dollars in loans and guarantees for the international sale of 49 reactors. American built and designed reactors were exported around the world during those years. Even today, more than 60% of the world’s 440 operating reactors are based on technology developed in the United States. The growth of the US civilian nuclear power sector stagnated after the Three Mile Island incident in 1979 – the most serious accident in American civilian nuclear power history. Three Mile Island shook America’s confidence in nuclear power and provided the anti-nuclear lobby ample fuel to oppose the further construction of any nuclear power plants. In the following decade, 42 planned domestic nuclear power plants were cancelled, and in the 30 years since the Three Mile Island incident the American nuclear power industry has survived only through foreign sales and merging operations with companies in Asia and Europe. Westinghouse sold its nuclear division to Toshiba and General Electric joined with Hitachi. Even the highest levels of the American government came to cast nuclear power aside. President Bill Clinton bragged in his 1993 State of the Union Address that “we are eliminating programs that are no longer needed, such as nuclear power research and development.” ¶ America’s slow pace of reactor construction over the past three decades has stymied innovation and caused the nuclear sector and its industrial base to shrivel. While some aspects of America’s nuclear infrastructure still operate effectively, many critical areas have atrophied. For example, one capability that America has entirely lost is the means to cast ultra heavy forgings in the range of 350,000 – 600,000 pounds, which impacts the construction of containment vessels, turbine rotors, and steam generators. In contrast, Japan, China, and Russia all possess an ultra heavy forging capacity and South Korea and India plan to build forges in this range. Likewise, the dominance America enjoyed in uranium enrichment until the 1970s is gone. The current standard centrifuge method for uranium enrichment was not invented in America and today 40% of the enriched uranium US power plants use is processed overseas and imported. Another measure of how much the US nuclear industry has shrunk is evident in the number of companies certified to handle nuclear material. In the 1980s the United States had 400 nuclear suppliers and 900 holders of N-stamp certificates (N-stamps are the international nuclear rating certificates issued by the American Society of Mechanical Engineers). By 2008 that number had reduced itself to 80 suppliers and 200 N-stamp holders. A recent Government Accountability Office report, which examined data from between 1994 and 2009, found the US to have a declining share of the global commercial nuclear trade. However, during that same period over 60 reactors were built worldwide. Nuclear power plants are being built in the world increasingly by non-American companies.¶ The American nuclear industry entered the 1960s in a strong position, yet over the past 30 years other countries have closed the development gap with America. The implications of this change go beyond economics or prestige to include national security. These changes would be less threatening if friendly allies were the ones moving forward with developing a nuclear export industry;however, the quick advancement of the PRC in nuclear energy changes the strategic calculus for America.¶ The shifting strategic landscape¶ While America’s nuclear industry has languished, current changes in the world’s strategic layout no longer allow America the option of maintaining the status quo without being surpassed. The drive for research, development, and scientific progress that grew out of the Cold War propelled America forward, but those priorities have long since been downgraded by the US government. The economic development of formerly impoverished countries means that the US cannot assume continued dominance by default. The rapidly industrializing PRC is seeking its own place among the major powers of the world and is vying for hegemony in Asia; nuclear power is an example of their larger efforts to marshal their scientific and economic forces as instruments of national power.¶ The rise of China is a phrase that connotes images of a backwards country getting rich off of exporting cheap goods at great social and environmental costs. Yet, this understanding of the PRC has lead many in the United States to underestimate China’s capabilities. The Communist Party of China (CPC) has undertaken a comprehensive long-term strategy to transition from a weak state that lags behind the West to a country that is a peer-competitor to the United States. Nuclear technology provides a clear example of this. ¶ In 1978, General Secretary Deng Xiaoping began to move China out of the destructive Mao era with his policies of 'reform and opening.' As part of these changes during the 1980s, the CPC began a concerted and ongoing effort to modernize the PRC and acquire advanced technology including nuclear technology from abroad. This effort was named Program 863 and included both legal methods and espionage. By doing this, the PRC has managed to rapidly catch up to the West on some fronts. In order to eventually surpass the West in scientific development the PRC launched the follow-on Program 973 to build the foundations of basic scientific research within China to meet the nation’s major strategic needs. These steps have brought China to the cusp of the next stage of technological development, a stage known as “indigenous innovation.”¶ ¶ In 2006 the PRC published their science and technology plan out to 2020 and defined indigenous innovation as enhancing original innovation, integrated innovation, and re-innovation based on assimilation and absorption of imported technology in order improve national innovation capability. The Chinese seek to internalize and understand technological developments from around the world so that they can copy the equipment and use it as a point to build off in their own research. This is a step beyond merely copying and reverse engineering a piece of technology. The PRC sees this process of absorbing foreign technology coupled with indigenous innovation as a way of leapfrogging forward in development to gain the upper hand over the West. The PRC’s official statement on energy policy lists nuclear power as one of their target fields. When viewed within this context, the full range of implications from China’s development of nuclear technology becomes evident. The PRC is now competing with the United States in the areas of innovation and high-technology, two fields that have driven American power since World War Two. China’s economic appeal is no longer merely the fact that it has cheap labor, but is expanding its economic power in a purposeful way that directly challenges America’s position in the world.¶ ¶ The CPC uses the market to their advantage to attract nuclear technology and intellectual capital to China. The PRC has incentivized the process and encouraged new domestic nuclear power plant construction with the goal of having 20 nuclear power plants operational by 2020. The Chinese Ministry of Electrical Power has described PRC policy to reach this goal as encouraging joint investment between State Owned Corporations and foreign companies. 13 reactors are already operating in China, 25 more are under construction and even more reactors are in the planning stages. ¶ In line with this economic policy, China has bought nuclear reactors from Westinghouse and Areva and is cooperating with a Russian company to build nuclear power plants in Taiwan. By stipulating that Chinese companies and personnel be involved in the construction process, China is building up its own domestic capabilities and expects to become self-sufficient. China’s State Nuclear Power Technology Corporation has partnered with Westinghouse to build a new and larger reactor based on the existing Westinghouse AP 1000 reactor. This will give the PRC a reactor design of its own to then export. If the CPC is able to combine their control over raw materials, growing technical know-how, and manufacturing base, China will not only be a powerful economy, but be able to leverage this power to service its foreign policy goals as well.¶ Even though the PRC is still working to master third generation technology, their scientists are already working on what they think will be the nuclear reactor of the future. China is developing Fourth Generation Fast Neutron Reactors and wants to have one operational by 2030. Additionally, a Chinese nuclear development company has announced its intentions to build the “world’s first high-temperature, gas-cooled reactor” in Shandong province which offers to possibility of a reactor that is nearly meltdown proof. A design, which if proved successful, could potentially redefine the commercial nuclear energy trade.¶ The risk to America¶ The international trade of nuclear material is hazardous in that every sale and transfer increases the chances for an accident or for willful misuse of the material. Nuclear commerce must be kept safe in order for the benefits of nuclear power generation to be realized. Yet, China has a record of sharing dangerous weapons and nuclear material with unfit countries. It is a risk for America to allow China to become a nuclear exporting country with a competitive technical and scientific edge. In order to limit Chinese influence and the relative attractiveness of what they can offer, America must ensure its continuing and substantive lead in reactor technology.¶ ¶ The PRC’s record of exporting risky items is well documented. It is known that during the 1980s the Chinese shared nuclear weapon designs with Pakistan and continues to proliferate WMD-related material. According to the Office of the Director of National Intelligence to Congress, China sells technologies and components in the Middle East and South Asia that are dual use and could support WMD and missile programs. Jane’s Intelligence Review reported in 2006 that China,¶ Despite a 1997 promise to Washington to halt its nuclear technology sales to Iran, such assistance is likely to continue. In 2005, Iranian resistance groups accused China of selling Iran beryllium, which is useful for making nuclear triggers and maraging steel (twice as hard as stainless steel), which is critical for fabricating centrifuges needed to reprocess uranium into bomb-grade material. ¶ China sells dangerous materials in order to secure its geopolitical objectives, regardless if those actions harm world stability. There is little reason to believe China will treat the sale of nuclear reactors any differently. Even if the PRC provides public assurances that it will behave differently in the future, the CPC has not been truthful for decades about its nuclear material and weapons sales and hence lacks credibility. For example, in 1983 Chinese Vice Premier Li Peng said that China does not encourage or support nuclear proliferation. In fact, it was that same year that China contracted with Algeria, then a non-NPT [Non-Proliferation Treaty] state, to construct a large, unsafeguarded plutonium production reactor. In 1991 a Chinese Embassy official wrote in a letter to the The Washington Post that 'China has struck no nuclear deal with Iran.' In reality, China had provided Iran with a research reactor capable of producing plutonium and a calutron, a technology that can be used to enrich uranium to weapons-grade. It has been reported that even after United Nation sanctions were put on Iran, Chinese companies were discovered selling “high-quality carbon fiber” and “pressure gauges” to Iran for use in improving their centrifuges.¶ In 2004 the PRC joined the Nuclear Suppliers Groups (NSG), gaining international recognition of their growing power in the nuclear field. In spite of this opportunity for China to demonstrate its responsibility with nuclear energy, it has not fulfilled it NSG obligations. The PRC has kept the terms of its nuclear reactor sale to Pakistan secret and used a questionable legal technicality to justify forgoing obtaining a NSG waiver for the deal. Additionally, China chose to forgo incorporating new safety measures into the reactors in order to avoid possible complications.¶ A further consequence of China exporting reactors is that these countries may wish to control the fuel cycle which provides the uranium to power their new reactors. The spread of fuel cycle technology comes with two risks: enrichment and reprocessing. Uranium can be enriched to between 3% and 5% for reactor use, but the process can be modified to produce 90% enriched uranium which is weapons-grade. Even if a country only produces low enriched uranium they could easily begin enriching at a higher level if they so choose. Every new country that nuclear technology or information is spread to exponentially increases the risk of material being stolen, given to a third party or being used as the launching point for a weapons program. China’s history of proliferation and willingness to engage economically with very unsavory governments seems likely to increase the risks involving nuclear material.

#### U.S. leadership in Asia solves multiple scenarios for war

Goh 8

(Evelyn, Lecturer in International Relations in the Department of Politics and International Relations at the Univ of Oxford, International Relations of the Asia-Pacific, “Hierarchy and the role of the United States in the East Asian security order,” 2008 8(3):353-377, Oxford Journals Database)

This is the main structural dilemma: as long as the United States does not give up its primary position in the Asian regional hierarchy, China is very unlikely to act in a way that will provide comforting answers to the two questions. Yet, the East Asian regional order has been and still is constituted by US hegemony, and to change that could be extremely disruptive and may lead to regional actors acting in highly destabilizing ways. Rapid Japanese remilitarization, armed conflict across the Taiwan Straits, Indian nuclear brinksmanship directed toward Pakistan, or a highly destabilized Korean peninsula are all illustrative of potential regional disruptions. 5 Conclusion To construct a coherent account of East Asia’s evolving security order, I have suggested that the United States is the central force in constituting regional stability and order. The major patterns of equilibrium and turbulence in the region since 1945 can be explained by the relative stability of the US position at the top of the regional hierarchy, with periods of greatest insecurity being correlated with greatest uncertainty over the American commitment to managing regional order. Furthermore, relationships of hierarchical assurance and hierarchical deference explain the unusual character of regional order in the post-Cold War era. However, the greatest contemporary challenge to East Asian order is the potential conflict between China and the United States over rank ordering in the regional hierarchy, a contest made more potent because of the intertwining of regional and global security concerns. Ultimately, though, investigating such questions of positionality requires conceptual lenses that go beyond basic material factors because it entails social and normative questions. How can China be brought more into a leadership position, while being persuaded to buy into shared strategic interests and constrain its own in ways that its vision of regional and global security may eventually be reconciled with that of the United States and other regional players? How can Washington be persuaded that its central position in the hierarchy must be ultimately shared in ways yet to be determined? The future of the East Asian security order is tightly bound up with the durability of the United States’ global leadership and regional domination. At the regional level, the main scenarios of disruption are an outright Chinese challenge to US leadership, or the defection of key US allies, particularly Japan. Recent history suggests, and the preceding analysis has shown, that challenges to or defections from US leadership will come at junctures where it appears that the US commitment to the region is in doubt, which in turn destabilizes the hierarchical order. At the global level, American geopolitical over-extension will be the key cause of change. This is the one factor that Hierarchy and the role of the United States in the East Asian security order 373lead to both greater regional and global turbulence, if only by the attendant strategic uncertainly triggering off regional challenges or defections. However, it is notoriously difficult to gauge thresholds of over-extension. More positively, East Asia is a region that has adjusted to previous periods of uncertainty about US primacy. Arguably, the regional consensus over the United States as primary state in a system of benign hierarchy could accommodate a shifting of the strategic burden to US allies like Japan and Australia as a means of systemic preservation. The alternatives that could surface as a result of not doing so would appear to be much worse.

#### Asian wars go nuclear

Landy 2k

 National Security Expert @ Knight Ridder, 3/10

(Jonathan, Knight Ridder, lexis)

Few if any experts think China and Taiwan, North Korea and South Korea, or India and Pakistan are spoiling to fight. But even a minor miscalculation by any of them could destabilize Asia, jolt the global economy and even start a nuclear war. India, Pakistan and China all have nuclear weapons, and North Korea may have a few, too. Asia lacks the kinds of organizations, negotiations and diplomatic relationships that helped keep an uneasy peace for five decades in Cold War Europe. “Nowhere else on Earth are the stakes as high and relationships so fragile,” said Bates Gill, director of northeast Asian policy studies at the Brookings Institution, a Washington think tank. “We see the convergence of great power interest overlaid with lingering confrontations with no institutionalized security mechanism in place. There are elements for potential disaster.” In an effort to cool the region’s tempers, President Clinton, Defense Secretary William S. Cohen and National Security Adviser Samuel R. Berger all will hopscotch Asia’s capitals this month. For America, the stakes could hardly be higher. There are 100,000 U.S. troops in Asia committed to defending Taiwan, Japan and South Korea, and the United States would instantly become embroiled if Beijing moved against Taiwan or North Korea attacked South Korea. While Washington has no defense commitments to either India or Pakistan, a conflict between the two could end the global taboo against using nuclear weapons and demolish the already shaky international nonproliferation regime. In addition, globalization has made a stable Asia \_ with its massive markets, cheap labor, exports and resources \_ indispensable to the U.S. economy. Numerous U.S. firms and millions of American jobs depend on trade with Asia that totaled $600 billion last year, according to the Commerce Department.

### Solvency

#### SMRs deployable soon

U.S. Department of Commerce International Trade Administration 11

(“The Commercial Outlook for¶ U.S. Small Modular Nuclear¶ Reactors” <http://www.trade.gov/publications/pdfs/the-commercial-outlook-for-us-small-modular-nuclear-reactors.pdf>, SEH)

Although SMRs have significant potential and ¶ the market for their deployment is growing, their ¶ designs must still go through the technical and ¶ regulatory processes necessary to ensure that ¶ they can be safely and securely deployed. Lightwater technology–based SMRs may not be ready ¶ for deployment in the United States for at least ¶ a decade, and advanced designs might be even ¶ further off. Light-water SMRs and SMRs that have ¶ undergone significant testing are the most likely ¶ candidates for near-term deployment, because ¶ they are most similar to existing reactors that ¶ have certified designs and significant operating ¶ histories. NuScale is on track to submit its reactor ¶ design to the NRC by 2012, as is Babcock & Wilcox ¶ for its mPower design. In addition, GE-Hitachi, ¶ which already completed an NRC preapplication ¶ review for its PRISM reactor in 1994, plans to submit its PRISM design for certification in 2012. ¶ With fierce competition for commercial deployment of U.S. SMRs anticipated, the U.S. government is accelerating its efforts to support the ¶ licensing of new reactor designs. The fiscal year ¶ 2011 budget request for the Department of Energy ¶ includes $39 million for a program to support ¶ design certification of SMRs for commercial deployment, as well as a research and development ¶ portfolio that will address the technology development needs of both near- and longer-term SMRs. ¶ The Department of Energy is also in discussions ¶ with several U.S. companies to facilitate the lightwater SMR design certification by the NRC within ¶ a reasonable timeframe. The department also ¶ continues to support research and development ¶ efforts toward advanced reactor designs through ¶ the Advanced Reactor Concepts program, which ¶ focuses on metal-cooled reactor technologies.

#### Military procurement solves commercial use proliferation and islanding- avoid regulation

Andres and Loudermilk 10

(Richard B. Andres, 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, Micah J, Research Associate for the Energy & Environmental Security Policy program with the Institute for National Strategic Studies at National Defense University, “Small Reactors and the Military’s Role in Securing America’s Nuclear IndustryPosted” <http://robertmayer.wordpress.com/2010/08/28/small-reactors-and-the-militarys-role-in-securing-americas-nuclear-industryposted/>, SEH)

Unlike private industry, the military does not face the same regulatory and congressional hurdles to constructing reactors and would have an easier time in adopting them for use. By integrating small nuclear reactors as power sources for domestic U.S. military bases, three potential energy dilemmas are solved at the same time. First, by incorporating small reactors at its bases, the military addresses its own energy security quandary. The military has recently sought to “island” its bases in the U.S. -protecting them from grid outages, be they accidental or intentional. The Department of Defense has promoted this endeavor through lowering energy consumption on bases and searching for renewable power alternatives, but these measures alone will prove insufficient. Small reactors provide sufficient energy output to power military installations and in some cases surrounding civilian population centers.¶ Secondly, as the reactors become integrated on military facilities, the stigma on the nuclear power industry will ease and inroads will be created for the adoption of small-scale reactors as a viable source of energy. Private industry and the public will see that nuclear reactors can indeed be utilized safely and effectively, resulting in a renewed push toward the expansion of nuclear power. Although many of the same hurdles will still be in place, a shift in public opinion and a stronger effort by utilities, coupled with the demonstrated success of small reactors on military bases, could prove the catalysts necessary for the federal government and the NRC to take more aggressive action.¶ Finally, while new reactors are not likely in the near future, the military’s actions will preserve, for a while longer, the badly ailing domestic nuclear energy industry. Nuclear power is here to stay around the globe, and the United States has an opportunity to take a leading role in supplying the world’s nuclear energy and reactor technology. With the U.S. nuclear industry dormant for three decades, much of the attention, technology, and talent have concentrated overseas in countries with a strong interest in nuclear technology. Without the United States as a player in the nuclear energy market, it has little say over safety regulations of reactors or the potential risks of proliferation from the expansion of nuclear energy. If the current trend continues, the U.S. will reach a point where it is forced to import nuclear technology and reactors from other countries. Action by the military to install reactors on domestic bases will both guarantee the survival of the American nuclear industry in the short term, and work to solidify support for it in the long run.¶ Ultimately, between small-scale nuclear reactors and the U.S. military, the capability exists to revitalize America’s sleeping nuclear industry and promoting energy security and clean energy production. The reactors offer the ability to power domestic military bases, small towns, and other remote locations detached from the energy grid. Furthermore, reactor sites can house multiple units, allowing for greater energy production – rivaling even large reactors. Small reactors offer numerous benefits to the United States and a path initiated by the military presents a realistic route by which their adoption can be achieved.

#### DOD key- prevents unfavorable lock-in

Andres and Breetz 11

(Richard B. Andres is 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. Hanna L. Breetz is a doctoral candidate in the Department of Political Science at the Massachusetts institute of technology, “Small Nuclear Reactors ¶ for Military Installations:¶ Capabilities, Costs, and ¶ Technological Implications” Institute for National Strategic Studies, <http://www.ndu.edu/press/lib/pdf/strforum/sf-262.pdf>, SEH)

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.

#### They have the personnel

Robitaille 12

(George, Department of Army Civilian, United States Army War College, “Small Modular Reactors: The Army’s Secure Source of Energy?” 21-03-2012, Strategy Research Project)

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.

### DoD Fast Tracked

#### DOD avoids NRC regulatory hurdles

Butler ‘11

(LtCol Butler is currently assigned to Headquarters, North American Air Defense Command-U.S. Northern Command/J594 (Strategy, Policy, and Plans Directorate), Security Cooperation ntegration Branch. This article was his Chase Prize Essay Contest entry. “Why the Marine Corps should lead the environmental and energy way forward and how to do it” March 18, 2011 accessed online September 15, 2012 at <http://www.mca-marines.org/gazette/not-green-enough>)

Fifth, the cumbersome, bureaucratic certification process of the Nuclear Regulatory Commission (NRC), often enough to scare away potential entrepreneurs and investors, is not necessarily a roadblock to success. The NRC is “responsible for licensing and regulating the operation of commercial nuclear power plants in the United States.” Military installations offer unique platforms that could likely bypass an extended certification process. With established expertise and a long safety record in nuclear reactor certification, operations, training, and maintenance, the Naval Nuclear Propulsion Program comprises the civilian and military personnel who:¶ . . . design, build, operate, maintain, and manage the nuclear-powered ships and the many facilities that support the U.S. nuclear-powered naval fleet.”34¶ Bypassing the NRC and initiating SMR experimentation under ADM Hyman Rickover’s legacy umbrella of naval reactors could shorten the process to a reasonable level for Marine and naval installations.35¶ ¶ Finally, Marine Corps-SMR technology opens the pathway for related endeavors and synergetic undertakings. The Army has several smart and influential individuals poised to partner in nuclear energy endeavors, and our naval brethren enjoy a long history of nuclear reactor expertise. Partnerships and enhanced use leases to support SMR deployments should be leveraged.36 As the collective military expertise in SMR technology grows, additional capabilities, such as expeditionary and vehicular power sources, could be explored. And related technologies, such as hybrid/electric vehicle power storage and recharging facilities and water desalination plants, could collocate with nuclear plants on installations to both use the energy.37

#### Cooperation can still be achieved without 123 agreements.

Glasgow, ‘10

[James A., Partner -- Pillsbury Winthrop Shaw Pittman LLP, 6-28, “International Scope of Small Modular Reactors and Outlook for Advanced Reactor Development International Trade Export Controls and SMRs,” http://www.uxc.com/smr/Library/Export%20Issues/2010%20-%20International%20Scope%20of%20SMRs%20and%20Outlook%20for%20Advanced%20Reactor%20Development.pdf]

• While presence or absence of a 123 Agreement is an important factor, lack of such an Agreement does not prevent the Secretary from issuing a specific authorization • DOE has issued more than a dozen specific authorizations for peaceful nuclear assistance to countries that did not have a §123 Agreement with the U.S., including USSR/Russia • “Much…cooperation can take place in the absence of bilateral 123 Agreements, since it involves the exchange of expertise, lessons learned, and best practices rather than the export of nuclear material or reactor components.” • Testimony by Assistant Secretary of State V. Van Diepen at November 2009 hearing of Senate Foreign Relations Committee

### Obama SMR

#### Obama has pushed SMR policy not just budget

Kramer ‘12

(David J. Kramer was educated at Tufts University, receiving his B.A. in Soviet Studies and Political Science, and then at Harvard University, receiving his M.A. in Soviet Studies. “Romney, Obama surrogates spell out candidates’ energy policies” September 2012 Accessed online at http://www.physicstoday.org/resource/1/phtoad/v65/i9/p20\_s10, TSW)

The Obama administration’s support for nuclear power is evident from the $7 billion loan guarantee from DOE to back construction of two new reactors at an existing nuclear power plant in Georgia, Reicher noted. “There’s serious money going into small modular reactors and serious policy work going on in how to reform the licensing process” at the Nuclear Regulatory Commission to expedite approval.

#### Obama budget

New York Times 11

(Matthew L. Wald, “Administration to Push for Small ‘Modular’ Reactors” <http://www.nytimes.com/2011/02/13/science/earth/13nuke.html?_r=3>, SEH)

The Obama administration’s 2012 budget proposal will include a request for money to help develop small “modular” reactors that would be owned by a utility and would supply electricity to a government lab, people involved in the effort say. The department is hoping for $500 million over five years, half of the estimated cost to complete two designs and secure the Nuclear Regulatory Commission’s approval. The reactors would be built almost entirely in a factory and trucked to a site like modular homes.¶ In promoting the reactor, the administration’s immediate goal is to help the Energy Department meet a federal target for reducing its carbon dioxide emissions by relying more on clean energy and less on gas and coal. Like other federal agencies, the department is required by an executive order to reduce its carbon footprint by 28 percent by 2020.

### 3 in the Pipe

#### And there are 3 demo projects in progress, but no incentives

ANA 12

(Alliance for Nuclear Accountability, “ Documents Reveal Time-line and Plans for “Small Modular Reactors” (SMRs) at the Savannah River Site (SRS) Unrealistic and Promise no Funding” June 8, 2012, <http://www.ananuclear.org/Issues/PlutoniumFuelMOX/tabid/75/articleType/ArticleView/articleId/558/Default.aspx>)

“While SRS may superficially appear to present certain attractive aspects for the location of SMRs, the site has not had experience with operation of nuclear reactors in over twenty years and has no current expertise in reactor operation,” said Clements. “While DOE is set to chose two SMR designs to fund for further development, SRS affirms that no construction funds will be provided, leaving vendors with the difficult and perhaps insurmountable task to find private funding for SMR construction.”

Two of the three separate “Memoranda of Agreement” for three different and still hypothetical SMR designs include deployment timelines which are already admitted by DOE to be inaccurate since they were signed less than six months ago.

# 2AC- Round 3

## Topicality

### Procurement T

#### 1. We meet- plan creates incentives and secures a market for nuclear energy

#### 2. We meet- paying them is the financial incentive

#### 3. Counter interpretation- financial incentives are disbursement of public funds or contingent commitments

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.

#### Ground- it is grounded in the literature and is the only way to intrinsically keep military affs in the topic which are key to beat states counterplans, and it links much harder to disads

#### Predictability- our evidence has a definitive list and an intent to define, and is supported in the literature

#### Limits- only adds procurement affs to their list, but limits out all indirect incentive effects their allows

#### Education- key to talk about different actors use of energy and how energy’s connection to the military, and no aff makes sense where the government is the consumer

#### Reasonability key to prevent a race to the most limiting definition

## Elections

### Romney Win-Mometum

#### Romney will win- momentum

Schoen & Tarlov 10-25

Douglas is a Former Democratic Pollster for Bill Clinton and Jessica contributes to the Daily Beast and is a political consultant, “Romney’s Surge,” <http://www.thedailybeast.com/articles/2012/10/25/romney-s-surge.html>

With just two weeks to go until Election Day, the popular vote is, as everyone knows, effectively a dead heat. The Real Clear Politics average has Romney enjoying a 0.9-point advantage. And while the latest Rasmussen numbers give Romney a 4-point edge and he is ahead 5 in Gallup, there are other polls that have Obama leading. In the latest IBD/TIPP poll, for instance, the president is up by 2.¶ Romney 2012¶ Republican presidential candidate and former Massachusetts governor Mitt Romney greets supporters at an election campaign rally at the Reno Event Center in Reno, Nev., Wednesday, Oct. 24, 2012. (Charles Dharapak / AP Photo)¶ But there are two other crucial indicators that show momentum for Mitt. The first is the trend in the Electoral College—and one state in particular.¶ At this point, many of the states in the Real Clear Politics “toss ups” category appear likely to go one way or the other. Florida and Virginia will probably go for Romney, while Wisconsin, Pennsylvania, and Michigan will most likely be won by the president.¶ And so, as we’ve argued before, that leaves Ohio as the state that will likely decide the election. The polls from Ohio currently show a dead heat, but they also show momentum for Romney. Just two weeks ago, Obama was up 10 points in the state. Today, that margin has closed to 3 in the latest SurveyUSA poll. Meanwhile, the latest Suffolk (PDF) poll has Ohio tied (at 47) and Rasmussen also has a tie (at 48). All of this is clearly good news for Mitt.¶ What’s more, there were other pieces of good news for Romney hidden in the aftermath of the third debate. In the CNN/ORC snap poll, which asked voters whether Romney could handle being commander-in-chief, 60 percent answered in the affirmative as compared to 38 percent against. Further, the two candidates were tied on likability—a big change from the 20-point lead the president held in this area a couple of months ago. While Obama won the debate on substance, it may not have mattered because Romney was still competent, for the most part presidential, and apparently far more likable than he once was.¶ Taken together, Romney’s improving image and the changing polls in Ohio do not paint a good picture for Obama. Time is running out for the president to counter Mitt’s surge. It’s still a tie, but things seem to be trending Romney’s way.

### Romney Will Win- Undecideds

#### Romney will win- undecidededs will break his way

Rove 10-25

Karl is a WSJ Columnist and Former Deputy Chief of Staff to George W. Bush, “Strategies for the Stretch Run to November 6th,” <http://online.wsj.com/article/SB10001424052970204530504578076733267557730.html>

The president's problem remains the economy. Facts belie his argument that it is largely healed. Rather, it is producing jobs at a slower rate than last year, generating an average of 131,000 a month so far in 2012. At that rate, it will take three years just to get employment back where it was when the recession started, 138 million. Meanwhile, approximately four million to five million more Americans will have entered the workforce without jobs. Voters are uneasy and disapprove of Mr. Obama's economic stewardship.¶ This race will be close, depending on a few states. The good news for Mr. Romney is that the ones he needs are breaking his way. He leads in most recent polls in Florida, North Carolina, Virginia, New Hampshire and Colorado.¶ That puts the former Massachusetts governor at 261 in the Electoral College with Iowa, Michigan, Nevada, Pennsylvania, Wisconsin and the great prize, Ohio, still up for grabs. In those states, Mr. Obama has at best a thin edge, while Mr. Romney has momentum, a stronger argument, and time to grab the nine additional electoral votes he needs.¶ An incumbent president's final number in opinion polls is often his Election Day share of his vote. Undecided voters generally swing the challenger's way. So if Mr. Obama goes into Nov. 6 below 50% in these states—as he now is in almost every one—he is likely to lose them and his chance at a second term.

¶

###  Approval Rating

#### Approval Not Key- This cycle proves

Sabato and Kondik 10-25

Larry is Professor of Political Science at the University of Virginia and Kyle works for the University of Virginia’s Crystal Ball, “President and the Senate: Where We Stand Now,” There are a lot of fishy things going on in the presidential race.

An incumbent president’s approval rating is historically a good indicator of how he will do on Election Day. By this measurement, President Obama should be in decent shape: according to the RealClearPolitics average from mid-day Wednesday, Obama’s approval rating was 49.8%; that average includes polls taken of all adults (the bigger pool of people that includes non-voters), as well as likely voters (a smaller pool). And yet, the president is running more than two points behind his approval in the average of national horse race polls — at mid-day Wednesday, he stood at 47.2%, to Mitt Romney’s 47.8%.¶ Meanwhile, Romney actually has taken the lead over Obama on “favorability.” Romney’s net favorability — the gap between the people who say they have a favorable view of him versus those who have an unfavorable view — is two points higher than Obama, although both men have roughly the same “favorable” ratings: 49.7% for the president and 49.3% for the challenger. On Oct. 3, the day of the first debate, Obama’s net favorability was 6.6 points higher than Romney’s. The changing opinions are almost certainly related to the first debate, and while Obama won the last two debates on points, his aggressiveness toward Romney might have had a cost in favorability, even as his approval rating has stayed close to 50%.¶ We mention all this just to note the conflicting signals in this very close contest.

### 2AC Link Turn

#### New Military Base Spending is popular

**Bloomberg 9/4**

(Danielle Ivory, “Virginia Leads Swing States at Risk Over Cliff: BGOV Barometer” <http://www.bloomberg.com/news/2012-09-04/virginia-leads-swing-states-at-risk-over-cliff-bgov-barometer.html>, SHE)

For some swing-state voters, the presidential election may come down to who they want holding the net if their economies go over the fiscal cliff.¶ The BGOV Barometer shows that the battlegrounds of Virginia, Colorado and Pennsylvania are among 19 states and the District of Columbia that depended on U.S. government contracts for more than 3 percent of their 2011 gross domestic product. The states are vulnerable to $1.2 trillion in automatic 10-year budget reductions, called sequestration, that will begin in January if Congress and the White House fail to agree on a deficit-reduction plan. ¶ President Barack Obama and his Republican challenger, Mitt Romney , need the 42 electoral votes represented by Virginia, Colorado and Pennsylvania as they compete for the 270 it takes to win. Their lines of attack on the automatic cuts, which along with tax increases make up the fiscal cliff, may help determine the outcome in those swing states.¶ “It’s going to increasingly become an issue in this election,” said Todd Harrison , a senior fellow at the Center for Strategic and Budgetary Assessments in Washington. “Both sides want to run against sequestration.¶ “Maybe that’s what this boils down to,” Harrison said in an interview. “Whose approach do you prefer for avoiding sequestration?”¶ The government spent more than $500 billion on federal contracts in 2011. Agencies awarded $58.9 billion in orders that year for work performed in Virginia.¶ ‘Tentacles Everywhere’¶ Federal awards represented 14 percent of the economy in the state, home to the Pentagon and headquarters of top federal contractors such as McLean-based SAIC Inc. (SAI) The company was the top recipient of awards in Virginia, receiving $3 billion for work in the state. SAIC performs computer and engineering services for agencies including the Department of Defense .¶ Federal awards support economies outside the state, so a contract in Virginia might have implications for a lawyer or consultant in Ohio or Texas, Ric Brown, the state’s finance secretary, said in an interview. “It has tentacles everywhere,” he said.¶ Contractors performing work in Colorado won $10.2 billion in U.S. awards last year, which represented 3.8 percent of the state’s economy. Lockheed Martin Corp. (LMT), based in Bethesda, Maryland , won the most in contracts, $2.41 billion, for work in the state. The company is the No. 1 U.S. defense contractor.¶ ‘Held Hostage’¶ Agencies last year awarded $17.7 billion in contracts for work in Pennsylvania. The state relied on the awards for 3.1 percent of its economy. Bechtel Group, based in San Francisco , was the top recipient of contracts in the state with $1.99 billion in awards.¶ The three swing states also have direct federal employees and military bases that require additional government funding. Nevada, Florida, Wisconsin, Ohio and Iowa -- swing states with 69 electoral votes -- may be less vulnerable because they derived less than 3 percent of their economy from federal contracts.

### 2AC Romney

#### Obama has pushed SMR policy not just budget

Kramer ‘12

(David J. Kramer was educated at Tufts University, receiving his B.A. in Soviet Studies and Political Science, and then at Harvard University, receiving his M.A. in Soviet Studies. “Romney, Obama surrogates spell out candidates’ energy policies” September 2012 Accessed online at http://www.physicstoday.org/resource/1/phtoad/v65/i9/p20\_s10, TSW)

The Obama administration’s support for nuclear power is evident from the $7 billion loan guarantee from DOE to back construction of two new reactors at an existing nuclear power plant in Georgia, Reicher noted. “There’s serious money going into small modular reactors and serious policy work going on in how to reform the licensing process” at the Nuclear Regulatory Commission to expedite approval.

#### Romney supports SMR’s- no reason people switch votes

### 2AC No I/L

#### Energy not key

Wang 9-27

Herman writes for The Barel which is McGraw-Hill’s energy website, “Even with U.S. Gasoline Prices at a Higher Number, Energy isn’t a Big Deal in White House Race,” <http://blogs.platts.com/2012/09/27/energy_campaign/>

Political ads have been filling up television airwaves in the US, with the heated presidential race between Barack Obama and Republican challenger Mitt Romney less than six weeks away.¶ Energy issues have been featured prominently in those ads, with Obama talking up his support for clean energy while also championing recent increases in domestic oil and gas production. Romney, meanwhile, has hammered Obama over the high-profile failure of government-backed solar panel maker Solyndra and his administration’s increased regulations on fossil fuels.¶ So is the energy ad blitz impressing voters? Or are Americans giving the ads a big “meh”?¶ Probably the latter, if recent polling is to be believed.¶ The respected polling firm Gallup asked voters in August what the most important issue facing the country was, and only 1% cited energy. That’s down sharply from the 25% of poll respondents who cited energy as the top issue in the days before the 2008 election, in which Republicans coined the rallying cry “Drill, baby, drill!” in response to high oil and gasoline prices.¶ This time around, the economy, unemployment, general dissatisfaction with government and health care are greater concerns for voters, said Frank Newport, editor in chief of The Gallup Poll.¶ Energy “doesn’t show up when we [ask voters] to tell us in your own words why you’re voting for the candidates,” he said. “We just don’t see much evidence that it’s a high top-of-mind issue in the campaign.”¶ The only time energy perks up as a major electoral factor is when gasoline prices rise up, he added. But even when that happens, as it did earlier this summer when gasoline prices surpassed $4 a gallon in many parts of the country, the impact on voter behavior seems muted.¶ “We asked the question, how high would [gasoline prices] have to be to really affect your family, and people were saying $5/gallon or more,” Newport said. “It didn’t get there, of course. I think Americans have a set point now where these fluctuations up and down don’t make as much difference anymore.”¶ Larry Sabato, an elections expert at the University of Virginia’s Center for Politics, said energy is “a secondary issue” in the presidential race between Obama and Republican Mitt Romney. But because energy issues are often tied to the economy, he said he still expects rhetoric on both sides to talk up their energy policies in stump speeches and campaign ads.¶ “Republicans plan to make energy a big part of their appeal since they believe President Obama is vulnerable [on the economy] and has held back progress,” Sabato said. “Energy sells as an issue in coal states, coastal states with offshore drilling, and states with a large solar or wind energy industry, such as Iowa. GOP success in this sector depends on their skill in making clear the ties between energy and jobs.”¶ Kevin Book, managing director of research at ClearView Energy Partners, agreed and said that if the economy were more robust, both Obama and Romney would moderate their messages to appeal to centrist voters.¶ “With a tepid economy, however, we expected that both parties would emphasize ‘wedge’ issues aimed at keeping their respective bases from losing interest and staying home from the polls,” Book said in a note to clients. “Energy policy seems to be tracking the broader trend, with both candidates emphasizing differences in recent weeks.”¶ To the extent that American voters are paying attention, Newport said that both candidates offer up messages that can appeal to the general public.¶ Polling consistently shows that Americans by a wide margin favor greater development of alternative energy, such as wind and solar, a pet cause of Obama.¶ But when the economy tends to do poorly, Americans become more receptive to oil drilling and increasing energy supply over conservation, a position most associate with Republicans.¶ Gallup annually asks voters, “Which of the following approaches to solving the nation’s energy problems do you think the US should follow right now – emphasize production of more oil, gas and coal supplies, or emphasize more conservation by consumers of existing energy supplies?”¶ For 2012, 51% of voters said they favored more conservation, while 40% favored more production. That contrasts with 61% who favored more conservation in 2008, and 29% who favored more production.¶ If anything, Newport said that trend may favor Romney slightly.¶ “We do see at this point and time, there’s probably more sympathy for the drill position and probably less sympathy for the other kinds of approaches,” Newport said. “That’s what I’d say our data shows. Now, alternatives play well, and the American people say they like the idea of alternatives. But when the economy’s bad, the whole idea of drilling sounds good to people.”

#### Voters won’t change their minds- new study proves

Bartles 9-21

Larry is Professor of Political Science at Vanderbilt, “There go the Undecided Voters,” <http://themonkeycage.org/blog/2012/09/21/there-go-the-undecided-voters/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+themonkeycagefeed+%28The+Monkey+Cage%29&utm_content=Google+Reader>

Lynn Vavreck has an informative piece on the New York Times Campaign Stops blog today tracing shifts in presidential voting intentions from late 2011 through early September. The data are from the Cooperative Campaign Analysis Project, which interviewed nearly 44,000 people last December and has subsequently been reinterviewing 1,000 per week. (Top monkey John Sides is a collaborator in the CCAP study, and I received access to some of these data for an earlier Campaign Stops post that Vavreck and I wrote together.)¶ Through most of the spring and early summer, more than half of the survey respondents who were undecided last December were still declining to choose a candidate, with the rest breaking slightly for Mitt Romney over Barack Obama. Since around mid-June, more of these previously undecided voters have begun to commit, with Obama gaining and, in the last few weeks, surpassing Romney among those who were originally undecided. According to Vavreck, “These decisions seem largely to have been motivated by party identification.”¶ Meanwhile, both candidates have managed to retain the vast majority of prospective voters who supported them last December. Over the course of 2012, Obama has held 96% of those who supported him in 2011 and added 3% of those who originally said they would vote Republican. For his part, Romney has held 94% of those who intended to vote Republican and added 2% of those who intended to vote for Obama. (Vavreck notes that the 2008 CCAP study found almost as much stability in candidate preferences, with Obama holding 90% of his early supporters and John McCain holding 92% of his.)¶ To readers versed in election studies, these findings will seem very reminiscent of those from the first scholarly analysis of campaign effects: “conversion is, by far, the least frequent result and activation the second most frequent manifest effect of the campaign.” However, whereas Lazarsfeld and his colleagues in 1940 studied 600 prospective voters in Erie County, Ohio, Vavreck and her colleagues in 2012 have 44,000 nationwide. That’s real scientific progress.

### 2AC- Agencies Don’t Link

#### DOD energy programs don’t link---conservative won’t oppose

Davenport 12

Coral Davenport, 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, 2/10/12, 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.

**A2: Romney Kills**

**Relations inevitable under Romney and tension inevitable under either**

**CQ Weekly 9-10**

“U.S.-Russia Reset: From Diplomacy to Reset,”

President Obamaentered office pledging to “reset” America’s troubled relations with Russia. But despite some tangible successes, including a new nuclear arms reduction treaty and increased sanctions on Iran, Democrats on the campaign trail are hardly touting their breakthroughs with Moscow. Indeed, Republicans and their presidential nominee, Mitt Romney, have used relations with Russia as one of their few consistent foreign policy attack lines against the White House.¶ The campaign rhetoric reinforces what has been a reality for months: **The once-celebrated reset is over**, with Vladimir V. Putin’s recoronation as Russia’s president in May the most visible symbol. New **divisions over the Syrian uprising, Russia’s human rights record and missile defense** — combined with shifting political circumstances in both the United States and Russia **— have soured diplomacy between the two nations.**¶ **But overheated rhetoric** out of Moscow and Washington aside, th**e two nations still have an incentive to cooperate on critical security and economic issues, including** the **Afghanistan** War **and trade**. Beyond the battle for the White House, how Congress balances collaboration on these issues with complaints about Putin’s heavy-handed policies will help determine just how frigid the relationship becomes. Republicans have promised to take a harder line with Russia if they win control of the Senate and the White House, but **as** GOP Sen. John **McCain** of Arizona **observes, it’s in nobody’s interest to “reignite the Cold War**.”¶ Now that Russia has joined the World Trade Organization, the renewed tension is playing out in the trade arena. Without legislation to normalize trade relations, U.S. companies are unable to take advantage of eased access to Russian markets. Republicans have urged the White House to lean on Democrats to support the necessary changes. House Ways and Means Chairman Dave Camp of Michigan, in announcing a June hearing on Russia’s accession to the WTO, said he wanted to see the “administration’s active engagement on all of the issues” related to U.S. trade with Russia.¶ The White House, however, wants to avoid an awkward public debate. “The House leadership was obviously goading Obama to come out and make more statements in support of the legislation,” says Carroll Colley, a Russia analyst at the Eurasia Group, a political-risk consulting company. However, with Putin at Russia’s helm, no politician “wants to step out and advocate anything vis-à-vis Russia” right now, he says.¶ Andrew Kuchins, director of the Center for Strategic and International Studies’ Russia program, agrees. “Russia’s just kind of a stinker right now,” Kuchins says, pointing to its widely criticized crackdown on the anti-Putin female punk band Pussy Riot and its continued support of strongman Bashar al-Assad’s bloody war against dissidents in Syria.¶ Russia’s recent actions have complicated the push in Congress to normalize trade relations, a high priority for both the U.S. business community and the Obama administration. To do so, Congress must remove Russia from a list of countries facing U.S. trade restrictions under the Jackson-Vanik amendment to a 1974 trade law. The amendment was intended to punish the Soviet Union and other Eastern bloc countries for restricting Jewish emigration, an issue long since resolved.¶ On both the right and the left, critics of Russia’s human rights record have insisted that any legislation normalizing trade must include a component to penalize those who have violated human rights in Russia. The enormous anti-Putin political protests last fall and the ensuing government crackdown have only strengthened their hand.¶ To win the support of such critics, pro-trade House and Senate leaders have agreed to add language from a separate bill, named for the Russian lawyer and anti-corruption activist Sergei Magnitsky, who died in police custody in 2009. The bill would establish a freeze on the travel and assets of human rights violators from Russia or, in some versions, anywhere in the world. House leaders told the business community it would hold a vote on the trade normalization bill this week, but it’s not clear whether they have enough votes to win passage. The political sensitivity around anything that looks to be supporting Russia and Putin in the heat of campaign season may force a delay until after the election.¶ ‘Where They Park Their Cash’¶ Russians are eager to gain preferential trade status with the United States, but they’re irate about the language in the Magnitsky bill. The main concern in Moscow, according to Colley, is that Europe might adopt a similar law. “That’s where Russians vacation, and that’s where they park their cash,” he says. “This is a priority for them.”¶ Colley predicts considerable blowback from Moscow if the Magnitsky language becomes law. “It’s unclear how that will manifest itself,” he says, but he could imagine Russia making life difficult for American citizens who seek visas or for U.S. businesses that operate there.¶ The conflict in Syria is also a “big, big variable” in U.S. relations with Russia, Kuchins says. Members of Congress have, through various bills, blasted Russia’s continued support of Assad. For example, both chambers included language in their fiscal 2013 defense authorization bills that would bar funding for additional U.S. military purchases of Russian-made Rosoboronexport helicopters, which are used in Afghanistan, because that arms manufacturer also sells attack helicopters to the Assad regime.¶ One House-passed amendment to the fiscal 2013 Defense appropriations bill would go so far as to prohibit funds for nuclear nonproliferation activities with Russia unless Moscow demonstrates that it has worked to reduce weapons proliferation.¶ And after a short lull, missile defense is raising hackles in both capitals. The Obama administration tamped down a long-running dispute with Moscow on the subject when it announced, in 2009, alterations to U.S. plans for an anti-ballistic missile shield in Eastern Europe. In 2010, NATO kicked off talks with Russia on potential areas of cooperation on missile defense. Those talks, however, have stalled, and Russian saber rattling has increased; in recent months, Kremlin officials have publicly threatened to junk the New START pact and take military action if they don’t get their way.¶ In the United States, Republicans have made clear that missile defense is one of their priorities. The House in July passed an amendment to the defense policy bill that would prohibit funds from being used to share with Russia classified information about missile defense systems. Even if Obama is elected to another term, he may not have much flexibility in dealing with missile defense, given how closely GOP lawmakers are watching the issue. And if Republicans take over the White House, heightened confrontation with Russia on missile defense is a near-certainty.¶ Several Accomplishments¶ Despite the rising tensions, Obama’s approach to Russia “resulted in a number of agreements that served U.S. foreign and national security policy” over the past three years, Kuchins says. These include New START, a pact creating NATO transit corridors to Afghanistan through Russia and Moscow’s acquiescence to a strict new set of United Nations sanctions against Iran.¶ Those sanctions have yet to deter Iran from continuing its nuclear enrichment program. But as part of the “P5 plus one” — the group comprising the five permanent members of the U.N. Security Council, plus Germany — Russia remains an active player in efforts to resolve the standoff diplomatically.¶ Also, Russia has a major incentive to help stabilize Afghanistan — which is more or less in its backyard — as NATO troops withdraw over the next two years.¶ And even though Republican congressional opposition makes new arms control agreements in the next few years unlikely, **GOP lawmakers have signaled that, should they take control of Congress and the White House, they aren’t particularly interested in curbing existing treaties**. **Under those pacts, Russia and the United States continue to work together to destroy and safeguard nuclear, chemical and biological weapons.**¶ Richard G. Lugar, the Senate’s retiring arms control sage, recently visited Russia, Georgia and Ukraine to observe some of those efforts. He is pushing for the United States and Russia to extend what is known as the “umbrella agreement,” an executive initiative that underpins the Cooperative Threat Reduction Program, in which the United States and the former Soviet Republics work together to dismantle excess weapons of mass destruction. (The program is also known as Nunn-Lugar, after the Indiana Republican and his former colleague Sen. Sam Nunn, a Georgia Democrat.)¶ The agreement, which has been extended before, expires in 2013. Lugar says that “a good number of other deadly weapons of mass destruction” — which the United States is ready to help Russia destroy — remains.¶ He worries that the increasingly heated rhetoric between Washington and Moscow could hamper such cooperation. Quoting retired diplomat Thomas R. Pickering, Lugar notes that the two countries have “been sort of kicking each other in the shins” in recent months. “The problem is, if there is too much kicking in the shins and so forth, people become unhappy with each other,” he says.¶ “Taking the perspective of the safety of the American people or the safety of the world, we better move past that,” Lugar adds. “The missiles we saw being cut up are not theoretical.”

### Russia Relations Defense

**Give Russia war zero probability – politics, military superiority, economic concerns, and nuclear security**

**Graham 2007**

(Thomas, Russia in Global Affairs, "The dialectics of strength and weakness", <http://eng.globalaffairs.ru/numbers/20/1129.html>, WEA)

An astute historian of Russia, Martin Malia, wrote several years ago that “Russia has at different times been demonized or divinized by Western opinion less because of her real role in Europe than because of the fears and frustrations, or hopes and aspirations, generated within European society by its own domestic problems.” Such is the case today. To be sure, mounting Western concerns about Russia are a consequence of Russian policies that appear to undermine Western interests, but they are also a reflection of declining confidence in our own abilities and the efficacy of our own policies. Ironically, this growing fear and distrust of Russia come at a time when **Russia is arguably less threatening to the West, and the United States in particular, than it has been at any time since the end of the Second World War. Russia does not champion a totalitarian ideology intent on our destruction, its military poses no threat to sweep across Europe, its economic growth depends on constructive commercial relations with Europe, and its strategic arsenal – while still capable of annihilating the United States – is under more reliable control than it has been in the past fifteen years and the threat of a strategic strike approaches zero probability.** Political gridlock in key Western countries, however, precludes the creativity, risk-taking, and subtlety needed to advance our interests on issues over which we are at odds with Russia while laying the basis for more constructive long-term relations with Russia.

## AT States

#### Perm do both

#### Links as much to politics as the plan

#### Don’t solve

#### States can’t force DoD policy

#### States don’t have legal authority over military bases- they are enclaves

Tymkovich 12

(Seymour, Circuit Judge, “ALLISON v. BOEING LASER TECHNICAL SERVICES” <http://www.leagle.com/xmlResult.aspx?xmldoc=In%20FCO%2020120810042.xml&docbase=CSLWAR3-2007-CURR>, SEH)

Under a body of constitutional law applicable to federal enclaves, U.S. Const. art. I, § 8, cl. 17, state law that is adopted after the creation of the enclave generally does not apply on the enclave. A federal enclave is created when a state cedes jurisdiction over land within its borders to the federal government and Congress accepts that cession. These enclaves include numerous military bases, federal facilities, and even some national forests and parks. Federal enclave doctrine operates as a choice of law doctrine that dictates which law applies to causes of action arising on these lands.¶ It is well-established that after a state has transferred authority over a tract of land creating a federal enclave, the state may no longer impose new state laws on these lands. But state laws enacted before the cession continue to apply unless Congress specifically overrides them. The question here is whether state common law causes of action recognized after the state ceded the enclave to the federal government are available on federal enclaves. This question is governed by a long string of Supreme Court precedent that makes it clear that the law on a federal enclave is the state law that governed the land at the time the federal government established the enclave, not state law enacted thereafter—unless that law was expressly adopted by the enclave's new sovereign, the federal government.

#### If they can get around that proves 50 state fiat is bullshit because allows them to skirt around literature and moot all 1AC offense

## Fiscal Cliff

### 2AC Thumper

#### Farm Bill Thumps

Farm Press 9-20

“Boehner Confirms No Farm Bill until Lame Duck Session,” <http://deltafarmpress.com/government/boehner-confirms-no-farm-bill-until-lame-duck-session>

On Thursday morning (September 20), House Speaker John Boehner confirmed that the House will not take up the “farm bill issue” until after November elections. Current law is set to expire at the end of this month.¶ The announcement is hardly a surprise with House leadership having repeatedly refused to allow floor time for the farm bill passed out of the House Agriculture Committee in early July. The full Senate passed its farm bill in June.

### 2AC No Pass-Election Concerns

#### Election fears means no deal and capital not key

Politico 10-23

“2014 Looms for Fiscal Cliff Players,”

Forget the 2012 deadline. Fiscal cliff politics is all about 2014.¶ The very senators -- think Mitch McConnell and Max Baucus -- who will be central to a sweeping tax-and-spending deal are the same ones who could face the most difficult reelection bids of their careers, come 2014. Primary threats from the right loom large over Republican senators as they negotiate tax rates. Moderate Democrats also could be squeamish about tax hikes or cuts to Medicare. And whatever tax and spending deal emerges is certain to anger large voting blocs and inspire serious general election opposition.¶ The longer Congress waits, the more intense the political pressure will become -- and the harder it will be to reach a major deficit-cutting deal.¶ Even though the votes haven't been counted for the 2012 election, senators who are both involved in fiscal cliff negotiations and up for election in 2014 are aware that the tough decisions they make now will linger into the next cycle.¶ "If there's a political price to be paid, if there's capital that needs to be expended in order to save the country, I and my colleagues, I believe are willing to do that," Sen. John Cornyn, the likely next No. 2 Senate Republican who faces reelection in 2014, told POLITICO.¶ How a deal looks obviously depends on whether Mitt Romney or Barack Obama wins -- and on the party leadership in control of the next Senate and House. If Obama wins, Republicans fear they'll be backed into a corner by an emboldened president to push through higher taxes on families earning more than $250,000. But if Romney wins, Congress will have to engineer a short-term agreement with Senate Democratic Leader Harry Reid and House Speaker John Boehner -- which is no small task in and of itself -- giving the new president time to develop a budget deal of his own.¶ But the winner of the race for the White House only has so much power -- especially over a divided Congress and a Senate that could be tied up by filibusters. That means there must be a bipartisan compromise, a prospect certain to force endangered senators to cast votes with electoral ramifications.¶ About a dozen senators who could be party to a deal -- either because of their leadership spots and committee positions or because they've inserted themselves into the horse-trading so far -- are up for reelection in 2014. Their to-do list is a minefield: expiring Bush tax cuts for all income groups; reversing $109 billion in sequester cuts to domestic and defense programs; reinstating jobless benefits; handling the expiring payroll tax cut; and fixing payment rates for physicians serving Medicare patients. And don't forget the national debt ceiling, which will need to be raised in the coming months.¶ Senior officials in both parties are pessimistic a sweeping deal can be reached by the end of the year. There are ongoing talks about temporarily delaying the fiscal cliff by approving a "down payment" with budget cuts coupled with a process that forces Congress to act by the middle of next year.¶ So no matter how it shakes out, members of both parties could be forced to cast a series of treacherous votes, much like the unpopular 2008 bank bailout or the 2011 Budget Control Act that paved the way to the sequester Congress is now trying to avoid.¶ McConnell, who will already be the Democrats' top target in 2014, needs to worry about alienating the right wing of his conference and the tea party in his home state on any deficit deal. Tennessee Sen. Lamar Alexander, who is up in 2014 and has been in discussions about a possible bipartisan plan with Sen. Michael Bennet (D-Colo.), has already said that whatever deal emerges will be unpopular back home.¶ Sen. Lindsey Graham (R-S.C.) has signaled a willingness to raise revenues in order to reverse the defense sequestration cuts set to take effect in the new year. If he does, he'll certainly face added scrutiny from the anti-tax Club for Growth, which has signaled it may get behind any GOP primary challenger who emerges against him. Sen. Saxby Chambliss (R-Ga.), who expects a primary challenge, has spent the better part of the past two years negotiating with a bipartisan group of senators who are weighing more tax revenues.¶ New taxes -- which Democrats are demanding as part of a deal -- will almost certainly spawn a civil war on the right, just as these members plan to campaign for reelection.¶ "We don't need to cut deals on that," South Carolina Sen. Jim DeMint, a tea party force in GOP primary politics, told POLITICO. "We need to reform the Tax Code and make it lower."¶ But it's not just the Republicans who face these internal pressures. If the GOP agrees to any revenue, it will come at a price -- namely, on cutting entitlements like Medicare, Medicaid and Social Security, which Democrats have vowed to protect throughout the 2012 campaign season. If Romney wins, some at-risk Democrats could be under enormous pressure to buck their party's leadership and join with the new president by extending the current tax rates, a decision certain to infuriate their base.¶ On the Democratic side, Baucus could face the toughest reelection bid of his career in the red state of Montana, where an October survey by the Democratic firm Public Policy Polling showed his approval rating at a meager 35 percent, with 54 percent disapproving of his performance. But Baucus -- chairman of the powerful Finance Committee that oversees taxes, entitlements, health care and trade -- is already paving the groundwork for a major deal on revising the Tax Code and cutting trillions from the budget, two efforts certain to spawn a major lobbying war in Washington.¶ Midterms usually are not friendly to a president in his second term, so if Obama wins, he may find it difficult to win the backing of some red-state Democrats facing reelection, like Arkansas Sen. Mark Pryor, Louisiana Sen. Mary Landrieu, Alaska Sen. Mark Begich, South Dakota Sen. Tim Johnson and North Carolina Sen. Kay Hagan.¶ Two Democrats in the so-called Gang of Eight budget negotiations -- Virginia Sen. Mark Warner and Senate Majority Whip Dick Durbin -- are also both up in 2014. And if Warner decides to make a bid at the Virginia governor's mansion next year, his efforts to run for the Democratic nomination could run up against his efforts to position himself as a bipartisan deal maker.¶ "You are going to have Democrats up in places like North Carolina, Arkansas, Louisiana, South Dakota, Alaska, these are somewhat more moderate-conservative places -- so hard votes for those folks will be a little more difficult," former Indiana Sen. Evan Bayh, a Democrat, said in an interview. "And a lot of the incumbent Republicans will be concerned about the possibility of a tea party challenge if they violate party orthodoxy. ... The sooner they can get it done, the less likely politics is going to intrude."

### 2AC- President Adjusts

#### White House averts for months

WSJ 9-27

“Guessing the Fiscal Cliff’s Fate,” <http://online.wsj.com/article/SB10000872396390444083304578018743732814484.html>

If a sequester is triggered, the White House budget office has considerable flexibility in how to allocate the cuts over the year. If talks were continuing, it could soften the initial blow. Similarly, the Treasury secretary could delay changing tax-withholding tables for a while, which means workers wouldn't feel the tax increases immediately. "We can go off the cliff without much if any real [budget] impact for a month or two," says Barry Anderson, who was the top civil servant in the budget office in 1991, the last time there was a sequester.

### Plan Popular

#### Plan popular in Congress- Only 1 vote against it and both parties cosponsor

**Pendidikan ‘11**

Cinta writes for the Love and Like Education Blog, “Sanders is the Sole Vote Against Small Modular Reactor Research,” <http://loveandlikeeducation.blogspot.com/2011/08/bernie-sanders-and-small-modular.html>

**Sanders is Sole Vote Against Small Modular Reactor Research**¶ Bernie Sanders and Small Modular Reactors¶ Senator Bernie Sanders often speaks about his opposition to Vermont Yankee as having something to do with the age of the plant, the fact it is owned by Entergy, or his "state's rights" stance about regulating nuclear power plants.¶ Recently, however, Sanders made it clear that he is against nuclear power in any form and is proud of that opinion. On Senator Sanders website, he featured the fact that he was the only vote against "a pair of measures that would promote the development of small modular reactors."¶ One of these measures was the Nuclear Power Act S512. **This act would authorize the Secretary of Energy to start a cost-shared program for development o**f small modular reactors **(SMRs).¶ This act had strong bi-partisan support, being sponsored by 3 Republican and 4 Democratic Senators. The act requires research and development funds for SMRs.** The Act is still in process, and does not have a firm dollar amount attached, but the dollar amount is likely to be small (in government terms, at least.). **Current estimates are $100 million per fiscal year** for four years, starting next year.¶ The act also requires that industry cost-share the expense. If industry doesn't think it is worth spending money on the research, the research will not receive government funding either.¶ As a background to the probable cost of this Act, we should note that President Obama requested $4.8 billion dollars for Department of Energy research, of which $3.2 billion is allocated for renewable energy and energy efficiency research. (This number has changed with the debt deal, but new numbers are not available at this time.)¶ Small Modular Reactors for The Future¶ Sander's opposition to this Nuclear Power Act will hurt America's chances to develop an important new exportable technology. Outside of Europe, the nuclear renaissance remains in full swing, with reactors being ordered and built in Arabia, China, India and Southeast Asia. Developing a strong set of SMR designs would be America's best chance to re-entering the world market for nuclear power.¶ SMRs are modular (assembled in a factory and delivered to the site), small (50 to 225 MW) and have many safety features, such as passive cooling. SMRs are expected to have a huge international market. They suitable for many places that do not have the population density or money for the current crop of huge reactors (1200 MW, built on site at great expense). SMRs would make nuclear power affordable and salable many places.¶ Westinghouse and Babcock & Wilcox have invested significant amounts of their own money in developing these products. The NRC is also active in assessing preliminary designs. At another Senate committee meeting on SMRs, Commissioner Magwood of the NRC said that he does not expect decisions made by the NRC to be the critical factor in the success or failure of SMRs. Magwood noted that SMRs have passive safety features and large water inventories; these would be considered during license review.¶ America Fallen Behind¶ America has fallen far behind the rest of the world in most nuclear technologies. Pressurized Water Reactors (PWRs) and Boiling Water Reactors (BWRs) were developed in this country. They are being sold all over the world, but not by United States companies. We're out of the running. Other countries licensed and improved our original technologies. Companies from France, Korea, Russia and China compete to build large reactors in China, Arabia, and Southeast Asia.¶ Three American companies have put millions of dollars into the development of SMRs: Westinghouse, Babcock & Wilcox, and NuScale (a small start-up). Many people in the nuclear industry feel that the race to develop the first successful SMR is a truly high-stakes race, being fought at the level of nationwide efforts. Luckily, SMR development has bi-partisan support, and Mr. Sanders was alone in his opposition to supporting American industry efforts to develop these plants.¶ Should Government Be Involved?¶ Of course, one can make a case that the government should get out of the energy research business altogether. If Senator Sanders wished to save tax dollars by cutting all energy-research programs, he might have a valid case. However, if the government does plan to spend money on energy research, cost-sharing with industry on a new nuclear technology is certainly a far better use of funds than many of the projects in the swollen DOE renewable budget.

### 1AR- Temporary Solves

#### Temporary extension solves

Drum 10-3

Kevin is a Columnist for Mother Jones, “Who’s Afraid of the Fiscal Cliff?” <http://www.motherjones.com/kevin-drum/2012/10/whos-afraid-fiscal-cliff>

I'm not so sure about that. In this case, I think I'm with the folks who like to refer to this event as a fiscal slope rather than a fiscal cliff. Their general point is that we don't all suddenly pay thousands of dollars in taxes and cut billions of dollars in spending at the stroke of midnight on January 1st. This stuff all phases in over time.¶ That's true, and I doubt very much that there would be any serious consequences to doing a deal in February or March instead of December. In the particular case of taxes, the only thing that happens on January 1st is that withholding rates would go up slightly — and maybe not even that. The IRS has a fair amount of latitude to leave withholding rates alone for a few months if it wants to. Either way, this means that Democrats don't really have to worry about "owning" the expiration of the Bush tax cuts for quite a while. (The payroll tax holiday also expires on December 31, but that was always unlikely to be extended anyway. It doesn't have much to do with the fiscal cliff.)¶ For a few months, then, taxpayers won't see much impact. Maybe none at all. As a result, I think Democrats could pretty safely stick to their guns and extend negotiations into 2013 without much risk. At that point, with the Bush tax cuts gone and rates back up to their Clinton-era levels, they'll still have to convince Republicans to introduce a bill that cuts only the middle-income rates, not the top marginal rates, and that won't be easy. But Republicans will be under as much pressure as Democrats by that point, and they might very well be willing to do a deal.¶ In short, as long as the composition of Congress doesn't change dramatically, I don't think the calculus is much different before and after January 1st. The cliff doesn't really start to get scary until later in the year.¶ 1This entire post is predicated on the likelihood that Obama will win reelection and the House will remain fairly solidly in Republican hands. If either of those doesn't happen, the legislative calculus changes completely.

### A2: Kills Hegemony

**No impact to sequestration still dominate spending**

**Dickinson 9-5**

Matthew has a Ph. D in Political Science from Harvard, is a Professor of Political Science and writes for the Economist, “Who will Make the Case for Serious Cuts,” <http://www.economist.com/blogs/democracyinamerica/2012/09/defence-spending?fsrc=gn_ep>

AS I mentioned in last night's live-blog, **if sequestration comes to pass**, Barack **Obama will have to make do with a defence budget** roughly **equivalent** (in real terms) **to** George **Bush's outlay for 2007.** That budget surpasses average annual military spending during the cold war. In other words, **even with sequestration, America will still be in pretty good shape militarily. It will still spend as much as all of the other big militaries combined. It will still hold an immense advantage over China and the rest of Asia,** where the Obama administration is focusing its resources, and Russia, which Mitt Romney thinks is America's greatest foe.

#### No global escalation

Dyer 2

(Gwynne, former appointments to the Royal Military College Sandhurst and Oxford University, former member of three different armed services, Winter, "The Coming War," Queen's Quarterly, Expanded Academic ASAP)

All of this indicates an extremely dangerous situation, with many variables that are impossible to assess fully. But there is one comforting reality here: this will not become World War III. Not long ago, wars in the Middle East always went to the brink very quickly, with the Americans and Soviets deeply involved on opposite sides, bristling their nuclear weapons at one another. And for quite some time we lived on the brink of oblivion. But that is over. World War III has been cancelled, and I don't think we could pump it up again no matter how hard we tried. The connections that once tied Middle Eastern confrontations to a global confrontation involving tens of thousands of nuclear weapons have all been undone. The East-West Cold War is finished. The truly dangerous powers in the world today are the industrialized countries in general. We are the ones with the resources and the technology to churn out weapons of mass destruction like sausages. But the good news is: we are out of the business.

#### Err Neg – their authors exaggerate

Luttwak 7

Edward, Senior Associate – Center for Strategic and International Studies, “The Middle of Nowhere”, Prospect Magazine, May, <http://www.prospect-magazine.co.uk/article_details.php?id=9302>)

Why are middle east experts so unfailingly wrong? The lesson of history is that men never learn from history, but middle east experts, like the rest of us, should at least learn from their past mistakes. Instead, they just keep repeating them. The first mistake is "five minutes to midnight" catastrophism. The late King Hussein of Jordan was the undisputed master of this genre. Wearing his gravest aspect, he would warn us that with patience finally exhausted the Arab-Israeli conflict was about to explode, that all past conflicts would be dwarfed by what was about to happen unless, unless… And then came the remedy—usually something rather tame when compared with the immense catastrophe predicted, such as resuming this or that stalled negotiation, or getting an American envoy to the scene to make the usual promises to the Palestinians and apply the usual pressures on Israel. We read versions of the standard King Hussein speech in countless newspaper columns, hear identical invocations in the grindingly repetitive radio and television appearances of the usual middle east experts, and are now faced with Hussein's son Abdullah periodically repeating his father's speech almost verbatim. What actually happens at each of these "moments of truth"—and we may be approaching another one—is nothing much; only the same old cyclical conflict which always restarts when peace is about to break out, and always dampens down when the violence becomes intense enough. The ease of filming and reporting out of safe and comfortable Israeli hotels inflates the media coverage of every minor affray. But humanitarians should note that the dead from Jewish-Palestinian fighting since 1921 amount to fewer than 100,000—about as many as are killed in a season of conflict in Darfur.

## Renewables DA

#### Plan displaces fossil fuels

Loudermilk ‘11

(Micah J. Loudermilk is a Research Associate for the Energy & Environmental Security Policy program with the Institute for National Strategic Studies at National Defense University, May 31, 2011, “Small Nuclear Reactors and US Energy Security: Concepts, Capabilities, and Costs,” Journal of Energy Security, <http://www.ensec.org/index.php?option=com_content&view=article&id=314:small-nuclear-reactors-and-us-energy-security-concepts-capabilities-and-costs&catid=116:content0411&Itemid=375>)

Pursuing a carbon-free world Realistically speaking, a world without nuclear power is not a world full of increased renewable usage, but rather, of fossil fuels instead. The 2007 Japanese Kashiwazaki-Kariwa nuclear outage is an excellent example of this, as is Germany’s post-Fukushima decision to shutter its nuclear plants, which, despite immense development of renewable options, will result in a heavier reliance on coal-based power as its reactors are retired, leading to a 4% increase in annual carbon emissions. On the global level, without nuclear power, carbon dioxide emissions from electricity generation would rise nearly 20% from nine to eleven billion tons per year. When examined in conjunction with the fact that an estimated 300,000 people per year die as a result of energy-based pollutants, the appeal of nuclear power expansion grows further.¶ As the world copes simultaneously with burgeoning power demand and the need for clean energy, nuclear power remains the one consistently viable option on the table. With this in mind, it becomes even more imperative to make nuclear energy as safe as possible, as quickly as possible—a capacity which SMRs can fill with their high degree of safety and security. Additionally, due to their modular nature, SMRs can be quickly constructed and deployed widely. While this is not to say that small reactors should supplant large ones, the US would benefit from diversification and expansion of the nation’s nuclear energy portfolio.

#### SMRs key to renewables penetration

Loudermilk ‘11

(Micah J. Loudermilk is a Research Associate for the Energy & Environmental Security Policy program with the Institute for National Strategic Studies at National Defense University, May 31, 2011, “Small Nuclear Reactors and US Energy Security: Concepts, Capabilities, and Costs,” Journal of Energy Security, <http://www.ensec.org/index.php?option=com_content&view=article&id=314:small-nuclear-reactors-and-us-energy-security-concepts-capabilities-and-costs&catid=116:content0411&Itemid=375>)

Limitations of renewables Renewable energy technologies have made great strides forward during the last decade. In an increasingly carbon emissions and greenhouse gas (GHG) aware global commons, the appeal of solar, wind, and other alternative energy sources is strong, and many countries are moving to increase their renewable electricity generation. However, despite massive expansion on this front, renewable sources struggle to keep pace with increasing demand, to say nothing of decreasing the amount of energy obtained from other sources.¶ The continual problem with solar and wind power is that, lacking efficient energy storage mechanisms, it is difficult to contribute to baseload power demands. Due to the intermittent nature of their energy production, which often does not line up with peak demand usage, electricity grids can only handle a limited amount of renewable energy sources—a situation which Germany is now encountering. Simply put, nuclear power provides virtually carbon-free baseload power generation, and renewable options are unable to replicate this, especially not on the scale required by expanding global energy demands.¶ Small nuclear reactors, however, like renewable sources, can provide enhanced, distributed, and localized power generation. As the US moves towards embracing smart grid technologies, power production at this level becomes a critical piece of the puzzle. Especially since renewable sources, due to sprawl, are of limited utility near crowded population centers, small reactors may in fact prove instrumental to enabling the smart grid to become a reality.¶

#### Renewables fail

Forsberg ‘11

(Charles Forsberg, executive director of the MIT Nuclear Fuel Cycle Study in the Department of Nuclear Science and Engineering at MIT and former Corporate Fellow at Oak Ridge National Laboratory, October 6, 2011, “What alternatives to nuclear energy?,” Bulletin of Atomic Scientists, <http://www.thebulletin.org/web-edition/roundtables/nuclear-energy-different-other-energy-sources#rt8801>)

For those opposed to nuclear energy, the belief is that there are alternative energy sources -- a faith in alternatives, ironically, as strong as some of the early advocates for nuclear power in the 1950s. But no such options exist in a world that will soon have 10 billion people (see Forsberg, "Mutually Assured Energy Independence"). That fundamental reality dictates the need for nuclear energy.¶ Climate change, fossil fuels, and famine. We have fossil fuels; however, the burning of fossil fuels releases carbon dioxide into the atmosphere with the potential for large changes in (1) climate and (2) pH (acidity) of water and soil. Both threaten agricultural productivity, because the changing climate moves agriculture to less productive soils. A consistent climate is critical in the formation of fertile soils -- a several-thousand-year process. Climate change also may entail rebuilding much of man’s infrastructure, which is designed for specific climate and sea-level conditions. Betting on fossil fuels is a high-risk strategy for world agriculture and food supplies. While carbon dioxide sequestration will work in a few locations, it's unlikely to be a universal solution.¶ Renewables: latitude counts. We live on a globe circling the sun that creates seasons. That reality means that renewable systems must address how to store energy on a daily, weekly, and seasonal basis. It also drives the design of future energy systems.¶ At MIT, we examined electricity-storage requirements for California assuming three energy futures: (1) all electricity produced by nuclear reactors operating at constant output, (2) all electricity produced by wind assuming California wind conditions and the National Renewable Energy Laboratory (NREL) wind model, and (3) all electricity produced by solar using the NREL solar-trough model that includes limited energy storage. Table 1 shows the fraction of electricity that has to go into storage at times of excess electricity production to provide electricity when demand exceeds supply.¶ The hourly storage requirements were determined by using the hourly demand curves for electricity and the hourly electricity outputs of solar or wind or nuclear in California. The weekly storage requirements assumed that smart grids, pumped storage, and other technologies could result in each week having a uniform electricity demand, but different weeks have different electricity demands. It is thus a measure of the seasonal storage requirements that needs to be identified, assuming different energy sources with seasonal storage requirements measured in 10s to 100s of gigawatts per year depending upon the electricity prod uction technology.¶ Two-thirds of our electricity is base-load electricity; base-load nuclear energy has low electricity storage requirements. The storage requirements for solar and wind, however, are higher. In fact, the situation is even worse than indicated in Table 1, because the calculations assumed perfect storage systems. Real seasonal storage systems have just 50 percent efficiency but may ultimately increase to 70 percent. In other words, serious wind and solar energy initiatives require massive seasonal storage systems.¶ There are seasonal energy storage technologies being developed, such as nuclear-geothermal gigawatts per year and hydrogen systems. In a nuclear-geothermal energy storage system at times of low electricity demand, nuclear energy is used to heat a 500-meter cube of rock a kilometer or more underground to create an artificial geothermal heat source for peak power production. However, there is no way to insulate rock a kilometer underground. The heat losses are only a few percent on a large system but prohibitive in smaller systems -- that is, it is a technology that only couples to large-scale nuclear energy.¶ The potentially viable seasonal electricity storage technologies (including hydrogen) either couple to nuclear plants or involve synergistic combinations of nuclear and renewables -- but viable storage technologies do not couple efficiently to wind and solar. Renewable advocates point to Denmark and Germany -- countries whose wind systems depend upon Scandinavian hydro. However, there is not enough hydro worldwide to make a serious dent in the storage challenge. An all-renewables world will remain unaffordable -- even if the cost of renewables drop because of the larger challenge of energy storage to match production with demand.¶ Conclusions. Our energy challenge requires nuclear and renewables -- technologies that are complementary in many applications. Energy is over 10 percent of the global GNP, so economics matters because mankind needs more than energy to prosper. The risks of nuclear energy are small compared with the alternatives of oil wars, climate change, or unaffordable energy.

#### 6 degree warming’s inevitable

AP 9

(Associated Press, Six Degree Temperature Rise by 2100 is Inevitable: UNEP, September 24, <http://www.speedy-fit.co.uk/index2.php?option=com_content&do_pdf=1&id=168>)

Earth's temperature is likely to jump six degrees between now and the end of the century even if every country cuts greenhouse gas emissions as proposed, according to a United Nations update. Scientists looked at emission plans from 192 nations and calculated what would happen to global warming. The projections take into account 80 percent emission cuts from the U.S. and Europe by 2050, which are not sure things. The U.S. figure is based on a bill that passed the House of Representatives but is running into resistance in the Senate, where debate has been delayed by health care reform efforts. Carbon dioxide, mostly from the burning of fossil fuels such as coal and oil, is the main cause of global warming, trapping the sun's energy in the atmosphere. The world's average temperature has already risen 1.4 degrees since the 19th century. Much of projected rise in temperature is because of developing nations, which aren't talking much about cutting their emissions, scientists said at a United Nations press conference Thursday. China alone adds nearly 2 degrees to the projections. "We are headed toward very serious changes in our planet," said Achim Steiner, head of the U.N.'s environment program, which issued the update on Thursday. The review looked at some 400 peer-reviewed papers on climate over the last three years. Even if the developed world cuts its emissions by 80 percent and the developing world cuts theirs in half by 2050, as some experts propose, the world is still facing a 3-degree increase by the end of the century, said Robert Corell, a prominent U.S. climate scientist who helped oversee the update. Corell said the most likely agreement out of the international climate negotiations in Copenhagen in December still translates into a nearly 5-degree increase in world temperature by the end of the century. European leaders and the Obama White House have set a goal to limit warming to just a couple degrees. The U.N.'s environment program unveiled the update on peer-reviewed climate change science to tell diplomats how hot the planet is getting. The last big report from the Nobel Prize-winning Intergovernmental Panel on Climate Change came out more than two years ago and is based on science that is at least three to four years old, Steiner said. Global warming is speeding up, especially in the Arctic, and that means that some top-level science projections from 2007 are already out of date and overly optimistic. Corell, who headed an assessment of warming in the Arctic, said global warming "is accelerating in ways that we are not anticipating." Because Greenland and West Antarctic ice sheets are melting far faster than thought, it looks like the seas will rise twice as fast as projected just three years ago, Corell said. He said seas should rise about a foot every 20 to 25 years.

## MicroGrid

#### Only smr’s solve the grid – renewables fail

Charles Barton 11, founder of the Nuclear Green Revolution blog, MA in philosophy, “Future storm damage to the grid may carry unacceptable costs”, April 30, <http://nucleargreen.blogspot.com/2011_04_01_archive.html>

Amory Lovins has long argued that the traditional grid is vulnerable to this sort of damage. Lovins proposed a paradigm shift from centralized to distributed generation and from fossil fuels and nuclear power to renewable based micro-generation. Critics have pointed to flaws in Lovins model. Renewable generation systems are unreliable and their output varies from locality to locality, as well as from day to day, and hour to hour. In order to bring greater stability and predictability to the grid, electrical engineers have proposed expanding the electrical transmission system with thousands of new miles of transmission cables to be added to bring electricity from high wind and high sunshine areas, to consumers. This would lead, if anything, to greater grid vulnerability to storm damage in a high renewable penetration situation. Thus Lovins renewables/distributed generation model breaks down in the face of renewables limitations. Renewables penetration, will increase the distance between electrical generation facilities and customer homes and businesses, increasing the grid vulnerable to large scale damage, rather than enhancing reliability. Unfortunately Lovins failed to note that the distributed generation model actually worked much better with small nuclear power plants than with renewable generated electricity. Small nuclear plants could be located much closer to customer's homes, decreasing the probability of storm damage to transmission lines. At the very worst, small NPPs would stop the slide toward increased grid expansion. Small reactors have been proposed as electrical sources for isolated communities that are too remote for grid hookups. If the cost of small reactors can be lowered sufficiently it might be possible for many and perhaps even most communities to unhook from the grid while maintaining a reliable electrical supply. It is likely that electrical power will play an even more central role in a post-carbon energy era. Increased electrical dependency requires increased electrical reliability, and grid vulnerabilities limit electrical reliability. Storm damage can disrupt electrical service for days and even weeks. In a future, electricity dependent economy, grid damage can actually impede storm recovery efforts, making large scale grid damage semi-self perpetuating. Such grid unreliability becomes a threat to public health and safety. Thus grid reliability will be a more pressing future issue, than it has been. It is clear that renewable energy sources will worsen grid reliability, Some renewable advocates have suggested that the so called "smart grid" will prevent grid outages. Yet the grid will never be smart enough to repair its own damaged power lines. In addition the "smart grid" will be venerable to hackers, and would be a handy target to statures. A smart grid would be an easy target for a Stuxnet type virus attack. Not only does the "smart grid" not solve the problem posed by grid vulnerability to storm damage, but efficiency, another energy approach thought to be a panacea for electrical supply problems would be equally useless. Thus, decentralized electrical generation through the use of small nuclear power plants offers real potential for increasing electrical reliability, but successful use of renewable electrical generation approaches may worsen rather than improved grid reliability.

#### Super vulnerable

Mo et al 12

(Yilin Mo received the Bachelor of Engineering degree from Department of Automation, Tsinghua University, Beijing, China, in 2007. He is currently working towards the Ph.D. degree at the Electrical and Computer Engineering Department, Carnegie Mellon University, Tiffany Hyun-Jin Kim received the B.A. degree in computer science from University of California at Berkeley, Berkeley, in 2002 and the M.S. degree in computer science from Yale University, New Haven, CT, in 2004. She is currently working towards the Ph.D. degree at the Electrical and Computer Engineering Department, Carnegie Mellon University, Kenneth Brancik completed a rigorous one year program in systems analysis at the former Grumman Data Information Systems in 1984 and an intensive two year program at Columbia University in the analysis and design of information systems in 1997. He received the M.S. degree in management and systems from New York University (NYU), New York, in 2002 and the Ph.D. degree in computing from Pace University, Dona Dickinson received the B.A. degree in industrial psychology from California State University, Heejo Lee received the B.S., M.S., and Ph.D. degrees in computer science and engineering from POSTECH, Pohang, Korea, Adrian Perrig received the Ph.D. degree in computer science from Carnegie Mellon University, Bruno Sinopoli received the Dr. Eng. degree from the University of Padova, Padova, Italy, in 1998 and the M.S. and Ph.D. degrees in electrical engineering from the University of California at Berkeley, “Cyber–Physical Security of a Smart Grid Infrastructure” “Proceedings of the IEEE” January 2012, Vol. 100, No. 1)

A wide variety of motivations exist for launching an attack on the power grid, ranging from economic reasons (e.g., reducing electricity bills), to pranks, and all the way to terrorism (e.g., threatening people by controlling electricity and other life-critical resources). The emerging smart grid, while benefiting the benign participants (consumers, utility companies), also provides powerful tools for adversaries. The smart grid will reach every house and building, giving potential attackers easy access to some of the grid components. While incorporating information technology (IT) systems and networks, the smart grid will be exposed to a wide range of security threats [5]. Its large scale also makes it nearly impossible to guarantee security for every single subsystem. Furthermore, the smart grid will be not only large but also very complex. It needs to connect different systems and networks, from generation facilities and distribution equipment to intelligent end points and communication networks, which are possibly deregulated and owned by several entities. It can be expected that the heterogeneity, diversity, and complexity of smart grid components may introduce new vulnerabilities, in addition to the common ones in interconnected networks and stand-alone microgrids [3]. To make the situation even worse, the sophisticated control, estimation, and pricing algorithms incorporated in the grid may also create additional vulnerabilities. The first-ever control system malware called Stuxnet was found in July 2010. This malware, targeting vulnerable SCADA systems, raises new questions about power grid security [6]. SCADA systems are currently isolated, preventing external access. Malware, however, can spread using USB drives and can be specifically crafted to sabotage SCADA systems that control electric grids. Furthermore, increasingly interconnected smart grids will unfortunately provide external access which in turn can lead to compromise and infection of components.

#### Renewables don’t solve- DOD cheats

Sater 11

(Daniel, Research Fellow at Global Green USA’s Security and Sustainability Office in ¶ Washington, DC in the summer of 2011. He is a graduate student at the Frank Batten School of ¶ Leadership and Public Policy at the University of Virginia. Daniel holds a BA in Foreign Affairs ¶ from UVA and will receive his Master of Public Policy degree in May 2012. “Military Energy Security: Current Efforts and Future Solutions” <http://www.globalgreen.org/docs/publication-185-1.pdf>, SEH)

In 2008, the DOD acquired 2.9% of its electricity from renewable sources, falling just below the ¶ goal but surpassed the 3% goal in 2009 with 3.6% of its electricity coming from renewable ¶ sources.¶ 36¶ However, these numbers are deceiving. The DOD was only able to surpass this goal ¶ with the purchase of Renewable Energy Certificates. ¶ When a renewable energy source creates electricity, it creates two commodities: the electricity ¶ itself and a Renewable Energy Certificate. The utility (or whomever owns the energy source) can ¶ sell the electricity and the certificate together in a process called bundling or separately, known ¶ as unbundled energy. For example, if a military base has a solar array that produces 1MW of ¶ electricity, it also creates a certificate for 1MW of electricity. If the base sells the electricity it ¶ creates back to the utility, but keeps the certificate, the base can count the 1MW credit towards ¶ the renewable energy goal. If the base uses the electricity and keeps the certificate, it can count ¶ 2MW towards the goal. Finally, if the base sells the electricity and the certificate, it cannot count ¶ either towards its renewable energy goal. A base can also buy unbundled electricity (the credit or the actual electricity) or bundled electricity from a utility. The problem with only buying the ¶ certificate is that the base still must purchase electricity to power the installation. In meeting its renewable energy goal, the DOD does not distinguish between buying Renewable ¶ Energy Certificates and the actual use of renewable energy. The Army with 2.1% and Navy with ¶ 0.6% were well below the 3% goal, and the DOD was only able to surpass the goal because the ¶ Air Force consumed 5.8% of its electricity from renewable sources, but this figure comes mainly ¶ from the purchase of credits.¶ 38¶ The DOD’s FY 2009 Annual Energy Management Report does ¶ not specify what percentage of the energy use came from certificates but does make special ¶ mention of the Air Force’s purchase of certificates. However, the GAO reports that 90% of the ¶ DOD’s renewable energy use came from the purchase of certificates in 2007.¶ 39

# 1AR- Round 3

### Nuclear War

**Nuke war triggers extinction---newest and best science proves
Toon and Robock 10, Professors of Atmospheric Science, 10** [Toon - chair of the Dept of Atmospheric and Oceanic Sciences and a member of the Laboratory for Atmospheric and Space Physics at the University of Colorado @ Boulder. Robock is a Proff of atmospheric science at Rutgers University in New Brunswick, New Jersey Local Nuclear War, Global Suffering; January 2010; Scientific American Magazine; 8 Page(s), <http://www.sciamdigital.com/index.cfm?fa=Products.ViewIssuePreview&ISSUEID_CHAR=944156A6-237D-9F22-E8E572150DCA8E65&ARTICLEID_CHAR=97CA0A88-237D-9F22-E861FD76EBEE2611>]

**Twenty-five years ago international teams of scientists showed that a nuclear war between the U.S. and the Soviet Union could produce a "nuclear winter." The smoke from vast fires started by bombs dropped on cities and industrial areas would envelop the planet and absorb so much sunlight that the earth**â€™s **surface would get cold, dark and dry, killing plants worldwide and eliminating our food supply. Surface temperatures would reach winter values in the summer**. International discussion about this prediction, fueled largely by astronomer Carl Sagan, forced the leaders of the two superpowers to confront the possibility that **their arms race endangered not just themselves but the entire human race.** Countries large and small demanded disarmament. Nuclear winter became an important factor in ending the nuclear arms race. Looking back later, in 2000, former Soviet Union leader Mikhail S. Gorbachev observed, "Models made by Russian and American scientists showed that **a nuclear war would result in a nuclear winter that would be extremely destructive to all life on earth**; the knowledge of that was a great stimulus to us, to people of honor and morality, to act. Why discuss this topic now that the cold war has ended? Because as other nations continue to acquire nuclear weapons**, smaller, regional nuclear wars could create a similar global catastrophe.** New analyses reveal that a conflict between India and Pakistan, for example, in which 100 nuclear bombs were dropped on cities and industrial areasâ€”only 0.4 percent of the worldâ€™s more than 25,000 **warheads**â€”**would produce enough smoke to cripple global agriculture. A regional war could cause widespread loss of life even in countries far away from the conflict.**  Regional War Threatens the World By deploying modern computers and modern cli-mate models, the two of us and our colleagues have shown that not only were the ideas of the 1980s correct but the effects would last for at least 10 years, much longer than previously thought. And by doing calculations that assess decades of time, only now possible with fast, current computers, and by including in our cal-culations the oceans and the entire atmosphereâ€”also only now possibleâ€”we have found that **the smoke from even a regional war would be heated and lofted by the sun and remain suspended in the upper atmosphere for years, continuing to block sunlight and to cool the earth.** India and Pakistan, which together have more than 100 nuclear weapons, may be the most worrisome adversaries capable of a regional nu-clear conflict today. But **other countries besides the U.S. and Russia (which have thousands) are well endowed: China, France and the U.K. have hundreds of nuclear warheads; Israel has more than 80, North Korea has about 10 and Iran may well be trying to make its own.** In 2004 this situation prompted one of us (Toon) and later Rich Turco of the University of California, Los Angeles, both veterans of the 1980s investiga-tions, to begin evaluating what the global envi-ronmental effects of a regional nuclear war would be and to take as our test case an engage-ment between India and Pakistan. The latest estimates by David Albright of the Institute for Science and International Security and by Robert S. Norris of the Natural Resourc-es Defense Council are that India has 50 to 60 assembled weapons (with enough plutonium for 100) and that Pakistan has 60 weapons. Both countries continue to increase their arsenals. In-dian and Pakistani nuclear weapons tests indi-cate that the yield of the warheads would be sim-ilar to the 15-kiloton explosive yield (equivalent to 15,000 tons of TNT) of the bomb the U.S. used on Hiroshima. Toon and Turco, along with Charles Bardeen, now at the National Center for Atmospheric Re-search, modeled what would happen if 50 Hiro-shima-size bombs were dropped across the high-est population-density targets in Pakistan and if 50 similar bombs were also dropped across In-dia. Some people maintain that nuclear weapons would be used in only a measured way. But in the wake of chaos, fear and broken communications that would occur once a nuclear war began, we doubt leaders would limit attacks in any rational manner. This likelihood is particularly true for Pakistan, which is small and could be quickly overrun in a conventional conflict. Peter R. La-voy of the Naval Postgraduate School, for exam-ple, has analyzed the ways in which a conflict be-tween India and Pakistan might occur and ar-gues that Pakistan could face a decision to use all its nuclear arsenal quickly before India swamps its military bases with traditional forces. Obviously, we hope the number of nuclear targets in any future war will be zero, but **policy makers and voters should know what is possible**. Toon and Turco found that more than 20 million people in the two countries could die from the blasts, fires and radioactivityâ€”a horrible slaugh-ter. But the investigators were shocked to discov-er that a tremendous amount of smoke would be generated, given the megacities in the two coun-tries, assuming each fire would burn the same area that actually did burn in Hiroshima and as-suming an amount of burnable material per per-son based on various studies. They calculated that the 50 bombs exploded in Pakistan would produce three teragrams of smoke, and the 50 bombs hitting India would generate four (one teragram equals a million metric tons). Satellite observations of actual forest fires have shown that smoke can be lofted up through the troposphere (the bottom layer of the atmosphere) and sometimes then into the lower stratosphere (the layer just above, extending to about 30 miles). Toon and Turco also did some â€œback of the en-velopeâ€ calculations of the possible climate im-pact of the smoke should it enter the stratosphere. The large magnitude of such effects made them realize they needed help from a climate modeler. It turned out that one of us (Robock) was already working with Luke Oman, now at the NASA Goddard Space Flight Center, who was finishing his Ph.D. at Rutgers University on the climatic effects of volcanic eruptions, and with Georgiy L. Stenchikov, also at Rutgers and an author of the first Russian work on nuclear winter. They developed a climate model that could be used fairly easily for the nuclear blast calculations. Robock and his colleagues, being conserva-tive, put five teragrams of smoke into their mod-eled upper troposphere over India and Pakistan on an imaginary May 15. The model calculated how winds would blow the smoke around the world and how the smoke particles would settle out from the atmosphere. The smoke covered all the continents within two weeks. The black, sooty smoke absorbed sunlight, warmed and rose into the stratosphere. Rain never falls there, so the air is never cleansed by precipitation; par-ticles very slowly settle out by falling, with air resisting them. Soot particles are small, with an average diameter of only 0.1 micron (m), and so drift down very slowly. They also rise during the daytime as they are heated by the sun, re-peatedly delaying their elimination. The calcu-lations showed that the smoke would reach far higher into the upper stratosphere than the sul-fate particles that are produced by episodic vol-canic eruptions. Sulfate particles are transparent and absorb much less sunlight than soot and are also bigger, typically 0.5 \_m. The volcanic par-ticles remain airborne for about two years, but **smoke from nuclear fires would last a decade**. Killing Frosts in **Summer The climatic response to the smoke was surpris-ing. Sunlight was immediately reduced, cooling the planet to temperatures lower than any expe-rienced for the past 1,000 years. The global aver-age cooling**, of about 1.25 degrees Celsius (2.3 degrees Fahrenheit), **lasted for several years**, and even after 10 years the temperature was still 0.5 degree C colder than normal. **The models also showed a 10 percent reduction in precipitation worldwide. Precipitation, river flow and soil moisture all decreased because blocking sun-light reduces evaporation and weakens the hydrologic cycle.** Drought was largely concen-trated in the lower latitudes, however, because global cooling would retard the Hadley air cir-culation pattern in the tropics, which produces a large fraction of global precipitation. In criti-cal areas such as the Asian monsoon regions, **rainfall dropped by as much as 40 percent. The cooling might not seem like much, but even a small dip can cause severe consequences.** Cooling and diminished sunlight would, for ex-ample, shorten growing seasons in the midlati-tudes. More insight into the effects of cooling came from analyses of the aftermaths of massive volcanic eruptions. Every once in a while such eruptions produce temporary cooling for a year or two. The largest of the past 500 years, the 1815 Tambora eruption in Indonesia, blotted the sun and produced global cooling of about 0.5 de-gree C for a year; 1816 became known as â€œThe Year without a Summerâ€ or â€œEighteen Hundred and Froze to Death.â€

### Solar

#### Solar production is oversupplied, too many closed startups ensure

Wang 6-27

Ucilla is a contributor to the energy section of Forbes, “Report: Solar Panel Supply will far Exceed Demand by 2012,” <http://www.forbes.com/sites/uciliawang/2012/06/27/report-solar-panel-production-will-far-exceed-demand-beyond-2012/>

When solar equipment manufactures began posting big losses during 2011, forcing some to close factories or even file for bankruptcies, many of them wondered: when will the market recover? End of 2011? Mid-2012? Not this year. Or even next year. First Solar Struggles Amid Decline Of Thin-Film Solar Marker **Solar panel makers are on track to deliver 59 gigawatts of their products worldwide this year when demand will likely hit 30 gigawatts, according to a report released by GTM Research Wednesday. To re-establish a healthy balance of supply and demand, an estimated 21 gigawatts of existing factories will close by 2015**, said Shyam Mehta, author of the report. **The oversupply problem began to surface in early 2011 and led to a near 50% drop in wholesale solar panel prices last year**. Lower government subsidies and worries about the financial health of Europe – the largest solar market – tempered demand for solar equipment last year. Emerging markets such as the Japan, China and India should see a big jump in solar panel installations this year. Th**e U.S. also could experience a 75% growth in 2012. But all these increases aren’t going to be enough to make use of most of the solar panels that will be rolling off assembly lines, especially when some manufacturers have built new factories over the past year and a half or plan to add more production lines in the next few years**. Companies are building new factories for reasons that aren’t necessary foolish. Many startups only recently entered the market and need to gain manufacturing scale to lower their production costs, or else they will never be competitive, Mehta said. Several U.S. thin film companies, which use semiconductors that allow them to create ultra-thin solar panels, are in production expansion mode. They include Stion, SoloPower, HelioVolt and Nanosolar. GE is building a solar panel factory in Colorado that will eventually reach an annual production capacity of 400 megawatts. The company plans to use a thin film technology developed by a startup it bought in 2011 and begin shipping panels from the new factory in 2013. Some Japanese and Chinese manufacturers who are not startups, such as Hanergy and Panasonic (which bought Sanyo and its solar business), also have been beefing up their production fleets. Sometimes manufacturers expand production because they expect the oversupply problem to be short-term. They also could be executing plans they created a few years ago because building a factory requires time to raise money, gain regulatory approval and bring production equipment online. Meanwhile, other companies, such as GCL-Poly Energy, which is among the largest maker of silicon and silicon wafers (for making solar cells) in the world, are willing to expand production and lose money for a while in order to gain market share, Mehta said. Finally, some companies that are adding factories “are just plain clueless,” he added. China-based GCL-Poly is an interesting company to watch because it’s increasing silicon and wafer production while also aggressively pursuing solar energy generation projects. The company has announced or completed projects in place such as California and China, and in May it said it would team up with Spanish firm Isofoton to jointly develop 1 gigawatt of power projects worldwide. GCL-Poly recently created a joint venture with New Jersey-based NRG Energy to provide solar power plant engineering and construction services. The joint venture, called Sunora Energy Solutions, inaugurated a factory in Arizona last week to make racks for mounting solar panels. Sunora also assembles the mounting equipment with solar panels from other suppliers before shipping them to construction sites. **The big decline in solar panel prices is great news for solar project builders**, said John Plumlee, CEO of Sunora. **Pre-assembling mounting gear with solar panels at a factory rather than at the job site, as is the typical practice, also will save money, he added. “This is absolutely a great time to launch a solution business and a terrible time to be a module manufacturing business,”** Plumlee said.

**Production process causes more warming**

**De Decker ‘08**

Low-tech Magazine Contributor, 08 (Kris, March 03, “The ugly side of solar panels,” http://www.energybulletin.net/authors/Kris+De+Decker, d/a 8-2-12, ads)\

Producing electricity from solar cells reduces air pollutants and greenhouse gases by about 90 percent in comparison to using conventional fossil fuel technologies, claims a study called "Emissions from Photovoltaic Life Cycles", to be published this month in “Environmental Science & Technology”. Good news, it seems, until one reads the report itself. The researchers come up with a solid set of figures. However, they interpret them in a rather optimistic way. Some recalculations (skip this article if you get annoyed by numbers) produce striking conclusions.¶ **Solar panels** don’t come falling out of the sky – they **have to be manufactured**. Similar to computer chips, **this is a dirty and energy-intensive process**. First, raw **materials have to be mined**: quartz sand for silicon cells, metal ore for thin film cells. Next, **these materials have to be treated**, following different steps (in the case of silicon cells these are purification, crystallization and wafering). Finally, **these upgraded materials have to be manufactured into solar cells**, and assembled into modules. All **these processes produce air pollution and heavy metal emissions, and they consume energy - which brings about more** air pollution, heavy metal emissions and also **greenhouse gases.**

### Elections

### A2: Changes Policy

**Romney won’t change Russian policy**

**NYT 7/28**

(New York Times, Peter Baker, “Romney and Obama Strain to Show Gap on Foreign Policy”, http://www.nytimes.com/2012/07/29/us/politics/obama-and-romney-strain-to-assert-foreign-policy-differences.html?pagewanted=all)

Mr. **Romney has called Russia “our No. 1 geopolitical foe” and declared** Mr. **Obama’s effort to improve relations a failure.** Mr. Romney promises to challenge Mr. Putin’s authoritarianism. **But he has not suggested cutting off cooperation between the countries’ space programs or counterterrorism agencies, nor shutting down the Afghanistan supply route** through Russia negotiated by Mr. Obama. **He supports Mr. Obama’s drive to normalize trade relations, though with a human rights amendment** the president initially resisted.¶ Mr. **Romney’s visit to Poland is intended to highlight what he called** Mr. **Obama’s “sudden abandonment o**f friends in Poland” under Russian pressure by canceling Mr. Bush’s missile defense program partly based there. **But** Mr. **Obama did not abandon missile defense altogether;** he substituted a reconfigured system devised by Mr. Bush’s last defense secretary.

**Give Russia war zero probability – politics, military superiority, economic concerns, and nuclear security**

**Graham 2007**

(Thomas, Russia in Global Affairs, "The dialectics of strength and weakness", <http://eng.globalaffairs.ru/numbers/20/1129.html>, WEA)

An astute historian of Russia, Martin Malia, wrote several years ago that “Russia has at different times been demonized or divinized by Western opinion less because of her real role in Europe than because of the fears and frustrations, or hopes and aspirations, generated within European society by its own domestic problems.” Such is the case today. To be sure, mounting Western concerns about Russia are a consequence of Russian policies that appear to undermine Western interests, but they are also a reflection of declining confidence in our own abilities and the efficacy of our own policies. Ironically, this growing fear and distrust of Russia come at a time when **Russia is arguably less threatening to the West, and the United States in particular, than it has been at any time since the end of the Second World War. Russia does not champion a totalitarian ideology intent on our destruction, its military poses no threat to sweep across Europe, its economic growth depends on constructive commercial relations with Europe, and its strategic arsenal – while still capable of annihilating the United States – is under more reliable control than it has been in the past fifteen years and the threat of a strategic strike approaches zero probability.** Political gridlock in key Western countries, however, precludes the creativity, risk-taking, and subtlety needed to advance our interests on issues over which we are at odds with Russia while laying the basis for more constructive long-term relations with Russia.

### Popular

#### Newest polls show reactors are popular

NEI 9-19

Nuclear Energy Institute, “Americans' Support for Nuclear Energy Solidifies, New National Survey Shows,” <http://www.nei.org/newsandevents/newsreleases/americans-support-for-nuclear-energy-solidifies-new-national-survey-shows/>

Americans continue to strongly support nuclear energy as an important technology to meet the nation’s future electricity demands, according to a new national survey.¶ In the telephone survey of 1,000 U.S. adults, 65 percent of respondents said they favor the use of nuclear energy as one of the ways to provide electricity in the United States, with 29 percent opposed. Those strongly favoring nuclear energy outnumber those strongly opposed by a two-to-one ratio, 29 percent versus 14 percent, according to the survey conducted Sept. 14-16 by Bisconti Research Inc. with GfK Roper. The survey has a margin of error of plus or minus three percentage points.¶ Seventy-one percent of Americans favored the use of nuclear energy in a survey by Bisconti Research/GfK Roper in February 2011, one month before the Fukushima Daiichi accident. Six months after the accident that occurred in March 2011, 62 percent of respondents favored the use of nuclear energy, with 35 percent opposed.¶ “In the surveys conducted this year and the latter part of 2011 we see not only significant and steady support for nuclear energy overall but confidence that nuclear power plants are being operated safely,” said Ann Bisconti, president of Bisconti Research. “Confidence in the safe operation of the plants and recognition of their benefits is the linchpin to public support.”¶ The new survey shows that 76 percent of respondents agree that nuclear energy facilities operating in the United States are “safe and secure,” while only 19 percent think they are not. Eighty percent of Americans (vs. 16 percent) believe “we should learn the lessons from the Japanese accident and continue to develop advanced nuclear energy plants to meet America’s growing electricity demand.”¶ The strong majority support for nuclear energy extends across a number of metrics:¶ 81 percent of those surveyed favor the renewal of operating licenses of facilities that continue to meet federal safety standards.¶ 74 percent believe electric utilities should prepare now so they will be ready to build new nuclear power plants in the next decade if needed.¶ 69 percent would find a new reactor acceptable at the site of the nearest operating nuclear power plant.¶ Nuclear energy facilities operating in 31 states supply electricity to one of every five U.S. homes and businesses.¶ Seventy-eight percent of Americans associate nuclear energy “a lot or a little” with reliable electricity, 72 percent with clean air, 69 percent with energy independence and 73 percent with affordable electricity.¶ The solidified support for nuclear energy shown by the survey echoes the bipartisan support that nuclear energy receives in Congress and general policy alignment for nuclear energy in the presidential campaigns.¶ “The guiding principles established by President Obama and Governor Romney on nuclear energy are quite similar and supportive in contrast with their differences on other energy issues,” said Alex Flint, NEI senior vice president for governmental affairs.¶ One facet of energy policy is safely and securely managing used nuclear fuel from nuclear energy facilities. As Congress considers recommendations from the President’s Blue Ribbon Commission on America’s Nuclear Future on a new path for used nuclear fuel management, 80 percent of Americans believe that the federal government should develop a final disposal facility that meets U.S. Nuclear Regulatory Commission regulations. In the meantime, 62 percent agree that uranium fuel rods are safely stored at nuclear energy facility, 27 percent disagree. However, 78 percent agree that it is more appropriate that fuel be consolidated at one or two storage sites in volunteer communities where it can be securely and efficiently managed.¶ With more than 200 new reactors being built or planned globally, three-fourths (74 percent) of those surveyed agreed that it is “important for the U.S. nuclear industry to continue to play a leading role in world markets.” Eighty-five percent believe that America “should be a leader in global nuclear energy trade so that we can influence nuclear safety and keep nuclear weapons out of the hands of terrorists.”

### 2AC Romney Supports

#### Romney has endorsed SMR’s and removing restrictions

Physics Today 10-1

“Obama, Romney Agree on Support for Basic Research But Little Else,” <http://www.physicstoday.org/resource/1/phtoad/v65/i10/p22_s1?bypassSSO=1>

Romney has embraced nuclear energy, which by any reckoning is capital intensive. He would streamline the Nuclear Regulatory Commission licensing process to accelerate approval of new reactors to be built on or adjacent to preapproved sites and using preapproved designs. He would also expand the NRC’s capabilities so the agency could swiftly approve new reactor designs such as small modular units. Obama also favors growth for nuclear energy; his administration has provided $8 billion in loan guarantees to finance construction of the first two reactors to be built in the US since the 1970s.

# 1AC- Round 6

### Plan

#### The United States Department of Defense should procure small modular reactors for use on military bases within the United States.

#### Small nuclear reactors key to prevent bases from being vulnerable to inevitable grid outages.

Andres and Breetz 11

(Richard B. Andres is 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. Hanna L. Breetz is a doctoral candidate in the Department of Political Science at the Massachusetts institute of technology, “Small Nuclear Reactors ¶ for Military Installations:¶ Capabilities, Costs, and ¶ Technological Implications” Institute for National Strategic Studies, <http://www.ndu.edu/press/lib/pdf/strforum/sf-262.pdf>, SEH)

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 will go down- four reasons

Defense Science Board 8

(The DSB is a Federal ¶ Advisory Committee established to provide independent advice to the Secretary of ¶ Defense, “More Fight – Less Fuel” <http://www.acq.osd.mil/dsb/reports/ADA477619.pdf>, SEH)

5.3 Four Sources of Risk for Grid Outages ¶ The first risk is from overload. As wires become overloaded, they heat up and sag, ¶ making them vulnerable to entanglement with trees and other objects. This happened ¶ near Cleveland, Ohio on August 14, 2003. According to the U.S.-Canada Power ¶ System Outage Task Force, high demand caused a high-voltage line to come in contact ¶ with overgrown trees. The resulting cascade of failures plunged many of the 50 million ¶ people in the Northeast U.S. and Canada living in an area covering 9,300 square miles ¶ into darkness. It shut down more than 500 generating units at 265 power plants, ¶ including 22 nuclear plants.¶ 29¶ ¶ A second risk comes from natural disasters, such as hurricanes, tornadoes, electrical ¶ storms or other extreme weather events. The consequences could be very much as ¶ described above, but with the added risk of physical damage to the infrastructure. ¶ Favorable commentary about the performance of the grid following the August 2003 ¶ outage focused on the fact that restoration occurred fairly quickly. Within a few days ¶ power was restored virtually everywhere, with much of the area back up within a few ¶ hours. This was largely because safety features built into the grid successfully ¶ prevented damage to critical equipment such as generators, breakers and ¶ transformers.¶ 30¶ However, the Task Force is concerned that such an extensive outage could be caused by such a commonplace event – a single line contacting a tree. This ¶ inevitably raises the next issue below: what the result might have been had there been ¶ physical damage to infrastructure, such as from a deliberate attack by knowledgeable ¶ adversaries? ¶ A third risk comes from sabotage or terrorist activity, whether local, trans-national, or ¶ state-sponsored, and including both conventional and nuclear attack. Nuclear attack ¶ could take place either directly or through the generation of a high altitude ¶ electromagnetic pulse (EMP). The grid is a relatively easy target for a terrorist. It is ¶ brittle, increasingly centralized, capacity-strained, and largely unprotected from physical ¶ attack, with little stockpiling of critical hardware. Although the system is designed to ¶ survive single points of failure, increasing demand on the system and increasing ¶ network constraints make multiple points of failure more likely. These are difficult to ¶ anticipate and more likely to result in cascading outages and catastrophic outages that ¶ cover large areas for long periods of time. Network Single Points of Failure (NSPF) are ¶ abundant. High voltage transformers, breakers, and other long-lead time items are ¶ particularly critical system elements.¶ 31¶ They can be easily targeted and destroyed. Grid ¶ sections could be taken down for months even if replacement transformers and ¶ breakers could be found; or for years if certain components need to be newly ¶ manufactured and transported. There are only limited backups located around the ¶ country—generally co-located with operating equipment. For some of the largest ¶ equipment, there is no domestic supply and only limited overseas production capacity ¶ which is fully booked years ahead.¶ 32¶ For example, 765 kV transformers are ¶ manufactured only by one company in Canada. Armed with the right knowledge, a ¶ small number of people could shut down electricity over significant areas for an ¶ extended period of time, including power to critical DoD missions. The grid is not ¶ designed to withstand a coordinated multi-pronged or wide-area attack.¶ 33¶ The Task ¶ Force noted that attacks on the grid are one of the most common and effective tactics of ¶ insurgents in Iraq, and are increasingly seen in Afghanistan.¶ 34¶ In addition to physical attacks on the grid, there is the potential for cyber attacks. U.S. ¶ grid control systems are continuously probed electronically, and there have been ¶ numerous attempted attacks on the Supervisory Control and Data Acquisition (SCADA) ¶ systems that operate the grid. None have yet resulted in major problems in the U.S., ¶ but the potential exists for major outages in the same way successful hackers can ¶ disrupt computer networks.¶ 35¶ Further details regarding the potential for deliberate attacks to the grid and their potential consequences are contained in a classified annex ¶ to this report. ¶ A fourth risk comes from interruptions in supplies to generating plants, which can be ¶ caused by natural events, infrastructure failures, attack or even market forces. This ¶ occurred in California during 2000 and 2001 when supplies of natural gas were ¶ interrupted and forced a reduction in electricity generation.¶ 36¶ Approximately 20% of ¶ U.S. electricity is generated by natural gas and market prices have swung wildly over ¶ the past several years.¶ 37¶ Approximately 52% of U.S. electricity is generated by coal and ¶ transportation routes that move coal from mines to generating plants are sometimes ¶ remote and lacking in alternatives. Critical rail lines or bridges could be taken out by ¶ determined saboteurs. For example, in May 2005, 43 rail cars came off the tracks. The ¶ disruption to coal deliveries caused prices to spike, and raised electricity prices by 6% ¶ nationally, according to the Bureau of Labor Statistics. The 100 mile length of rail line ¶ through Wyoming that carries the output of the Western coal belt to power plants is the ¶ most heavily traveled in the nation.¶ 38¶ So in addition to risks from grid outage, there are ¶ risks to the supply chain that enables the grid to work—not least from electricity supply ¶ failures themselves, which could disable the pipelines and controls used by other forms ¶ of energy, notably oil and gas.

#### Grid failure shuts down US military operations

Paul Stockton 11, 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.

#### Cyber-attack is the biggest national security threat

ABC News 11

(Huma Khan, “Cyber Attack on U.S. Electric Grid ‘Gravest Short Term Threat’ to National Security, Lawmakers Say” <http://abcnews.go.com/blogs/politics/2011/05/cyber-attack-on-us-electric-grid-gravest-short-term-threat-to-national-security-lawmakers-say/>, SEH)

The United States is ill-prepared to deal with a cyber attack on the nation’s electric grid, one of the biggest national security threats facing the country today, lawmakers warned.¶ “The sobering reality is this vulnerability, if left unaddressed, could have grave, societal-altering consequences,” Rep. Trent Franks, R-Ariz., testified before the House Energy and Commerce Subcommittee today. “We face a menace that may represent the gravest short term threat to the peace and security of the human family in the world today.”¶ Experiments by federal agencies in recent years have shown that cyber spies have intruded the U.S. electric system, and that it's increasingly susceptible to attacks by hackers and foreign governments.¶ The weakness in the system, some lawmakers argue, can also be exploited by terrorist groups like al Qaeda, which are advancing their technological capabilities.¶ “We know there are many many PhDs inside al Qaeda, whether we like it or not,” said Rep. Ed Markey, D-Mass., a senior member of the House Energy and Commerce Committee. “They are very technically sophisticated.”

#### Current policy of cyber deterrence risks spoofing- leads to nuclear war.

Gelinas 10

(Ryan Richard, thesis for Master of Arts¶ in Security Studies from Georgetown, “CYBERDETERRENCE AND THE PROBLEM OF ATTRIBUTION” <https://repository.library.georgetown.edu/bitstream/handle/10822/553494/gelinasRyan.pdf?sequence=1>, SEH)

The set of cases analyzed here demonstrate decisively that attribution of cyber attacks is ¶ technically difficult and often politically unpalatable. Established networking protocols allow ¶ easy spoofing and obfuscation of source, destination, and intent of packets as they stream around ¶ the world. Attribution, as demonstrated in these cases, is often circumstantial at best. While ¶ victims often have strong suspicions of attackers‘ identities built from pieces of intelligence, the ¶ decisions of war and peace involved in a deterrence policy require a higher level of confidence ¶ than a measured hunch. To reach even elementary levels of attribution significant resources, ¶ expertise, and time are required.¶ The chilling suspicion of the unknown unknowns, the realization that undetected attacks ¶ may be underway at any moment, is potentially paralyzing to any deterrence policy. A ¶ deterrence policy of ―I will attack you back if you attack me, but only if I find out that you did it‖ ¶ is not an appropriate cornerstone of a computer network defense strategy. Without a response, ¶ an attacker can assume that the victim is either unable to detect the attack or, even more ¶ emboldening, the victim is unable or unwilling to make good on its threat. Cyber attacks can be ¶ a powerful part of salami tactics on the part of the attacker. If attacks are unable to generate a ¶ deterrent response in the cyber realm, what other lines can the attacker cross?¶ Addressing cases where the victim state realizes that it is being attacked, Lt. Gen. Keith ¶ Alexander, director of the National Security Agency, recently proposed that his future U.S. ¶ CYBERCOMMAND would support a deterrence doctrine by attacking back in a proportional and discriminating way against the sources of any cyber attack against the United States.¶ 69¶ He ¶ extended this case specifically to those where the identities of the attackers are unknown. ¶ According to Gen. Alexander, the U.S. will attack back in accordance with the rules of ¶ engagement and in accordance with the principles of proportionality and discrimination, with the ¶ caveat that ―neither proportionality nor discrimination requires that we know who is responsible ¶ before we take defensive action.‖¶ 70¶ With statements like this, Gen. Alexander and others are ¶ providing a strong incentive for enemies of the U.S. to launch cyber attacks on the United States ¶ from third-party territory, hoping to lure the U.S. into conflict with a nation that had no role in or ¶ idea of the attack.¶ What the cases analyzed in this paper illustrate is that deterrence is a phenomenally poor ¶ choice as a core component in a computer network defense strategy. Bloviation and bluster, ¶ vowing deterrent responses to attacks, make for good sound bites and allow for easy porting of¶ deep deterrence scholarship to the cyber realm. But less flashy policies and measures are more ¶ effective. Defense in depth, better security standards for software and hardware, robust ¶ computer network intelligence systems, and information sharing between and among industry ¶ and government are all good and necessary elements of a more successful computer network ¶ defense strategy. Combined with aggressive hack-back defensive measures that work to disrupt ¶ or exploit attacker infrastructure, vital networks will be better defended and deterrence as a ¶ general national policy tool will be better preserved for realms where it is more applicable.

#### Absence of command signals causes satellite malfunction

Coleman, 10

(Kevin Coleman, Defense Tech Chief Cyber War Correspondent, Cyber War = Space War, March 1st, 2010, <http://defensetech.org/2010/03/01/cyber-war-space-war/#ixzz1948Fvj1r> )

While the satellite broadband market slowed in 2009 because of the poor economy, it still increased. The market continues to expand after U.S. regulators outlined the national broadband plan that allows satellite operators to use their radio spectrum for Internet traffic. That is why cyber security professionals are so concerned about the convergence of cyber space and space. Its becoming increasingly evident that any future war between modern militaries would be both a space war and a cyber war, in fact, they would be one and the same. Russia, China, and the U.S. have all stated they don’t want a space war, but are all preparing for one if one occurs. That sounds so familiar – oh wait a minute, didn’t Russia, China and the U.S. say the same thing about cyber war? Yes, they did. Satellites in geostationary orbits provide broadband connectivity to businesses and customers. Those satellites and their computer control ground stations present a viable target for offensive cyber actions. A hacker could disrupt or interfere with satellite control communications and could disrupt the delivery of broadband services. In the absence of such command signals, a satellite would malfunction. Worldwide attention focused on China’s successful anti-satellite missile test. While military officials question the scale and progress of the Chinese anti-satellite program, one has to wonder if China has already tested their anti-satellite cyber weapon. Military leaders are all too aware of the convergence of space and cyber space. An increasing percentage of military operations occur in cyber space and are integrated with and dependent on communication satellite systems in outer space.

#### Satellites key to hege

Martin 10

(Donald, Employee of the Aerospace Corporation, A History of US Military Satellite Communication Systems, Aerospace Corporation Magazine, <http://www.aero.org/publications/crosslink/winter2002/01.html>, )

U.S. military satellite communications have improved and expanded greatly over the past four decades, from SCORE through DSCS III, UFO, and Milstar. Capabilities have grown dramatically with the development of satellite and electronics technologies. Higher-power and wider-bandwidth satellites have enabled increased information transmission to an ever-wider assortment of terminal types deployed with an increasing number and variety of military units. Throughout this history, and now, Aerospace has been involved in every phase of development and deployment of DOD satellite communication systems, from concept development and requirements definition through design and test reviews to launch preparations and on-orbit testing and operations. Aerospace regularly applies lessons learned in the course of one program to all DOD satellite programs. As military satellite communication systems improve, they continue to provide information superiority to the U.S. military. This enables our military forces to remain dominant in the increasing speed and diversity of their actions during times of peace as well as times of conflict.

#### Hegemony key to global peace and solving great power wars

Barnett 11

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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.**

#### American hegemony key to the current international order

Kagan 12

(Mr. Kagan is a senior fellow in foreign policy at the Brookings Institution, “Why the World Needs America” <http://online.wsj.com/article/SB10001424052970203646004577213262856669448.html#printMode>, SEH)

History shows that world orders, including our own, are transient. They rise and fall, and the institutions they erect, the beliefs and "norms" that guide them, the economic systems they support—they rise and fall, too. The downfall of the Roman Empire brought an end not just to Roman rule but to Roman government and law and to an entire economic system stretching from Northern Europe to North Africa. Culture, the arts, even progress in science and technology, were set back for centuries. Modern history has followed a similar pattern. After the Napoleonic Wars of the early 19th century, British control of the seas and the balance of great powers on the European continent provided relative security and stability. Prosperity grew, personal freedoms expanded, and the world was knit more closely together by revolutions in commerce and communication.¶ With the outbreak of World War I, the age of settled peace and advancing liberalism—of European civilization approaching its pinnacle—collapsed into an age of hyper-nationalism, despotism and economic calamity. The once-promising spread of democracy and liberalism halted and then reversed course, leaving a handful of outnumbered and besieged democracies living nervously in the shadow of fascist and totalitarian neighbors. The collapse of the British and European orders in the 20th century did not produce a new dark age—though if Nazi Germany and imperial Japan had prevailed, it might have—but the horrific conflict that it produced was, in its own way, just as devastating.¶ Would the end of the present American-dominated order have less dire consequences? A surprising number of American intellectuals, politicians and policy makers greet the prospect with equanimity. There is a general sense that the end of the era of American pre-eminence, if and when it comes, need not mean the end of the present international order, with its widespread freedom, unprecedented global prosperity (even amid the current economic crisis) and absence of war among the great powers.¶ American power may diminish, the political scientist G. John Ikenberry argues, but "the underlying foundations of the liberal international order will survive and thrive." The commentator Fareed Zakaria believes that even as the balance shifts against the U.S., rising powers like China "will continue to live within the framework of the current international system." And there are elements across the political spectrum—Republicans who call for retrenchment, Democrats who put their faith in international law and institutions—who don't imagine that a "post-American world" would look very different from the American world.¶ If all of this sounds too good to be true, it is. The present world order was largely shaped by American power and reflects American interests and preferences. If the balance of power shifts in the direction of other nations, the world order will change to suit their interests and preferences. Nor can we assume that all the great powers in a post-American world would agree on the benefits of preserving the present order, or have the capacity to preserve it, even if they wanted to.¶ Take the issue of democracy. For several decades, the balance of power in the world has favored democratic governments. In a genuinely post-American world, the balance would shift toward the great-power autocracies. Both Beijing and Moscow already protect dictators like Syria's Bashar al-Assad. If they gain greater relative influence in the future, we will see fewer democratic transitions and more autocrats hanging on to power. The balance in a new, multipolar world might be more favorable to democracy if some of the rising democracies—Brazil, India, Turkey, South Africa—picked up the slack from a declining U.S. Yet not all of them have the desire or the capacity to do it.¶ What about the economic order of free markets and free trade? People assume that China and other rising powers that have benefited so much from the present system would have a stake in preserving it. They wouldn't kill the goose that lays the golden eggs.¶ Unfortunately, they might not be able to help themselves. The creation and survival of a liberal economic order has depended, historically, on great powers that are both willing and able to support open trade and free markets, often with naval power. If a declining America is unable to maintain its long-standing hegemony on the high seas, would other nations take on the burdens and the expense of sustaining navies to fill in the gaps?¶ Even if they did, would this produce an open global commons—or rising tension? China and India are building bigger navies, but the result so far has been greater competition, not greater security. As Mohan Malik has noted in this newspaper, their "maritime rivalry could spill into the open in a decade or two," when India deploys an aircraft carrier in the Pacific Ocean and China deploys one in the Indian Ocean. The move from American-dominated oceans to collective policing by several great powers could be a recipe for competition and conflict rather than for a liberal economic order.¶ And do the Chinese really value an open economic system? The Chinese economy soon may become the largest in the world, but it will be far from the richest. Its size is a product of the country's enormous population, but in per capita terms, China remains relatively poor. The U.S., Germany and Japan have a per capita GDP of over $40,000. China's is a little over $4,000, putting it at the same level as Angola, Algeria and Belize. Even if optimistic forecasts are correct, China's per capita GDP by 2030 would still only be half that of the U.S., putting it roughly where Slovenia and Greece are today.¶ As Arvind Subramanian and other economists have pointed out, this will make for a historically unique situation. In the past, the largest and most dominant economies in the world have also been the richest. Nations whose peoples are such obvious winners in a relatively unfettered economic system have less temptation to pursue protectionist measures and have more of an incentive to keep the system open.¶ China's leaders, presiding over a poorer and still developing country, may prove less willing to open their economy. They have already begun closing some sectors to foreign competition and are likely to close others in the future. Even optimists like Mr. Subramanian believe that the liberal economic order will require "some insurance" against a scenario in which "China exercises its dominance by either reversing its previous policies or failing to open areas of the economy that are now highly protected." American economic dominance has been welcomed by much of the world because, like the mobster Hyman Roth in "The Godfather," the U.S. has always made money for its partners. Chinese economic dominance may get a different reception.¶ Another problem is that China's form of capitalism is heavily dominated by the state, with the ultimate goal of preserving the rule of the Communist Party. Unlike the eras of British and American pre-eminence, when the leading economic powers were dominated largely by private individuals or companies, China's system is more like the mercantilist arrangements of previous centuries. The government amasses wealth in order to secure its continued rule and to pay for armies and navies to compete with other great powers.¶ Although the Chinese have been beneficiaries of an open international economic order, they could end up undermining it simply because, as an autocratic society, their priority is to preserve the state's control of wealth and the power that it brings. They might kill the goose that lays the golden eggs because they can't figure out how to keep both it and themselves alive.¶ Finally, what about the long peace that has held among the great powers for the better part of six decades? Would it survive in a post-American world?¶ Most commentators who welcome this scenario imagine that American predominance would be replaced by some kind of multipolar harmony. But multipolar systems have historically been neither particularly stable nor particularly peaceful. Rough parity among powerful nations is a source of uncertainty that leads to miscalculation. Conflicts erupt as a result of fluctuations in the delicate power equation.¶ War among the great powers was a common, if not constant, occurrence in the long periods of multipolarity from the 16th to the 18th centuries, culminating in the series of enormously destructive Europe-wide wars that followed the French Revolution and ended with Napoleon's defeat in 1815.¶ The 19th century was notable for two stretches of great-power peace of roughly four decades each, punctuated by major conflicts. The Crimean War (1853-1856) was a mini-world war involving well over a million Russian, French, British and Turkish troops, as well as forces from nine other nations; it produced almost a half-million dead combatants and many more wounded. In the Franco-Prussian War (1870-1871), the two nations together fielded close to two million troops, of whom nearly a half-million were killed or wounded.¶ The peace that followed these conflicts was characterized by increasing tension and competition, numerous war scares and massive increases in armaments on both land and sea. Its climax was World War I, the most destructive and deadly conflict that mankind had known up to that point. As the political scientist Robert W. Tucker has observed, "Such stability and moderation as the balance brought rested ultimately on the threat or use of force. War remained the essential means for maintaining the balance of power."¶ There is little reason to believe that a return to multipolarity in the 21st century would bring greater peace and stability than it has in the past. The era of American predominance has shown that there is no better recipe for great-power peace than certainty about who holds the upper hand.¶ President Bill Clinton left office believing that the key task for America was to "create the world we would like to live in when we are no longer the world's only superpower," to prepare for "a time when we would have to share the stage." It is an eminently sensible-sounding proposal. But can it be done? For particularly in matters of security, the rules and institutions of international order rarely survive the decline of the nations that erected them. They are like scaffolding around a building: They don't hold the building up; the building holds them up.¶ Many foreign-policy experts see the present international order as the inevitable result of human progress, a combination of advancing science and technology, an increasingly global economy, strengthening international institutions, evolving "norms" of international behavior and the gradual but inevitable triumph of liberal democracy over other forms of government—forces of change that transcend the actions of men and nations.¶ Americans certainly like to believe that our preferred order survives because it is right and just—not only for us but for everyone. We assume that the triumph of democracy is the triumph of a better idea, and the victory of market capitalism is the victory of a better system, and that both are irreversible. That is why Francis Fukuyama's thesis about "the end of history" was so attractive at the end of the Cold War and retains its appeal even now, after it has been discredited by events. The idea of inevitable evolution means that there is no requirement to impose a decent order. It will merely happen.¶ But international order is not an evolution; it is an imposition. It is the domination of one vision over others—in America's case, the domination of free-market and democratic principles, together with an international system that supports them. The present order will last only as long as those who favor it and benefit from it retain the will and capacity to defend it.¶ There was nothing inevitable about the world that was created after World War II. No divine providence or unfolding Hegelian dialectic required the triumph of democracy and capitalism, and there is no guarantee that their success will outlast the powerful nations that have fought for them. Democratic progress and liberal economics have been and can be reversed and undone. The ancient democracies of Greece and the republics of Rome and Venice all fell to more powerful forces or through their own failings. The evolving liberal economic order of Europe collapsed in the 1920s and 1930s. The better idea doesn't have to win just because it is a better idea. It requires great powers to champion it.¶ If and when American power declines, the institutions and norms that American power has supported will decline, too. Or more likely, if history is a guide, they may collapse altogether as we make a transition to another kind of world order, or to disorder. We may discover then that the U.S. was essential to keeping the present world order together and that the alternative to American power was not peace and harmony but chaos and catastrophe—which is what the world looked like right before the American order came into being.

#### 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.

#### Violence and war are decreasing

Pinker 11

Steven Pinker is Professor of psychology at Harvard University "Violence Vanquished" Sept 24 online.wsj.com/article/SB10001424053111904106704576583203589408180.html

On the day this article appears, you will read about a shocking act of violence. Somewhere in the world there will be a terrorist bombing, a senseless murder, a bloody insurrection. It's impossible to learn about these catastrophes without thinking, "What is the world coming to?"

But a better question may be, "How bad was the world in the past?"

Believe it or not, **the world of the past was much worse**. **Violence has been in decline** for **thousands of years,** and today we may be living in the **most peaceable era** in the existence of our species.

The decline, to be sure, has not been smooth. It **has not brought violence down to zero**, and it **is not guaranteed to continue**. But it is a persistent historical development, visible on scales from millennia to years, from the waging of wars to the spanking of children.

This claim, I know, invites skepticism, incredulity, and sometimes anger. We tend to estimate the probability of an event from the ease with which we can recall examples, and scenes of carnage are more likely to be beamed into our homes and burned into our memories than footage of people dying of old age. There will always be enough violent deaths to fill the evening news, so people's impressions of violence will be disconnected from its actual likelihood.

Evidence of our bloody history is not hard to find. Consider the genocides in the Old Testament and the crucifixions in the New, the gory mutilations in Shakespeare's tragedies and Grimm's fairy tales, the British monarchs who beheaded their relatives and the American founders who dueled with their rivals.

Today the decline in these brutal practices **can be quantified**. A look at the numbers shows that over the course of our history, humankind has been blessed with **six major declines of violence.**

The first was a process of pacification: the transition from the anarchy of the hunting, gathering and horticultural societies in which our species spent most of its evolutionary history to the first agricultural civilizations, with cities and governments, starting about 5,000 years ago.

For centuries, social theorists like Hobbes and Rousseau speculated from their armchairs about what life was like in a "state of nature." Nowadays we can do better. Forensic archeology—a kind of "CSI: Paleolithic"—can estimate rates of violence from the proportion of skeletons in ancient sites with bashed-in skulls, decapitations or arrowheads embedded in bones. And ethnographers can tally the causes of death in tribal peoples that have recently lived outside of state control.

These investigations show that, on average, about 15% of people in prestate eras died violently, compared to about 3% of the citizens of the earliest states. Tribal violence commonly subsides when a **state or empire imposes control over a territory, leading to the various "paxes**" (Romana, Islamica, Brittanica and so on) that are familiar to readers of history.

It's not that the first kings had a benevolent interest in the welfare of their citizens. Just as a farmer tries to prevent his livestock from killing one another, so a ruler will try to keep his subjects from cycles of raiding and feuding. From his point of view, such squabbling is a dead loss—forgone opportunities to extract taxes, tributes, soldiers and slaves.

The second decline of violence was a civilizing process that is best documented in Europe. Historical records show that between the late Middle Ages and the 20th century, European countries saw a **10- to 50-fold decline in their rates of homicide**.

The numbers are consistent with narrative histories of the brutality of life in the Middle Ages, when highwaymen made travel a risk to life and limb and dinners were commonly enlivened by dagger attacks. So many people had their noses cut off that medieval medical textbooks speculated about techniques for growing them back.

Historians attribute this decline to the consolidation of a patchwork of feudal territories into large kingdoms with centralized authority and an infrastructure of commerce. Criminal justice was nationalized, and **zero-sum plunder gave way to positive-sum trade**. People increasingly controlled their impulses and sought to cooperate with their neighbors.

The third transition, sometimes called the Humanitarian Revolution, took off with the Enlightenment. Governments and churches had long maintained order by punishing nonconformists with mutilation, torture and gruesome forms of execution, such as burning, breaking, disembowelment, impalement and sawing in half. The 18th century saw the widespread abolition of judicial torture, including the famous prohibition of "cruel and unusual punishment" in the eighth amendment of the U.S. Constitution.

At the same time, many nations began to whittle down their list of capital crimes from the hundreds (including poaching, sodomy, witchcraft and counterfeiting) to just murder and treason. And a growing wave of countries abolished blood sports, dueling, witchhunts, religious persecution, absolute despotism and slavery.

The fourth major transition is the respite from major interstate war that we have seen since the end of World War II. Historians sometimes refer to it as the Long Peace.

Today we take it for granted that Italy and Austria will not come to blows, nor will Britain and Russia. But centuries ago, the **great powers were almost always at war**, and until quite recently, Western European countries tended to initiate two or three new wars every year. The cliché that the 20th century was "the most violent in history" **ignores the second half** of the century (**and may not even be true of the first** half, if one calculates violent deaths as a proportion of the world's population).

Though it's tempting to attribute the Long Peace to nuclear deterrence, non-nuclear developed states have stopped fighting each other as well. Political scientists point instead to the growth of **democracy, trade and international organizations**—**all of which, the statistical evidence shows, reduce the likelihood of conflict**. They also credit the rising valuation of human life over national grandeur—a hard-won lesson of two world wars.

The fifth trend, which I call the New Peace, involves war in the world as a whole, including developing nations. Since 1946, several organizations have tracked the number of armed conflicts and their human toll world-wide. The bad news is that for several decades, the decline of interstate wars was accompanied by a bulge of civil wars, as newly independent countries were led by inept governments, challenged by insurgencies and armed by the cold war superpowers.

The less bad news is that civil wars tend to kill far fewer people than wars between states. And the best news is that, since the peak of the cold war in the 1970s and '80s, **organized conflicts of all kinds**—civil wars, genocides, repression by autocratic governments, terrorist attacks—have declined throughout the world, and their death tolls have declined even more precipitously.

The rate of documented direct **deaths from political violence (war, terrorism, genocide and warlord militias) in the past decade is an unprecedented few hundredths of a percentage point**. Even if we multiplied that rate to account for unrecorded deaths and the victims of war-caused disease and famine, it would not exceed 1%.

The most immediate cause of this New Peace was the demise of communism, which ended the proxy wars in the developing world stoked by the superpowers and also discredited genocidal ideologies that had justified the sacrifice of vast numbers of eggs to make a utopian omelet. Another contributor was the expansion of international peacekeeping forces, which **really do keep the peace**—not always, but far more often than when adversaries are left to fight to the bitter end.

Finally, the postwar era has seen a cascade of "rights revolutions"—a growing revulsion against aggression on smaller scales. In the developed world, the civil rights movement obliterated lynchings and lethal pogroms, and the women's-rights movement has helped to shrink the incidence of rape and the beating and killing of wives and girlfriends.

In recent decades, the movement for children's rights has significantly reduced rates of spanking, bullying, paddling in schools, and physical and sexual abuse. And the campaign for gay rights has forced governments in the developed world to repeal laws criminalizing homosexuality and has had some success in reducing hate crimes against gay people.

Why has violence declined so dramatically for so long? Is it because violence has literally been bred out of us, leaving us more peaceful by nature?

This seems unlikely. Evolution has a speed limit measured in generations, and many of these declines have unfolded over decades or even years. Toddlers continue to kick, bite and hit; little boys continue to play-fight; people of all ages continue to snipe and bicker, and most of them continue to harbor violent fantasies and to enjoy violent entertainment.

It's more likely that human nature has always comprised inclinations toward violence and inclinations that counteract them—such as self-control, empathy, fairness and reason—what Abraham Lincoln called "the better angels of our nature." Violence has declined because historical circumstances have increasingly favored our better angels.

**The most obvious of these pacifying forces has been the state, with its monopoly on the legitimate use of force**. A disinterested judiciary and police can defuse the temptation of exploitative attack, inhibit the impulse for revenge and circumvent the self-serving biases that make all parties to a dispute believe that they are on the side of the angels.

We see evidence of the pacifying effects of government in the way that rates of killing declined following the expansion and consolidation of states in tribal societies and in medieval Europe. And we can watch the movie in reverse when violence erupts in zones of anarchy, such as the Wild West, failed states and neighborhoods controlled by mafias and street gangs, who can't call 911 or file a lawsuit to resolve their disputes but have to administer their own rough justice.

**Another pacifying force has been commerce**, a game in which everybody can win. As technological progress allows the exchange of goods and ideas over longer distances and among larger groups of trading partners, other **people become more valuable alive than dead**. They switch from being targets of demonization and dehumanization to potential partners in reciprocal altruism.

For example, though the relationship today between America and China is far from warm, we are **unlikely to declare war** on them or vice versa. Morality aside, they make too much of our stuff, and we owe them too much money.

A third peacemaker has been cosmopolitanism—the expansion of people's parochial little worlds through literacy, mobility, education, science, history, journalism and mass media. These forms of virtual reality can prompt people to take the perspective of people unlike themselves and to expand their circle of sympathy to embrace them.

These technologies have also powered an **expansion of rationality and objectivity** in human affairs. People are now less likely to privilege their own interests over those of others. They reflect more on the way they live and consider how they could be better off. Violence is often **reframed as a problem to be solved rather than as a contest to be won.** We devote ever more of our brainpower to guiding our better angels. It is probably no coincidence that the Humanitarian Revolution came on the heels of the Age of Reason and the Enlightenment, that the Long Peace and rights revolutions coincided with the electronic global village.

#### Focus on deterrence and democracy is key to adverting crisis escalation—reject infinite root causes that debilitate action

Moore 4

John Moore 4 chaired law prof, UVA. Frm first Chairman of the Board of the US Institute of Peace and as the Counselor on Int Law to the Dept. of State, Beyond the Democratic Peace, 44 Va. J. Int'l L. 341, Lexis

If major interstate war is predominantly a product of a synergy between a potential nondemocratic aggressor and an absence of effective deterrence, what is the role of the many traditional "causes" of war? Past, and many contemporary, theories of war have focused on the role of specific disputes between nations, ethnic and religious differences, arms races, poverty and social injustice, competition for resources, incidents and accidents, greed, fear, perceptions of "honor," and many other factors. Such factors may well play a role in motivating aggression or generating fear and manipulating public opinion. The reality, however, is that while some of these factors may have more potential to contribute to war than others, there may well be an infinite set of motivating factors, or human wants, motivating aggression. It is not the independent existence of such motivating factors for war but rather the circumstances permitting or encouraging high-risk decisions leading to war that is the key to more effectively controlling armed conflict. And the same may also be true of democide. The early focus in the Rwanda slaughter on "ethnic conflict," as though Hutus and Tutsis had begun to slaughter each other through spontaneous combustion, distracted our attention from the reality that a nondemocratic Hutu regime had carefully planned and orchestrated a genocide against Rwandan Tutsis as well as its Hutu opponents. 158 Certainly if we were able to press a button and end poverty, racism, religious intolerance, injustice, and endless disputes, we would want to do so. Indeed, democratic governments must remain committed to policies that will produce a better world by all measures of human progress. The broader achievement of democracy and the rule of law will itself assist in this progress. No one, however, has yet been able to demonstrate the kind of robust correlation with any of these "traditional" causes of war that is reflected in the "democratic peace." Further, given the difficulties in overcoming many of these social problems, an approach to war exclusively dependent on their solution may doom us to war for generations to come. [\*394] A useful framework for thinking about the war puzzle is provided in the Kenneth Waltz classic Man, the State and War, 159 first published in 1954 for the Institute of War and Peace Studies, in which he notes that previous thinkers about the causes of war have tended to assign responsibility at one of the three levels of individual psychology, the nature of the state, or the nature of the international system. This tripartite level of analysis has subsequently been widely copied in the study of international relations. We might summarize my analysis in this classical construct by suggesting that the most critical variables are the second and third levels, or "images," of analysis. Government structures, at the second level, seem to play a central role in levels of aggressiveness in high-risk behavior leading to major war. In this, the "democratic peace" is an essential insight. The third level of analysis, the international system, or totality of external incentives influencing the decision to go to war, is also critical when government structures do not restrain such high-risk behavior on their own. Indeed, nondemocratic systems may not only fail to constrain inappropriate aggressive behavior, they may even massively enable it by placing the resources of the state at the disposal of a ruthless regime elite. It is not that the first level of analysis, the individual, is unimportant - I have already argued that it is important in elite perceptions about the permissibility and feasibility of force and resultant necessary levels of deterrence. It is, instead, that the second level of analysis, government structures, may be a powerful proxy for settings bringing to power those who are disposed to aggressive military adventures and in creating incentive structures predisposed to high-risk behavior. We might also want to keep open the possibility that a war/peace model focused on democracy and deterrence might be further usefully refined by adding psychological profiles of particular leaders as we assess the likelihood of aggression and levels of necessary deterrence. Nondemocracies' leaders can have different perceptions of the necessity or usefulness of force and, as Marcus Aurelius should remind us, not all absolute leaders are Caligulas or Neros. Further, the history of ancient Egypt reminds us that not all Pharaohs were disposed to make war on their neighbors. Despite the importance of individual leaders, however, the key to war avoidance is understanding that major international war is critically an interaction, or synergy, of certain characteristics at levels two and three - specifically an absence of [\*395] democracy and an absence of effective deterrence. Yet another way to conceptualize the importance of democracy and deterrence in war avoidance is to note that each in its own way internalizes the costs to decision elites of engaging in high-risk aggressive behavior. Democracy internalizes these costs in a variety of ways including displeasure of the electorate at having war imposed upon it by its own government. And deterrence either prevents achievement of the objective altogether or imposes punishing costs making the gamble not worth the risk. 160 III. Testing the Hypothesis Hypotheses, or paradigms, are useful if they reflect the real world better than previously held paradigms. In the complex world of foreign affairs and the war puzzle, perfection is unlikely. No general construct will fit all cases even in the restricted category of "major interstate war;" there are simply too many variables. We should insist, however, on testing against the real world and on results that suggest enhanced usefulness over other constructs. In testing the hypothesis, we can test it for consistency with major wars. That is, in looking, for example, at the principal interstate wars in the twentieth century, did they present both a nondemocratic aggressor and an absence of effective deterrence? 161 And although it, by itself, does not prove causation, we might also want to test the hypothesis against settings of potential wars that did not occur. That is, in non-war settings, was there an absence of at least one element of the synergy? We might also ask questions about the effect of changes on the international system in either element of the synergy. That is, what, in general, happens when a totalitarian state makes a transition to stable democracy or vice versa? And what, in general, happens when levels of deterrence are dramatically increased or decreased?

#### Shocks to the system are the ONLY propensity for conflict—liberal norms have eradicated warfare and structural violence—every field study proves

HORGAN 9

JOHN is Director of the Center for Science at Stevens Institute of Technology, former senior writer at Scientific American, B.A. from Columbia and an M.S. from Columbia “The End of the Age of War,” Dec 7 http://www.newsweek.com/id/225616/page/1

The economic crisis was supposed to increase violence around the world. The truth is that we are now living in one of the most peaceful periods since war first arose 10 or 12 millennia ago. The relative calm of our era, say scientists who study warfare in history and even prehistory, belies the popular, pessimistic notion that war is so deeply rooted in our nature that we can never abolish it. In fact, war seems to be a largely cultural phenomenon, which culture is now helping us eradicate. Some scholars now even cautiously speculate that the era of traditional war—fought by two uniformed, state-sponsored armies—might be drawing to a close. "War could be on the verge of ceasing to exist as a substantial phenomenon," says John Mueller, a political scientist at Ohio State University.

That might sound crazy, but consider: if war is defined as a conflict between two or more nations resulting in at least 1,000 deaths in a year, there have been no wars since the U.S. invasion of Iraq in 2003 and no wars between major industrialized powers since World War II. Civil wars have also declined from their peak in the early 1990s, when fighting tore apart Rwanda, the Balkans, and other regions. Most armed conflicts now consist of low-level guerrilla campaigns, insurgencies, and terrorism—what Mueller calls the "remnants of war."

These facts would provide little comfort if war's remnants were nonetheless killing millions of people—but they're not. Recent studies reveal a clear downward trend. In 2008, 25,600 combatants and civilians were killed as a direct result of armed conflicts, according to the University of Uppsala Conflict Data Program in Sweden. Two thirds of these deaths took place in just three trouble spots: Sri Lanka (8,400), Afghanistan (4,600), and Iraq (4,000).

Uppsala's figures exclude deaths from "one-sided conflict," in which combatants deliberately kill unarmed civilians, and "indirect" deaths from war-related disease and famine, but even when these casualties are included, annual war-related deaths from 2004 to 2007 are still low by historical standards. Acts of terrorism, like the 9/11 attacks or the 2004 bombing of Spanish trains, account for less than 1 percent of fatalities. In contrast, car accidents kill more than 1 million people a year.

The contrast between our century and the previous one is striking. In the second half of the 20th century, war killed as many as 40 million people, both directly and indirectly, or 800,000 people a year, according to Milton Leitenberg of the University of Maryland. He estimates that 190 million people, or 3.8 million a year, died as a result of wars and state--sponsored genocides during the cataclysmic first half of the century. Considered as a percentage of population, the body count of the 20th century is comparable to that of blood-soaked earlier cultures, such as the Aztecs, the Romans, and the Greeks.

By far the most warlike societies are those that preceded civilization. War killed as many as 25 percent of all pre-state people, a rate 10 times higher than that of the 20th century, estimates anthropologist Lawrence Keeley of the University of Illinois. Our ancestors were not always so bellicose, however: there is virtually no clear-cut evidence of lethal group aggression by humans prior to 12,000 years ago. Then, "warfare appeared in the evolutionary trajectory of an increasing number of societies around the world," says anthropologist Jonathan Haas of Chicago's Field Museum of Natural History. He attributes the emergence of warfare to several factors: growing population density, environmental stresses that diminished food sources, and the separation of people into culturally distinct groups. "It is only after the cultural foundations have been laid for distinguishing 'us' from 'them,' " he says, "that raiding, killing, and burning appear as a complex response to the external stress of environmental problems."

Early civilizations, such as those founded in Mesopotamia and Egypt 6,000 years ago, were extremely warlike. They assembled large armies and began inventing new techniques and technologies for killing, from horse-drawn chariots and catapults to bombs. But nation-states also developed laws and institutions for resolving disputes nonviolently, at least within their borders. These cultural innovations helped reduce the endless, tit-for-tat feuding that plagued pre-state societies.

A host of other cultural factors may explain the more recent drop-off in international war and other forms of social violence. One is a surge in democratic rather than totalitarian governance. Over the past two centuries democracies such as the U.S. have rarely if ever fought each other. Democracy is also associated with low levels of violence within nations. Only 20 democratic nations existed at the end of World War II; the number has since more than quadrupled. Yale historian Bruce Russett contends that international institutions such as the United Nations and the European Union also contribute to this "democratic peace" phenomenon by fostering economic interdependence. Advances in civil rights for women may also be making us more peaceful. As women's education and economic opportunities rise, birthrates fall, decreasing demands on governmental and medical services and depletion of natural resources, which can otherwise lead to social unrest.

Better public health is another contributing factor. Over the past century, average life spans have almost doubled, which could make us less willing to risk our lives by engaging in war and other forms of violence, proposes Harvard psychologist Steven Pinker. At the same time, he points out, globalization and communications have made us increasingly interdependent on, and empathetic toward, others outside of our immediate "tribes."

Of course, the world remains a dangerous place, vulnerable to disruptive, unpredictable events like terrorist attacks. Other looming threats to peace include climate change, which could produce droughts and endanger our food supplies; overpopulation; and the spread of violent religious extremism, as embodied by Al Qaeda. A global financial meltdown or ecological catastrophe could plunge us back into the kind of violent, Hobbesian chaos that plagued many pre--state societies thousands of years ago. "War is not intrinsic to human nature, but neither is peace," warns the political scientist Nils Petter Gleditsch of the International Peace Research Institute in Oslo.

So far the trends are positive. If they continue, who knows? World peace—the dream of countless visionaries and -beauty--pageant -contestants—or something like it may finally come to pass.

#### Our authors’ methods are accurate

SØRENSEN 98

Prof of IR [GEORG SØRENSEN, Professor of International Politics and Economics @ Aarhus Univ. “IR Theory after the cold war” Review of International Studies (1998), 24 : 83-100 Cambridge University Press]

What, then, are the more general problems with the extreme versions of the postpositivist position? The first problem is that they tend to overlook, or downplay, the actual insights produced by non-post-positivists, such as, for example, neorealism. It is entirely true that anarchy is no given, ahistorical, natural condition to which the only possible reaction is adaptation. But the fact that anarchy is a historically specific, socially constructed product of human practice **does not make it less real**. In a world of sovereign states, anarchy **is in fact out there in the real world** in some form. In other words, it is not the acceptance of the real existence of social phenomena which produces objectivist reification. Reification is produced by the transformation of historically specific social phenomena into given, ahistorical, natural conditions.21 Despite their shortcomings, neorealism and other positivist theories have produced valuable insights about anarchy, including the factors in play in balance-of-power dynamics and in patterns of cooperation and conflict. Such insights are downplayed and even sometimes dismissed in adopting the notion of 'regimes of truth'. It is, of course, possible to appreciate the shortcomings of neorealism while also recognizing that it has merits. One way of doing so is set forth by Robert Cox. He considers neorealism to be a 'problem-solving theory' which 'takes the world as it finds it, with the prevailing social and power relationships . . . as the given framework for action . . . The strength of the **problem-solving** approach lies in its ability to fix limits or parameters to a problem area and to reduce the statement of a particular problem to a **limited number of variables** which are amenable to relatively close and **precise examination'**.22 At the same time, this 'assumption of fixity' is 'also an ideological bias . . . Problem-solving theories (serve) . . . particular national, sectional or class interests, which are comfortable within the given order'.23 In sum, objectivist theory such as neorealism contains a bias, but that does not mean that it is without merit in analysing particular aspects of international relations from a particular point of view. The second problem with post-positivism is the danger of **extreme relativism** which it contains. If there are no neutral grounds for deciding about truth claims so that each theory will define what counts as the facts, then the door is, at least in principle, open to anything goes. Steve Smith has confronted this problem in an exchange with Øyvind Østerud. Smith notes that he has never 'met a postmodernist who would accept that "the earth is flat if you say so". Nor has any postmodernist I have read argued or implied that "any narrative is as good as any other"'.24 But the problem remains that if we cannot find a minimum of common standards for deciding about truth claims a post-modernist position appears unable to come up with a metatheoretically substantiated critique of the claim that the earth is flat. In the absence of at least some common standards it appears difficult to reject that any narrative is as good as any other.25 The final problem with extreme post-positivism I wish to address here concerns change. We noted the post-modern critique of neorealism's difficulties with embracing change; their emphasis is on 'continuity and repetition'. But extreme post-positivists have their own problem with change, which follows from their metatheoretical position. In short, how can post-positivist ideas and projects of change be distinguished from **pure utopianism** and wishful thinking? Post-positivist radical subjectivism leaves no common ground for choosing between different change projects. A brief comparison with a classical Marxist idea of change will demonstrate the point I am trying to make. In Marxism, social change ( e.g. revolution) is, of course, possible. But that possibility is tied in with the historically specific social structures (material and non-material) of the world. Revolution is possible under certain social conditions but not under any conditions. Humans can change the world, but they are enabled and constrained by the social structures in which they live. There is a dialectic between social structure and human behaviour.26 The understanding of 'change' in the Marxist tradition is thus closely related to an appreciation of the historically specific social conditions under which people live; any change project is not possible at any time. Robert Cox makes a similar point in writing about critical theory: 'Critical theory allows for a normative choice in favor of a social and political order different from the prevailing order, but it limits the range of choice to alternative orders which are feasible transformations of the existing world . . . Critical theory thus contains an element of **utopianism** in the sense that it can represent a coherent picture of an alternative order, but its utopianism is constrained by its comprehension of historical processes. It must reject improbable alternatives just as it rejects the permanency of the existing order'.27 That constraint appears to be absent in post-positivist thinking about change, because radical post-positivism is **epistemologically and ontologically cut off** from evaluating the relative merit of different change projects. Anything goes, or so it seems. That view is hard to distinguish from utopianism and wishful thinking. If neorealism denies change in its overemphasis on continuity and repetition, then radical post-positivism is metatheoretically compelled to embrace any conceivable change project.28

#### Critical alternatives fail to change the practice of energy production- it fragments and depoliticizes opposition, means only the permutation solves anything

Milja Kurki 2011, lecturer in international politics at Aberystwyth University and principal investigator of the Political Economies of Democratisation project at Aberystwyth University, September 2011, “The Limitations of the Critical Edge: Reflections on Critical and Philosophical IR Scholarship Today,” Millennium: Journal of International Studies, Vol. 40, No. 1, p. 129-146

It is a sign of the times that while dissatisfaction with the political and economic structures of society is rife, academic criticism of the politico-economic system we live in, and which is simultaneously promulgated by our foreign policy machines around the world, is surprisingly impotent and ineffective. The excesses of the liberal capitalist developmental blueprint received a minor ‘rap on the wrists’ by the crisis of 2009, but nevertheless the structure and the external policies of market democracies around the world remain much the same. If the end of the Cold War is supposed to have ‘ended history’, disappointingly it is the 2009 crisis that seems to be a more telling sign of the end of history; it shows that no real ‘ideational’ alternative seems to exist to global capitalism as a model of growth or to the ideals of liberal market democratisation as a way of expanding the sphere of freedom. The left and other radical politico-economic models are on the wane as authoritarian capitalism presents, it seems, the most viable challenge to the hegemony of liberal market democracy. This pessimism on the question of progressive alternative politics at a time of crisis stems from my recent research, the aim of which has been to interrogate whether room exists for alternative politico-economic visions in today’s democracy assistance. In its initial stages, this research was driven by an optimistic belief in the power of critical theory to generate new and important avenues for rethinking the deeply consequential policy practice of democracy assistance. Yet, worries have appeared about such prospects. One is that it has become evident (somewhat unsurprisingly) that room for critical interventions in policy practice is fairly limited. A far more worrying issue, however, is the observation that critical theory is increasingly lacking in relevance in contributing to the revitalisation of policy practice or perceptive critiques of it. This is because of the abstract and theory-driven nature of critical theory and its lack of realistic understanding as to how to challenge the dominance of hegemonic ideas in today’s foreign policy practice. As Richard Youngs has argued in relation to critical theoretical investigations of democracy support, critical theorists today are dangerously behind the curve on policy practices and theoretically obsessed with critiques of little use to practitioners. 1 It really is rather disappointing for – and a disappointing symptom of – alternative, or so-called ‘critical’, thinking in the social sciences that even when the problems of the dominant model are evident, there is no real systematic, effective or realistic opposition to it. Why is there such a dearth of successful or influential ‘critical’ thinking even in the relatively ‘fruitful’ context of multiple social and economic crises? This is a big question, requiring, for an adequate treatment, a holistic sociological study conducted on multiple levels of analysis of society. Nothing of this nature can be attempted here, but we can, and arguably should, on the 40th anniversary of Millennium: Journal of International Studies – one of the leading critical theory journals in International Relations (IR) – reflect on some of the key trends in critical and philosophical research in IR, with the hope that this might reveal something characteristic of wider trends. With this in mind, I reflect on the prospects of critical theoretical analysis in IR and, in so doing, hope to add a new angle (or rather reintroduce an old angle) to assessment of critical theory’s role in IR. Despite many excellent reviews of the development and fortunes of critical and philosophical research in IR, 2 few have analysed in detail the curious depoliticising and fragmentation-oriented trends afflicting critical theory and associated forms of philosophical analysis today. Also, few analysts have dared to openly comment on the striking failures of critical theory to bring about or facilitate progressive change in today’s world political environment. It is my aim here to open the discussion towards a more (self-) critical analysis of critical theory in IR.¶ We must of course note at the outset that it might be somewhat unrealistic to expect critical theory to directly contribute towards a better world ‘out there’. As Herbert Marcuse pointed out, critical theory ‘possesses no concepts which could bridge the gap between present and its future; holding no promise and showing no success, it remains negative’. 3 Yet, this is not the only interpretation of the role of critical theory. Indeed, I argue that critical and philosophical theorising in IR can and should be reunified, reconcretised and re-politicised. I suggest that not only were philosophical and critical theoretical strands more closely connected to each other in the past, they also had much greater interest in bringing philosophical and critical reflections to bear on real-world political developments. It is these trends we need to recapture in order to resist the increasing structural and disciplinary pulls towards conformism and conservatism, even among critical theorists. At present, as academic professionalisation, disciplinisation and fragmentation take effect, philosophical debates in IR are increasingly depoliticised and abstract and critical theory increasingly offers many divergent but internally rather insular theoretical visions. I suggest that the ‘academic success’ of philosophical and theoretical agendas, or their increasing diversity, is not necessarily progressive in IR, nor emancipatory for the world at large.4¶ This article will proceed in three steps. Firstly, I ask: is there a dearth of critical and philosophical research in IR? As the first section of this article shows, the answer is ‘no’: some of the most famous and productive authors today are critical and philosophical theorists. Yet, I also point out some worrying trends in these literatures. Not only is philosophical research increasingly removed from critical theory, but critical theory itself is becoming fragmented. Also, as is evident from the lack of change in the international sphere, the critical theoretical research does not seem to be particularly effective in imparting critical knowledge or change on society. The reasons for the movement towards depoliticisation, fragmentation and poor effectiveness are pondered in the next section. I suggest here that the failures of critical theory could originate from many causes. They could be suggestive of failures of critical thinking per se. Alternatively, the problems may be disciplinary, structural or strategic. I argue that a hegemonic set of forces in academia and in society at large may be successful in hindering and silencing the critical edge of philosophical and theoretical work in IR. This contributes to a set of strategic failures in critical theorists’ engagements with concrete political practice. In the third section, I argue that to address the praxaeological failures not only should academics seek closer interaction with real-world political struggles 5 – perhaps most urgently in challenging the dominant forms of positivism in global governance practice today – but also that, through various slight reorientations in theorising, critical and philosophical interventions in IR can be re-politicised, brought back closer together and reinvigorated.

# 2AC- Round 6

## Framework

### Framework

#### Framework: the affirmative must defend a topical plan, the negative must defend the status quo or a competing policy option.

#### a) Best for real world education – our fw most closely resembles how policymakers decide on advocacy.

#### b) Fairness – our interp provides a clear way to compare two advocacies by weighing impacts which is essential to fairness. Their fw makes opportunity cost impossible and invites judge intervention.

#### c) Predictability – our fw ensures predictable aff ground because we predict args based upon our aff literature.

#### d) Infinitely regressive – there are an infinite number of philosophical perspectives from which they can argue

## FW Impact

#### REFUSING TO UNDERSTAND THE BROADER IMPACTS OF POLICIES CEDES THE POLITICAL – RESULTS IN EXTINCTION.

Krauthammer 2011

<Charles,  Pulitzer Prize–winning syndicated columnist, political commentator, and physician. His weekly column appears in The Washington Post and is syndicated to more than 275 newspapers and media outlets.[1] He is a contributing editor to the Weekly Standard and The New Republic. He is also a weekly panelist on the PBS news program Inside Washington[2] and a nightly panelist on Fox News's Special Report with Bret Baier,  Are we alone in the universe?,  Dec 30, 2011 @ 03:19 PM, The Washington Post>

Rather than despair, however, let’s put the most hopeful face on the cosmic silence and on humanity’s own short, already baleful history with its new Promethean powers: Intelligence is a capacity so godlike, so protean that it must be contained and disciplined. This is the work of politics — understood as the ordering of society and the regulation of power to permit human flourishing while simultaneously restraining the most Hobbesian human instincts. There could be no greater irony: For all the sublimity of art, physics, music, mathematics and other manifestations of human genius, everything depends on the mundane, frustrating, often debased vocation known as politics (and its most exacting subspecialty — statecraft). **Because if we don’t get politics right, everything else risks extinction.** We grow justly weary of our politics. But we must remember this: Politics — in all its grubby, grasping, corrupt, contemptible manifestations — is sovereign in human affairs.Everything ultimately rests upon it. Fairly or not, politics is the driver of history. It will determine whether we will live long enough to be heard one day. Out there. By them, the few — the only — who got it right.

## Debate Good

#### The normative debate over resolving these problems is a vital form of education that debate should seek to foster – their form of education renders us passive spectators, which prevents us from honoring our ethical obligation others

Ruiz and Minguez ‘1 Prof. Dr Pedro Ortega Ruiz, Facultad de Educacio´ n, Campus de Espinardo, Universidad de Murcia, “Global Inequality and the Need for Compassion: issues in moral and political education” *Journal of Moral Education, Vol. 30, No. 2, 2001*

In addition to the reality of the dominant presence of instrumental reason in modern society, another closely linked phenomenon is shaping life at the level of the individual and society, individuals and peoples. **We refer to the phenomenon of the increasing globalisation of ways of life in our complex societies which derive as much from the new forms of production as from the influence of science and technology upon life and social organisation (Waters, 1995). This explains the problems we find in guaranteeing a base of social solidarity in a general sense and the provision of forms of identity sufficiently strong for the social agents.** It is difficult to represent the society in which we live in a unified manner. As individuals we belong to diverse communities, at times mutually contradictory. It is difficult to escape the need of having to choose between diverse forms of identity and belonging (Bafircena, 1997). **The phenomenon of globalisation has invalidated the autistic, localist-focused procedures for highlighting and resolving problems because the great part of our social life is determined by global processes; that is to say, in those processes in which the influence of cultures, political economies, media and national frontiers are all weakened. The emergence of globalisation has made it possible to overcome the concept of nation states, giving way to another, wider reality: humanity, world citizenship or human family to foster the birth of new areas of identity beyond that of the nation state** (Luhmann, 1997). During the last few decades it could be thought that the relationships and obligations of the citizen started and finished in their local community, in their *polis*, or at most in their national community. Now, on the other hand, we are concerned by problems occurring far from our frontiers or the conventional established limits. **We have become aware that we are immersed in problems of such magnitude (environmental pollution, poverty and marginalisation of a large part of the world’s population, ethnic–cultural conflicts, etc.) that we seriously question localist attempts and have thrown to the winds the recipes so long applied to solve our problems. A new concept of citizenship and the citizen has been imposed on us. Our *polis* has become too small. The diversity of cultures and national frontiers are no longer barriers to the recognition of our inter-dependency and implication in problems which we now must share. These features (primacy of instrumental reason and globalisation) cannot go unnoticed in our pedagogy. Youth cannot be educated according to out-dated localist schemes already undermined by the real situation; nor offer educational models which place the learners in the position of open-mouthed spectators at what happens around them, distanced from the social reality which is supposedly impossible to change, governed by the implacable laws of market forces.** **To educate**, as we understand it, **is above all a praxis orientated towards enabling the learners to “read” and interpret reality and furthermore to take responsibility in the face of this reality. It is to help them grow in responsibility, to honour our obligations toward others.**

#### Linking the ballot to a *should* question in combination with USFG simulation teaches the skills to organize pragmatic consequences *and* philosophical values into a course of action

Hanghoj 8

http://static.sdu.dk/mediafiles/Files/Information\_til/Studerende\_ved\_SDU/Din\_uddannelse/phd\_hum/afhandlinger/2009/ThorkilHanghoej.pdf

 Thorkild Hanghøj, Copenhagen, 2008

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professor.

 Joas’ re-interpretation of Dewey’s pragmatism as a “theory of situated creativity” raises a critique of humans as purely rational agents that navigate instrumentally through meansends- schemes (Joas, 1996: 133f). This critique is particularly important when trying to understand how games are enacted and validated within the realm of educational institutions that by definition are inscribed in the great modernistic narrative of “progress” where nation states, teachers and parents expect students to acquire specific skills and competencies (Popkewitz, 1998; cf. chapter 3). However, as Dewey argues, the actual doings of educational gaming cannot be reduced to rational means-ends schemes. Instead, the situated interaction between teachers, students, and learning resources are played out as contingent re-distributions of means, ends and ends in view, which often make classroom contexts seem “messy” from an outsider’s perspective (Barab & Squire, 2004). 4.2.3. Dramatic rehearsal The two preceding sections discussed how Dewey views play as an imaginative activity of educational value, and how his assumptions on creativity and playful actions represent a critique of rational means-end schemes. For now, I will turn to Dewey’s concept of dramatic rehearsal, which assumes that social actors deliberate by projecting and choosing between various scenarios for future action. Dewey uses the concept dramatic rehearsal several times in his work but presents the most extensive elaboration in Human Nature and Conduct: Deliberation is a dramatic rehearsal (in imagination) of various competing possible lines of action… [It] is an experiment in finding out what the various lines of possible action are really like (...) Thought runs ahead and foresees outcomes, and thereby avoids having to await the instruction of actual failure and disaster. An act overtly tried out is irrevocable, its consequences cannot be blotted out. An act tried out in imagination is not final or fatal. It is retrievable (Dewey, 1922: 132-3). This excerpt illustrates how Dewey views the process of decision making (deliberation) through the lens of an imaginative drama metaphor. Thus, decisions are made through the imaginative projection of outcomes, where the “possible competing lines of action” are resolved through a thought experiment. Moreover, Dewey’s compelling use of the drama metaphor also implies that decisions cannot be reduced to utilitarian, rational or mechanical exercises, but that they have emotional, creative and personal qualities as well. Interestingly, there are relatively few discussions within the vast research literature on Dewey of his concept of dramatic rehearsal. A notable exception is the phenomenologist Alfred Schütz, who praises Dewey’s concept as a “fortunate image” for understanding everyday rationality (Schütz, 1943: 140). Other attempts are primarily related to overall discussions on moral or ethical deliberation (Caspary, 1991, 2000, 2006; Fesmire, 1995, 2003; Rönssön, 2003; McVea, 2006). As Fesmire points out, dramatic rehearsal is intended to describe an important phase of deliberation that does not characterise the whole process of making moral decisions, which includes “duties and contractual obligations, short and long-term consequences, traits of character to be affected, and rights” (Fesmire, 2003: 70). Instead, dramatic rehearsal should be seen as the process of “crystallizing possibilities and transforming them into directive hypotheses” (Fesmire, 2003: 70). Thus, deliberation can in no way guarantee that the response of a “thought experiment” will be successful. But what it can do is make the process of choosing more intelligent than would be the case with “blind” trial-and-error (Biesta, 2006: 8). The notion of dramatic rehearsal provides a valuable perspective for understanding educational gaming as a simultaneously real and imagined inquiry into domain-specific scenarios. Dewey defines dramatic rehearsal as the capacity to stage and evaluate “acts”, which implies an “irrevocable” difference between acts that are “tried out in imagination” and acts that are “overtly tried out” with real-life consequences (Dewey, 1922: 132-3). This description shares obvious similarities with games as they require participants to inquire into and resolve scenario-specific problems (cf. chapter 2). On the other hand, there is also a striking difference between moral deliberation and educational game activities in terms of the actual consequences that follow particular actions. Thus, when it comes to educational games, acts are both imagined and tried out, but without all the real-life consequences of the practices, knowledge forms and outcomes that are being simulated in the game world. Simply put, there is a difference in realism between the dramatic rehearsals of everyday life and in games, which only “play at” or simulate the stakes and risks that characterise the “serious” nature of moral deliberation, i.e. a real-life politician trying to win a parliamentary election experiences more personal and emotional risk than students trying to win the election scenario of The Power Game. At the same time, the lack of real-life consequences in educational games makes it possible to design a relatively safe learning environment, where teachers can stage particular game scenarios to be enacted and validated for educational purposes. In this sense, educational games are able to provide a safe but meaningful way of letting teachers and students make mistakes (e.g. by giving a poor political presentation) and dramatically rehearse particular “competing possible lines of action” that are relevant to particular educational goals (Dewey, 1922: 132). Seen from this pragmatist perspective, the educational value of games is not so much a question of learning facts or giving the “right” answers, but more a question of exploring the contingent outcomes and domain-specific processes of problem-based scenarios.

## Their Test Bad

#### Authenticity tests shut down debate– it’s strategically a disaster

**SUBOTNIK 98**

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Having traced a major strand in the development of CRT, we turn now to the strands' effect on the relationships of CRATs with each other and with outsiders. As the foregoing material suggests, **the central** CRT **message is not simply that minorities are being treated unfairly**, or even that individuals out there are in pain - assertions for which there are data to serve as grist for the academic mill - **but that the minority scholar himself or herself hurts and hurts badly**.

An important problem that concerns the very definition of the scholarly enterprise now comes into focus. **What can an academic** trained to [\*694] question and to doubt n72 **possibly say to Patricia Williams when effectively she announces, "I hurt bad"?** n73 **"No, you don't hurt"? "You shouldn't hurt"?** "Other people hurt too"? Or, most dangerously - and perhaps most tellingly - "What do you expect when you keep shooting yourself in the foot?" If the majority were perceived as having the well- being of minority groups in mind, these responses might be acceptable, even welcomed. And they might lead to real conversation. But, **writes Williams, the failure by those "cushioned within the invisible privileges of race and power**... to incorporate a sense of precarious connection as a part of our **lives is... ultimately obliterating**." n74

"Precarious." "Obliterating." **These words will clearly invite responses only from fools and sociopaths; they will, by effectively precluding objection, disconcert and disunite others**. **"I hurt," in academic discourse, has three broad though interrelated effects**. First, **it demands priority from the reader's conscience. It is for this reason that law review editors, waiving usual standards, have privileged a long trail of undisciplined - even silly** n75 **- destructive and, above all, self-destructive arti** [\*695] **cles.** n76 **Second, by emphasizing the emotional bond between those who hurt in a similar way, "I hurt" discourages fellow sufferers from abstracting themselves from their pain in order to gain perspective on their condition**. n77

 [\*696] **Last, as we have seen, it precludes the possibility of open and structured conversation with others**. n78

 [\*697] **It is because of this conversation-stopping effect** of what they insensitively call "first-person agony stories" **that Farber and Sherry deplore their use.** "The norms of academic civility hamper readers from challenging the accuracy of the researcher's account; it would be rather difficult, for example, to criticize a law review article by questioning the author's emotional stability or veracity." n79 Perhaps, a better practice would be to put the scholar's experience on the table, along with other relevant material, but to subject that experience to the same level of scrutiny.

If **through the foregoing rhetorical strategies CRATs succeeded in limiting academic debate**, why do they not have greater influence on public policy? **Discouraging white legal scholars from entering the national conversation about race**, n80 I suggest, **has generated a kind of cynicism in white audiences** which, in turn, has had precisely the reverse effect of that ostensibly desired by CRATs. **It drives the American public to the right and ensures that anything CRT offers is reflexively rejected.**

In the absence of scholarly work by white males in the area of race, of course, it is difficult to be sure what reasons they would give for not having rallied behind CRT. Two things, however, are certain. First, **the kinds of issues** raised by Williams **are too important** in their implications  [\*698]  for American life **to be confined to communities of color.** If the lives of minorities are heavily constrained, if not fully defined, by the thoughts and actions of the majority elements in society, **it would seem to be of great importance that white thinkers and doers participate in open discourse** to bring about change. Second, given the lack of engagement of CRT by the community of legal scholars as a whole, the discourse that should be taking place at the highest scholarly levels has, by default, been displaced to faculty offices and, more generally, the streets and the airwaves.

## AT Agency DA

#### DEBATE doesn’t jeopardize agency

Hanghoj 8

http://static.sdu.dk/mediafiles/Files/Information\_til/Studerende\_ved\_SDU/Din\_uddannelse/phd\_hum/afhandlinger/2009/ThorkilHanghoej.pdf

 Thorkild Hanghøj, Copenhagen, 2008

 Since this PhD project began in 2004, the present author has been affiliated with DREAM (Danish

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professor.

 Thus, debate games require teachers to balance the centripetal/centrifugal forces of gaming and teaching, to be able to reconfigure their discursive authority, and to orchestrate the multiple voices of a dialogical game space in relation to particular goals. These Bakhtinian perspectives provide a valuable analytical framework for describing the discursive interplay between different practices and knowledge aspects when enacting (debate) game scenarios. In addition to this, Bakhtin’s dialogical philosophy also offers an explanation of why debate games (and other game types) may be valuable within an educational context. One of the central features of multi-player games is that players are expected to experience a simultaneously real and imagined scenario both in relation to an insider’s (participant) perspective and to an outsider’s (co-participant) perspective. According to Bakhtin, the outsider’s perspective reflects a fundamental aspect of human understanding: In order to understand, it is immensely important for the person who understands to be located outside the object of his or her creative understanding – in time, in space, in culture. For one cannot even really see one's own exterior and comprehend it as a whole, and no mirrors or photographs can help; our real exterior can be seen and understood only by other people, because they are located outside us in space, and because they are others (Bakhtin, 1986: 7). As the quote suggests, every person is influenced by others in an inescapably intertwined way, and consequently no voice can be said to be isolated. Thus, it is in the interaction with other voices that individuals are able to reach understanding and find their own voice. Bakhtin also refers to the ontological process of finding a voice as “ideological becoming”, which represents “the process of selectively assimilating the words of others” (Bakhtin, 1981: 341). Thus, by teaching and playing debate scenarios, it is possible to support students in their process of becoming not only themselves, but also in becoming articulate and responsive citizens in a democratic society.

## E – Roleplaying

### 2NC Simulation Good

#### Policy simulation key to creativity and decisionmaking—the detachment that they criticize is key to its revolutionary benefits

Eijkman 12

The role of simulations in the authentic learning for national security policy development: Implications for Practice / Dr. Henk Simon Eijkman. [electronic resource] <http://nsc.anu.edu.au/test/documents/Sims_in_authentic_learning_report.pdf>. Dr Henk Eijkman is currently an independent consultant as well as visiting fellow at the University of New South Wales at the Australian Defence Force Academy and is Visiting Professor of Academic Development, Annasaheb Dange College of Engineering and Technology in India. As a sociologist he developed an active interest in tertiary learning and teaching with a focus on socially inclusive innovation and culture change. He has taught at various institutions in the social sciences and his work as an adult learning specialist has taken him to South Africa, Malaysia, Palestine, and India. He publishes widely in international journals, serves on Conference Committees and editorial boards of edited books and international journal

Policy simulations stimulate Creativity Participation in policy games has proved to be a highly effective way of developing new combinations of experience and creativity, which is precisely what innovation requires (Geurts et al. 2007: 548). Gaming, whether in analog or digital mode, has the power to stimulate creativity, and is one of the most engaging and liberating ways for making group work productive, challenging and enjoyable. Geurts et al. (2007) cite one instance where, in a National Health Care policy change environment, ‘the many parties involved accepted the invitation to participate in what was a revolutionary and politically very sensitive experiment precisely because it was a game’ (Geurts et al. 2007: 547). Data from other policy simulations also indicate the uncovering of issues of which participants were not aware, the emergence of new ideas not anticipated, and a perception that policy simulations are also an enjoyable way to formulate strategy (Geurts et al. 2007). Gaming puts the players in an ‘experiential learning’ situation, where they discover a concrete, realistic and complex initial situation, and the gaming process of going through multiple learning cycles helps them work through the situation as it unfolds. Policy gaming stimulates ‘learning how to learn’, as in a game, and learning by doing alternates with reflection and discussion. The progression through learning cycles can also be much faster than in real-life (Geurts et al. 2007: 548). The bottom line is that problem solving in policy development processes requires creative experimentation. This cannot be primarily taught via ‘camp-fire’ story telling learning mode but demands hands-on ‘veld learning’ that allow for safe creative and productive experimentation. This is exactly what good policy simulations provide (De Geus, 1997; Ringland, 2006). In simulations participants cannot view issues solely from either their own perspective or that of one dominant stakeholder (Geurts et al. 2007). Policy simulations enable the seeking of Consensus Games are popular because historically people seek and enjoy the tension of competition, positive rivalry and the procedural justice of impartiality in safe and regulated environments. As in games, simulations temporarily remove the participants from their daily routines, political pressures, and the restrictions of real-life protocols. In consensus building, participants engage in extensive debate and need to act on a shared set of meanings and beliefs to guide the policy process in the desired direction

#### That allows us to influence state policy AND is key to agency

Eijkman 12

The role of simulations in the authentic learning for national security policy development: Implications for Practice / Dr. Henk Simon Eijkman. [electronic resource] <http://nsc.anu.edu.au/test/documents/Sims_in_authentic_learning_report.pdf>. Dr Henk Eijkman is currently an independent consultant as well as visiting fellow at the University of New South Wales at the Australian Defence Force Academy and is Visiting Professor of Academic Development, Annasaheb Dange College of Engineering and Technology in India. As a sociologist he developed an active interest in tertiary learning and teaching with a focus on socially inclusive innovation and culture change. He has taught at various institutions in the social sciences and his work as an adult learning specialist has taken him to South Africa, Malaysia, Palestine, and India. He publishes widely in international journals, serves on Conference Committees and editorial boards of edited books and international journal

However, whether as an approach to learning, innovation, persuasion or culture shift, policy simulations derive their power from two central features: their combination of simulation and gaming (Geurts et al. 2007). 1. The simulation element: the unique combination of simulation with role-playing. The unique simulation/role-play mix enables participants to create possible futures relevant to the topic being studied. This is diametrically opposed to the more traditional, teacher-centric approaches in which a future is produced for them. In policy simulations, possible futures are much more than an object of tabletop discussion and verbal speculation. ‘No other technique allows a group of participants to engage in collective action in a safe environment to create and analyse the futures they want to explore’ (Geurts et al. 2007: 536). 2. The game element: the interactive and tailor-made modelling and design of the policy game. The actual run of the policy simulation is only one step, though a most important and visible one, in a collective process of investigation, communication, and evaluation of performance. In the context of a post-graduate course in public policy development, for example, a policy simulation is a dedicated game constructed in collaboration with practitioners to achieve a high level of proficiency in relevant aspects of the policy development process. To drill down to a level of finer detail, policy development simulations—as forms of interactive or participatory modelling— are particularly effective in developing participant knowledge and skills in the five key areas of the policy development process (and success criteria), namely: Complexity, Communication, Creativity, Consensus, and Commitment to action (‘the five Cs’). The capacity to provide effective learning support in these five categories has proved to be particularly helpful in strategic decision-making (Geurts et al. 2007). Annexure 2.5 contains a detailed description, in table format, of the synopsis below

### 2NC Roleplaying Good

#### Prefer our framework – Policy role-play doesn’t indoctrinate or get stale – makes best Real World education.

Joyner ‘99

(Christopher C., Professor of International Law at Georgetown, “Teaching International Law”, 5 Ilsa. J. Int’l & Comp. L. 377, Lexis)

Use of the debate can be an effective pedagogical toolfor education in the social sciences. Debates, like other role-playing simulations, help students understand different perspectives on a policy issue by adopting a perspective as their own. But**,** unlike other simulation games, debates do not require that a student participate directly in order to realize the benefit of the game. Instead of developing policy alternatives and experiencing the consequences of different choices in a traditional role-playing game, debates presentthe alternativesand consequences in aformal, rhetorical fashionbefore a judgmental audience. Having the class audience serve as jury helps each student develop a well-thought-out opinion on the issue by providing contrasting facts and views and enabling audience members to pose challenges to each debating team. These debates askundergraduate students to examinethe international legal implications of variousUnited States foreign policyactions**.** Their chief tasks are to assess the aims of the policy in question, determine their relevance to United States national interests, ascertain what legal principles are involved, and conclude how the United States policy in question squares with relevant principles of international law. Debate questions are formulated as resolutions, along the lines of: "Resolved: The United States should deny most-favored-nation status to China on human rights grounds;" or "Resolved: The United States should resort to military force to ensure inspection of Iraq's possible nuclear, chemical and biological weapons facilities;" or "Resolved: The United States' invasion of Grenada in 1983 was a lawful use of force;" or "Resolved: The United States should kill Saddam Hussein." In addressing both sidesof these legal propositions, the student debaters must consult the vast literatureof international law, especially the nearly 100 professional law-school-sponsored international law journals now being published in the United States. This literature furnishes an incredibly rich body of legal analysis that often treats topics affecting United States foreign policy, as well as other more esoteric international legal subjects. Although most of these journals are accessible in good law schools, they are largely unknown to the political science community specializing in international relations, much less to the average undergraduate. By assessingthe role of international law in United Statesforeign policy- making, students realize that United States actions do not always measure up tointernational legal expectations; that at times, international legal strictures get compromised for the sake of perceived national interests, and that concepts and principles of international law, like domestic law, can be interpreted and twisted in order to justify United States policy in various international circumstances. In this way, the debate format gives students the benefits ascribed to simulationsand other action learning techniques, in that it makes them become actively engaged with their subjects, and not be mere passive consumers. Rather than spectators, students becomelegal advocates, observing, reacting to, and structuring politicaland legal perceptions to fit the merits of their case**.** The debate exercises carry several specific educational objectives. First, studentson each team must work together to refine a cogent argument that compellingly asserts their legal position on a foreign policy issue confronting the United States. In this way, they gain greater insight into the real-worldlegal dilemmas faced by policy makers**.** Second, as they work with other members of their team, they realize the complexities of applying and implementing international law, and the difficulty of bridging the gaps between United States policy and international legal principles, either by reworking the former or creatively reinterpreting the latter. Finally, researchfor the debates forces students to become familiarized with contemporary issueson the United States foreign policy agenda and the role that international law plays in formulating and executing these policies. n8 Thedebate thus becomes an excellent vehicle for pushing students beyond stale argumentsover principles into the real world of policy analysis, political critique, and legal defense.

## Case Extension

### Heg 1AC Case Ext/Impacts

#### Case outweighs and is a disad to the k:

#### Absent the plan, satellite communication malfunction, collapsing the superiority of the US military and hegemony. Extend Coleman and Martin `10.

#### Impacts:

#### Only US hegemony can sustain openness in the global economy and the spread of democracy necessary to create sustainable economic growth and decrease violent conflict. Hegemony has caused a 99 percent drop in deaths due to war and a decrease in structural violence. Extend Owen ’11, Barnett ’11, and Pinker ’11.

#### The liberal political and economic order collapses in the absence of US hegemony – the alt is not global collaboration but an increase in autocracy. Loss of hegemony would result in racism, colonialism, perpetual war, and mass violence. Extend Kagan 12, Barnett ’11, and Horgan ‘9.

#### Prefer our impact calculus – our authors use empirically verifiable methods and utilize numerous studies to support their findings – these are the most accurate proximate causes of war – reject their inaccurate root cause claims. Extend Moore 04, Sorenson 98 and Kurki ’11. Their critical scholarship depoliticizes debates on IR – only our methods result in effective political change.

## AT Epistemology

#### Sores indicates the political methods used to construct the plan are a better internal link to truth than their asserted bullshit

#### Our authors conducted large studies did regression analysis and found decreases of violence seems pretty close

#### Epistemology focus causes endless paradigm wars.

Wendt,1998. professor of international security – Ohio State University, (Alexander, “On Constitution and Causation in International Relations,” British International Studies Association)

As a community, we in the academic study of international politics spend too much time worrying about the kind of issues addressed in this essay. The central point of IR scholarship is to increase our knowledge of how the world works, not to worry about how (or whether) we can know how the world works. What matters for IR is ontology, not epistemology. This doesn’t mean that there are no interesting epistemological questions in IR, and even less does it mean that there are no important political or sociological aspects to those questions. Indeed there are, as I have suggested above, and as a discipline IR should have more awareness of these aspects. At the same time, however, these are questions best addressed by philosophers and sociologists of knowledge, not political scientists. Let’s face it: most IR scholars, including this one, have little or no proper training in epistemology, and as such the attempt to solve epistemological problems anyway will inevitably lead to confusion (after all, after 2000 years, even the specialists are still having a hard time). Moreover, as long as we let our research be driven in an open-minded fashion by substantive questions and problems rather than by epistemologies and methods, there is little need to answer epistemological questions either. It is simply not the case that we have to undertake an epistemological analysis of how we can know something before we can know it, a fact amply attested to by the success of the natural sciences, whose practitioners are only rarely forced by the results of their inquiries to consider epistemological questions. In important respects we do know how international politics works, and it doesn’t much matter how we came to that knowledge. In that light, going into the epistemology business will distract us from the real business of IR, which is international politics. Our great debates should be about first-order issues of substance, like the ‘first debate’ between Realists and Idealists, not second-order issues of method. Unfortunately, it is no longer a simple matter for IR scholars to ‘just say no’ to epistemological discourse. The problem is that this discourse has already contaminated our thinking about international politics, helping to polarize the discipline into ‘paradigm wars’. Although the resurgence of these wars in the 1980s and 90s is due in large part to the rise of post-positivism, its roots lie in the epistemological anxiety of positivists, who since the 1950s have been very concerned to establish the authority of their work as Science. This is an important goal, one that I share, but its implementation has been marred by an overly narrow conception of science as being concerned only with causal questions that can be answered using the methods of natural science. The effect has been to marginalize historical and interpretive work that does not fit this mould, and to encourage scholars interested in that kind of work to see themselves as somehow not engaged in science. One has to wonder whether the two sides should be happy with the result. Do positivists really mean to suggest that it is not part of science to ask questions about how things are constituted, questions which if those things happen to be made of ideas might only be answerable by interpretive methods? If so, then they seem to be saying that the double-helix model of DNA, and perhaps much of rational choice theory, is not science. And do post-positivists really mean to suggest that students of social life should not ask causal questions or attempt to test their claims against empirical evidence? If so, then it is not clear by what criteria their work should be judged, or how it differs from art or revelation. On both sides, in other words, the result of the Third Debate’s sparring over epistemology is often one-sided, intolerant caricatures of science.

### Threats are Real

#### Threats are not socially constructed- decision makers use the most objective, rational, and accurate assessments possible- there are no bureaucratic or ideological motivations to invent threats.

Ravenal ‘9

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Quite expectedly, the more doctrinaire of the non-interventionists take pains to deny any straightforward, and therefore legitimate, security motive in American foreign and military policy. In fact, this denial leads to a more sweeping rejection of any recognizably rational basis for American foreign policy, and, even, sometimes (among the more theoretical of the non-interventionists), a preference for non-rational accounts, or “models,” of virtually any nation’s foreign policy-making.4 One could call this tendency among anti-imperialists “motive displacement.” More specifically, in the cases under review here, one notes a receptivity to any reworking of history, and any current analysis of geopolitics, that denigrates “the threat”; and, along with this, a positing of “imperialism” (the almost self-referential and primitive impulse) as a sufficient explanation for the often strenuous and risky actions of great powers such as the United States. Thus, not only is “empire” taken to be a sufficient and, in some cases, a necessary condition in bringing about foreign “threats”; but, by minimizing the extent and seriousness of these threats, the anti-imperialists put themselves into the position of lacking a rational explanation for the derivation of the (pointless at best, counter-productive at worst) policies that they designate as imperialistic. A pungent example of this threat denigration and motive displacement is Eland’s account of American intervention in the Korean and Vietnam wars:

After North Korea invaded, the Truman administration intervened merely for the purpose of a demonstration to friends and foes alike. Likewise, according to eminent cold war historians, the United States did not inter- vene in Vietnam because it feared communism, which was fragmented, or the Soviet Union, which wanted détente with the West, or China, which was weak, but because it did not want to appear timid to the world. The behavior of the United States in both Korea and Vietnam is typical of imperial powers, which are always concerned about their reputation, pres- tige, and perceived resolve. (Eland 2004, 64)

Of course, the motive of “reputation,” to the extent that it exists in any particular instance, is a part of the complex of motives that characterize a great power that is drawn toward the role of hegemon (not the same thing as “empire”). Reputation is also a component of the power projec- tion that is designed to serve the interest of national security. Rummaging through the concomitants of “imperialism,” Eland (2004, 65) discovers the thesis of “threat inflation” (in this case, virtual threat invention): Obviously, much higher spending for the military, homeland security, and foreign aid are required for a policy of global intervention than for a policy of merely defending the republic. For example, after the cold war, the security bureaucracies began looking for new enemies to justify keeping defense and intelligence budgets high. Similarly, Eland (ibid., 183), in a section entitled “Imperial Wars Spike Corporate Welfare,” attributes a large portion of the U.S. defense budget—particularly the procurement of major weapons systems, such as “Virginia-class submarines . . . aircraft carriers . . . F-22 fighters . . . [and] Osprey tilt-rotor transport aircraft”—not to the systemically derived requirement for certain kinds of military capabilities, but, rather, to the imperatives of corporate pork. He opines that such weapons have no stra- tegic or operational justification; that “the American empire, militarily more dominant than any empire in world history, can fight brushfire wars against terrorists and their ‘rogue’ state sponsors without those gold- plated white elephants.”

The underlying notion of “the security bureaucracies . . . looking for new enemies” is a threadbare concept that has somehow taken hold across the political spectrum, from the radical left (viz. Michael Klare [1981], who refers to a “threat bank”), to the liberal center (viz. Robert H. Johnson [1997], who dismisses most alleged “threats” as “improbable dangers”), to libertarians (viz. Ted Galen Carpenter [1992], Vice President for Foreign and Defense Policy of the Cato Institute, who wrote a book entitled A Search for Enemies). What is missing from most analysts’ claims of “threat inflation,” however, is a convincing theory of why, say, the American government significantly (not merely in excusable rhetoric) might magnify and even invent threats (and, more seriously, act on such inflated threat estimates). In a few places, Eland (2004, 185) suggests that such behavior might stem from military or national security bureaucrats’ attempts to enhance their personal status and organizational budgets, or even from the influence and dominance of “the military-industrial complex”; viz.: “Maintaining the empire and retaliating for the blowback from that empire keeps what President Eisenhower called the military-industrial complex fat and happy.” Or, in the same section:

In the nation’s capital, vested interests, such as the law enforcement bureaucracies . . . routinely take advantage of “crises”to satisfy parochial desires. Similarly, many corporations use crises to get pet projects— a.k.a. pork—funded by the government. And national security crises, because of people’s fears, are especially ripe opportunities to grab largesse. (Ibid., 182)

Thus, “bureaucratic-politics” theory, which once made several reputa- tions (such as those of Richard Neustadt, Morton Halperin, and Graham Allison) in defense-intellectual circles, and spawned an entire sub-industry within the field of international relations,5 is put into the service of dismissing putative security threats as imaginary. So, too, can a surprisingly cognate theory, “public choice,”6 which can be considered the right-wing analog of the “bureaucratic-politics” model, and is a preferred interpretation of governmental decision- making among libertarian observers. As Eland (2004, 203) summarizes:

Public-choice theory argues [that] the government itself can develop sepa- rate interests from its citizens. The government reflects the interests of powerful pressure groups and the interests of the bureaucracies and the bureaucrats in them. Although this problem occurs in both foreign and domestic policy, it may be more severe in foreign policy because citizens pay less attention to policies that affect them less directly.

There is, in this statement of public-choice theory, a certain ambiguity, and a certain degree of contradiction: Bureaucrats are supposedly, at the same time, subservient to societal interest groups and autonomous from society in general.

This journal has pioneered the argument that state autonomy is a likely consequence of the public’s ignorance of most areas of state activity (e.g., Somin 1998; DeCanio 2000a, 2000b, 2006, 2007; Ravenal 2000a). But state autonomy does not necessarily mean that bureaucrats substitute their own interests for those of what could be called the “national society” that they ostensibly serve. I have argued (Ravenal 2000a) that, precisely because of the public-ignorance and elite-expertise factors, and especially because the opportunities—at least for bureaucrats (a few notable post-government lobbyist cases nonwithstanding)—for lucrative self-dealing are stringently fewer in the defense and diplomatic areas of government than they are in some of the contract-dispensing and more under-the-radar-screen agencies of government, the “public-choice” imputation of self-dealing, rather than working toward the national interest (which, however may not be synonymous with the interests, perceived or expressed, of citizens!) is less likely to hold. In short, state autonomy is likely to mean, in the derivation of foreign policy, that “state elites” are using rational judgment, in insulation from self-promoting interest groups—about what strategies, forces, and weapons are required for national defense.

Ironically, “public choice”—not even a species of economics, but rather a kind of political interpretation—is not even about “public” choice, since, like the bureaucratic-politics model, it repudiates the very notion that bureaucrats make truly “public” choices; rather, they are held, axiomatically, to exhibit “rent-seeking” behavior, wherein they abuse their public positions in order to amass private gains, or at least to build personal empires within their ostensibly official niches. Such sub- rational models actually explain very little of what they purport to observe. Of course, there is some truth in them, regarding the “behavior” of some people, at some times, in some circumstances, under some conditions of incentive and motivation. But the factors that they posit operate mostly as constraints on the otherwise rational optimization of objectives that, if for no other reason than the playing out of official roles, transcends merely personal or parochial imperatives.

My treatment of “role” differs from that of the bureaucratic-politics theorists, whose model of the derivation of foreign policy depends heavily, and acknowledgedly, on a narrow and specific identification of the role- playing of organizationally situated individuals in a partly conflictual “pulling and hauling” process that “results in” some policy outcome. Even here, bureaucratic-politics theorists Graham Allison and Philip Zelikow (1999, 311) allow that “some players are not able to articulate [sic] the governmental politics game because their conception of their job does not legitimate such activity.” This is a crucial admission, and one that points— empirically—to the need for a broader and generic treatment of role.

Roles (all theorists state) give rise to “expectations” of performance. My point is that virtually every governmental role, and especially national-security roles, and particularly the roles of the uniformed mili- tary, embody expectations of devotion to the “national interest”; rational- ity in the derivation of policy at every functional level; and objectivity in the treatment of parameters, especially external parameters such as “threats” and the power and capabilities of other nations.

Sub-rational models (such as “public choice”) fail to take into account even a partial dedication to the “national” interest (or even the possibility that the national interest may be honestly misconceived in more paro- chial terms). In contrast, an official’s role connects the individual to the (state-level) process, and moderates the (perhaps otherwise) self-seeking impulses of the individual. Role-derived behavior tends to be formalized and codified; relatively transparent and at least peer-reviewed, so as to be consistent with expectations; surviving the particular individual and trans- mitted to successors and ancillaries; measured against a standard and thus corrigible; defined in terms of the performed function and therefore derived from the state function; and uncorrrupt, because personal cheating and even egregious aggrandizement are conspicuously discouraged.

My own direct observation suggests that defense decision-makers attempt to “frame” the structure of the problems that they try to solve on the basis of the most accurate intelligence. They make it their business to know where the threats come from. Thus, threats are not “socially constructed” (even though, of course, some values are).

A major reason for the rationality, and the objectivity, of the process is that much security planning is done, not in vaguely undefined circum- stances that offer scope for idiosyncratic, subjective behavior, but rather in structured and reviewed organizational frameworks. Non-rationalities (which are bad for understanding and prediction) tend to get filtered out. People are fired for presenting skewed analysis and for making bad predictions. This is because something important is riding on the causal analysis and the contingent prediction. For these reasons, “public choice” does not have the “feel” of reality to many critics who have participated in the structure of defense decision-making. In that structure, obvious, and even not-so-obvious, “rent-seeking” would not only be shameful; it would present a severe risk of career termination. And, as mentioned, the defense bureaucracy is hardly a productive place for truly talented rent-seekers to operate, compared to opportunities for personal profit in the commercial world. A bureaucrat’s very self-placement in these reaches of government testi- fies either to a sincere commitment to the national interest or to a lack of sufficient imagination to exploit opportunities for personal profit.

## AT Terrorism

### Gotta Kill Terrorists¶

#### Terrorists have religious motivations that make discourse and compromise meaningless. The only way to win the war we are in is to kill them before they kill us.¶

Peters 4

 - (Ralph, Retired Army Officer, “In Praise of Attrition,” Parameters, Summer)¶

Trust me. We don’t need discourses. We need plain talk, honest answers, and the will to close with the enemy and kill him. And to keep on killing him until it is unmistakably clear to the entire world who won. When military officers start speaking in academic gobbledygook, it means they have nothing to contribute to the effectiveness of our forces. They badly need an assignment to Fallujah. Consider our enemies in the War on Terror. Men who believe, literally, that they are on a mission from God to destroy your civilization and who regard death as a promotion are not impressed by elegant maneuvers. You must find them, no matter how long it takes, then kill them. If they surrender, you must accord them their rights under the laws of war and international conventions. But, as we have learned so painfully from all the mindless, left-wing nonsense spouted about the prisoners at Guantanamo, you are much better off killing them before they have a chance to surrender. We have heard no end of blather about network-centric warfare, to the great profit of defense contractors. If you want to see a superb—and cheap—example of “net-war,” look at al Qaeda. The mere possession of technology does not ensure that it will be used effectively. And effectiveness is what matters. It isn’t a question of whether or not we want to fight a war of attrition against religion-fueled terrorists. We’re in a war of attrition with them. We have no realistic choice. Indeed, our enemies are, in some respects, better suited to both global and local wars of maneuver than we are. They have a world in which to hide, and the world is full of targets for them. They do not heed laws or boundaries. They make and observe no treaties. They do not expect the approval of the United Nations Security Council. They do not face election cycles. And their weapons are largely provided by our own societies. We have the technical capabilities to deploy globally, but, for now, we are forced to watch as Pakistani forces fumble efforts to surround and destroy concentrations of terrorists; we cannot enter any country (except, temporarily, Iraq) without the permission of its government. We have many tools—military, diplomatic, economic, cultural, law enforcement, and so on—but we have less freedom of maneuver than our enemies. But we do have superior killing power, once our enemies have been located. Ultimately, the key advantage of a superpower is superpower. Faced with implacable enemies who would kill every man, woman, and child in our country and call the killing good (the ultimate war of attrition), we must be willing to use that power wisely, but remorselessly. We are, militarily and nationally, in a transition phase. Even after 9/11, we do not fully appreciate the cruelty and determination of our enemies. We will learn our lesson, painfully, because the terrorists will not quit. The only solution is to kill them and keep on killing them: a war of attrition. But a war of attrition fought on our terms, not theirs. Of course, we shall hear no end of fatuous arguments to the effect that we can’t kill our way out of the problem. Well, until a better methodology is discovered, killing every terrorist we can find is a good interim solution. The truth is that even if you can’t kill yourself out of the problem, you can make the problem a great deal smaller by effective targeting. And we shall hear that killing terrorists only creates more terrorists. This is sophomoric nonsense. The surest way to swell the ranks of terror is to follow the approach we did in the decade before 9/11 and do nothing of substance. Success breeds success. Everybody loves a winner. The clichés exist because they’re true. Al Qaeda and related terrorist groups metastasized because they were viewed in the Muslim world as standing up to the West successfully and handing the Great Satan America embarrassing defeats with impunity. Some fanatics will flock to the standard of terror, no matter what we do. But it’s far easier for Islamic societies to purge themselves of terrorists if the terrorists are on the losing end of the global struggle than if they’re allowed to become triumphant heroes to every jobless, unstable teenager in the Middle East and beyond. Far worse than fighting such a war of attrition aggressively is to pretend you’re not in one while your enemy keeps on killing you. Even the occupation of Iraq is a war of attrition. We’re doing remarkably well, given the restrictions under which our forces operate. But no grand maneuvers, no gestures of humanity, no offers of conciliation, and no compromises will persuade the terrorists to halt their efforts to disrupt the development of a democratic, rule-of-law Iraq. On the contrary, anything less than relentless pursuit, with both preemptive and retaliatory action, only encourages the terrorists and remaining Baathist gangsters.

## Extinction OW

### Extinction > Structural Violence

#### Nye- need life to evaluate and exert thoughts on the world

#### Schwartz- individually chosen value

#### Extinction and future generations outweigh ----- we can do awesome things in the future

BOSTROM ’12 - Professor, Faculty of Philosophy & Oxford Martin School Director, Future of Humanity Institute Director, Programme on the Impacts of Future Technology University of Oxford (Nick, “We're Underestimating the Risk of Human Extinction”, Mar 6, http://www.theatlantic.com/technology/archive/2012/03/were-underestimating-the-risk-of-human-extinction/253821/)

Some have argued that we ought to be directing our resources toward humanity's existing problems, rather than future existential risks, because many of the latter are highly improbable. You have responded by suggesting that existential risk mitigation may in fact be a dominant moral priority over the alleviation of present suffering. Can you explain why?

Bostrom: Well suppose you have a moral view that counts future people as being worth as much as present people. You might say that fundamentally it doesn't matter whether someone exists at the current time or at some future time, just as many people think that from a fundamental moral point of view, it doesn't matter where somebody is spatially---somebody isn't automatically worth less because you move them to the moon or to Africa or something. A human life is a human life. If you have that moral point of view that future generations matter in proportion to their population numbers, then you get this very stark implication that existential risk mitigation has a much higher utility than pretty much anything else that you could do. There are so many people that could come into existence in the future if humanity survives this critical period of time---we might live for billions of years, our descendants might colonize billions of solar systems, and there could be billions and billions times more people than exist currently. Therefore, even a very small reduction in the probability of realizing this enormous good will tend to outweigh even immense benefits like eliminating poverty or curing malaria, which would be tremendous under ordinary standards.

### War Turns Structural Violence

#### War turns structural violence

Bulloch 8

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 But the idea that poverty and peace are directly related presupposes that wealth inequalities are – in and of themselves – unjust, and that the solution to the problem of war is to alleviate the injustice that inspires conflict, namely poverty. However, it also suggests that poverty is a legitimate inspiration for violence, otherwise there would be no reason to alleviate it in the interests of peace. It has become such a commonplace to suggest that poverty and conflict are linked that it rarely suffers any examination. To suggest that war causes poverty is to utter an obvious truth, but to suggest the opposite is – on reflection – quite hard to believe. War is an expensive business in the twenty-first century, even asymmetrically. And just to examine Bangladesh for a moment is enough at least to raise the question concerning the actual connection between peace and poverty. The government of Bangladesh is a threat only to itself, and despite 30 years of the Grameen Bank, Bangladesh remains in a state of incipient civil strife. So although Muhammad Yunus should be applauded for his work in demonstrating the efficacy of micro-credit strategies in a context of development, it is not at all clear that this has anything to do with resolving the social and political crisis in Bangladesh, nor is it clear that this has anything to do with resolving the problem of peace and war in our times. It does speak to the Western liberal mindset – as Geir Lundestad acknowledges – but then perhaps this exposes the extent to which the Peace Prize itself has simply become an award that reflects a degree of Western liberal wish-fulfilment. It is perhaps comforting to believe that poverty causes violence, as it serves to endorse a particular kind of concern for the developing world that in turn regards all problems as fundamentally economic rather than deeply – and potentially radically – political.

## Edelman Bad

#### Alternative doesn’t solve patriarchy – Edelman’s use of queer theory can’t be universalized.

Snediker 06

(Michael, Visiting Assistant Professor of American Literature at Mount Holyoke College, Postmoden Culture,Vol 16, “Queer Optimism”, May,http://muse.jhu.edu.proxy.lib.umich.edu/journals/postmodern\_culture/v016/16.3snediker.html

Edelman's might be one way of refusing the logic of reproductive futurism, but not the only one. That there would be many possible queer courses of action might indeed seem to follow from Edelman's invoking of Lacanian truth ("Wunsch") as characterized by nothing so much as its extravagant, recalcitrant particularity. "The Wunsch," Lacan writes in a passage cited in No Future's introduction, "does not have the character of a universal law but, on the contrary, of the most particular of laws--even if it is universal that this particularity is to be found in every human being" (6). This truth, which Edelman aligns with "queerness" (and ergo with negativity, the death-drive, jouissance, etc.) "does not have the character of a universal law."¶ Edelman, for all his attentiveness to the Lacanian "letter of the law," glosses Lacan's own argument with a symptomatic liberality. "Truth, like queerness," Edelman writes, "finds itsvalue not in a good susceptible to generalization, but only in the stubborn particularity that voids every notion of a general good. The embrace of queer negativity, then, can have no justification if justification requires it to reinforce some positive social value" (6). Lacan, however, does not speak, even in Jacques-Alain Miller's translation, of a "general good." He speaks of a universal, which might be good or bad. Furthermore,¶ if the only characteristic universally applicable to this "truth, like queerness" is its particularity, what sortof particularity voids every notion of a general good? Might so intransigent a particularity sometimes not void a universal,good or bad? My line of inquiry might seem petty, but my question, in fact, illuminates how little Edelman's argument can hold onto the particularity on which it is partly premised. "The queer, "Edelman insists, "insists that politics is always a politics of the signifier" (6). Edelman likewise insists that "queer theory must always insist on its connection to the vicissitudes of the sign" (7). The ubiquity of "always" and "every" in Edelman's argument is nearly stunning, and it seems to me indicative of No Future's coerciveness, as a different passage from No Future's introduction quite handily demonstrates: Rather than rejecting, with liberal discourse, this ascription of negativity to the queer, we might, as I argue, do better to consider accepting and even embracing it. Not in the hope of forging thereby some more perfect social order--such a hope, after all, would only reproducce the constraining mandate of futurism, just as any such order would equally occasion the negativity of the queer--but rather to refuse the insistence of hope itself as affirmation, which is always affirmation of an order whose refusal will register as unthinkable, irresponsible, inhumane. And the trump card of affirmation? Always the question: If not this, what? Always the demand to translate the insistence, the pulsive force, of negativity into some determinate stance or "position" whose determination would negate it: always the imperative to immure it in some stable and positive form. (4)Always this, always this, always that. This absoluteness in Edelman's characterization of affirmation, meant to rally and provoke, recalls Sedgwick's incredulous reading of Fredric Jameson's ukase, "Always historicize.¶ " "What could have less to do," Sedgwick rightly asks, "with historicizing than the commanding, a temporal adverb 'always'" ("Paranoid Reading" 125)? What, for that matter, could have less to do with particularizations? The axiomatic thrust of Edelman's "always" would seem to make the world so irrevocably one thing that response to the world would amount to one thing. But still: why would rejecting a primary attachment to futurity (regardless of what this futurity always does or doesn't do) necessarily require embodying negativity? Edelman's queer pessimism positions itself as "our" only option without having exhausted what other options might glimmeringly look like.¶ This glimmer doesn't conjure the sort of horizon Edelman would be so quick to dismantle. Rather, it suggests that not all optimisms are a priori equivalent to each other. And as importantly, that not all queer theories need look like Edelman's. "As a particular story . . . of why storytelling fails," Edelman writes, "queer theory, as I construe it, marks the 'other' side of politics . . . the 'side' outside all political sides, committed as they are, on every side, to futurism's unquestioned good" (7).¶ This account of queer theory, even as construed by one theorist, hardly seems like a "particular" story, not at least particular enough. Queer theory, on this account, doesn't seem like an escape from the political's claustrophobically refracted unavailing sides, but a claustrophobia unto itself.168

#### Edelman oversimplifies and ignores recent changes in reproduction and parenthood

Balasopoulos 06

(Antonis, Assistant Professor in English Studies at the University of Cyprus, Journal of American Studies,“Evolution and ‘the Sex Problem’: American Narratives during the Eclipse of Darwinism”, proquest)

Edelman’s book takes obvious pleasure in provocation, stylistically indulging in the ironic hermeneutics itmethodologically advocates with at times infelicitous results (an excess of largely gratuitous verbal punning and a partialityfor highly convoluted syntax are cases in point). More disconcertingly, No Future involves a vision of queer subjectivitythat is so strongly invested in transvaluating the homophobic linkage of homosexuality with a ‘‘ culture of death ’’ that it ends up ignoring the complexity and diversity of what has historically constituted queer (lesbian and transgender as well asgay) politics. Missing, for instance, is a serious and sustained attempt to engage with the multiple transformations theconcepts of reproduction and parenthood have undergone in the last two decades, partly as a result of the interventions of queer theory itself. Equally absent is any analytical concern with the cultural and representational resonances of the queer child – a ﬁgure that certainly complicates the book’s one-dimensional treatment of the image of besieged childhood, whilemaking apparent the unreﬂectively eclectic and historically untheorized nature of Edelman’s choice of primary texts. The effect of such exclusions – a highly repetitive account of texts that are treated as virtually interchangeable – is particularly troubling from a theoretical standpoint. For though Edelman’s argument largely rests on a theoretical distinction betweenan ideologically normative and a radically destabilizing kind of repetition compulsion, his analytical practice makes thedifference between them less than obvious. Paying the reader diminishing dividends with each page, No Future bulldozesits way from Plato to the Victorians and from Hitchcock to Judith Butler by unwaveringly locating the same Manicheanconﬂict between reproductive ideology and its queer negation, a struggle to the death between monolithic and unchangingabsolutes. To declare No Future a timely work is hence not an unambiguous compliment; for its timeliness comes at the cost of intellectual surrender to the increasingly polarized and disconcertingly fundamentalist climate of American politicsin the present. 170

#### Queer theory is too personal and divisive—undermines real liberation movements.

Kirsch 00

(Max H., Associate Professor and Director of the Ph.D. Program in Comparative Studies: The PublicIntellectuals Program at the Florida Atlantic University, Routledge, “Queer theory and social change”, p114-115,http://books.google.com/books?id=Sfd82XETptUC&source=gbs\_navlinks\_s)

Queer theory, as currently focused, is embedded in the context of class oppositions, and, paradoxically, the consequences of the theory are not what it appears to avow or what it contends it is. Instead of a force that opposes the dominance of power by those that control capital, it works as a part of the ideological mechanism that those in power seek to further. With the language of part radical movements, Queer theory works against the struggle it claims to engage, and as reified self-involvement it militates against the construction and building of communities. It disengages the energetic level of alliance sand interpersonal relations, only to refocus efforts on the reductionistic deconstruction of texts interpreted only for personal use. The presence of conflict among peoples is tied to the struggle to maintain community and identity. What presents as senseless bigotry, sometimes resulting in genocide, is rooted in the anxious fight to maintain families, communities, and ensure survival. These are not individual functions. Their strategies, misconceived and misdirected, are a directconsequence of the loss of self-empowerment and control over everyday life. Capitalism, in this way, gives rise to psychological as well as social consequences.

## Queer Theory Bad

## At: Queer Theory

### At: Politics = Assimilation

#### Political engagement isn’t queer assimilation – it radically changes the terms of the political itself. The social order is NOT inevitably exclusive to queers – working through the political process can and does produce not just a better but a different social order for queers.

John Brenkman, Distinguished Professor of English and Comparative Literature at the CUNY Graduate Center and Baruch College, 2002, Narrative, Vol. 10, No. 2, p. 188-189

Innovation is a crucial concept for understanding the gay and lesbian movement, which emerged from within civil society as citizens who were stigmatized and often criminalized for their sexual lives created new forms of association, transformed their own lifeworld, and organized a political offensive on behalf of political and social reforms. There was an innovation of rights and freedoms, and what I have called innovations in sociality. Contrary to the liberal interpretation of liberal rights and freedoms, I do not think that gays and lesbians have merely sought their place at the table. Their struggle has radically altered the scope and meaning of the liberal rights and freedoms they sought, first and foremost by making them include sexuality, sexual practices, and the shape of household and family. Where the movement has succeeded in changing the laws of the state, it has also opened up new possibilities within civil society. To take an obvious example, wherever it becomes unlawful to deny housing to individuals because they are gay, there is set in motion a transformation of the everyday life of neighborhoods, including the lives of heterosexuals and their children. [End Page 188] Within civil society, this is a work of enlightenment, however uneven and fraught and frequently dangerous. It is not a reaffirmation of the symbolic and structural underpinnings of homophobia; on the contrary, it is a challenge to homophobia and a volatilizing of social relations within the nonpolitical realm.

### Alt Fails (Gender)

#### Queer theory reinforces masculine dominance

Meredith Render. 2006 [Practicing Attorney, Washington, D.C, “MISOGYNY, ANDROGYNY, AND SEXUAL HARASSMENT: SEX DISCRIMINATION IN A GENDER-DECONSTRUCTED WORLD,” http://digitalcommons.law.umaryland.edu/cgi/viewcontent.cgi?article=1213&context=fac\_pubs]

Herein lies the problem for women. By focusing on the heterosexual norm, queer theory fails to account for the animus that is directed toward those who dissent from the masculine norm. Deconstructing gender becomes a project aimed at dismantling the stigmatizing “difference” of gender non-conformity, not redeeming deviation from the masculine norm. Queer theory then would erase gendered categories: there are no more bi- nary distinctions, and consequently the full range of gendered identities and expressions are available to all, irrespective of birth-sex. However, because the category feminine was not relatively redeemed prior to its abandonment, femininity remains disfavored. As a result, while difference from the heterosexual norm becomes obscured, the existing dominant ideal of masculinity remains intact, and masculinity or femininity choices are recast in assimilation or exclusion from the sole remaining paradigm.66 Androcentricism is permitted to remain ideal because gendered equality was never the priority of queer theory gender deconstruction; binary gendered concepts are themselves the target of the deconstruction. But in failing to account for the fact that not only were our gendered constructs falsely binary— they were (importantly from a feminist perspective) hierarchically ordered—queer theory gender deconstruction simply allowed the existing dominant gendered paradigm S(consisting of an andro-ideal) to subsume the already devalued subordinate paradigm of femininity. Androgyny was idealized and femininity left, again, to fend for itself amid residual misogynistic stereotypes. In this way femininity suffered in the queer theory paradigm, but largely by omission from the queer theory egalitarian project. But I would go further. I would argue that queer theory’s version of gender deconstruction made its own unique contribution to both the construction and preeminence of the androcentric-assimilation model of female liberation.

#### Queer theory privileges men and promotes a worse form of misogyny than the status quo

Meredith Render. 2006 [Practicing Attorney, Washington, D.C, “MISOGYNY, ANDROGYNY, AND SEXUAL HARASSMENT: SEX DISCRIMINATION IN A GENDER-DECONSTRUCTED WORLD,” http://digitalcommons.law.umaryland.edu/cgi/viewcontent.cgi?article=1213&context=fac\_pubs]

It makes intuitive sense that gender deconstruction should be of particular import in the queer paradigm.67 The idea that gendered birth-sex expectations are oppressive and socially constructed has obvious implications for queer individuals.68 Also, unlike the dominant (non-queer) paradigm, in the queer paradigm, gender roles operate as an oppressive force against both genders. Consequently, one might think that the queer theory gender deconstruction paradigm would have adopted a model that disaggregated femininity from birth-sex, but which equally valued both feminine and non-feminine expression in either men or women. However, it is interesting to consider the extent to which a non-hierarchical approach, which would seem to flow so naturally from the queer paradigm, has not been realized, at least anecdotally, in the queer community.69 What appears to have happened instead is that the queer paradigm has adopted a model of androcentric-ideal that is surprisingly more entrenched and more misogynist in the most traditional sense of misogyny (i.e., attributing subordinating stereotypes to feminine qualities and expressions) than anything found in non-queer culture.70 This seemingly bizarre result could potentially be explained in a few ways. One possible explanation involves what many have observed as the increased stake that a subordinated group has in retaining or accessing relative privilege.72 In the queer context, queer men may have an increased stake in retaining male privilege because they are otherwise subordinated in the dominant paradigm. Similarly, queer-identiªed women may have an increased stake—as compared to non-queer-identiªed women—in accessing male privilege because they, too, are otherwise particularly subordinated in the dominant paradigm.73 As a result of this increased need to retain or access male privilege, dissociation from and devaluing of femininity becomes more important in the queer paradigm than in the non-queer paradigm.

### Alt Fails (Intersectionality)

Alt fails - Queer theory fails to provide a space for analysis of intersectionality

Amy Goodloe. 1994 [[University of Colorado](http://colorado.academia.edu/) Faculty Member, [Program for Writing and Rhetoric](http://colorado.academia.edu/Departments/Program_for_Writing_and_Rhetoric), “Lesbian-Feminism and Queer Theory:  Another "Battle of the Sexes"?,” http://www.lesbian.org/essays/lesfem-qtheory.html ]

Various theories, such as Queer Theory and Critical Race Theory, have been developed in response to poststructuralist and neo-Marxist theories, and global changes relative to contemporized perceptions of sexuality. Queer Theory rejects the feminist essentialist notions of ‘desexualising’, and ‘assimilation’, as well as the notion of ‘heteronormativity’, which is institutionalised, heterosexual power, articulated in terms of white legitimized dominion and power (Loutzenheiser & MacIntosh, 2004; Hall, 2003). Queer Theory does not label gays and lesbians as such. Rather, it posits all sexualities, which include bisexuals and transgenders, into the encompassing category of ‘queer’ (Loutzenheiser & MacIntosh, 2004; Hall, 2003; Lugg, 2003). Such a view underpins and eliminates all other theories that reproduce heterosexual values. Queer Theory fails, however, to consider factors of ‘multidimensionality’ and ‘intersectionality’ that challenge minority ethnic groups. ‘Multidimensionality’ means that an individual has a multiple identity. A person has a sexuality, a class, and an ethnicity, for example. ‘Intersectionality’ is a recognition that race and sex are connected (Lugg, 2003; Pallotta-Chiarolli, 1999). Understandably, a number of critics (Lugg, 2003; Pallotta-Chiarolli, 1999; Loutzenheiser & MacIntosh, 2004; Reid-Pharr, 2002) have recommended that race theory be interwoven with Queer Theory. Critical Race Theory, which is more action oriented, and responds well to this challenge because of its empowering interpretation of ethnicity and class. Illustratively, ‘Asian immigrants experience race precisely as a function of sexuality’ quite differently to white ethnic groups (Reid-Pharr, 2002). Therefore, a framework that incorporates both Queer Theory and Critical Race Theory would be beneficial in deconstructing sexuality justice issues in the multicultural milieu.

## AT Ableism

## At: Ableism

### Perm Solvency

#### Government action can help support the fight against disablism

Paul Miller, Sophia Parker and Sarah Gillinson. 2004. Disablism: How to Tackle the Last Prejudice. Demos. 12-13.

As with racism and sexism, disablism is the concern of everybody – and everybody needs to be involved in its eradication. Therefore the disability rights movement is unlikely to achieve the scale of change that is required to achieve a ‘step change’ in the lives of disabled people in this country on its own. Such a step change will, logically, require a fundamental shift in attitudes and culture in British society, underpinned by law, rooted in the human and civil rights of disabled people. To achieve this it will be necessary to build a movement for change – one that finds sufficient common ground between disabled and non-disabled people, between the rights movement and disability charities, and between disability organisations and government, employers and other key stakeholders. Individual stakeholders cannot hope to bring this scale of change about on their own; together we might stand a chance. But seeing whether this is possible or not is fraught with difficulty. The disability world is hugely under-resourced and undervalued; trust is at a premium, often for good reason. The experience and in some cases the practice of working with disability charities has been problematic, to say the least. Government alone cannot effect such change, though it can do much to support it. Companies can similarly reinforce and underpin this process for change, but – as employers and providers of goods and services – it would go beyond their function and purpose to play a more proactive and catalytic role. So we need to move things forward, one step at a time. But each step that we take should be informed by a broader vision of the change in society that we want to bring about.

### No Impact/Ableism Inevitable

#### Ableism is not always negative and is inevitable

Gregor Wolbring. 2011. Dept. of Community Health Sciences at the University of Calgary, Alberta, Canada. Ableism and Energy Security and Insecurity. Studies in Ethics, Law, and Technology. Vol. 5. Issue 1. Article 3.

However, the favoritism for abilities and ableism is a much broader phenomenon. Every person cherishes certain abilities and finds others non- essential. The list of abilities one can cherish is endless with abilities added to the list all the time. The capability approach, the ability-to-do approach was developed by Amartya Sen, Martha Nussbaum and Sudhir Anand (for many articles on this topic see (Human Development and Capability Association 2010). Nussbaum generated a list of 10 essential capabilities (Nussbaum 2000) whereby capability in the end is the ability to act, to have access to and to have the opportunity. A social policy frame identifies certain abilities as essential that people should have the right to act on, and so exhibits certain forms of ableisms. The cherishing of abilities happens on the level of individuals as well as on the level of households, communities, groups, sectors, regions, countries and cultures (Wolbring 2008a) and has changed over time and will continue to change. Favoring certain abilities often morphs into ableism where one not only cherishes certain abilities but where one sees certain abilities in oneself or others as essential. Ableism leads to an ability-based and ability-justified understanding of oneself, one’s body and one’s relationship with others of one’s species, other species and one’s environment (Wolbring 2008a). Ableism as such is not negative it just highlights that one favours certain abilities and sees them as essential. One could choose to cherish the ability to maintain equity for one’s members and members of a society could see this as positive. However, certain ableisms have historically been used and still are used by various social groups to justify their elevated level of rights and status in relation to other social groups, other species, and the environment (Wolbring 2008a;Wolbring 2008b;Wolbring 2008c). Certain ableisms are used to justify racism, sexism, cast-ism, ageism and speciesism(Wolbring 2008a;Wolbring 2008b;Wolbring 2008c). Ableism used in a negative way often leads to disablism, (Miller, Parker, and Gillinson 2004) the lack of accommodation for the needs of people and other biological structures who are seen to not have certain abilities; the unwillingness to adapt to the needs of others.

# 1AC- Round 8

### Plan

#### The United States Department of Defense should procure small modular reactors for use on military bases within the United States.

### Advantage 1- Islanding

#### Small nuclear reactors key to prevent bases from being vulnerable to inevitable grid outages- the impact is nuclear war

Andres and Breetz 11

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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.

#### Grids goes down- laundry list of reasons

Slavo 7/12

(Mac is editor of shftplan, “UPDATE: Cascading Grid Crash: Now 600 Million Without Power in India (Are We Vulnerable?)” <http://www.shtfplan.com/headline-news/paralysis-grid-down-in-india-370-million-left-without-power_07302012>, SEH)

The power grid in the United States, while more advanced and apparently better maintained, is also under excessive strain as has been witnessed in recent years with rolling brownouts, blackouts, and unforeseen crashes resulting from key component failure.¶ One industry insider who has worked in the utility industry for nearly two decades advised this author recently that it wouldn’t take much to bring down the system even in the United States, potentially affecting tens of millions of customers. Though it’s the 21st century, many grid components in operation are, in some cases, as much as 40 years old, thus replacement parts are almost impossible to find. Other components, like massive transformers may take weeks or months to replace. In the event of a scenario where multiple components are targeted simultaneously, by either a man-made EMP or natural event, it is not too far of a stretch to suggest that the afflicted regions would be engulfed in pandemonium.¶ This potential for widespread failure is so plausible that former Congressman Roscoe Bartlett, who has spoken on the vulnerabilities of the US power grid, has advised that Those Who Can, Should Move Their Families Out Of the City:¶ After Hurricane Ike passed through the Houston area 2008 some 90% of the metropolitan was without power. While hospitals, police and critical infrastructure was restored within a few days, residents in outlying suburban areas experienced the outage for over three weeks. We witnessed the rapid loss of patience, increased anxiety and frustration, and the subsequent breakdown of interpersonal interaction at high-demand venues such as gas stations, where long lines, screaming matches and even fist fights became a common occurrence.¶ The bottom line: As demonstrated in India today, Quebec in 1989 (caused by a geo-magnetic storm originating from the sun), Ike in 2008, Hurricane Irene on the East coast in 2012 and the plethora of incidents that have taken place over the last couple of decades, the North American power grid, just as India’s, is susceptible to far-from-equilibrium situations, and sometimes it takes extended periods of time to get power up and running.¶ With just three major grids running the United States, our dependence on massive flows of electricity to power our home air conditioners, food refrigeration, communications, water and gas pump systems, and daily business operations could come to a screeching halt should the grid ever be struck by a natural disaster like a solar coronal mass ejection or a large-scale earthquake in California or on the Madrid fault. Likewise, as we’ve noted previously, rogue organizations looking to wreak havoc have already demonstrated the staggering security holes in our power, water and oil grid infrastructure, with leading cyber security firms noting that it is just a matter of time before disaster strikes.¶ While a short-term, isolated metropolitan outage can be dealt with by sourcing labor and supplies from unaffected areas of the country, considering that the US operates on three key power grid systems, a region-wide outage affecting just one of these nodes could lead to a cascading breakdown in the electrical power system that envelops the entire country.¶ The most dangerous possibility emerges when we look at threats posed by the sun or a rogue terror cell or nation that could deploy an Electro-Magnetic Pulse weapon (EMP / Super EMP) over American skies. It’s been surmised that either one of these possibilities could cause damage so staggering that the grid would be down for months, leaving millions without just-in-time food and gas delivery systems, medical care, local emergency response, or even clean water. According to one estimate, some 90% of Americans would die in such a scenario if the power wasn’t restored within one year.¶ Thus, it is clear that our power grids are a critical lifeline to keeping life as we know it in the world today operational. And, as we have seen historically and India this morning, power grids can and do crash – even in countries with hundreds of millions of residents.

#### Al Qaeda can and will pull off a cyber-attack – Al Qaeda video proves

Cloherty ‘12

(Jack Cloherty is the lead producer for the Justice Department/Homeland Security beat at World News. “Virtual Terrorism: Al Qaeda Video Calls for 'Electronic Jihad'” May 22, 2012 accessed online September 15, 2012 at http://abcnews.go.com/Politics/cyber-terrorism-al-qaeda-video-calls-electronic-jihad/story?id=16407875#.UFS0p42PVe-, TSW)

Al Qaeda may be turning its destructive attention to cyber-warfare against the United States. In a chilling video, an al Qaeda operative calls for "electronic jihad" against the United States, and compares vulnerabilities in vital American computer networks to the flaws in aviation security before the 9/11 attack.¶ The al Qaeda video calls upon the "covert mujahidin" to launch cyber attacks against the U.S. networks of both government and critical infrastructure, including the electric grid. The video was obtained by the FBI last year, and released today by the Senate Committee on Homeland Security and Governmental Affairs.¶ "This is the clearest evidence we've seen that al Qaeda and other terrorist groups want to attack the cyber systems of our critical infrastructure," Homeland Security and Governmental Affairs Committee Chairman Joe Lieberman, I-Conn., said in a statement.¶ "This video is troubling as it urges al Qaeda adherents to launch a cyber attack on America," said Sen. Susan Collins, R-Maine, the ranking member on the committee. "It's clear that al Qaeda is exploring all means to do us harm and this is evidence that our critical infrastructure is a target."¶ ¶ Dept. of Homeland Security¶ In this screenshot obtained by the FBI, an Al... View Full Size¶ ¶ If Israel Attacks Iran Watch Video¶ The national security community says the threat of cyber attack is real, and the gap between terrorist aspirations and capability is closing. The senior intelligence official at Cyber Command, Rear Adm. Samuel Cox, has said al Qaeda operatives are seeking the capability to stage cyber attacks against U.S. networks and terrorists could purchase the capabilities to do so from expert criminal hackers.¶ Increasing evidence also suggests that Iran is looking to commit cyber attacks against the United States, according to testimony last month before the House Committee on Homeland Security. Iran's sponsorship of terrorist groups takes on a new dimension in cyberspace, where it could develop a powerful cyber weapon and pass it on to a terrorist group..¶ Lieberman is using the al Qaeda video to underline what he says is the need for new legislation..¶ "Congress needs to act now to protect the American public from a possible devastating attack on our electric grid, water delivery systems, or financial networks," he said. "As numerous, bipartisan national security experts have said, minimum cyber security standards for those networks are necessary to protect our national and economic security. That is why the Senate needs to act on our bipartisan Cyber Security Act that requires minimum security performance requirements for key critical infrastructure cyber networks."¶ The Homeland Security Committee says the Department of Homeland Security received more than 50,000 reports of cyber intrusions or attempted intrusions since October, an increase of 10,000 reports over the same period the previous year.

#### Current policy of cyber deterrence risks spoofing- leads to nuclear war.

Gelinas 10

(Ryan Richard, thesis for Master of Arts¶ in Security Studies from Georgetown, “CYBERDETERRENCE AND THE PROBLEM OF ATTRIBUTION” <https://repository.library.georgetown.edu/bitstream/handle/10822/553494/gelinasRyan.pdf?sequence=1>, SEH)

The set of cases analyzed here demonstrate decisively that attribution of cyber attacks is ¶ technically difficult and often politically unpalatable. Established networking protocols allow ¶ easy spoofing and obfuscation of source, destination, and intent of packets as they stream around ¶ the world. Attribution, as demonstrated in these cases, is often circumstantial at best. While ¶ victims often have strong suspicions of attackers‘ identities built from pieces of intelligence, the ¶ decisions of war and peace involved in a deterrence policy require a higher level of confidence ¶ than a measured hunch. To reach even elementary levels of attribution significant resources, ¶ expertise, and time are required.¶ The chilling suspicion of the unknown unknowns, the realization that undetected attacks ¶ may be underway at any moment, is potentially paralyzing to any deterrence policy. A ¶ deterrence policy of ―I will attack you back if you attack me, but only if I find out that you did it‖ ¶ is not an appropriate cornerstone of a computer network defense strategy. Without a response, ¶ an attacker can assume that the victim is either unable to detect the attack or, even more ¶ emboldening, the victim is unable or unwilling to make good on its threat. Cyber attacks can be ¶ a powerful part of salami tactics on the part of the attacker. If attacks are unable to generate a ¶ deterrent response in the cyber realm, what other lines can the attacker cross?¶ Addressing cases where the victim state realizes that it is being attacked, Lt. Gen. Keith ¶ Alexander, director of the National Security Agency, recently proposed that his future U.S. ¶ CYBERCOMMAND would support a deterrence doctrine by attacking back in a proportional and discriminating way against the sources of any cyber attack against the United States.¶ 69¶ He ¶ extended this case specifically to those where the identities of the attackers are unknown. ¶ According to Gen. Alexander, the U.S. will attack back in accordance with the rules of ¶ engagement and in accordance with the principles of proportionality and discrimination, with the ¶ caveat that ―neither proportionality nor discrimination requires that we know who is responsible ¶ before we take defensive action.‖¶ 70¶ With statements like this, Gen. Alexander and others are ¶ providing a strong incentive for enemies of the U.S. to launch cyber attacks on the United States ¶ from third-party territory, hoping to lure the U.S. into conflict with a nation that had no role in or ¶ idea of the attack.¶ What the cases analyzed in this paper illustrate is that deterrence is a phenomenally poor ¶ choice as a core component in a computer network defense strategy. Bloviation and bluster, ¶ vowing deterrent responses to attacks, make for good sound bites and allow for easy porting of¶ deep deterrence scholarship to the cyber realm. But less flashy policies and measures are more ¶ effective. Defense in depth, better security standards for software and hardware, robust ¶ computer network intelligence systems, and information sharing between and among industry ¶ and government are all good and necessary elements of a more successful computer network ¶ defense strategy. Combined with aggressive hack-back defensive measures that work to disrupt ¶ or exploit attacker infrastructure, vital networks will be better defended and deterrence as a ¶ general national policy tool will be better preserved for realms where it is more applicable.

#### That risks terrorism

Defense Science Board 8

(The DSB is a Federal ¶ Advisory Committee established to provide independent advice to the Secretary of ¶ Defense, “More Fight – Less Fuel” <http://www.acq.osd.mil/dsb/reports/ADA477619.pdf>, SEH)

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. About 85% of the energy infrastructure upon which DoD ¶ depends is commercially owned, and 99% of the electrical energy DoD installations ¶ consume originates outside the fence.¶ 3¶ As noted below, however, the grid 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. ¶ 2.3.1 State of the Grid ¶ The U.S.-Canadian electric grid is very efficient and cost effective but its design metric ¶ is efficiency more than resiliency. As a consequence, it is vulnerable to natural disaster or deliberate attack. The Task Force received several briefings from the Mission ¶ Assurance Division at Dahlgren (MAD), the Department of Energy and the utility ¶ industry. Based on these briefings, the Task Force is concerned about the condition of ¶ the grid and the ability to effect timely repairs. ¶ This concern extends not only to the complete dependency of critical national security ¶ missions on the grid, but also to its centrality to all facets of the nation’s economic life. ¶ To appreciate the seriousness of the impacts of an extended disruption, consider the ¶ 2003 Northeast blackout. At around 4:15pm EST on August 14, 2003 about 50 million ¶ people living in a 9,300 square mile area in the U.S. and Canada lost electrical power. ¶ More than 500 generating units at 265 power plants shut down during the outage, 22 of ¶ which were nuclear. Those plants took about two weeks to regain full capacity, and lost ¶ an average of more than half their capacity for 12 days. The shutdown was in part ¶ precautionary in nature. If an imbalance between load and supply occurs, power lines ¶ grow longer and sag from overheating and other hardware can fail. These imbalances ¶ can damage equipment that is hard-to-repair, requires long lead time to produce and is ¶ expensive. So, the grid quickly disconnects itself when a threatening imbalance is ¶ detected. Nuclear plants are required for safety reasons to shut down when the grid ¶ they’re connected to is de-energized.¶ 4¶ A U.S.-Canada Task Force found the main cause of the blackout to be the failure of a ¶ utility in Ohio to properly trim trees near a power line, causing the first in what became a ¶ set of cascading failures.¶ 5¶ Secretary of Energy Spencer Abraham said there would be ¶ no punishment for the utility because current U.S. law does not require electric reliability ¶ standards. However, the Energy Policy Act of 2005 (EPAct 2005) gave the Federal ¶ Energy Regulatory Commission (FERC) new authority to direct the industry to develop ¶ reliability standards. It directs FERC to designate an Electric Reliability Organization ¶ (ERO) to develop and propose reliability standards, which only after agreement by the ¶ industry become mandatory. The ERO chosen by the FERC is a volunteer, industry run ¶ organization. While FERC oversight of industry developed standards is an ¶ improvement over the previous situation, the Task Force remains concerned that FERC ¶ may be unable to reduce the risk to critical DoD missions to acceptable levels in a ¶ reasonable timeframe. ¶ Some have argued that the August 2003 incident shows that the protections built into ¶ the grid worked. Within several hours electricity was restored to many areas, though a ¶ few areas waited nearly a week. However, the incident highlights how easily the power ¶ grid could be taken down. Also, quick restoration was possible because no significant ¶ equipment was damaged, something that might not occur in future incidents. Further, ¶ during the blackout most systems failed that would detect unauthorized border ¶ crossings, port landings, or unauthorized access to vulnerable sites. Future such blackouts could be exploited for terrorist activity, with potentially far more catastrophic ¶ results. ¶ These risks exist elsewhere than in the U.S. For example, on September 28, 2003 Italy ¶ experienced the largest of a series of blackouts suffered through that year, affecting a ¶ total of 56 million people, and spilling into Switzerland.¶ 6¶ It was also the most serious ¶ blackout in Italy in 20 years. DoD installations located outside the continental United ¶ States (OCONUS) are dependent on the commercial grids serving their locations. ¶ Security of their power supplies and continuation of their missions is as important as ¶ within the U.S.

#### Numerous attempts prove our impact

Wagner 9/11

(Dr. Abraham R. Wagner is a Professor of International and Public Affairs at the ¶ Arnold A. Saltzman Institute of War & Peace Studies at Columbia University. “Counter-Terrorism Technologies -- Taking Stock on 9/11” 09/11/2012 2:13 pm accessed online September 11, 2012 at <http://www.huffingtonpost.com/abraham-r-wagner/counterterrorism-technolo_b_1874521.html>, TSW)

On this 11th anniversary of the 9/11 attacks, it makes sense to take stock of where the nation has progressed in its effort to deter and combat future terrorist attacks, both at home and abroad. The 9/11 attacks came as a shock, and have rightfully come to be regarded as a major U.S. intelligence failure. In the aftermath, the nation undertook significant organizational reforms designed to enable more effective intelligence and law enforcement operations against evolving terrorist threats. The country also looked to see what science, engineering and technology could do to help addresses these threats.¶ Technology has long been the nation's strong suit. Americans tend to believe that where there is a problem, there must certainly be a solution and it most likely involves technology and money. During the decade that followed 9/11, billions of dollars were spent on a vast range of programs and technologies in the name of counter-terrorism. For the first two years after 9/11, I joined with other scientists and engineers at the Department of Defense and the Intelligence Community in efforts to identify the most promising approaches to the problem. Ultimately we found that there was no magic bullet or perfect solution to this thorny problem, but were able to suggest a range of investments that could be made to address the evolving terrorist threat.¶ An honest assessment of these investments in counter-terrorism technologies reveals that the results have been mixed -- as one might well expect. A combination of greatly improved intelligence and law enforcement personnel have employed some of the better technologies with considerable success. Indeed, some 45 terrorist plots have been stopped and others deterred. How much of this has been simply luck and how much can be traced to any new technology program is a matter of debate, and there are clearly examples of both that can be found.¶ One area where technology has made a significant contribution has been in new systems to aid in intelligence and surveillance against terrorist operations. While terrorists may hold to an eighth century ideology, they have not been reluctant to employ 21st century communications and information technologies. They have utilized the Internet and cell phones for a number of purposes, and at the time of 9/11 the nation was in need of systems to intercept and sort out terrorist communications. While highly sensitive, public disclosures about several key programs show that considerable progress has been made in this critical area, giving the intelligence agencies some key tools in locating terrorists and stopping their plots. Aside from communications intercept, a new area of "data mining" has also shown considerable promise in locating terrorists and their plots.¶ At the same time, several of key surveillance programs used for counter-terrorism have come under fire from civil liberties groups as being unconstitutional violations of the Fourth Amendment privacy protections, and others. Critics of the Bush Administration saw this as "running roughshod over the Constitution." Even now there are still federal court challenges to laws such as the 2008 FISA Amendments Act and others that have enabled counter-terrorist efforts since 9/11. Ultimately a balance needs to be struck between the essential needs for intelligence to thwart future attacks and protected privacy rights, but as yet it remains an unsettled area where the Supreme Court will need to rule at some future point in time.¶ Less controversial have been efforts over the past decade to employ new information technologies to what has been termed the Information Sharing Environment -- collaborative efforts to best utilize available intelligence and other data among the various federal, state and local agencies with counter-terrorism responsibilities. While certainly some progress has been made over the past 11 years, the net result is largely a national embarrassment, and clearly a triumph of politics over physics. The information and communications technologies are all well-developed, but multiple bureaucracies have generated a set of plans and an even larger set of excuses as to why the fundamental problems in this area remain to be solved.

#### Leads to a bioattack.

De Rugy and Pena 2

, \*policy analyst, \*senior defense policy analyst at the Cato Institute, (Veronique and Charles, “ Responding to the Threat of Smallpox Bioterrorism An Ounce of Prevention Is Best Approach” April 18, Policy Analysis No. 432 <http://www.cato.org/pubs/pas/pa434.pdf>)

There is evidence that al-Qaeda members have been trying to acquire nuclear materials since at least 1994 and have experimented with using chemical weapons (cyanide).4 Intelligence sources have pointed to an alQaeda training camp (called abu-Khabab after the Egyptian chemical-biological weapons expert who directed it) outside Jalalabad, Afghanistan, as a chemical and biological weapons training facility.5 And a manual (“Encyclopedia of Afghan Resistance”) distributed on CD-ROM includes a section on how to make chemical and biological weapons.6 Finally, there is evidence that the September 11 terrorists were interested in crop-dusters, which could be used to distribute a chemical or biological agent.7 Terrorism and WMD Although the use of any WMD by a terrorist group would be an event of devastating proportions, there are differences worth noting and understanding between potential nuclear, chemical, and biological terrorist attacks. A low-yield nuclear weapon would cause immediate damage to a circumscribed area by explosive blast, overpressure, extreme heat, and radiation. If such a weapon were detonated in a major metropolitan area, the casualties would likely be in excess of 100,000 dead, injured, and subjected to lethal doses of radiation.8 The Aum Shinrikyo cult used a chemical weapon, Sarin (a nerve agent so deadly that a single drop on the skin can be fatal) in the 1995 Tokyo subway attack. The attack was not a complete success because of ineffective dissemination, but 12 people died and nearly 3,800 were injured.9 Aum Shinrikyo also used VX (10 to 1,000 times stronger than Sarin) in four other attacks. Those attacks were targeted against specific individuals or groups of people rather than aimed at inflicting massive casualties. In one instance, there was 1 fatality and in another 20 deaths, but the other attacks failed because of ineffective release of the VX agent.10 It is estimated that, under ideal conditions, a quart of VX properly distributed in a major metropolitan area could kill about 12 million people in 60 minutes.11 As catastrophic as either a nuclear or a chemical terrorist attack would be, the effects of the attack would be immediate and limited to people in the vicinity of the attack. Although the damage and casualties would likely be an order of magnitude or more greater than those of the World Trade Center attacks, it would be possible to know that an attack had taken place and respond accordingly. According to D. A. Henderson at Johns Hopkins University, “After an explosion or a chemical attack, the worst effects are quickly over, the dimensions of the catastrophe can be defined, the toll of injuries and deaths can be ascertained, and efforts can be directed to stabilization and recovery.”12 Bioterrorism Is Different from Nuclear or Chemical Attacks The nature of bioterrorism, however, is very different from that of nuclear or chemical attacks. Biological agents are diseasecausing organisms. If the organisms used are contagious pathogens, their effects can be passed on unknowingly, thereby spreading the damage well beyond the people who are initially infected. If successful, a smallpox attack could be more devastating than even a nuclear weapon. Unlike a nuclear or chemical attack, a biological attack would not be detected immediately; there is usually an incubation period of several days to a few weeks before the first symptoms appear in infected persons. Furthermore, it would be difficult to know immediately whether infection was the result of a natural outbreak of a disease or of a premeditated release of the pathogen. And even if there is an antidote for the disease, detection of the attack may occur too late for the antidote to be effective. The devastation that could be caused by a biological attack can be demonstrated by the natural outbreak of influenza in the United States during the winter of 1918–19. The first signs of the influenza virus (the symptoms being no different than those of a common cold, which further highlights the difficulties associated with detecting and diagnosing biological infection) occurred in the spring of 1918 in military camps throughout the United States. American soldiers carried the flu to Europe where it mutated into a killer virus. Returning troops brought the disease back to the United States where it spread to the civilian population. By the fall of 1918 the United States was in the grips of an influenza epidemic that killed an estimated 675,000 Americans.13 But, unlike a natural outbreak of a disease such as influenza, a bioterrorist attack would be an intentional release of a deadly disease by a thinking enemy intent on inflicting mass casualties. In all likelihood, an effective bioterrorist attack would ultimately exact a similar or greater toll. The threat of bioterrorism is especially worrisome because of the vulnerability of the U.S. population to such an attack. Indeed, according to the Chemical and Biological Arms Control Institute, “The vulnerabilities of the United States to bioterrorism attack are virtually infinite.”14 As a result, the problem of bioterrorism can paralyze policymakers and response planners. Frequently, such a large threat is downplayed, dismissed, or ignored. For example, Milton Leitenberg at the Center for International and Security Studies at the University of Maryland wrote (before September 11), “As regards bioterrorism, the current national discussion is characterized by gross exaggeration, hype, and abstract vulnerability assessments.”15 Leitenberg further asserted, “The greatest problem that the United States—and the world—face regarding biological weapons is their proliferation among nation states, and not the potential of their use by non-state, or ‘terrorist’ actors.”16 In other words—at least before September 11—Leitenberg thought not only that the threat of bioterrorism was exaggerated but also that terrorists were not the problem the United States should focus on. September 11 demonstrated that the United States can ill afford such an attitude. No one can predict a bioterrorist attack with high certainty and confidence. But a simple “back of the envelope” threat assessment using a model used by Col. Lani Kass (USAF, Ret.) at the National War College,17 Vulnerability x Intentions x Capabilities = Threat provides insight about and understanding of the potential of a future bioterrorist attack. The vulnerability of the United States to such an attack is quite high. The attacks on the World Trade Center and the Pentagon demonstrate the seriousness of al-Qaeda’s intentions. The big unknown is whether alQaeda possesses the capabilities to carry out an attack with biological weapons. But, as demonstrated by September 11, the United States can ill afford to ignore the possibility. The Smallpox Threat A bioterrorist attack could come in one (or more) of many forms (plague, smallpox, or anthrax, for example). Of those, smallpox is the threat most often discussed. Concerns about smallpox as a potential bioweapon were heightened when Ken Alibek, a former deputy director of the Soviet Union’s civilian bioweapons program, alleged that the Soviet government produced the smallpox virus in large quantities and weaponized it. Alibek also contended that Russia continued the program after the disintegration of the USSR.18 Given the deterioration of the Russian military and the supporting industrial complex, there are legitimate concerns that equipment, expertise, and possibly even the virus or weaponized smallpox19 could have fallen into non-Russian hands.20 Smallpox is an especially serious threat because of its high case-fatality rate (30 percent or more of unvaccinated persons)21 and transmissibility (it spreads easily via inhalation of droplets or direct contact with contaminated objects such as clothing or bed linens).22 There is also no known effective treatment for smallpox.23 Smallpox has long been feared as the most devastating of all infectious diseases (before its supposed eradication from the world in 1978, smallpox had killed more people than any other infectious disease in human history),24 and its potential for devastation is far greater today since there has been no routine vaccination in the United States for more than 25 years. 25 Therefore, in a highly susceptible and mobile population, smallpox would be able to spread widely and rapidly. The smallpox virus is also easy to disperse. It is one of the smallest living organisms and can be easily prepared as an aerosol and released into the air in a crowded place such as a shopping mall or a sports stadium. Or a suicide terrorist with the virus could infect passersby simply by coughing and sneezing, which can release millions of virus particles into the air.26 One example of the magnitude of the consequences of a potential bioterrorist attack with smallpox is the Dark Winter exercise conducted in June 2001.27 Dark Winter was a fictional scenario depicting a terrorist attack using smallpox released via aerosol at three shopping malls in Oklahoma, Georgia, and Pennsylvania. On day 1 of the crisis (nine days after initial exposure), all that was known was that some two dozen people reported to hospitals in Oklahoma City (there were no similar signs of potential outbreak in Georgia and Pennsylvania where the dispersion was not as effective but nonetheless resulted in infected people) with flulike symptoms of a strange illness, which was later confirmed by the Centers for Disease Control as smallpox. Assuming that each case was expected to infect at least 10 other people,28 on day 6 of the crisis there were 2,000 known cases of smallpox and 300 deaths. Due to limited amounts (12 million doses) on hand, the reserve of smallpox vaccine was effectively used up on day 6. By day 12 of the crisis, there were 3,000 cases and 1,000 dead in 25 states. With no vaccine, the smallpox virus was projected to explode as follows: • After 3 weeks: 30,000 cases and 10,000 dead • After 5 weeks: 300,000 cases and 100,000 dead • After 7 weeks: 3 million cases and 1 million dead It is important to emphasize that the purpose of the Dark Winter exercise was not to make the case that smallpox is the weapon most likely to be used in a bioterrorist attack (it is impossible to make such predictions). However, the Dark Winter exercise did demonstrate that the use of a contagious pathogen as a weapon of bioterrorism can have devastating and far-reaching effects. The consequences of an attack with smallpox are potentially catastrophic, and such an attack is the only external threat to the continued existence of the United States other than a massive nuclear attack from Russia. Therefore, even if likelihood cannot be established, the effects of smallpox as a weapon of bioterrorism warrant taking the threat seriously in order to understand the efficacy of potential response options. Also, preventive measures, which might act as a potential deterrent, reduce the risk, and mitigate the consequences of an attack, need to be examined and evaluated.

#### Terrorists can obtain Bio-weapons and will use them – Syria Demise

Blair ‘12

(Charles P. Blair joined FAS in June 2010. He is the Senior Fellow on State and Non-State Threats. Born and raised in Los Alamos, New Mexico, Mr. Blair was an exchange student in Moscow in the mid-1980s, witnessing firsthand the closing salvos of the Cold War. Since the end of that era, Mr. Blair has worked on issues relating to the diffusion and diversification of weapons of mass destruction (WMD) in the context of proliferation amid the rise of mass casualty terrorism incidents and the centripetal and centrifugal elements of globalization. Mr. Blair’s work focuses on state and violent non-state actors (VNSA) – amid a dystopic and increasingly tribal world. “Fearful of a nuclear Iran? The real WMD nightmare is Syria” 1 MARCH 2012 accessed online August 22, 2012 at http://www.thebulletin.org/web-edition/op-eds/fearful-of-nuclear-iran-the-real-wmd-nightmare-syria)

As possible military action against Iran's suspected nuclear weapons program looms large in the public arena, far more international concern should be directed toward Syria and its weapons of mass destruction. When the Syrian uprising began more than a year ago, few predicted the regime of President Bashar al-Assad would ever teeter toward collapse. Now, though, the demise of Damascus's current leadership appears inevitable, and Syria's revolution will likely be an unpredictable, protracted, and grim affair. Some see similarities with Libya's civil war, during which persistent fears revolved around terrorist seizure of Libyan chemical weapons, or the Qaddafi regime's use of them against insurgents. Those fears turned out to be unfounded.¶ But the Libyan chemical stockpile consisted of several tons of aging mustard gas leaking from a half-dozen canisters that would have been impossible to utilize as weapons. Syria likely has one of the largest and most sophisticated chemical weapon programs in the world. Moreover, Syria may also possess an offensive biological weapons capability that Libya did not.¶ While it is uncertain whether the Syrian regime would consider using WMD against its domestic opponents, Syrian insurgents, unlike many of their Libyan counterparts, are increasingly sectarian and radicalized; indeed, many observers fear the uprising is being "hijacked" by jihadists. Terrorist groups active in the Syrian uprising have already demonstrated little compunction about the acquisition and use of WMD. In short, should Syria devolve into full-blown civil-war, the security of its WMD should be of profound concern, as sectarian insurgents and Islamist terrorist groups may stand poised to seize chemical and perhaps even biological weapons.¶ An enormous unconventional arsenal. Syria's chemical weapons stockpile is thought to be massive. One of only eight nations that is not a member of the Chemical Weapons Convention -- an arms control agreement that outlaws the production, possession, and use of chemical weapons -- Syria has a chemical arsenal that includes several hundred tons of blistering agents along with likely large stockpiles of deadly nerve agents, including VX, the most toxic of all chemical weapons. At least four large chemical weapon production facilities exist. Additionally, Syria likely stores its deadly chemical weapons at dozens of facilities throughout the fractious country. In contrast to Libya's unusable chemical stockpile, analysts emphasize that Syrian chemical agents are weaponized and deliverable. Insurgents and terrorists with past or present connections to the military might feasibly be able to effectively disseminate chemical agents over large populations. (The Global Security Newswire recently asserted that "[t]he Assad regime is thought to possess between 100 and 200 Scud missiles carrying warheads loaded with sarin nerve agent. The government is also believed to have several hundred tons of sarin agent and mustard gas stockpiled that could be used in air-dropped bombs and artillery shells, according to information compiled by the James Martin Center.")¶ Given its robust chemical weapons arsenal and its perceived need to deter Israel, Syria has long been suspected of having an active biological weapons program. Despite signing the Biological Weapons and Toxins Convention in 1972 (the treaty prohibits the development, production, and stockpiling of biological and toxin weapons), Syria never ratified the treaty. Some experts contend that any Syrian biological weapons program has not moved beyond the research and development phase. Still, Syria's biotechnical infrastructure undoubtedly has the capability to develop numerous biological weapon agents. After Israel destroyed a clandestine Syrian nuclear reactor in September 2007, Damascus may have accelerated its chemical and biological weapons programs.¶ It's hard to guard WMD when a government collapses. Although the United States and its allies are reportedly monitoring Syria's chemical weapons, recent history warns that securing them from theft or transfer is an extraordinary challenge. For example, during Operation Iraqi Freedom, more than 330 metric tons of military-grade high explosives vanished from Iraq's Al-Qaqaa military installation. Almost 200 tons of the most powerful of Iraq's high-explosives, HMX -- used by some states to detonate nuclear weapons -- was under International Atomic Energy Agency seal. Many tons of Al-Qaqaa's sealed HMX reportedly went missing in the early days of the war in Iraq. Forensic tests later revealed that some of these military-grade explosives were subsequently employed against US and coalition forces.¶ Even with a nationwide presence of 200,000 coalition troops, several other sensitive military sites were also looted, including Iraq's main nuclear complex, Tuwaitha. Should centralized authority crumble in Syria, it seems highly unlikely that the country's 50 chemical storage and manufacturing facilities -- and, possibly, biological weapon repositories -- can be secured. The US Defense Department recently estimated that it would take more than 75,000 US military personnel to guard Syria's chemical weapons. This is, of course, if they could arrive before any WMD were transferred or looted -- a highly unlikely prospect.¶ Complicating any efforts to secure Syria's WMD, post-Assad, are its porous borders. With Syria's government distracted by internal revolt and US forces now fully out of Iraq, it is plausible that stolen chemical or biological weapons could find their way across the Syrian border into Iraq. Similarly, Syrian WMD could be smuggled into southern Turkey, Jordan, Lebanon, the West Bank, Israel, and, potentially, the United States and Europe.¶ At least six formal terrorist organizations have long maintained personnel within Syria. Three of these groups -- Hamas, Hizbollah, and Palestinian Islamic Jihad -- have already attempted to acquire or use chemical or biological agents, or both. Perhaps more troubling, Al Qaeda-affiliated fighters from Iraq have streamed into Syria, acting, in part, on orders from Al Qaeda leader Ayman al-Zawahiri. In the past, Al Qaeda-in-Iraq fighters attempted to use chemical weapons, most notably attacks that sought to release large clouds of chlorine gas. The entry of Al Qaeda and other jihadist groups into the Syrian crisis underscores its increasingly sectarian manifestation. Nearly 40 percent of Syria's population consists of members of minority communities. Syria's ruling Alawite regime, a branch of Shia Islam, is considered heretical by many of Syria's majority Sunni Muslims -- even those who are not jihadists. Alawites, Druze, Kurds, and Christians could all become targets for WMD-armed Sunni jihadists. Similarly, Shiite radicals could conceivably employ WMD agents against Syria's Sunnis.¶ Religious fanaticism and WMD. Evidence of growing religious fanaticism is also reflected in recent Syrian suicide attacks. Since last December, at least five suicide attacks occurred in Syria. In the 40 years preceding, only two suicide attacks were recorded. Al Qaeda-linked mujahidin are believed to be responsible for all of these recent attacks. Civil wars are often the most violent and unpredictable manifestations of war. With expanding sectarian divisions, the use of seized WMD in Syria's uprising is plausible. To the extent that religious extremists believe that they are doing God's bidding, fundamentally any action they undertake is justified, no matter how abhorrent, since the "divine" ends are believed to legitimize PDF the means.¶ The situation in Syria is unprecedented. Never before has a WMD-armed country fallen into civil war. All states in the region stand poised to lose if these weapons find their way outside of Syria. The best possible outcome, in terms of controlling Syria's enormous WMD arsenal, would be for Assad to maintain power, but such an outcome seems increasingly implausible. And there is painfully little evidence that democratic forces are likely to take over in Syria. Even if they do eventually triumph, it will take months or years to consolidate control over the entire country.¶ If chaos ensues in Syria, the United States cannot go it alone in securing hundreds of tons of Syrian WMD. Regional leaders -- including some, such as Sunni Saudi Arabia and Shiite Iran, that are now backing the insurgency and the regime, respectively -- must come together and begin planning to avert a dispersion of Syrian chemical or biological weapons that would threaten everyone, of any political or religious persuasion, in the Middle East and around the world.

#### Extinction

Ochs 2

**(**Richard, Naturalist – Grand Teton National park with Masters in Natural Resource Management – Rutgers, “Biological Weapons must be abolished immediately” 6-9, http://www.freefromterror.net/other\_articles/abolish.html)

Of all the weapons of mass destruction, the genetically engineered biological weapons, many without a known cure or vaccine, are an extreme danger to the continued survival of life on earth. Any perceived military value or deterrence pales in comparison to the great risk these weapons pose just sitting in vials in laboratories. While a "nuclear winter," resulting from a massive exchange of nuclear weapons, could also kill off most of life on earth and severely compromise the health of future generations, they are easier to control. Biological weapons, on the other hand, can get out of control very easily, as the recent anthrax attacks has demonstrated. There is no way to guarantee the security of these doomsday weapons because very tiny amounts can be stolen or accidentally released and then grow or be grown to horrendous proportions. The Black Death of the Middle Ages would be small in comparison to the potential damage bioweapons could cause. Abolition of chemical weapons is less of a priority because, while they can also kill millions of people outright, their persistence in the environment would be less than nuclear or biological agents or more localized. Hence, chemical weapons would have a lesser effect on future generations of innocent people and the natural environment. Like the Holocaust, once a localized chemical extermination is over, it is over. With nuclear and biological weapons, the killing will probably never end. Radioactive elements last tens of thousands of years and will keep causing cancers virtually forever. Potentially worse than that, bio-engineered agents by the hundreds with no known cure could wreck even greater calamity on the human race than could persistent radiation. AIDS and ebola viruses are just a small example of recently emerging plagues with no known cure or vaccine. Can we imagine hundreds of such plagues? HUMAN EXTINCTION IS NOW POSSIBLE.

#### Even if it doesn’t kill everyone retaliation would

Conley 03

(Harry W., chief of the systems analysis Branch, Directorate of Requirements, Air and Space Power Journal- Spring 2003- http://www.airpower.maxwell.af.mil/airchronicles/apj/apj03/spr03/conley.html

The number of American casualties suffered due to a WMD attack may well be the most important variable in determining the nature of the US reprisal. A key question here is how many Americans would have to be killed to prompt a massive response by the United States. The bombing of marines in Lebanon, the Oklahoma City bombing, and the downing of Pan Am Flight 103 each resulted in a casualty count of roughly the same magnitude (150–300 deaths). Although these events caused anger and a desire for retaliation among the American public, they prompted no serious call for massive or nuclear retaliation. The body count from a single biological attack could easily be one or two orders of magnitude higher than the casualties caused by these events. Using the rule of proportionality as a guide, one could justifiably debate whether the United States should use massive force in responding to an event that resulted in only a few thousand deaths. However, what if the casualty count was around 300,000? Such an unthinkable result from a single CBW incident is not beyond the realm of possibility: “According to the U.S. Congress Office of Technology Assessment, 100 kg of anthrax spores delivered by an efficient aerosol generator on a large urban target would be between two and six times as lethal as a one megaton thermo-nuclear bomb.”46 Would the deaths of 300,000 Americans be enough to trigger a nuclear response? In this case, proportionality does not rule out the use of nuclear weapons. Besides simply the total number of casualties, the types of casualties- predominantly military versus civilian- will also affect the nature and scope of the US reprisal action. Military combat entails known risks, and the emotions resulting from a significant number of military casualties are not likely to be as forceful as they would be if the attack were against civilians. World War II provides perhaps the best examples for the kind of event or circumstance that would have to take place to trigger a nuclear response. A CBW event that produced a shock and death toll roughly equivalent to those arising from the attack on Pearl Harbor might be sufficient to prompt a nuclear retaliation. President Harry Truman’s decision to drop atomic bombs on Hiroshima and Nagasaki- based upon a calculation that up to one million casualties might be incurred in an invasion of the Japanese homeland 47- is an example of the kind of thought process that would have to occur prior to a nuclear response to a CBW event. Victor Utgoff suggests that “if nuclear retaliation is seen at the time to offer the best prospects for suppressing further CB attacks and speeding the defeat of the aggressor, and if the original attacks had caused severe damage that had outraged American or allied publics, nuclear retaliation would be more than just a possibility, whatever promises had been made.”48

### Advantage 2 Leadership

#### SMR key to nuclear leadership

Rosner and Goldberg 11

(Robert Rosner, astrophysicist and founding director of the Energy Policy Institute at Chicago. He was the director of Argonne National Laboratory from 2005 to 2009, Stephen Goldberg, Special Assistant to the Director, Argonne National Laboratory ¶ Senior Fellow, Energy Policy Institute at Chicago¶ Research Coordinator, Global Nuclear Future Initiative ¶ American Academy of Arts and Sciences, “Small Modular Reactors – Key to Future Nuclear Power ¶ Generation in the U.S.” Energy Policy Institute at Chicago, <http://csis.org/files/attachments/111129_SMR_White_Paper.pdf>, SEH)

As stated earlier, SMRs have the potential to achieve significant greenhouse gas emission ¶ reductions. They could provide alternative baseload power generation to facilitate the retirement ¶ of older, smaller, and less efficient coal generation plants that would, otherwise, not be good ¶ candidates for retrofitting carbon capture and storage technology. They could be deployed in ¶ regions of the U.S. and the world that have less potential for other forms of carbon-free ¶ electricity, such as solar or wind energy. There may be technical or market constraints, such as ¶ projected electricity demand growth and transmission capacity, which would support SMR ¶ deployment but not GW-scale LWRs. From the on-shore manufacturing perspective, a key point ¶ is that the manufacturing base needed for SMRs can be developed domestically. Thus, while the ¶ large commercial LWR industry is seeking to transplant portions of its supply chain from current ¶ foreign sources to the U.S., the SMR industry offers the potential to establish a large domestic ¶ manufacturing base building upon already existing U.S. manufacturing infrastructure and ¶ capability, including the Naval shipbuilding and underutilized domestic nuclear component and ¶ equipment plants. The study team learned that a number of sustainable domestic jobs could be ¶ created – that is, the full panoply of design, manufacturing, supplier, and construction activities – ¶ if the U.S. can establish itself as a credible and substantial designer and manufacturer of SMRs. ¶ While many SMR technologies are being studied around the world, a strong U.S. ¶ commercialization program can enable U.S. industry to be first to market SMRs, thereby serving ¶ as a fulcrum for export growth as well as a lever in influencing international decisions on ¶ deploying both nuclear reactor and nuclear fuel cycle technology. A viable U.S.-centric SMR ¶ industry would enable the U.S. to recapture technological leadership in commercial nuclear ¶ technology, which has been lost to suppliers in France, Japan, Korea, Russia, and, now rapidly ¶ emerging, China.

#### US dominance in SMR’s key to nuclear leadership which prevents proliferation

Loudermilk 11

(Micah J. Loudermilk is a Research Associate for the Energy & Environmental Security Policy program with the Institute for National Strategic Studies at National Defense University, “Small Nuclear Reactors and US Energy Security: Concepts, Capabilities, and Costs” Journal of Energy Security, May 2011, <http://www.ensec.org/index.php?option=com_content&view=article&id=314:small-nuclear-reactors-and-us-energy-security-concepts-capabilities-and-costs&catid=116:content0411&Itemid=375>, SEH)

Combating proliferation with US leadership¶ Reactor safety itself notwithstanding, many argue that the scattering of small reactors around the world would invariably lead to increased proliferation problems as nuclear technology and know-how disseminates around the world. Lost in the argument is the fact that this stance assumes that US decisions on advancing nuclear technology color the world as a whole. In reality, regardless of the US commitment to or abandonment of nuclear energy technology, many countries (notably China) are blazing ahead with research and construction, with 55 plants currently under construction around the world—though Fukushima may cause a temporary lull.¶ Since Three Mile Island, the US share of the global nuclear energy trade has declined precipitously as talent and technology begin to concentrate in countries more committed to nuclear power. On the small reactor front, more than 20 countries are examining the technology and the IAEA estimates that 40-100 small reactors will be in operation by 2030. Without US leadership, new nations seek to acquire nuclear technology turn to countries other than the US who may not share a deep commitment to reactor safety and nonproliferation objectives. Strong US leadership globally on nonproliferation requires a vibrant American nuclear industry. This will enable the US to set and enforce standards on nuclear agreements, spent fuel reprocessing, and developing reactor technologies.¶ As to the small reactors themselves, the designs achieve a degree of proliferation-resistance unmatched by large reactors. Small enough to be fully buried underground in independent silos, the concrete surrounding the reactor vessels can be layered much thicker than the traditional domes that protect conventional reactors without collapsing. Coupled with these two levels of superior physical protection is the traditional security associated with reactors today. Most small reactors also are factory-sealed with a supply of fuel inside. Instead of refueling reactors onsite, SMRs are returned to the factory, intact, for removal of spent fuel and refueling. By closing off the fuel cycle, proliferation risks associated with the nuclear fuel running the reactors are mitigated and concerns over the widespread distribution of nuclear fuel allayed.

#### Proliferation risks nuclear war due to brinkmanship games- questions of deterrence miss the point.

Kroenig 12

(Matthew, assistant professor of Government at Georgetown University and a Stanton Nuclear Security Fellow at the Council on Foreign Relations, “The History of Proliferation Optimism: Does It Have A Future?” Non Proliferation Policy Center, <http://npolicy.org/article.php?aid=1182&tid=30#_ftn11>, SEH)

First and foremost, proliferation optimists do not appear to understand contemporary deterrence theory. I do not say this lightly in an effort to marginalize or discredit my intellectual opponents. Rather, I make this claim with all due caution and with complete sincerity. A careful review of the contemporary proliferation optimism literature does not reflect an understanding of, or engagement with, the developments in academic deterrence theory in top scholarly journals such as the American Political Science Review and International Organization over the past few decades.[35] While early optimists like Viner and Brodie can be excused for not knowing better, the writings of contemporary proliferation optimists ignore the past fifty years of academic research on nuclear deterrence theory. ¶ In the 1940s, Viner, Brodie, and others argued that the advent of Mutually Assured Destruction (MAD) rendered war among major powers obsolete, but nuclear deterrence theory soon advanced beyond that simple understanding.[36] After all, great power political competition does not end with nuclear weapons. And nuclear-armed states still seek to threaten nuclear-armed adversaries. States cannot credibly threaten to launch a suicidal nuclear war, but they still want to coerce their adversaries. This leads to a credibility problem: how can states credibly threaten a nuclear-armed opponent? Since the 1960s academic nuclear deterrence theory has been devoted almost exclusively to answering this question.[37] And, unfortunately for proliferation optimists, the answers do not give us reasons to be optimistic.¶ Thomas Schelling was the first to devise a rational means by which states can threaten nuclear-armed opponents.[38] He argued that leaders cannot credibly threaten to intentionally launch a suicidal nuclear war, but they can make a “threat that leaves something to chance.”[39] They can engage in a process, the nuclear crisis, which increases the risk of nuclear war in an attempt to force a less resolved adversary to back down. As states escalate a nuclear crisis there is an increasing probability that the conflict will spiral out of control and result in an inadvertent or accidental nuclear exchange. As long as the benefit of winning the crisis is greater than the incremental increase in the risk of nuclear war, threats to escalate nuclear crises are inherently credible. In these games of nuclear brinkmanship, the state that is willing to run the greatest risk of nuclear war before back down will win the crisis as long as it does not end in catastrophe. It is for this reason that Thomas Schelling called great power politics in the nuclear era a “competition in risk taking.”[40] This does not mean that states eagerly bid up the risk of nuclear war. Rather, they face gut-wrenching decisions at each stage of the crisis. They can quit the crisis to avoid nuclear war, but only by ceding an important geopolitical issue to an opponent. Or they can the escalate the crisis in an attempt to prevail, but only at the risk of suffering a possible nuclear exchange.¶ Since 1945 there were have been many high stakes nuclear crises (by my count, there have been twenty) in which “rational” states like the United States run a risk of nuclear war and inch very close to the brink of nuclear war.[41] By asking whether states can be deterred or not, therefore, proliferation optimists are asking the wrong question. The right question to ask is: what risk of nuclear war is a specific state willing to run against a particular opponent in a given crisis? Optimists are likely correct when they assert that Iran will not intentionally commit national suicide by launching a bolt-from-the-blue nuclear attack on the United States or Israel. This does not mean that Iran will never use nuclear weapons, however. Indeed, it is almost inconceivable to think that a nuclear-armed Iran would not, at some point, find itself in a crisis with another nuclear-armed power and that it would not be willing to run any risk of nuclear war in order to achieve its objectives. If a nuclear-armed Iran and the United States or Israel have a geopolitical conflict in the future, over say the internal politics of Syria, an Israeli conflict with Iran’s client Hezbollah, the U.S. presence in the Persian Gulf, passage through the Strait of Hormuz, or some other issue, do we believe that Iran would immediately capitulate? Or is it possible that Iran would push back, possibly even brandishing nuclear weapons in an attempt to deter its adversaries? If the latter, there is a real risk that proliferation to Iran could result in nuclear war.¶ An optimist might counter that nuclear weapons will never be used, even in a crisis situation, because states have such a strong incentive, namely national survival, to ensure that nuclear weapons are not used. But, this objection ignores the fact that leaders operate under competing pressures. Leaders in nuclear-armed states also have very strong incentives to convince their adversaries that nuclear weapons could very well be used. Historically we have seen that in crises, leaders purposely do things like put nuclear weapons on high alert and delegate nuclear launch authority to low level commanders, purposely increasing the risk of accidental nuclear war in an attempt to force less-resolved opponents to back down.¶ Moreover, not even the optimists’ first principles about the irrelevance of nuclear posture stand up to scrutiny. Not all nuclear wars would be equally devastating.[42] Any nuclear exchange would have devastating consequences no doubt, but, if a crisis were to spiral out of control and result in nuclear war, any sane leader would rather be facing a country with five nuclear weapons than one with thirty-five thousand. Similarly, any sane leader would be willing to run a greater risk of nuclear war against the former state than against the latter. Indeed, systematic research has demonstrated that states are willing to run greater risks and, therefore, more likely to win nuclear crises when they enjoy nuclear superiority over their opponent.[43] Proliferation optimists miss this point, however, because they are still mired in 1940s deterrence theory. It is true that no rational leader would choose to launch a nuclear war, but, depending on the context, she would almost certainly be willing to risk one. Nuclear deterrence theorists have proposed a second scenario under which rational leaders could instigate a nuclear exchange: a limited nuclear war.[44] By launching a single nuclear weapon against a small city, for example, it was thought that a nuclear-armed state could signal its willingness to escalate the crisis, while leaving its adversary with enough left to lose to deter the adversary from launching a full-scale nuclear response. In a future crisis between a nuclear-armed China and the United States over Taiwan, for example, China could choose to launch a nuclear attack on Honolulu to demonstrate its seriousness. In that situation, with the continental United States intact, would Washington choose to launch a full-scale nuclear war on China that could result in the destruction of many more American cities? Or would it back down? China might decide to strike hoping that Washington will choose a humiliating retreat over a full-scale nuclear war. If launching a limited nuclear war could be rational, it follows that the spread of nuclear weapons increases the risk of nuclear use. Again, by ignoring contemporary developments in scholarly discourse and relying exclusively on understandings of nuclear deterrence theory that became obsolete decades ago, optimists reveal the shortcomings of their analysis and fail to make a compelling case.

#### That leads to great power war

Kroenig 9

(Matthew, assistant professor of Government at Georgetown University and a Stanton Nuclear Security Fellow at the Council on Foreign Relations, “Beyond Optimism and Pessimism: ¶ The Differential Effects of Nuclear Proliferation” Harvard Kennedy School of Government, <http://belfercenter.ksg.harvard.edu/files/Beyond-Optimism-and-Pessimism.pdf>, SEH)

Leaders in power-projecting states also fear that regional instability set off by nuclear¶ proliferation could entrap power-projecting states in a great power war. Other power projecting states, facing a mirror-image situation, may feel compelled to intervene in a crisis ¶ to secure their own interests, entangling multiple great powers in a regional conflict. In a¶ 1963 NIE, U.S. intelligence analysts assessed that “the impact of (nuclear proliferation in the¶ Middle East) will be the possibility that hostilities arising out of existing or future ¶ controversies could escalate into a confrontation involving the major powers.”¶ 67¶ President ¶ Johnson believed that a nuclear Israel meant increased Soviet involvement in the Middle¶ East and perhaps superpower war.¶ 68¶ If historical experience provides a guide, U.S. ¶ strategists at the time of writing are undoubtedly concerned by the possibility that China m¶ feel compelled to intervene in any conflict involving a nuclear-armed North Korea, making the Korean Peninsula another dangerous flash-point in the uncertain Sino-American strategic relationship.

#### Without increasing nuclear technology, we lose out to China in nuclear leadership. The impact is Asian influence and proliferation.

Cullinane ‘11

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Due to a confluence of events the United States has recently focused more attention on nuclear weapons policy than it has in previous years; however, the proliferation of commercial nuclear technology and its implications for America’s strategic position have been largely ignored. While the Unites States is currently a participant in the international commercial nuclear energy trade, America’s own domestic construction of nuclear power plants has atrophied severely and the US risks losing its competitive edge in the nuclear energy arena.¶ Simultaneously, the People’s Republic of China (PRC) has made great strides in closing the nuclear energy development gap with America. Through a combination of importing technology, research from within China itself, and a disciplined policy approach the PRC is increasingly able to leverage the export of commercial nuclear power as part of its national strategy. Disturbingly, China does not share America’s commitment to stability, transparency, and responsibility when exporting nuclear technology. This is a growing strategic weakness and risk for the United States. To remain competitive and to be in a position to offset the PRC when required the American government should encourage the domestic use of nuclear power and spur the forces of technological innovation.¶ History has recorded well American wartime nuclear developments which culminated in the July 1945 Trinity Test, but what happened near Arco, Idaho six years later has been overlooked. In 1951, scientists for the first time produced usable electricity from an experimental nuclear reactor. Once this barrier was conquered the atom was harnessed to generate electricity and permitted America to move into the field of commercial nuclear power. In the next five years alone the United States signed over 20 nuclear cooperation agreements with various countries. Not only did the US build dozens of power plants domestically during the 1960s and 1970s, the US Export-Import Bank also distributed $7.1 billion dollars in loans and guarantees for the international sale of 49 reactors. American built and designed reactors were exported around the world during those years. Even today, more than 60% of the world’s 440 operating reactors are based on technology developed in the United States. The growth of the US civilian nuclear power sector stagnated after the Three Mile Island incident in 1979 – the most serious accident in American civilian nuclear power history. Three Mile Island shook America’s confidence in nuclear power and provided the anti-nuclear lobby ample fuel to oppose the further construction of any nuclear power plants. In the following decade, 42 planned domestic nuclear power plants were cancelled, and in the 30 years since the Three Mile Island incident the American nuclear power industry has survived only through foreign sales and merging operations with companies in Asia and Europe. Westinghouse sold its nuclear division to Toshiba and General Electric joined with Hitachi. Even the highest levels of the American government came to cast nuclear power aside. President Bill Clinton bragged in his 1993 State of the Union Address that “we are eliminating programs that are no longer needed, such as nuclear power research and development.” ¶ America’s slow pace of reactor construction over the past three decades has stymied innovation and caused the nuclear sector and its industrial base to shrivel. While some aspects of America’s nuclear infrastructure still operate effectively, many critical areas have atrophied. For example, one capability that America has entirely lost is the means to cast ultra heavy forgings in the range of 350,000 – 600,000 pounds, which impacts the construction of containment vessels, turbine rotors, and steam generators. In contrast, Japan, China, and Russia all possess an ultra heavy forging capacity and South Korea and India plan to build forges in this range. Likewise, the dominance America enjoyed in uranium enrichment until the 1970s is gone. The current standard centrifuge method for uranium enrichment was not invented in America and today 40% of the enriched uranium US power plants use is processed overseas and imported. Another measure of how much the US nuclear industry has shrunk is evident in the number of companies certified to handle nuclear material. In the 1980s the United States had 400 nuclear suppliers and 900 holders of N-stamp certificates (N-stamps are the international nuclear rating certificates issued by the American Society of Mechanical Engineers). By 2008 that number had reduced itself to 80 suppliers and 200 N-stamp holders. A recent Government Accountability Office report, which examined data from between 1994 and 2009, found the US to have a declining share of the global commercial nuclear trade. However, during that same period over 60 reactors were built worldwide. Nuclear power plants are being built in the world increasingly by non-American companies.¶ The American nuclear industry entered the 1960s in a strong position, yet over the past 30 years other countries have closed the development gap with America. The implications of this change go beyond economics or prestige to include national security. These changes would be less threatening if friendly allies were the ones moving forward with developing a nuclear export industry;however, the quick advancement of the PRC in nuclear energy changes the strategic calculus for America.¶ The shifting strategic landscape¶ While America’s nuclear industry has languished, current changes in the world’s strategic layout no longer allow America the option of maintaining the status quo without being surpassed. The drive for research, development, and scientific progress that grew out of the Cold War propelled America forward, but those priorities have long since been downgraded by the US government. The economic development of formerly impoverished countries means that the US cannot assume continued dominance by default. The rapidly industrializing PRC is seeking its own place among the major powers of the world and is vying for hegemony in Asia; nuclear power is an example of their larger efforts to marshal their scientific and economic forces as instruments of national power.¶ The rise of China is a phrase that connotes images of a backwards country getting rich off of exporting cheap goods at great social and environmental costs. Yet, this understanding of the PRC has lead many in the United States to underestimate China’s capabilities. The Communist Party of China (CPC) has undertaken a comprehensive long-term strategy to transition from a weak state that lags behind the West to a country that is a peer-competitor to the United States. Nuclear technology provides a clear example of this. ¶ In 1978, General Secretary Deng Xiaoping began to move China out of the destructive Mao era with his policies of 'reform and opening.' As part of these changes during the 1980s, the CPC began a concerted and ongoing effort to modernize the PRC and acquire advanced technology including nuclear technology from abroad. This effort was named Program 863 and included both legal methods and espionage. By doing this, the PRC has managed to rapidly catch up to the West on some fronts. In order to eventually surpass the West in scientific development the PRC launched the follow-on Program 973 to build the foundations of basic scientific research within China to meet the nation’s major strategic needs. These steps have brought China to the cusp of the next stage of technological development, a stage known as “indigenous innovation.”¶ ¶ In 2006 the PRC published their science and technology plan out to 2020 and defined indigenous innovation as enhancing original innovation, integrated innovation, and re-innovation based on assimilation and absorption of imported technology in order improve national innovation capability. The Chinese seek to internalize and understand technological developments from around the world so that they can copy the equipment and use it as a point to build off in their own research. This is a step beyond merely copying and reverse engineering a piece of technology. The PRC sees this process of absorbing foreign technology coupled with indigenous innovation as a way of leapfrogging forward in development to gain the upper hand over the West. The PRC’s official statement on energy policy lists nuclear power as one of their target fields. When viewed within this context, the full range of implications from China’s development of nuclear technology becomes evident. The PRC is now competing with the United States in the areas of innovation and high-technology, two fields that have driven American power since World War Two. China’s economic appeal is no longer merely the fact that it has cheap labor, but is expanding its economic power in a purposeful way that directly challenges America’s position in the world.¶ ¶ The CPC uses the market to their advantage to attract nuclear technology and intellectual capital to China. The PRC has incentivized the process and encouraged new domestic nuclear power plant construction with the goal of having 20 nuclear power plants operational by 2020. The Chinese Ministry of Electrical Power has described PRC policy to reach this goal as encouraging joint investment between State Owned Corporations and foreign companies. 13 reactors are already operating in China, 25 more are under construction and even more reactors are in the planning stages. ¶ In line with this economic policy, China has bought nuclear reactors from Westinghouse and Areva and is cooperating with a Russian company to build nuclear power plants in Taiwan. By stipulating that Chinese companies and personnel be involved in the construction process, China is building up its own domestic capabilities and expects to become self-sufficient. China’s State Nuclear Power Technology Corporation has partnered with Westinghouse to build a new and larger reactor based on the existing Westinghouse AP 1000 reactor. This will give the PRC a reactor design of its own to then export. If the CPC is able to combine their control over raw materials, growing technical know-how, and manufacturing base, China will not only be a powerful economy, but be able to leverage this power to service its foreign policy goals as well.¶ Even though the PRC is still working to master third generation technology, their scientists are already working on what they think will be the nuclear reactor of the future. China is developing Fourth Generation Fast Neutron Reactors and wants to have one operational by 2030. Additionally, a Chinese nuclear development company has announced its intentions to build the “world’s first high-temperature, gas-cooled reactor” in Shandong province which offers to possibility of a reactor that is nearly meltdown proof. A design, which if proved successful, could potentially redefine the commercial nuclear energy trade.¶ The risk to America¶ The international trade of nuclear material is hazardous in that every sale and transfer increases the chances for an accident or for willful misuse of the material. Nuclear commerce must be kept safe in order for the benefits of nuclear power generation to be realized. Yet, China has a record of sharing dangerous weapons and nuclear material with unfit countries. It is a risk for America to allow China to become a nuclear exporting country with a competitive technical and scientific edge. In order to limit Chinese influence and the relative attractiveness of what they can offer, America must ensure its continuing and substantive lead in reactor technology.¶ ¶ The PRC’s record of exporting risky items is well documented. It is known that during the 1980s the Chinese shared nuclear weapon designs with Pakistan and continues to proliferate WMD-related material. According to the Office of the Director of National Intelligence to Congress, China sells technologies and components in the Middle East and South Asia that are dual use and could support WMD and missile programs. Jane’s Intelligence Review reported in 2006 that China,¶ Despite a 1997 promise to Washington to halt its nuclear technology sales to Iran, such assistance is likely to continue. In 2005, Iranian resistance groups accused China of selling Iran beryllium, which is useful for making nuclear triggers and maraging steel (twice as hard as stainless steel), which is critical for fabricating centrifuges needed to reprocess uranium into bomb-grade material. ¶ China sells dangerous materials in order to secure its geopolitical objectives, regardless if those actions harm world stability. There is little reason to believe China will treat the sale of nuclear reactors any differently. Even if the PRC provides public assurances that it will behave differently in the future, the CPC has not been truthful for decades about its nuclear material and weapons sales and hence lacks credibility. For example, in 1983 Chinese Vice Premier Li Peng said that China does not encourage or support nuclear proliferation. In fact, it was that same year that China contracted with Algeria, then a non-NPT [Non-Proliferation Treaty] state, to construct a large, unsafeguarded plutonium production reactor. In 1991 a Chinese Embassy official wrote in a letter to the The Washington Post that 'China has struck no nuclear deal with Iran.' In reality, China had provided Iran with a research reactor capable of producing plutonium and a calutron, a technology that can be used to enrich uranium to weapons-grade. It has been reported that even after United Nation sanctions were put on Iran, Chinese companies were discovered selling “high-quality carbon fiber” and “pressure gauges” to Iran for use in improving their centrifuges.¶ In 2004 the PRC joined the Nuclear Suppliers Groups (NSG), gaining international recognition of their growing power in the nuclear field. In spite of this opportunity for China to demonstrate its responsibility with nuclear energy, it has not fulfilled it NSG obligations. The PRC has kept the terms of its nuclear reactor sale to Pakistan secret and used a questionable legal technicality to justify forgoing obtaining a NSG waiver for the deal. Additionally, China chose to forgo incorporating new safety measures into the reactors in order to avoid possible complications.¶ A further consequence of China exporting reactors is that these countries may wish to control the fuel cycle which provides the uranium to power their new reactors. The spread of fuel cycle technology comes with two risks: enrichment and reprocessing. Uranium can be enriched to between 3% and 5% for reactor use, but the process can be modified to produce 90% enriched uranium which is weapons-grade. Even if a country only produces low enriched uranium they could easily begin enriching at a higher level if they so choose. Every new country that nuclear technology or information is spread to exponentially increases the risk of material being stolen, given to a third party or being used as the launching point for a weapons program. China’s history of proliferation and willingness to engage economically with very unsavory governments seems likely to increase the risks involving nuclear material.

#### U.S. leadership in Asia solves multiple scenarios for war

Goh 8

(Evelyn, Lecturer in International Relations in the Department of Politics and International Relations at the Univ of Oxford, International Relations of the Asia-Pacific, “Hierarchy and the role of the United States in the East Asian security order,” 2008 8(3):353-377, Oxford Journals Database)

This is the main structural dilemma: as long as the United States does not give up its primary position in the Asian regional hierarchy, China is very unlikely to act in a way that will provide comforting answers to the two questions. Yet, the East Asian regional order has been and still is constituted by US hegemony, and to change that could be extremely disruptive and may lead to regional actors acting in highly destabilizing ways. Rapid Japanese remilitarization, armed conflict across the Taiwan Straits, Indian nuclear brinksmanship directed toward Pakistan, or a highly destabilized Korean peninsula are all illustrative of potential regional disruptions. 5 Conclusion To construct a coherent account of East Asia’s evolving security order, I have suggested that the United States is the central force in constituting regional stability and order. The major patterns of equilibrium and turbulence in the region since 1945 can be explained by the relative stability of the US position at the top of the regional hierarchy, with periods of greatest insecurity being correlated with greatest uncertainty over the American commitment to managing regional order. Furthermore, relationships of hierarchical assurance and hierarchical deference explain the unusual character of regional order in the post-Cold War era. However, the greatest contemporary challenge to East Asian order is the potential conflict between China and the United States over rank ordering in the regional hierarchy, a contest made more potent because of the intertwining of regional and global security concerns. Ultimately, though, investigating such questions of positionality requires conceptual lenses that go beyond basic material factors because it entails social and normative questions. How can China be brought more into a leadership position, while being persuaded to buy into shared strategic interests and constrain its own in ways that its vision of regional and global security may eventually be reconciled with that of the United States and other regional players? How can Washington be persuaded that its central position in the hierarchy must be ultimately shared in ways yet to be determined? The future of the East Asian security order is tightly bound up with the durability of the United States’ global leadership and regional domination. At the regional level, the main scenarios of disruption are an outright Chinese challenge to US leadership, or the defection of key US allies, particularly Japan. Recent history suggests, and the preceding analysis has shown, that challenges to or defections from US leadership will come at junctures where it appears that the US commitment to the region is in doubt, which in turn destabilizes the hierarchical order. At the global level, American geopolitical over-extension will be the key cause of change. This is the one factor that Hierarchy and the role of the United States in the East Asian security order 373lead to both greater regional and global turbulence, if only by the attendant strategic uncertainly triggering off regional challenges or defections. However, it is notoriously difficult to gauge thresholds of over-extension. More positively, East Asia is a region that has adjusted to previous periods of uncertainty about US primacy. Arguably, the regional consensus over the United States as primary state in a system of benign hierarchy could accommodate a shifting of the strategic burden to US allies like Japan and Australia as a means of systemic preservation. The alternatives that could surface as a result of not doing so would appear to be much worse.

#### Asian wars go nuclear

Landy 2k

 National Security Expert @ Knight Ridder, 3/10

(Jonathan, Knight Ridder, lexis)

Few if any experts think China and Taiwan, North Korea and South Korea, or India and Pakistan are spoiling to fight. But even a minor miscalculation by any of them could destabilize Asia, jolt the global economy and even start a nuclear war. India, Pakistan and China all have nuclear weapons, and North Korea may have a few, too. Asia lacks the kinds of organizations, negotiations and diplomatic relationships that helped keep an uneasy peace for five decades in Cold War Europe. “Nowhere else on Earth are the stakes as high and relationships so fragile,” said Bates Gill, director of northeast Asian policy studies at the Brookings Institution, a Washington think tank. “We see the convergence of great power interest overlaid with lingering confrontations with no institutionalized security mechanism in place. There are elements for potential disaster.” In an effort to cool the region’s tempers, President Clinton, Defense Secretary William S. Cohen and National Security Adviser Samuel R. Berger all will hopscotch Asia’s capitals this month. For America, the stakes could hardly be higher. There are 100,000 U.S. troops in Asia committed to defending Taiwan, Japan and South Korea, and the United States would instantly become embroiled if Beijing moved against Taiwan or North Korea attacked South Korea. While Washington has no defense commitments to either India or Pakistan, a conflict between the two could end the global taboo against using nuclear weapons and demolish the already shaky international nonproliferation regime. In addition, globalization has made a stable Asia \_ with its massive markets, cheap labor, exports and resources \_ indispensable to the U.S. economy. Numerous U.S. firms and millions of American jobs depend on trade with Asia that totaled $600 billion last year, according to the Commerce Department.

### New Advantage

#### SMRs solve Shale

U.S. Department of Commerce International Trade Administration 11

(“The Commercial Outlook for¶ U.S. Small Modular Nuclear¶ Reactors” <http://www.trade.gov/publications/pdfs/the-commercial-outlook-for-us-small-modular-nuclear-reactors.pdf>, SEH)

Some SMRs could be suited for specialized applications. The small size and output of some designs ¶ could provide advantages over large nuclear units ¶ for industrial or district heating applications because using a traditional reactor would be too expensive and would produce far too much energy ¶ to be used efficiently for those purposes. SMRs ¶ could also be used for energy-intensive activities located in remote areas, such as desalination ¶ plants and certain mining operations. A similar ¶ application could be to provide heat and electricity for oil shale recovery, which is a particularly ¶ energy-intensive operation. If nuclear reactors, ¶ rather than fossil fuel–based technology, could ¶ power oil extraction from tight shale then they ¶ could significantly lower the carbon emissions ¶ from such recovery and make the extraction more ¶ attractive.

#### SMR’s frees up massive amounts of oil and natural gas.

Loudermilk 11

(Micah J. Loudermilk is a Research Associate for the Energy & Environmental Security Policy program with the Institute for National Strategic Studies at National Defense University, “Small Nuclear Reactors and US Energy Security: Concepts, Capabilities, and Costs” Journal of Energy Security, May 2011, <http://www.ensec.org/index.php?option=com_content&view=article&id=314:small-nuclear-reactors-and-us-energy-security-concepts-capabilities-and-costs&catid=116:content0411&Itemid=375>, SEH)

Lastly, and often ignored, is the ability of small reactors to bring a secure energy supply to locations detached from the grid. Small communities across Canada, Alaska, and other places have expressed immense interest in this opportunity. Additionally, the incorporation of small reactors may be put to productive use in energy-intensive operations including the chemical and plastics industries, oil refineries, and shale gas extraction. Doing so, especially in the fossil fuels industry would free up the immense amounts of oil and gas currently burned in the extraction and refining process. All told, small reactors possess numerous direct and indirect cost benefits which may alter thinking on the monetary competitiveness of the technology.

#### Shale boom key to global economy – international energy policy

Henry 8/15

(Lowman S. Henry is chairman & CEO of the Lincoln Institute and host of the weekly Lincoln Radio Journal. “Hitting ‘pay dirt’ in Pennsylvania” Updated: Monday, October 15, 2012 http://triblive.com/opinion/2740302-74/pennsylvania-development-gas-marcellus-oil-shale-impact-pay-america-domestic#axzz29xMVzlSO, TSW)

There is no doubt that development of Pennsylvania’s Marcellus shale natural gas resources has fueled an economic boom across a wide swath of rural Pennsylvania, a region that has floundered economically for decades. But, the impact is being felt not only in those communities, but across Penn’s Woods and — as recent events illustrate — could actually play a global role.¶ After much debate, the General Assembly passed a tax — deceptively called an “impact fee” — on Marcellus gas drillers. The tax has resulted in more than $206 million in revenue to date. Ultimately, 58 companies have been singled out and are required to pay the additional tax above and beyond the taxes all other businesses in the state are required to pay.¶ Already substantial, the economic impact of Marcellus shale gas is only just beginning to be felt. Speaking at an industry conference in Philadelphia, Gov. Tom Corbett dubbed what has happened so far as the “tip of the spear,” which will spark a new industrial revolution in Pennsylvania. This was not rhetorical hyperbole.¶ Already the Shell is moving toward development of an ethane “cracker” plant in Beaver County that the Pennsylvania Economy League estimates could create 8,000 new jobs and have a $4.8 billion impact on the state’s economy.¶ In addition to the domestic benefits of Marcellus gas development, the shale reserve could play an important international energy policy role. Recent developments in the Middle East have underscored the fragility of America’s dependence on oil from that region. The Sept. 11 terrorist attack that killed the U.S. ambassador to Libya and widespread demonstrations revealed a cultural fault line that has opened a worldwide debate over freedom of speech that threatens to further destabilize the region.¶ It has become abundantly clear the United States must significantly reduce its dependence on oil from the Middle East. To do that, America must more rapidly develop domestic energy production, and a multifaceted approach is required. We must speed up the tapping of our abundant natural gas, coal and oil resources. Construction of the Keystone pipeline, issuance of more offshore oil drilling permits and responsible drilling in the Arctic Natural Wildlife Refuge are keys to oil development. The Obama administration’s “war on coal” must be ended and the industry re-incentivized to spur development.¶ Despite the overwhelming economic and strategic benefits of the Marcellus shale gas industry in Pennsylvania, challenges remain. Radical environmentalists seek to stop further drilling rather than to advocate for reasonable safeguards. Misinformation about fracking and other aspects of shale development runs rampant. And, as always, there are elected officials who see a goose laying golden eggs, which they want to take to finance unrelated politically popular programs.¶ For state government, the challenge going forward is to not get in the way. Lawmakers must avoid the temptation to overtax, and the administration must resist calls for overregulation. So far, a relatively reasonable balance has been struck. A lot is riding on keeping it that way.¶

#### Economic decline causes global war

Royal 10

(Jedediah, Director of Cooperative Threat Reduction – U.S. Department of Defense, “Economic Integration, Economic Signaling and the Problem of Economic Crises”, Economics of War and Peace: Economic, Legal and Political Perspectives, Ed. Goldsmith and Brauer, p. 213-215)

Less intuitive is how periods of economic decline may increase the likelihood of external conflict. Political science literature has contributed a moderate degree of attention to the impact of economic decline and the security and defence behaviour of interdependent states. Research in this vein has been considered at systemic, dyadic and national levels. Several notable contributions follow. First, on the systemic level, Pollins (2008) advances Modelski and Thompson's (1996) work on leadership cycle theory, finding that rhythms in the global economy are associated with the rise and fall of a pre-eminent power and the often bloody transition from one pre-eminent leader to the next. As such, exogenous shocks such as economic crises could usher in a redistribution of relative power (see also Gilpin. 1981) that leads to uncertainty about power balances, increasing the risk of miscalculation (Feaver, 1995). Alternatively, even a relatively certain redistribution of power could lead to a permissive environment for conflict as a rising power may seek to challenge a declining power (Werner. 1999). Separately, Pollins (1996) also shows that global economic cycles combined with parallel leadership cycles impact the likelihood of conflict among major, medium and small powers, although he suggests that the causes and connections between global economic conditions and security conditions remain unknown. Second, on a dyadic level, Copeland's (1996, 2000) theory of trade expectations suggests that 'future expectation of trade' is a significant variable in understanding economic conditions and security behaviour of states. He argues that interdependent states are likely to gain pacific benefits from trade so long as they have an optimistic view of future trade relations. However, if the expectations of future trade decline, particularly for difficult to replace items such as energy resources, the likelihood for conflict increases, as states will be inclined to use force to gain access to those resources. Crises could potentially be the trigger for decreased trade expectations either on its own or because it triggers protectionist moves by interdependent states.4 Third, others have considered the link between economic decline and external armed conflict at a national level. Blomberg and Hess (2002) find a strong correlation between internal conflict and external conflict, particularly during periods of economic downturn. They write: The linkages between internal and external conflict and prosperity are strong and mutually reinforcing. Economic conflict tends to spawn internal conflict, which in turn returns the favour. Moreover, the presence of a recession tends to amplify the extent to which international and external conflicts self-reinforce each other. (Blomberg & Hess, 2002. p. 89) Economic decline has also been linked with an increase in the likelihood of terrorism (Blomberg, Hess, & Weerapana, 2004), which has the capacity to spill across borders and lead to external tensions. Furthermore, crises generally reduce the popularity of a sitting government. "Diversionary theory" suggests that, when facing unpopularity arising from economic decline, sitting governments have increased incentives to fabricate external military conflicts to create a 'rally around the flag' effect.

#### Shale gas boom key to revive chemical industry – best report proves

Kever 8/11

(Jeannie Kever HOUSTON CHRONICLE “Shale gas could boost other industries” Thursday October 11, 2012 5:59 AM <http://www.dispatch.com/content/stories/business/2012/10/11/shale-gas-could-boost-other-industries.html>, TSW)

The shale-gas boom could cut costs significantly for the chemical industry and ultimately benefit the apparel, electronics, machinery and other industries, according to a new report.¶ The report by PricewaterhouseCoopers US suggests cheap natural-gas liquids could even prompt some companies to move production back to the United States.¶ Shale gas already has spurred an estimated $15 billion in new investments in Texas chemical plants, according to Hector Rivera, president and CEO of the Texas Chemical Council.¶ Rivera said the rebound started as the nation began to recover from the recession.¶ “Here in the United States, it has been a game-changer and has created an opportunity for a lot of companies to make new investments in the United States, as opposed to overseas markets where natural gas has historically been cheaper over the last 10 or 15 years,” he said.¶ Anthony J. Scamuffa, U.S. chemicals leader for PricewaterhouseCoopers, predicted that the effects of low-priced natural-gas liquids will ripple through the manufacturing chain.¶

#### Extinction

ICCA 2

International Council of Chemical Associations, June 20, "SUSTAINABLE DEVELOPMENT AND THE CHEMICAL INDUSTRY", <http://www.cefic.be/position/icca/pp_ic010.htm>

The key finding of "Our Common Future", (the 1987 report of the United Nations' World Commission on Environment and Development), is that environmental, economic and social concerns must be integrated if the world's peoples are to advance and develop without jeopardizing the natural environment on which all life depends. Although today we cannot define the needs of future generations, the challenge for today's leaders is to pursue policies that will leave available an array of choices for future generations to meet their own needs.¶ Sustainable Development will only come about if three goals - economic, environmental and society-related - can be reconciled. To determine the limits of acceptability and scope for action requires a set of conventions which society at large accepts as valid.¶ Sustainability in economic terms means the efficient management of scarce resources as well as a prospering industry and economy. Sustainability in the environmental sense means not placing an intolerable load on the ecosphere and maintaining the natural basis for life. Seen from society's viewpoint, sustainability means that human beings are the centre of concern. In view, particularly, of the population increase worldwide, there needs to be provided as large a measure of equal opportunities, freedom, social justice and security as possible.¶ The chemical industry views Sustainable Development as a challenge put before all parts of society. In the advances made in its own operations, its improved performance and in the improvements to the human condition made through its products, the chemical industry sees cause for optimism and believes that Sustainable Development can be the intellectual framework around which the chemical industry, other industries and other sectors of society can reach consensus on how to improve living standards and the environment.¶ The main challenges facing the world include:¶ • Optimizing the benefits obtained from depleting resources ¶ • Assuring against excessive strains placed on the eco-system ¶ • The dynamic growth of the world population ¶ • Remedying social and economic inequalities ¶ These are challenges on a global scale. It follows, therefore, that the attainment of Sustainable Development will call for action on the part of the people, governments, businesses and organisations around the world. The global chemical industry has realized this challenge.¶ CONTRIBUTION OF THE CHEMICAL INDUSTRY TO SUSTAINABLE DEVELOPMENT¶ The chemical industry is a key industry. Its products and services are instrumental in meeting the needs of mankind. It is present in all areas of life, from food and clothing, housing, communications, transport - right through to leisure activities. In addition, it helps to solve the problems of other sectors of industry, such as the energy sector, information technologies, environmental industries and the waste disposal sector, as examples.¶ Due to its size, the chemical industry is an important supplier to a broad range of downstream industries and is, as well, a customer of a broad range of products and services from other industries. It follows, therefore, that the chemical industry plays a major role in providing/ supporting performance improvements, research and development progress and, last but not least, employment in other industries.¶ In itself, it is a large-scale provider of jobs and makes a significant contribution to wealth creation and, hence, to the financing of both public works and the exercise of public responsibilities. Since living standards are determined to a large degree by material considerations, it is clear that the chemical industry with its unique capabilities is in a position to make a decisive contribution to Sustainable Development.¶ Commitment by the world chemical industry to the concept of Sustainable Development requires words to be transposed into company-specific action programmes in order to provide a framework for all those working in the sector. Its "Responsible Care" initiative, self-monitoring systems and other voluntary programmes such as Sustainable Technology (SUSTECH), Education-Industry Partnerships, Energy Efficiency Programmes are also part of this framework. Thereby, companies are also confronted with new challenges and must act responsibly. They must take account of the consequences of their actions upon society and future generations.¶ The global chemical industry believes that the key to improving the performance of the industry is both its commitment to achieving environmentally sound Sustainable Development and improved performance and transparency. Under the concept of "Responsible Care", chemical companies are committed, in all aspects of safety, health and protection of the environment, to seek continuous improvement in performance, to educate all staff and work with customers and communities regarding product use and overall operation. Through these efforts the industry is improving its efficiency, reducing risks to health and the environment and making better products which, in turn, help individual and industry customers.¶ THE CHEMICAL INDUSTRY's LEADERSHIP IN INNOVATION¶ The very notion of Sustainable Development will require new approaches in a number of areas. Innovation at all levels and in all fields of activity is the most effective instrument for ensuring that the economic, and environmental goals, as well as those of society, are being advanced.¶ The chemical industry's contribution is to continue innovation of new products that meet customer needs and manufacturing processes that reduce risks to health and the environment. This contribution is based upon the knowledge and experience the industry has acquired from applying innovation not only to making, handling and use of chemical compounds, but also to reprocessing, recycling and solving environmental problems. The challenge facing the chemical industry is to maximize innovation, which can contribute to society meeting its goals for Sustainable Development.¶ The chemical industry is firmly convinced that leadership in innovation represents the best way of attaining Sustainable Development. For the individual company, this means:¶ • a consistent orientation towards products, technologies and solutions which offer the greatest promise for the future ¶ • development of new integrated environmental technologies ¶ • a close cooperation with the customers of the chemical industry ¶ • adaptation to the conditions of global competition ¶ • bringing the most promising products quickly on the market ¶ • strengthening the R&D effort which requires resources which can only be financed from profitable earnings ¶ • actively contributing ideas and suggestions to the policy debates taking place in society ¶ • improving process yield (efficiency). ¶ APPROACH TO THE ECONOMIC GOAL OF SUSTAINABLE DEVELOPMENT¶ The internationalization of the economy at large, in conjunction with a growing trend towards global competition, is becoming more and more apparent. This is being manifested by:¶ • an increase of imports and exports of goods as well as services ¶ • growing outward and inward flows of direct investment ¶ • an ever increasing exchange of technology transfers ¶ • globalization of monetary and financial schemes. ¶ The inter-relation of economic systems is complex, with a variety of relationships among countries. Multi-national chemical companies apply common standards in spreading investment capital and stimulating markets around the globe, thus setting the scene for the world market. What they need, in order to play a constructive role in Sustainable Development, is, first and foremost, freedom and fairness in international trade. Trade as an engine of economic growth is essential for Sustainable Development. A climate needs to be fostered within which such growth may take place on the basis of a clear set of rules with predictable consequences, by which investors may be guided in their long-term decision-making process. This includes bringing to a halt the growing intervention by governments in industry and their ever increasing demands to raise income by taxation, thus imposing a disproportionate load on the business community.¶ Wealth creation and profits are fundamental to Sustainable Development. They sustain economies (not just the chemical industry), and contribute, via re-investment and R&D, to new technologies and environmental improvements. Profits are needed to create flexible company structures oriented towards economic, environmental and society-related requirements.¶ The chemical industry is a major industrial sector and an essential contributor to welfare and employment on a global scale. In order to maintain this position under the imperative of Sustainable Development, the long-term future of the industry must be rooted in a dynamic policy, whereby continual innovation and re-engineering of companies result in an increase of productivity and, thus, keeping up international competitiveness as a pre-requisite of sustainable job creation.

### Solvency

#### SMRs deployable soon

U.S. Department of Commerce International Trade Administration 11

(“The Commercial Outlook for¶ U.S. Small Modular Nuclear¶ Reactors” <http://www.trade.gov/publications/pdfs/the-commercial-outlook-for-us-small-modular-nuclear-reactors.pdf>, SEH)

Although SMRs have significant potential and ¶ the market for their deployment is growing, their ¶ designs must still go through the technical and ¶ regulatory processes necessary to ensure that ¶ they can be safely and securely deployed. Lightwater technology–based SMRs may not be ready ¶ for deployment in the United States for at least ¶ a decade, and advanced designs might be even ¶ further off. Light-water SMRs and SMRs that have ¶ undergone significant testing are the most likely ¶ candidates for near-term deployment, because ¶ they are most similar to existing reactors that ¶ have certified designs and significant operating ¶ histories. NuScale is on track to submit its reactor ¶ design to the NRC by 2012, as is Babcock & Wilcox ¶ for its mPower design. In addition, GE-Hitachi, ¶ which already completed an NRC preapplication ¶ review for its PRISM reactor in 1994, plans to submit its PRISM design for certification in 2012. ¶ With fierce competition for commercial deployment of U.S. SMRs anticipated, the U.S. government is accelerating its efforts to support the ¶ licensing of new reactor designs. The fiscal year ¶ 2011 budget request for the Department of Energy ¶ includes $39 million for a program to support ¶ design certification of SMRs for commercial deployment, as well as a research and development ¶ portfolio that will address the technology development needs of both near- and longer-term SMRs. ¶ The Department of Energy is also in discussions ¶ with several U.S. companies to facilitate the lightwater SMR design certification by the NRC within ¶ a reasonable timeframe. The department also ¶ continues to support research and development ¶ efforts toward advanced reactor designs through ¶ the Advanced Reactor Concepts program, which ¶ focuses on metal-cooled reactor technologies.

#### Military procurement solves commercial use proliferation and islanding- avoid regulation

Andres and Loudermilk 10

(Richard B. Andres, 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, Micah J, Research Associate for the Energy & Environmental Security Policy program with the Institute for National Strategic Studies at National Defense University, “Small Reactors and the Military’s Role in Securing America’s Nuclear IndustryPosted” <http://robertmayer.wordpress.com/2010/08/28/small-reactors-and-the-militarys-role-in-securing-americas-nuclear-industryposted/>, SEH)

Unlike private industry, the military does not face the same regulatory and congressional hurdles to constructing reactors and would have an easier time in adopting them for use. By integrating small nuclear reactors as power sources for domestic U.S. military bases, three potential energy dilemmas are solved at the same time. First, by incorporating small reactors at its bases, the military addresses its own energy security quandary. The military has recently sought to “island” its bases in the U.S. -protecting them from grid outages, be they accidental or intentional. The Department of Defense has promoted this endeavor through lowering energy consumption on bases and searching for renewable power alternatives, but these measures alone will prove insufficient. Small reactors provide sufficient energy output to power military installations and in some cases surrounding civilian population centers.¶ Secondly, as the reactors become integrated on military facilities, the stigma on the nuclear power industry will ease and inroads will be created for the adoption of small-scale reactors as a viable source of energy. Private industry and the public will see that nuclear reactors can indeed be utilized safely and effectively, resulting in a renewed push toward the expansion of nuclear power. Although many of the same hurdles will still be in place, a shift in public opinion and a stronger effort by utilities, coupled with the demonstrated success of small reactors on military bases, could prove the catalysts necessary for the federal government and the NRC to take more aggressive action.¶ Finally, while new reactors are not likely in the near future, the military’s actions will preserve, for a while longer, the badly ailing domestic nuclear energy industry. Nuclear power is here to stay around the globe, and the United States has an opportunity to take a leading role in supplying the world’s nuclear energy and reactor technology. With the U.S. nuclear industry dormant for three decades, much of the attention, technology, and talent have concentrated overseas in countries with a strong interest in nuclear technology. Without the United States as a player in the nuclear energy market, it has little say over safety regulations of reactors or the potential risks of proliferation from the expansion of nuclear energy. If the current trend continues, the U.S. will reach a point where it is forced to import nuclear technology and reactors from other countries. Action by the military to install reactors on domestic bases will both guarantee the survival of the American nuclear industry in the short term, and work to solidify support for it in the long run.¶ Ultimately, between small-scale nuclear reactors and the U.S. military, the capability exists to revitalize America’s sleeping nuclear industry and promoting energy security and clean energy production. The reactors offer the ability to power domestic military bases, small towns, and other remote locations detached from the energy grid. Furthermore, reactor sites can house multiple units, allowing for greater energy production – rivaling even large reactors. Small reactors offer numerous benefits to the United States and a path initiated by the military presents a realistic route by which their adoption can be achieved.

#### DOD key- prevents unfavorable lock-in

Andres and Breetz 11

(Richard B. Andres is 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. Hanna L. Breetz is a doctoral candidate in the Department of Political Science at the Massachusetts institute of technology, “Small Nuclear Reactors ¶ for Military Installations:¶ Capabilities, Costs, and ¶ Technological Implications” Institute for National Strategic Studies, <http://www.ndu.edu/press/lib/pdf/strforum/sf-262.pdf>, SEH)

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.

#### They have the personnel

Robitaille 12

(George, Department of Army Civilian, United States Army War College, “Small Modular Reactors: The Army’s Secure Source of Energy?” 21-03-2012, Strategy Research Project)

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.

### DoD Fast Tracked

#### DOD avoids NRC regulatory hurdles

Butler ‘11

(LtCol Butler is currently assigned to Headquarters, North American Air Defense Command-U.S. Northern Command/J594 (Strategy, Policy, and Plans Directorate), Security Cooperation ntegration Branch. This article was his Chase Prize Essay Contest entry. “Why the Marine Corps should lead the environmental and energy way forward and how to do it” March 18, 2011 accessed online September 15, 2012 at <http://www.mca-marines.org/gazette/not-green-enough>)

Fifth, the cumbersome, bureaucratic certification process of the Nuclear Regulatory Commission (NRC), often enough to scare away potential entrepreneurs and investors, is not necessarily a roadblock to success. The NRC is “responsible for licensing and regulating the operation of commercial nuclear power plants in the United States.” Military installations offer unique platforms that could likely bypass an extended certification process. With established expertise and a long safety record in nuclear reactor certification, operations, training, and maintenance, the Naval Nuclear Propulsion Program comprises the civilian and military personnel who:¶ . . . design, build, operate, maintain, and manage the nuclear-powered ships and the many facilities that support the U.S. nuclear-powered naval fleet.”34¶ Bypassing the NRC and initiating SMR experimentation under ADM Hyman Rickover’s legacy umbrella of naval reactors could shorten the process to a reasonable level for Marine and naval installations.35¶ ¶ Finally, Marine Corps-SMR technology opens the pathway for related endeavors and synergetic undertakings. The Army has several smart and influential individuals poised to partner in nuclear energy endeavors, and our naval brethren enjoy a long history of nuclear reactor expertise. Partnerships and enhanced use leases to support SMR deployments should be leveraged.36 As the collective military expertise in SMR technology grows, additional capabilities, such as expeditionary and vehicular power sources, could be explored. And related technologies, such as hybrid/electric vehicle power storage and recharging facilities and water desalination plants, could collocate with nuclear plants on installations to both use the energy.37

#### Cooperation can still be achieved without 123 agreements.

Glasgow, ‘10

[James A., Partner -- Pillsbury Winthrop Shaw Pittman LLP, 6-28, “International Scope of Small Modular Reactors and Outlook for Advanced Reactor Development International Trade Export Controls and SMRs,” http://www.uxc.com/smr/Library/Export%20Issues/2010%20-%20International%20Scope%20of%20SMRs%20and%20Outlook%20for%20Advanced%20Reactor%20Development.pdf]

• While presence or absence of a 123 Agreement is an important factor, lack of such an Agreement does not prevent the Secretary from issuing a specific authorization • DOE has issued more than a dozen specific authorizations for peaceful nuclear assistance to countries that did not have a §123 Agreement with the U.S., including USSR/Russia • “Much…cooperation can take place in the absence of bilateral 123 Agreements, since it involves the exchange of expertise, lessons learned, and best practices rather than the export of nuclear material or reactor components.” • Testimony by Assistant Secretary of State V. Van Diepen at November 2009 hearing of Senate Foreign Relations Committee

### Obama SMR

#### Obama has pushed SMR policy not just budget

Kramer ‘12

(David J. Kramer was educated at Tufts University, receiving his B.A. in Soviet Studies and Political Science, and then at Harvard University, receiving his M.A. in Soviet Studies. “Romney, Obama surrogates spell out candidates’ energy policies” September 2012 Accessed online at http://www.physicstoday.org/resource/1/phtoad/v65/i9/p20\_s10, TSW)

The Obama administration’s support for nuclear power is evident from the $7 billion loan guarantee from DOE to back construction of two new reactors at an existing nuclear power plant in Georgia, Reicher noted. “There’s serious money going into small modular reactors and serious policy work going on in how to reform the licensing process” at the Nuclear Regulatory Commission to expedite approval.

#### Obama budget

New York Times 11

(Matthew L. Wald, “Administration to Push for Small ‘Modular’ Reactors” <http://www.nytimes.com/2011/02/13/science/earth/13nuke.html?_r=3>, SEH)

The Obama administration’s 2012 budget proposal will include a request for money to help develop small “modular” reactors that would be owned by a utility and would supply electricity to a government lab, people involved in the effort say. The department is hoping for $500 million over five years, half of the estimated cost to complete two designs and secure the Nuclear Regulatory Commission’s approval. The reactors would be built almost entirely in a factory and trucked to a site like modular homes.¶ In promoting the reactor, the administration’s immediate goal is to help the Energy Department meet a federal target for reducing its carbon dioxide emissions by relying more on clean energy and less on gas and coal. Like other federal agencies, the department is required by an executive order to reduce its carbon footprint by 28 percent by 2020.

### 3 in the Pipe

#### And there are 3 demo projects in progress, but no incentives

ANA 12

(Alliance for Nuclear Accountability, “ Documents Reveal Time-line and Plans for “Small Modular Reactors” (SMRs) at the Savannah River Site (SRS) Unrealistic and Promise no Funding” June 8, 2012, <http://www.ananuclear.org/Issues/PlutoniumFuelMOX/tabid/75/articleType/ArticleView/articleId/558/Default.aspx>)

“While SRS may superficially appear to present certain attractive aspects for the location of SMRs, the site has not had experience with operation of nuclear reactors in over twenty years and has no current expertise in reactor operation,” said Clements. “While DOE is set to chose two SMR designs to fund for further development, SRS affirms that no construction funds will be provided, leaving vendors with the difficult and perhaps insurmountable task to find private funding for SMR construction.”

Two of the three separate “Memoranda of Agreement” for three different and still hypothetical SMR designs include deployment timelines which are already admitted by DOE to be inaccurate since they were signed less than six months ago.

# 2AC- Round 8

## Procurement T

#### 1. We meet- plan creates incentives and secures a market for nuclear energy

#### 2. We meet- paying them is the financial incentive

#### 3. Counter interpretation- financial incentives are disbursement of public funds or contingent commitments

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.

#### 3. Counter interpretation- financial incentives are disbursement of public funds or contingent commitments

Webb 93

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#### Ground- it is grounded in the literature and is the only way to intrinsically keep military affs in the topic which are key to beat states counterplans, and it links much harder to disads

#### Predictability- our evidence has a definitive list and an intent to define, and is supported in the literature

#### Limits- only adds procurement affs to their list, but limits out all indirect incentive effects their allows

#### Education- key to talk about different actors use of energy and how energy’s connection to the military, and no aff makes sense where the government is the consumer

#### Reasonability key to prevent a race to the most limiting definition

## Case

#### Terrorists could pull a bioterror attack off– remote control planes, hijacking

Condron and Leake ‘12

(STEPHANIE CONDRON and CHRISTOPHER LEAKE of Daily Mail. Christopher Leake has been defence and home affairs editor at Mail on Sunday, UK communications director at tesco plc, Industrial and Consumer Affairs Editor at The Mail on Sunday, the daily telegraph, industrial correspondent at the daily telegraph, London, industrial corrrespondent at express & star¶ Reporter and Deputy Editor at West Cheshire Newspapers. “Poison drones carrying biological weapon are new Olympic threat, warns Colonel in charge of keeping London calm” UPDATED: 18:23 EST, 5 May 2012 accessed online August 25, 2012 at http://www.dailymail.co.uk/news/article-2140173/Poison-drones-new-Olympic-threat-warns-Colonel-charge-keeping-London-calm.html)

A senior Army officer has warned that unmanned drones carrying deadly poison could be used in a devastating terrorist attack during the Olympic Games.¶ Lieutenant Colonel Brian Fahy delivered the grim warning at a meeting intended to allay the fears of residents worried about the Army’s plans to place missiles on the rooftops of flats.¶ He said it was ‘feasible’ that remote-controlled aircraft filled with poison and small enough to fit into a backpack could be used as a biological weapon in the capital.¶ He told The Mail on Sunday: ‘An Unmanned Aerial Vehicle (UAV) can be put in a backpack. They come in all sorts of sizes and it’s feasible they could be filled with something noxious and flown by remote-control.’¶ ¶ Now there's a block of flats you wouldn't break into! Surface-to-air weapons are put in place to form an Olympic ring of steel to protect the Games¶ The biggest ship in London! HMS Ocean heads up the Thames in show of strength before the Olympics (as Defence Secretary warns: 'We would shoot down a jet if necessary')¶ Lieut Col Fahy – the officer responsible for community relations during the Games – made his remarks on Friday in Leytonstone, East London, near one of six sites which could see the deployment of surface-toair missile batteries in order to shoot down aircraft attempting to infiltrate an Olympic ‘no fly’ zone.¶ Fears: An unmanned drone could be used by terrorists to deliver a biological weapon strike, a senior army officer warned¶ During the meeting at Buxton School, his team showed locals a ‘dummy’ missile battery and allowed children to play on the unarmed weapon.¶ Lieut Col Fahy declined to elaborate on what type of poison might be used during an aerial attack.¶ He said: ‘For the duration of the Olympics anyone flying into controlled airspace is to file their flight plan with the Civil Aviation Authority.¶ ‘The range of threats varies in size and capability. It could be a commercial airliner hijacked by somebody with malicious intentions or a protest group using a microlight to get their name in the papers.’¶ His poison warning came as it was revealed that SAS troops have had anthrax emergency training at the Government’s top-secret military research establishment at Porton Down, Wiltshire.¶ Sources say the elite soldiers wore biochemical protection suits, gloves and masks during exercises over the past few months to prepare for any attack using the deadly bacteria.¶ Such an incident could threaten the lives of thousands of people attending the Games this summer.¶ Lieut Col Fahy told The Mail on Sunday: ‘We have worked up a comprehensive plan to protect against the potential hijacking of a commercial airliner down to slow-moving microlights or radio-controlled planes.’ ¶ Battle stations: The army placed a surface-to-air missile on top the Fred Wigg tower block in Waltham Forest, est London as part of a series of security tests for the 2012 Olympics¶ Asked if they would fire a missile at a protester flying a microlight near the Olympic site, Lieut Col Fahy said: ‘We would not take it out. For something like that we would scramble helicopters to go and look at it.¶ ‘There will be an RAF sniper on board if there was serious evidence to suggest something like that represented a threat. That information gets passed on and it’s a political decision to engage.¶ ‘It’s the same politicians who will decide whether we fire surface-to-air missiles at a potential threat. It’s a decision that I’m quite happy not to make. It will weigh very heavily.’¶ Defence Secretary Philip Hammond has made it clear he is ready to give the order to shoot down any aircraft threatening the Olympics with a 9/11-style attack.

## Counterplan

### Expertise

#### And expertise

Armond Cohen 12, Executive Director of the Clean Air Task Force, “DoD: A Model for Energy Innovation?”, May 29, <http://www.catf.us/blogs/ahead/2012/05/29/dod-a-model-for-energy-innovation/>

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.

### Market Pull

**The military is the necessary first purchaser of new technology necessary to overcome market failures. Comparative evidence.**

**Cohen 12** (Armond, Executive Director – Clean Air Task Force, *DoD: A Model for Energy Innovation?*, http://energy.nationaljournal.com/2012/05/powering-our-military-whats-th.php#2211477)

Recently, the Clean Air Task Force and our colleagues at The Consortium for Science, Policy and Outcomes at Arizona State University, assessed the opportunities and challenges at the U.S. Department of Defense for accelerating a national and even global transition to advanced and clean energy technologies.

Building on background papers, a workshop, new research, and a previous project that articulated foundational principles for federal energy innovation policies, this report identified the sources of DoD’s success in fostering new technology that can be applied to both civilian energy innovation efforts and future defense-related energy efforts.

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.

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· 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.

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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**.

But perhaps the more important lesson from this work is that a serious American program of civilian energy innovation could profitably look to Pentagon history for clues about how to succeed. Stable and significant funding; “end to end” thinking on long innovation cycles; procurement of advanced energy technology at commercial scale as well as research and testing; and institutional experimentation and diversity using multiple institutional channels – these have been important reasons that the United States has the most lethal and effective military arsenal in world history. If we’re serious about maintaining American superiority in the energy technology domain, some of this “defense innovation DNA” needs to be replicated or adapted to meet the challenge.

#### DoD installations are key – market pull

Jeffrey **Marqusee 12**, Executive Director of the Strategic Environmental Research and Development Program (SERDP) and the Environmental Security Technology Certification Program (ESTCP) at the Department of Defense, “Military Installations and Energy Technology Innovation”, March, <http://bipartisanpolicy.org/sites/default/files/Energy%20Innovation%20at%20DoD.pdf>

The key reason that DoD cannot passively rely on the private sector to provide a suite of new, cost-effective energy technologies is the difficulty of the transition from research and development to full deployment. Many have noted this challenge; it is often described as the “Valley of Death,” a term widely used in the early and mid-1990s to describe the obstacles to commercialization and deployment of environmental technologies. DoD’s environmental technology demonstration program, the Environmental Security Technology Certification Program (ESTCP), was created to overcome that hurdle. Why can’t DoD rely on the Department of Energy (DOE) to solve the commercialization and deployment problem? DOE has a mixed record in this area. Reasons for past failures at DOE are: 1) the lack of a market within DOE for the technologies; 2) overly optimistic engineering estimates; 3) lack of attention to potential economic or market failures; 4) a disconnect between business practices at DOE and commercial practices, which leads to demonstration results that are not credible in the private sector; and 5) programs completely driven by a technology “push,” rather than a mix of technology push and market-driven pull.81 Many of these issues can be viewed as arising from the first: the lack of a market within DOE. Since DOE is neither the ultimate supplier nor buyer of these technologies at the deployment scale, it is not surprising that there are challenges in creating a system that can bring technologies across the Valley of Death. DoD’s market size allows it to play a critical role in overcoming this challenge for the energy technologies the department’s installations require, as it has for environmental technologies. In addressing the barriers energy technologies face, and understanding the role DoD installations can play, it is important to understand the type and character of technologies that DoD installations need. Energy technologies span a wide spectrum in costs, complexities, size, and market forces. Installation energy technologies are just a subset of the field, but one that is critical in meeting the nation’s and DoD’s energy challenges. DOE, in its recent strategic plans and quadrennial technology review, has laid out the following taxonomy (figure 3.5): It is useful to divide these energy technologies into two rough classes based on the nature of the market and the characteristics of deployment decisions. There are technologies whose capital costs at full scale are very high, for which a modest number of players will play a key role in implementation decisions. Examples include utility-scale energy generation, large-scale carbon sequestration, commercial production of alternative fuels, nextgeneration utility-grid-level technologies, and manufacturing of new transportation platforms. Some of these technologies produce products (e.g., fuel and power from the local utility) that DoD installations buy as commodities, but DoD does not expect to buy the underlying technology. A second but no less important class of energy technologies are those that will be widely distributed upon implementation, and the decisions to deploy them at scale will be made by thousands, if not millions, of decision makers. These include: 1) Technologies to support improved energy efficiency and conservation in buildings; 2) Local renewable or distributed energy generation; and 3) Local energy control and management technologies. Decisions on implementing these technologies will be made in a distributed sense and involve tens of thousands of individual decision makers if they are ever to reach large-scale deployment. These are the energy technologies that DoD installations will be buying, either directly through appropriated funds or in partnership with third-party financing through mechanisms such as Energy Saving Performance Contracts (ESPCs) or Power Purchase Agreements (PPAs). In the DOE taxonomy shown above, these distributed installation energy technologies cover the demand space on building and industrial efficiency, portions of the supply space for clean electricity when restricted to distributed generation scale, and a critical portion in the middle where microgrids and their relationship to energy storage and electric vehicles reside.

## Critique

### Threats Real

#### Threats are not socially constructed- decision makers use the most objective, rational, and accurate assessments possible- there are no bureaucratic or ideological motivations to invent threats.

Ravenal ‘9

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Quite expectedly, the more doctrinaire of the non-interventionists take pains to deny any straightforward, and therefore legitimate, security motive in American foreign and military policy. In fact, this denial leads to a more sweeping rejection of any recognizably rational basis for American foreign policy, and, even, sometimes (among the more theoretical of the non-interventionists), a preference for non-rational accounts, or “models,” of virtually any nation’s foreign policy-making.4 One could call this tendency among anti-imperialists “motive displacement.” More specifically, in the cases under review here, one notes a receptivity to any reworking of history, and any current analysis of geopolitics, that denigrates “the threat”; and, along with this, a positing of “imperialism” (the almost self-referential and primitive impulse) as a sufficient explanation for the often strenuous and risky actions of great powers such as the United States. Thus, not only is “empire” taken to be a sufficient and, in some cases, a necessary condition in bringing about foreign “threats”; but, by minimizing the extent and seriousness of these threats, the anti-imperialists put themselves into the position of lacking a rational explanation for the derivation of the (pointless at best, counter-productive at worst) policies that they designate as imperialistic. A pungent example of this threat denigration and motive displacement is Eland’s account of American intervention in the Korean and Vietnam wars:

After North Korea invaded, the Truman administration intervened merely for the purpose of a demonstration to friends and foes alike. Likewise, according to eminent cold war historians, the United States did not inter- vene in Vietnam because it feared communism, which was fragmented, or the Soviet Union, which wanted détente with the West, or China, which was weak, but because it did not want to appear timid to the world. The behavior of the United States in both Korea and Vietnam is typical of imperial powers, which are always concerned about their reputation, pres- tige, and perceived resolve. (Eland 2004, 64)

Of course, the motive of “reputation,” to the extent that it exists in any particular instance, is a part of the complex of motives that characterize a great power that is drawn toward the role of hegemon (not the same thing as “empire”). Reputation is also a component of the power projec- tion that is designed to serve the interest of national security. Rummaging through the concomitants of “imperialism,” Eland (2004, 65) discovers the thesis of “threat inflation” (in this case, virtual threat invention): Obviously, much higher spending for the military, homeland security, and foreign aid are required for a policy of global intervention than for a policy of merely defending the republic. For example, after the cold war, the security bureaucracies began looking for new enemies to justify keeping defense and intelligence budgets high. Similarly, Eland (ibid., 183), in a section entitled “Imperial Wars Spike Corporate Welfare,” attributes a large portion of the U.S. defense budget—particularly the procurement of major weapons systems, such as “Virginia-class submarines . . . aircraft carriers . . . F-22 fighters . . . [and] Osprey tilt-rotor transport aircraft”—not to the systemically derived requirement for certain kinds of military capabilities, but, rather, to the imperatives of corporate pork. He opines that such weapons have no stra- tegic or operational justification; that “the American empire, militarily more dominant than any empire in world history, can fight brushfire wars against terrorists and their ‘rogue’ state sponsors without those gold- plated white elephants.”

The underlying notion of “the security bureaucracies . . . looking for new enemies” is a threadbare concept that has somehow taken hold across the political spectrum, from the radical left (viz. Michael Klare [1981], who refers to a “threat bank”), to the liberal center (viz. Robert H. Johnson [1997], who dismisses most alleged “threats” as “improbable dangers”), to libertarians (viz. Ted Galen Carpenter [1992], Vice President for Foreign and Defense Policy of the Cato Institute, who wrote a book entitled A Search for Enemies). What is missing from most analysts’ claims of “threat inflation,” however, is a convincing theory of why, say, the American government significantly (not merely in excusable rhetoric) might magnify and even invent threats (and, more seriously, act on such inflated threat estimates). In a few places, Eland (2004, 185) suggests that such behavior might stem from military or national security bureaucrats’ attempts to enhance their personal status and organizational budgets, or even from the influence and dominance of “the military-industrial complex”; viz.: “Maintaining the empire and retaliating for the blowback from that empire keeps what President Eisenhower called the military-industrial complex fat and happy.” Or, in the same section:¶ In the nation’s capital, vested interests, such as the law enforcement bureaucracies . . . routinely take advantage of “crises”to satisfy parochial desires. Similarly, many corporations use crises to get pet projects— a.k.a. pork—funded by the government. And national security crises, because of people’s fears, are especially ripe opportunities to grab largesse. (Ibid., 182)¶ Thus, “bureaucratic-politics” theory, which once made several reputa- tions (such as those of Richard Neustadt, Morton Halperin, and Graham Allison) in defense-intellectual circles, and spawned an entire sub-industry within the field of international relations,5 is put into the service of dismissing putative security threats as imaginary. So, too, can a surprisingly cognate theory, “public choice,”6 which can be considered the right-wing analog of the “bureaucratic-politics” model, and is a preferred interpretation of governmental decision- making among libertarian observers. As Eland (2004, 203) summarizes:¶ Public-choice theory argues [that] the government itself can develop sepa- rate interests from its citizens. The government reflects the interests of powerful pressure groups and the interests of the bureaucracies and the bureaucrats in them. Although this problem occurs in both foreign and domestic policy, it may be more severe in foreign policy because citizens pay less attention to policies that affect them less directly.¶ There is, in this statement of public-choice theory, a certain ambiguity, and a certain degree of contradiction: Bureaucrats are supposedly, at the same time, subservient to societal interest groups and autonomous from society in general.¶

This journal has pioneered the argument that state autonomy is a likely consequence of the public’s ignorance of most areas of state activity (e.g., Somin 1998; DeCanio 2000a, 2000b, 2006, 2007; Ravenal 2000a). But state autonomy does not necessarily mean that bureaucrats substitute their own interests for those of what could be called the “national society” that they ostensibly serve. I have argued (Ravenal 2000a) that, precisely because of the public-ignorance and elite-expertise factors, and especially because the opportunities—at least for bureaucrats (a few notable post-government lobbyist cases nonwithstanding)—for lucrative self-dealing are stringently fewer in the defense and diplomatic areas of government than they are in some of the contract-dispensing and more under-the-radar-screen agencies of government, the “public-choice” imputation of self-dealing, rather than working toward the national interest (which, however may not be synonymous with the interests, perceived or expressed, of citizens!) is less likely to hold. In short, state autonomy is likely to mean, in the derivation of foreign policy, that “state elites” are using rational judgment, in insulation from self-promoting interest groups—about what strategies, forces, and weapons are required for national defense. Ironically, “public choice”—not even a species of economics, but rather a kind of political interpretation—is not even about “public” choice, since, like the bureaucratic-politics model, it repudiates the very notion that bureaucrats make truly “public” choices; rather, they are held, axiomatically, to exhibit “rent-seeking” behavior, wherein they abuse their public positions in order to amass private gains, or at least to build personal empires within their ostensibly official niches. Such sub- rational models actually explain very little of what they purport to observe. Of course, there is some truth in them, regarding the “behavior” of some people, at some times, in some circumstances, under some conditions of incentive and motivation. But the factors that they posit operate mostly as constraints on the otherwise rational optimization of objectives that, if for no other reason than the playing out of official roles, transcends merely personal or parochial imperatives.My treatment of “role” differs from that of the bureaucratic-politics theorists, whose model of the derivation of foreign policy depends heavily, and acknowledgedly, on a narrow and specific identification of the role- playing of organizationally situated individuals in a partly conflictual “pulling and hauling” process that “results in” some policy outcome. Even here, bureaucratic-politics theorists Graham Allison and Philip Zelikow (1999, 311) allow that “some players are not able to articulate [sic] the governmental politics game because their conception of their job does not legitimate such activity.” This is a crucial admission, and one that points— empirically—to the need for a broader and generic treatment of role. Roles (all theorists state) give rise to “expectations” of performance. My point is that virtually every governmental role, and especially national-security roles, and particularly the roles of the uniformed mili- tary, embody expectations of devotion to the “national interest”; rational- ity in the derivation of policy at every functional level; and objectivity in the treatment of parameters, especially external parameters such as “threats” and the power and capabilities of other nations. Sub-rational models (such as “public choice”) fail to take into account even a partial dedication to the “national” interest (or even the possibility that the national interest may be honestly misconceived in more paro- chial terms). In contrast, an official’s role connects the individual to the (state-level) process, and moderates the (perhaps otherwise) self-seeking impulses of the individual. Role-derived behavior tends to be formalized and codified; relatively transparent and at least peer-reviewed, so as to be consistent with expectations; surviving the particular individual and trans- mitted to successors and ancillaries; measured against a standard and thus corrigible; defined in terms of the performed function and therefore derived from the state function; and uncorrrupt, because personal cheating and even egregious aggrandizement are conspicuously discouraged. My own direct observation suggests that defense decision-makers attempt to “frame” the structure of the problems that they try to solve on the basis of the most accurate intelligence. They make it their business to know where the threats come from. Thus, threats are not “socially constructed” (even though, of course, some values are). A major reason for the rationality, and the objectivity, of the process is that much security planning is done, not in vaguely undefined circum- stances that offer scope for idiosyncratic, subjective behavior, but rather in structured and reviewed organizational frameworks. Non-rationalities (which are bad for understanding and prediction) tend to get filtered out. People are fired for presenting skewed analysis and for making bad predictions. This is because something important is riding on the causal analysis and the contingent prediction. For these reasons, “public choice” does not have the “feel” of reality to many critics who have participated in the structure of defense decision-making. In that structure, obvious, and even not-so-obvious, “rent-seeking” would not only be shameful; it would present a severe risk of career termination. And, as mentioned, the defense bureaucracy is hardly a productive place for truly talented rent-seekers to operate, compared to opportunities for personal profit in the commercial world. A bureaucrat’s very self-placement in these reaches of government testi- fies either to a sincere commitment to the national interest or to a lack of sufficient imagination to exploit opportunities for personal profit.

#### Epistemology focus causes endless paradigm wars.

Wendt,1998. professor of international security – Ohio State University, (Alexander, “On Constitution and Causation in International Relations,” British International Studies Association)

As a community, we in the academic study of international politics spend too much time worrying about the kind of issues addressed in this essay. The central point of IR scholarship is to increase our knowledge of how the world works, not to worry about how (or whether) we can know how the world works. What matters for IR is ontology, not epistemology. This doesn’t mean that there are no interesting epistemological questions in IR, and even less does it mean that there are no important political or sociological aspects to those questions. Indeed there are, as I have suggested above, and as a discipline IR should have more awareness of these aspects. At the same time, however, these are questions best addressed by philosophers and sociologists of knowledge, not political scientists. Let’s face it: most IR scholars, including this one, have little or no proper training in epistemology, and as such the attempt to solve epistemological problems anyway will inevitably lead to confusion (after all, after 2000 years, even the specialists are still having a hard time). Moreover, as long as we let our research be driven in an open-minded fashion by substantive questions and problems rather than by epistemologies and methods, there is little need to answer epistemological questions either. It is simply not the case that we have to undertake an epistemological analysis of how we can know something before we can know it, a fact amply attested to by the success of the natural sciences, whose practitioners are only rarely forced by the results of their inquiries to consider epistemological questions. In important respects we do know how international politics works, and it doesn’t much matter how we came to that knowledge. In that light, going into the epistemology business will distract us from the real business of IR, which is international politics. Our great debates should be about first-order issues of substance, like the ‘first debate’ between Realists and Idealists, not second-order issues of method. Unfortunately, it is no longer a simple matter for IR scholars to ‘just say no’ to epistemological discourse. The problem is that this discourse has already contaminated our thinking about international politics, helping to polarize the discipline into ‘paradigm wars’. Although the resurgence of these wars in the 1980s and 90s is due in large part to the rise of post-positivism, its roots lie in the epistemological anxiety of positivists, who since the 1950s have been very concerned to establish the authority of their work as Science. This is an important goal, one that I share, but its implementation has been marred by an overly narrow conception of science as being concerned only with causal questions that can be answered using the methods of natural science. The effect has been to marginalize historical and interpretive work that does not fit this mould, and to encourage scholars interested in that kind of work to see themselves as somehow not engaged in science. One has to wonder whether the two sides should be happy with the result. Do positivists really mean to suggest that it is not part of science to ask questions about how things are constituted, questions which if those things happen to be made of ideas might only be answerable by interpretive methods? If so, then they seem to be saying that the double-helix model of DNA, and perhaps much of rational choice theory, is not science. And do post-positivists really mean to suggest that students of social life should not ask causal questions or attempt to test their claims against empirical evidence? If so, then it is not clear by what criteria their work should be judged, or how it differs from art or revelation. On both sides, in other words, the result of the Third Debate’s sparring over epistemology is often one-sided, intolerant caricatures of science.

### Rejecting Security Fails

#### The alternative results in more securitization and intervention

Tara **McCormack, 2010**, is Lecturer in International Politics at the University of Leicester and has a PhD in International Relations from the University of Westminster. 2010, (Critique, Security and Power: The political limits to emancipatory approaches, page 127-129)

The following section will briefly raise some questions about the rejection of the old security framework as it has been taken up by the most powerful institutions and states. Here we can begin to see the political limits to critical and emancipatory frameworks. In an international system which is marked by great power inequalities between states, the rejection of the old narrow national interest-based security framework by major international institutions, and the adoption of ostensibly emancipatory policies and policy rhetoric, has the consequence of problematising weak or unstable states and allowing international institutions or major states a more interventionary role, yet without establishing mechanisms by which the citizens of states being intervened in might have any control over the agents or agencies of their emancipation. Whatever the problems associated with the pluralist security framework there were at least formal and clear demarcations. This has the consequence of entrenching international power inequalities and allowing for a shift towards a hierarchical international order in which the citizens in weak or unstable states may arguably have even less freedom or power than before. Radical critics of contemporary security policies, such as human security and humanitarian intervention, argue that we see an assertion of Western power and the creation of liberal subjectivities in the developing world. For example, see Mark Duffield’s important and insightful contribution to the ongoing debates about contemporary international security and development. Duffield attempts to provide a coherent empirical engagement with, and theoretical explanation of, these shifts. Whilst these shifts, away from a focus on state security, and the so-called merging of security and development are often portrayed as positive and progressive shifts that have come about because of the end of the Cold War, Duffield argues convincingly that these shifts are highly problematic and unprogressive. For example, the rejection of sovereignty as formal international equality and a presumption of nonintervention has eroded the division between the international and domestic spheres and led to an international environment in which Western NGOs and powerful states have a major role in the governance of third world states. Whilst for supporters of humanitarian intervention this is a good development, Duffield points out the depoliticising implications, drawing on examples in Mozambique and Afghanistan. Duffield also draws out the problems of the retreat from modernisation that is represented by sustainable development. The Western world has moved away from the development policies of the Cold War, which aimed to develop third world states industrially. Duffield describes this in terms of a new division of human life into uninsured and insured life. Whilst we in the West are ‘insured’ – that is we no longer have to be entirely self-reliant, we have welfare systems, a modern division of labour and so on – sustainable development aims to teach populations in poor states how to survive in the absence of any of this. Third world populations must be taught to be self-reliant, they will remain uninsured. Self-reliance of course means the condemnation of millions to a barbarous life of inhuman bare survival. Ironically, although sustainable development is celebrated by many on the left today, by leaving people to fend for themselves rather than developing a society wide system which can support people, sustainable development actually leads to a less human and humane system than that developed in modern capitalist states. Duffield also describes how many of these problematic shifts are embodied in the contemporary concept of human security. For Duffield, we can understand these shifts in terms of Foucauldian biopolitical framework, which can be understood as a regulatory power that seeks to support life through intervening in the biological, social and economic processes that constitute a human population (2007: 16). Sustainable development and human security are for Duffield technologies of security which aim to *create* self-managing and self-reliant subjectivities in the third world, which can then survive in a situation of serious underdevelopment (or being uninsured as Duffield terms it) without causing security problems for the developed world. For Duffield this is all driven by a neoliberal project which seeks to control and manage uninsured populations globally. Radical critic Costas Douzinas (2007) also criticises new forms of cosmopolitanism such as human rights and interventions for human rights as a triumph of American hegemony. Whilst we are in agreement with critics such as Douzinas and Duffield that these new security frameworks cannot be empowering, and ultimately lead to more power for powerful states, we need to understand why these frameworks have the effect that they do. We can understand that these frameworks have political limitations without having to look for a specific plan on the part of current powerful states. In new security frameworks such as human security we can see the political limits of the framework proposed by critical and emancipatory theoretical approaches.

#### CMR is crushed in the SQ, 3 reasons: Afghanistan, Iraq SOFA, and defense cuts

Feaver 10-12-12

[Peter, http://shadow.foreignpolicy.com/posts/2012/10/12/a\_civil\_military\_headache\_from\_the\_vp\_debate\_that\_could\_linger,mg]

The Obama administration has a civil-military problem and, I have reason to believe, they know it. Significant portions of the military believe the administration abandoned them on Iraq, sent them unsupported into battle in Afghanistan hampered by a politically driven timeline, and is jeopardizing national security with unsustainably deep cuts in military spending. ¶ If Obama wins a second term, he and his national security team will have a lot of remedial work to do to repair relations with the military. ¶ I think Vice President Biden made that job even more difficult with his remarkable comments in each of those areas in the VP debate. ¶ On Iraq, Biden criticized Romney-Ryan for recommending that we have a 30,000 stay-behind force in Iraq. When Ryan pointed out that the Obama administration had actually been trying to negotiate a stay-behind force, Biden just smiled mockingly at him, as if Ryan were talking nonsense. ¶ But Ryan was not talking nonsense. The official position of the Obama administration until late in 2011 was that they were seeking a Status of Forces Agreement (SoFA) to permit a stay-behind force in Iraq. The exact size was in doubt, but the 30,000 figure was what the military wanted and the White House supported the concept, if not the exact number. The Obama administration wanted this for the very same reason the Bush administration wanted it: It was the best way to solidify the gains of the Iraq surge and to build a stable partnership with Iraq. ¶ Biden knows all of this because he was leading the effort to negotiate the SOFA. Was Biden's mocking smile saying something else, perhaps that Obama was never seriously committed to negotiating a successful SOFA? Was Obama's decision to delegate this task to Biden a sign of how committed Obama was to it? Or how uncommitted he was? Was Biden's guarantee that he would get the SOFA just idle bragging from someone assigned a trivial task? ¶ The U.S. military leadership believed they accomplished something significant in the Iraq surge, and they believed that the Obama administration wanted to get them a SOFA that would help secure those accomplishments. Did Biden tell them otherwise in the debate last night? Or did Biden, as Ryan pointedly asked, simply fail at his SOFA assignment, in which case the mocking laughter is beyond inappropriate? ¶ On Afghanistan, Biden's comments were even more troubling. Let's set aside the extraordinary "mission accomplished" boast, a remarkable thing to say when American men and women continue to risk their lives under very dire circumstances in theater. Biden got away with it, and neither Ryan nor the hapless Martha Raddatz called him out on it. ¶ Where things really got dicey was when, in response to the charge that the Afghan surge withdrawal timeline was driven by political considerations, Biden tried to hide behind the military. Raddatz pressed him on the complaints she is hearing -- we all are hearing -- but Biden dismissed it as nonsense. He pretended that the withdrawal timeline was proposed by the Joint Chiefs rather than imposed by the White House. ¶ That is not true. The Joint Chiefs and the Afghan combatant commander did go along with the White House order, but they proposed a slower, conditions-based timeline and they certainly did not want it announced at the outset. ¶ This is a very dangerous game to play. Because of the strong support for the principle of civilian control among our armed forces, civilians can and do make the military salute and obey orders the military think are inadvisable. Canny commanders-in-chief try to minimize those instances, working with the military to cajole and bargain them into supporting positions that they initially opposed (this is exactly what Bush did with the Iraq surge). But when the White House bigfoots a decision, as the Obama White House did multiple times on Afghanistan, it is the president who must shoulder the political load for the decision. ¶ Biden knows, or should know, that from the military's perspective President Obama imposed an under-resourced Afghan surge, undercut it by announcing the timeline, and interrupted the last fighting season by accelerating the withdrawal. That was his prerogative as commander-in-chief. But if that policy is criticized, as Ryan did in the debate, the Obama White House must be honest about how it came about. Biden cannot pretend that this was the military's plan all along. ¶ Biden tried the same gambit on the defense cuts: "That was the decision of the Joint Chiefs of Staff, recommended to us and agreed to by the president. That is a fact....They made the recommendation first." ¶ Yet, as he surely knows, the White House came up with a budget cut number and then asked the defense department to come up with a strategy that fit under that number. The defense department did not come up with the budget cuts first, they came up with the strategy that they thought, barely, could be viable under those cuts. (Defense had come up with defense cuts on their own earlier, in the hopes that those cuts could be reassigned to more pressing defense priorities, but the Obama White House simply pocketed those cuts and then directed more.) ¶ It gets worse. When Biden and Obama say "defense spending the military didn't ask for' that is incorrect since the military did ask for all that spending -- in the previous year's budget. Actually, Obama asked for it, since it was his budget request. Yes, the following year Obama changed his mind and he ordered the military to adjust to the lower cuts. ¶ I am not sure there are enough Pinocchios in Tuscany to describe how misleading it is to order the military to accept cuts and then pretend that they requested those cuts. ¶ And, dissembling aside, when you play political hardball with the military in that fashion it almost always leads to problems down the line. Serious Obama national security professionals understand this, but they don't seem to have any influence on what the candidates are saying. ¶ Again, it is fully proper as a matter of civil-military relations for the president to impose cuts on Defense, and he can do it in whatever sequence he chooses. But he should not impose the number, receive the military salute, and then turn around and tell the American people that this was all the military's idea. ¶ An administration enjoying strong and healthy relations with the military can probably get away with self-inflicted wounds of the sort that Biden's remarks produced. I am not sure this administration can afford it. ¶

# 1AR Round 8

### 1AR Percision

#### 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.

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